



Health
South Eastern Sydney
Local Health District

St George Integrated Health Services Plan

2018

Written and prepared by:

Strategy and Planning Unit

Directorate of Planning, Population Health and Equity

South Eastern Sydney Local Health District

Locked Mail Bag 21

TAREN POINT NSW 2229

Phone: (02) 9540 8181

Fax: (02) 9540 8164

This work is copyright. It may be reproduced in whole or in part to inform people about the strategic directions for health care services in the South Eastern Sydney Local Health District (SESLHD), and for study and training purposes, subject to inclusion of an acknowledgement of the source. It may not be reproduced for commercial usage or sale.

Reproduction for purposes other than those indicated above requires written permission from the South Eastern Sydney Local Health District.

TABLE OF CONTENTS

FOREWORD	6
EXECUTIVE SUMMARY	7
1. BACKGROUND	11
1.1 Principles	12
1.2 Consultation process to develop this Plan	12
1.3 Strategic planning and policy context	14
1.3.1 Government priorities	14
1.3.2 Greater Sydney Commission District Plans	14
1.3.3 SESLHD's strategic planning framework	15
1.3.4 St George Hospital Development Control Plan	15
1.3.5 St George Mental Health Service	16
1.3.6 Calvary Health Care Kogarah	16
1.3.7 Sutherland Hospital and Community Health Services	16
1.3.8 NSW Health Pathology	17
1.3.9 Central and Eastern Sydney Primary Health Network	17
1.3.10 Universities	17
1.4 South Eastern Sydney Local Health District	18
1.5 St George Hospital and Community Health Services Integrated Health Services Campus	19
1.5.1 Recent Capital Developments on the SGH Integrated Health Campus	20
1.5.2 Future Requirements	21
2. THE CASE FOR CHANGE	22
2.1 Our community and their health and wellbeing	23
3. CREATING A NEW HEALTH AND CARE SYSTEM	25
3.1 Transformational change	26
3.1.1 SESLHD Journey to Excellence and the Triple Aim	26
3.1.2 What others are doing well around the world	28
3.2 Shifting the balance in health and social care	29
3.3 Opportunities for transformation	30
4. MAKING IT HAPPEN	31
4.1 Improving population health and wellbeing	31
4.1.1 Integrating across the health and social care system	32
4.1.2 Community led health and wellbeing	36
4.1.3 Reducing inequity in priority populations	40
4.1.4 Investing in the early years	44
4.1.5 Staying healthy in the middle years of life	47
4.1.6 Helping people to live well with long term conditions that are simple or stable	48
4.1.7 Supporting independence and healthy active ageing	51
4.1.8 Helping people to live well with complex comorbidities, including dementia and frailty	53
4.1.9 Providing access to Mental Health Services	59
4.2 Improving patient/client experience of care (including quality, access, reliability and satisfaction)	62
4.2.1 Providing safe, reliable and quality care	62
4.2.2 Caring for women, babies and families	66
4.2.3 Rapid support in times of crisis	68
4.2.4 Streamlined surgery	72
4.2.5 Good acute care and post discharge planning and support	75
4.2.6 Access to prehabilitation, rehabilitation and reablement	80
4.2.7 Effective planning and care for end of life	83

4.3 Building better value, financial responsibility and sustainability across the system	88
4.3.1 Embedding continuous quality improvement and innovation across the system	92
4.3.2 Enabling an empowered workforce	93
4.3.3 Technology enabled	95
4.3.4 Strength in education and teaching	100
4.3.5 Evidence led decision making	102
4.3.6 Partnerships that deliver	106
4.3.7 Developing new funding models	107
5. LOOKING AHEAD – COMPLETING THE TRANSFORMATION	110
5.1 An Integrated Healthcare campus for the Future	110
5.1.1 Providing a Rehabilitation Precinct	111
5.1.2 Providing appropriate Aged Care Services	112
5.1.3 Providing Palliative Care	113
5.1.4 Refurbished Birthing Suites	114
5.1.5 Providing a Short Stay Surgical Precinct	115
5.1.6 Delivering joined up holistic care with outpatient and community based services	116
5.1.7 Providing appropriate Diagnostic Imaging capacity	124
5.1.8 Providing world class Research and Teaching and Education facilities	125
5.2 Capital Implications	127
5.2.1 Current and future capital implications	127
5.2.2 Other capital implications	128
5.2.3 Providing appropriate infrastructure	129
5.3 Scenario Projections	135
5.3.1 Scenario Subacute Inpatient Activity Projections	136
5.3.2 Scenario Non Admitted Projections	143
5.3.3 Scenario High Volume Short Stay Projections	145
5.3.4 Scenario Birthing Suite projections	146
5.3.5 Support Service Projections	147
REFERENCES	149
Appendix 1: Abbreviations	159
Appendix 2: Consultation Reports	162
Aboriginal Health	163
Aged Care Services	165
Allied Health	169
Ambulatory and Outpatient Department	173
BreastScreen NSW South Eastern Sydney and Illawarra Screening and Assessment Service	177
Calvary Health Care Kogarah - Palliative Care	179
Calvary Health Care Kogarah - Rehabilitation and Aged Care Service	184
Cancer and Blood Disorders Services	188
Cardiology Services	191
Chest Clinic	194
Child, Youth and Family Health Services	197
Clinical Genetics	202
Community Services - Older People	206
Corporate Services	208
Dermatology	212
Diversity Health Services	214
Drug and Alcohol Services	217
Ear, Nose and Throat Services	219
Endocrinology and Diabetes Education Centre	222
Eye Clinic (Short St)	228
Gastroenterology / Hepatobiliary Services	230
General Practice	234
HIV / Immunology and Infectious Diseases	236
Information Technology	238
Kogarah Community Nursing Services	241
Medical Imaging	243

Medicine 1 and General Medicine Outpatients	246
Mental Health	249
Multicultural Health Stakeholders Advisory Committee	252
Needle and Syringe Program	254
Neurology Services	256
NSW Health Pathology - St George Laboratory	259
Nuclear Medicine	263
Oral Health Services	265
Paediatric Service	267
Pain Management Service	273
Palliative Care	276
Peritonectomy	279
Pharmacy	282
Rehabilitation	285
Renal Medicine	289
Research and Education	292
Respiratory Services	294
Rheumatology	297
Sexual Health Services	300
Surgical Services	303
Surgical Speciality Nursing Services	307
Trauma Service	311
Urogynaecology Unit, including the Pelvic Floor, Bladder and Anorectal Physiology Laboratory	313
Women's and Children's Health	318
Appendix 3: Projection methodologies	321
Appendix 4: Health Services Plan development process	335
Health Services Planning	335
Scope of this Plan	335
Governance framework for the Plan	336
Governance	337
Consultation list	338
Appendix 5: Aboriginal Health Impact Statement	340
Appendix 6: Government priorities	345
NSW "Making it happen" State Priorities	345
National Clinical Care Standards	345
Other Commonwealth and State key priorities	346
Appendix 7: SESLHD's strategic planning framework	347
Appendix 8: Ministry of Health Letter of Approval	350

FOREWORD

The *St George Integrated Health Services Plan* outlines our aspirations for the delivery of health care to residents in the Georges River Council area, the former Rockdale LGA and beyond. It aims to provide predictive, preventive, personalised and participatory care to address the physical, emotional and social wellbeing of the community and allow for innovative models of care to reduce the demand on acute services. The Plan is underpinned by the South Eastern Sydney Local Health District's *Journey to Excellence –2018-2021* strategy, which outlines a major program of transformation that is underway across our organisation.

From the first general meeting for the St George's Cottage Hospital in 1892 and the opening of an eight-bed hospital two years later, the health service has served the changing and growing needs of the local community whilst also developing over time as an internationally recognised trauma and teaching hospital. In recent years, a new Emergency Department and an Acute Services Building have been built, with investment of \$318 million from the NSW Government. There is now an urgent need for an increase in capacity for subacute services (including rehabilitation, aged care and palliative care), birthing suites, High Volume Short Stay Surgery (HVSSS), diagnostic imaging, ambulatory, community health and home-based services. This also moves us closer to the vision for the Kogarah campus identified in the NSW Government's *Towards our Greater Sydney 2056*.

The proposed service redevelopment and clinical redesign outlined in this Plan aims to reduce the demand for acute and emergency services and improve efficiencies in whole of hospital flow, length of stay and most importantly, improve the patient experience and health outcomes. A key focus is on timely access to appropriate specialist care and support, enabling people to maximise their independence and self-manage their own health care.

An extensive consultation process was undertaken with a wide range of clinicians and managers, other service providers and key stakeholders, including the Central and Eastern Sydney Primary Health Network, general practitioners, consumers and non-government and university representatives.

The service needs identified in the Plan are robust, address the changing patterns of community needs and expectations and identify contemporary and emerging models to provide the most effective use of available and future resources. A comprehensive review of service activity and projected demand was undertaken and validated by clinicians.

We hope you will support our Plan for transforming St George Hospital and Health Services to secure better health and wellbeing outcomes for our community.



Michael Still MBA
SESLHD Board Chair



Gerry Marr
SESLHD Chief Executive

EXECUTIVE SUMMARY

The St George Integrated Health Services Plan (IHSP) provides an opportunity to outline the transformation we aspire to in the delivery of health care to the population we serve. It is based on a vision to provide a seamless, integrated approach to fully address the physical, emotional and social wellbeing of the community and allow the implementation of innovative models of care to reduce the demand on services.

The IHSP was developed based on an extensive consultation process with a wide range of clinicians and managers, other service providers and key stakeholders, including the Central and Eastern Sydney Primary Health Network (CESPHN), consumers and the broader community. The service needs identified in the IHSP are therefore robust, and address the changing patterns of community needs and expectations and identify contemporary and emerging models to provide the most effective use of available and future resources.

The St George IHSP aligns with the SESLHD Journey to Excellence Strategy 2018 – 2021.

CONTEXT

The St George Hospital and Community Health Services (SGH & CHS) Campus is undergoing a process of transformation with new purpose built facilities that enable staff to deliver world-class clinical care. A new Emergency Department (ED) was opened in 2014 and an Acute Services Building commissioned in 2017 to meet the acute care needs of our community into the future. With the increasing demands from our growing and ageing population - many of whom experience multiple long-term health conditions, we must now focus on the needs of people requiring subacute care, planned surgery, maternity/birthing services, support services, as well as our ability to better support the health and wellbeing of the population who require ambulatory and community health / home based services.

WHY WE NEED TO CHANGE

Our population is increasingly multi-cultural, growing and ageing, with an associated increase in people living with long term conditions across all age groups. There are also significant health inequities within the St George area, in particular lower socio-economic neighbourhoods and amongst some population groups. The pressure for services is expected to become increasingly unsustainable, with the resident population in the St George area projected to increase by 37,000 people to 302,650 by 2026 and then to 320,550 people by 2031. The number of older people, who use a disproportionate share of health services, is expected to increase the most, particularly the 85 and over age group which is expected to more than double.

Currently St George Hospital (SGH) subacute beds are at capacity, with an average overnight occupancy of 101% which is well above the NSW Ministry of Health occupancy benchmark of 90% for subacute services. The aged care department has only 60 aged care beds available that service both acute and subacute patients. There are no designated palliative care beds available, with most patients occupying acute beds. The rehabilitation department has 22 beds and is at capacity, resulting in some rehabilitation patients occupying acute beds and delays in transfer of care, which impacts on their length of stay and impairs whole of hospital flow.

Demand modelling indicates the need for 113 overnight subacute beds. There is also the need for more than double the current volume of ambulatory services to facilitate the shifting of care to the non-inpatient

(outpatient and community) setting and relieve the demand for inpatient services. There is currently no capacity to provide high volume short stay surgery (HVSSS), which allows efficient streaming of planned and unplanned surgical patients, and as with any increase in projected activity there will be a substantial flow on impact on the demand for diagnostic imaging services, and any delays in access will have an adverse effect on the rest of the hospital.

It is widely accepted that remaining on the same path of healthcare will lead to an increased risk of harm to patients, escalation of health inequalities, and continuation of ineffective episodic care. However contemporary and innovative models of care cannot be successfully implemented until infrastructure constraints are addressed.

OUR AMBITION

Our goal is to transform services to support people along the life course to stay well, active, continue to live at home and stay positively connected to their communities for as long as possible; and to experience improved quality of life, particularly for people who are living with long term conditions. Even when returning to full health is not attainable, timely access to appropriate support will enable people to maximise their function and independence and self-manage their own healthcare.

Our aim is to provide care that is **“predictive, preventive, personalised and participatory”**.

WHAT WE WILL DO

Achieving this goal will require a seamless integrated approach - between health disciplines, other health and social care service providers, and research and education sectors across the healthcare continuum - which supports people in a community-based setting. We will provide specialist advice to primary care and timely and effective tertiary support when needed. We will need a system wide approach to acknowledge and address health and social gaps and inequalities and shift the focus of care toward value-based care and outcomes.

Ensuring the best start to life, encouraging improved self-management, supporting healthy ageing, and preventing deterioration and crisis outside the expensive and intensive acute hospital setting where possible will have a major impact.

The compassionate care we provide will be:

- **anticipatory and predictive**, with the use of data analysis, risk stratification tools and decision support tools
- **coordinated and integrated**, with patients, carers and families at the centre of their care with seamless transitions across health and social care services
- **easily accessible and navigable**, ensuring the right care in the right place at the right time
- **person centred and co-designed** with consumers to empower them to be genuine partners in their own health care and to address their needs adequately

Redesigned services will be provided by a well informed workforce guided by the latest translational research and working in a fit for purpose environment, allowing for innovative models of care to best meet our communities' health and wellbeing needs now and into the future.

WHAT IS NEEDED TO COMPLETE THE TRANSFORMATION

We have recently improved our emergency and acute services to enable timely access and the delivery of contemporary models of care. In order to further transform our services to meet the increasing demands from our growing and ageing population, many of whom are living with long term conditions, there is now an urgent need for an increase in capacity for subacute services (including rehabilitation, aged care and palliative care), birthing suites, High Volume Short Stay Surgery (HVSSS), diagnostic imaging, and ambulatory and community health / home based services.

This transformation will require purpose built infrastructure that is designed with sufficient space and flexibility to ensure that new models of care can be delivered sustainably into the future. Dedicated Research and Education facilities will further support our transformation to enable staff to deliver the latest evidence based, best practice services.

Redevelopment and redesign will reduce the demand for acute and emergency services and improve efficiencies in whole of hospital flow, length of stay and most importantly, improve the patient experience and outcomes by enabling us to provide care to the right person in the right place at the right time – every time.



A PATIENT JOURNEY IN OUR TRANSFORMED SYSTEM



MR.ZHENG



Mr Zheng is a 74 year old Mandarin speaking man who lives in a 3rd floor unit in Hurstville. He cares for his wife who has had a number of falls and has trouble getting down the stairs. They have no family in Australia.



Mr Zheng smokes and has had a persistent cough for years. In winter he became increasingly short of breath and presented to St George Hospital ED. He was diagnosed with an acute exacerbation of chronic obstructive airways disease.



Mr Zheng was immediately sent to the Crisis Clinic in the ambulatory care precinct for acute medical management. An interpreter explained his diagnosis and ongoing management, including home based nursing and physiotherapy visits until he was well, and GP follow up.



Mr Zheng and his Mandarin speaking GP developed a care plan together. He was found to also have elevated blood sugars and hypertension, and the practice nurse taught him to self-monitor his glucose and blood pressure and provided equipment for home monitoring. He was given advice on diet and exercise and referred to a smoking cessation program and to the SGH RCCP team for ongoing respiratory care.



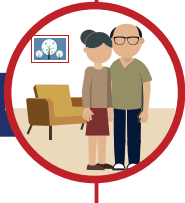
A case worker from the Chinese community was allocated to support the couple's health and social needs, including assistance with cleaning, and community transport for Mrs Zheng to attend a Chinese women's group to avoid social isolation.



Mrs Zheng had a fall at home and broke her wrist. She presented to ED and was managed by the advanced practice physiotherapist, who referred her to her GP and the osteoporosis refracture prevention service for follow up. She was also referred to the Chinese Stepping On falls prevention program. To avoid refracture, she will now have annual infusions for her osteoporosis at the SGH ambulatory care unit.



One year later, with their GP's support, Mr and Mrs Zheng are still managing their own health. Mr Zheng has reduced his smoking and he and his wife now attend a regular Tai Chi group, which has helped them meet some new friends and greatly improved Mrs Zheng's pain, balance and mobility. They are able to go out and do a lot more together now.



With this greater integration between primary, secondary and tertiary care, Mr and Mrs Zheng will continue to be supported to manage their own health and wellbeing, to enable them to stay well and independent in their own home, which is their preference and they feel they can now do safely.

1. BACKGROUND

KEY POINTS

The redevelopment of the St George Hospital and Community Health Services' Campus provides an ideal opportunity to further transform our models of care.

To realise this opportunity, a rigorous approach to planning has been undertaken, including:

- **Agreed purpose, principles, scope and governance**
- **Broad consultation, extensive literature searches, robust data analysis and scenario planning**
- **Consideration of other planning activities, government priorities and District strategic plans.**

South Eastern Sydney Local Health District (SESLHD) is undertaking a process of transformation, radically changing the healthcare landscape across our District.

A range of programs of work, aligned with the priorities set down in SESLHD's Journey to Excellence Strategy 2018-2021,¹ aims to deliver optimal healthcare for our community now and into the future. These programs are focused on safe person-centred integrated care, community wellbeing and health equity, workforce wellbeing, research and innovation and better value.

The SGH Development Control Plan² provided an overview for the future redevelopment of the SGH site. The first two components of this masterplan's long term vision have been commissioned:

- Emergency Department redevelopment – completed in October 2014
- Acute Services Building – completed in late 2017.

The 2015/16 annual update of the SESLHD Asset Strategic Plan³ to the NSW Ministry of Health identified SGH's ambulatory care project as one of the District's "Top 5" capital projects, and included the construction of a new building at SGH:

- Consolidating ambulatory care and outpatient services (including the development of a Day Surgery Unit or HVSSS including operating rooms and beds)⁴
- Expansion of subacute inpatient wards and a creation of a day rehabilitation centre / brain injury unit
- Expansion of basement car parks.

To secure capital funding, the development of a Health Services Plan is a requirement of the NSW Ministry of Health and NSW Treasury. For further information on the Plan development process, refer to Appendix 4.

¹ URL: http://seslhnweb/Journey_to_Excellence/docs/2017/SESLHDJourneytoExcellenceStrategy2018-2021-v13.pdf

² St George Hospital's Development Control Plan 2011(known as the "Masterplan")

³ URL: <http://www.seslhd.health.nsw.gov.au/HealthPlans/default.asp>

⁴ In this document, 'Ambulatory Care' is a term used to describe patient care that takes place as day attendance at a health care facility, or at the patients home or other setting (e.g. school or workplace). Ambulatory care covers a broad range of care delivery, from preventative and primary care through to specialist services and tertiary level care, and these services are collectively referred to as 'non-inpatient' care.

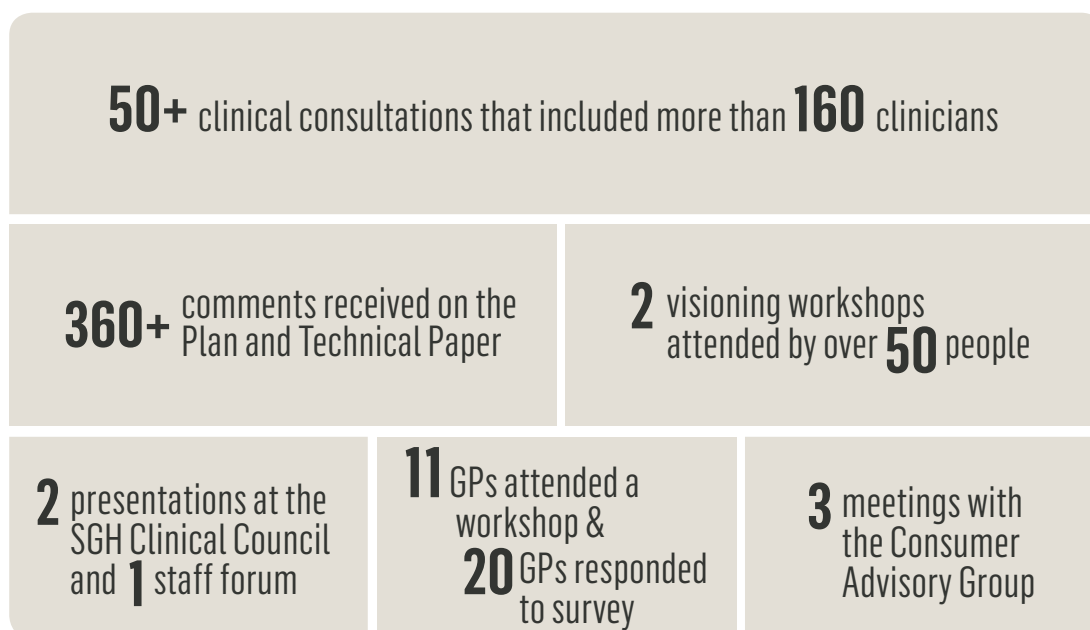
1.1 PRINCIPLES

This Plan has been guided by a set of overarching principles to drive our shared vision:

- Provide evidence-based, patient centred, integrated care across disciplines, sectors and organisations, co-designed and co-produced with community members, staff and key partners
- Be designed around people and places, with timely access to services provided in a community or ambulatory setting, unless inappropriate for safety, quality and efficiency reasons
- Support the workforce to become more flexible and involved in shaping future opportunities for the Campus
- Commit to a strong research culture – where our health research is valued as a central driver of health service quality and innovation, and partnerships are collaborative and transparent
- Plan services and research to meet population health needs, in order to leverage the greatest collective benefit and equitable outcomes for communities, including priority population groups
- Provide and promote a healing, health promoting and ecologically sustainable environment.

1.2 CONSULTATION PROCESS TO DEVELOP THIS PLAN

Wide ranging consultation has taken place for the development of this Plan which is summarised below.



Throughout the development of the Health Services Plan there were several opportunities for broad consultation.

The process involved the following stages:

STAGE 1

(Dec 2016 – Jul 2017)

- Development of a Consultation Process Plan outlining the objectives of consultation, and who, when and how this consultation will occur
- Two visioning workshops were held, with over 50 people attending including management and senior clinicians from a variety of clinical specialties, disciplines and professional roles from within SGH and other key SESLHD staff and stakeholders, including the CESPNN. Key themes of the workshops were the 'lessons learnt' from the recent major redevelopments across the District and to examine and discuss the development of a set of overarching principles to guide the planning of new SGH & CHS redevelopment
- Governance structure established which included the Planning Advisory Group and the Executive Steering Committee, with both groups inclusive of consumer representation
- Broad distribution of the Technical Paper, comprising of the population profile, activity data, base case projections and the case for change for comment.

STAGE 2

(Aug - Dec 2017)

- Initial consultation and information sharing, including a presentation at the SGH & CHS staff forum. The forum was attended by a wide cross section of SGH & CHS staff.
The Presentation included information on the planning process, overview of data and models of care, followed by questions from the floor
- Meetings held with individual clinical departments, including Clinical Stream managers, to identify service specific issues, proposed models of care and discuss data and projection methodologies
- Consultation with the Consumer Advisory Group, to provide an overview of case for change, focus areas, planning process through to capital planning and role of consumers in the planning process
- Regular consultations with the Planning Advisory Committee and Executive Steering Committee regarding progress, proposed scenarios and models of care
- Consultation with the Ministry of Health: Health System Planning and Investment Branch, to discuss planning issues and projection methodologies
- Advice and input sought from education providers and researchers.

STAGE 3

(Nov – March 2018)

- Consultation with members of the Central and Eastern Sydney Primary Health Network, including a meeting with 11 GPs and a survey completed by another 20 GPs
- Draft Plan formulated, based on broad consultation and advice, international and national evidence and advice from Advisory and Steering Committees
- Draft Plan distributed for broad comment to internal and external partners
- Draft Plan ratified by the Planning Advisory Committee and Executive Steering Committee, and the SESLHD Board
- Submission of the Plan to NSW Ministry of Health.

1.3 STRATEGIC PLANNING AND POLICY CONTEXT

1.3.1 GOVERNMENT PRIORITIES

There are numerous Commonwealth and State priorities which help guide the development of the Health Services Plan (refer to Appendix 6: Government priorities, for examples of these).

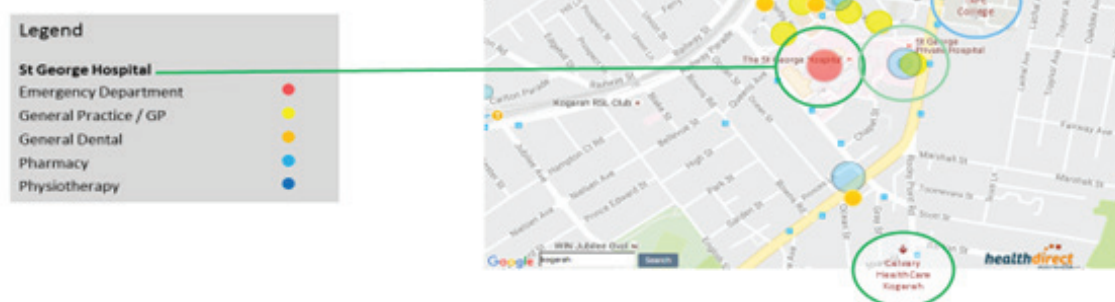
1.3.2 GREATER SYDNEY COMMISSION DISTRICT PLANS

The NSW Government's *Towards our Greater Sydney 2056*⁵ outlines an ambitious future for a growing Greater Sydney and acts as a bridge between the current and future metropolitan plans that provide the overarching vision for Greater Sydney as a whole. As part of this planning process, the NSW Government is undertaking District level planning that connects local planning with this longer-term metropolitan planning for Greater Sydney.

As part of the South District, Kogarah has been identified as a health and education precinct, with the aim of growing and diversifying the precinct to drive economic prosperity and social wellbeing in the area. Planning for increased access and enhanced urban amenity within and around the precinct is anticipated.⁶

The Kogarah health and education precinct will include SGH, St George Private Hospital, and numerous local GPs, dentists, allied health professionals, and with Calvary Health Care Kogarah (CHCK) approximately one kilometre south. This type of precinct has been coined “magnet infrastructure”,⁷ in that it attracts other industries that benefit from clustering to enable them to reach their economic and social potential, and provides greater convenience for service users. This will also promote greater synergies between SGH & CHS and other health and education providers.

KOGARAH HEALTH AND EDUCATION PRECINCT



⁵ Greater Sydney Commission. *Towards Our Greater Sydney 2056* URL: <http://www.greater.sydney/towards-our-greater-sydney-2056>

⁶ Greater Sydney Commission. *Revised Draft South District Plan. Overview. Local Government Areas: Canterbury-Bankstown, Georges River, Sutherland.* URL: <https://www.greater.sydney/draft-south-district-plan>

⁷ SGS Economic and Planning, 2013, *Kogarah Employment Lands and Economic Development Strategy, Final Report*, Kogarah City Council. URL: <http://www.georgesriver.nsw.gov.au/StGeorge/media/Documents/Employment-Lands-and-Economic-Development-Strategy.pdf>

1.3.3 SESLHD'S STRATEGIC PLANNING FRAMEWORK

South Eastern Sydney Local Health District is on a reinvigorated path to building higher performing and cutting edge health services. This direction is guided by SESLHD's *Journey to Excellence Strategy 2018-21*, which focuses on exceptional care and healthier lives. It describes five priority areas for action to improve population health for our community:

Safe, person-centred and integrated care	Everyone in our community will have access to safe, compassionate and high quality healthcare. That care should be provided either at home, or as close to home as possible
Workforce wellbeing	We will create an environment where our people can be accountable, and can be happy, well and supported to reach their potential
Better Value	We will deliver value to our patients through maintaining financial sustainability and making investments consistent with our vision
Community wellbeing and health equity	We will work together with our partners to achieve health, wellbeing and equity for our shared communities
Foster research and innovation	We will focus on translating research and innovation into clinical service models that deliver positive health outcomes

There are several other strategies and plans supporting this approach, refer to Appendix 7: SESLHD's strategic planning framework for a list of these documents.

1.3.4 ST GEORGE HOSPITAL DEVELOPMENT CONTROL PLAN

The SGH Development Control Plan, released in 2011/12, provided a long term vision for a staged redevelopment of the SGH & CHS site:

- Providing a broad zonal framework for the hospital to develop over time
- Noting service delivery issues including:
 - Projected increase in bed numbers and requirement for a higher percentage of single rooms
 - Lack of a consolidated ambulatory care zone
 - Required expansion of the clinical zone to cope with SGH's role as a major trauma centre
 - Need for consolidation of teaching, training and education facilities
- Identifying potential options for future use of the site consistent with future service needs
- Documenting the general conditions of existing buildings and infrastructure, and site investigations.

The first two stages of the Development Control Plan, including the ED and the Acute Services Building are complete.

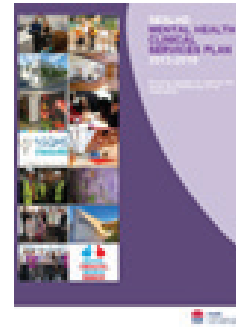
The next stage of proposed redevelopment includes the expansion of subacute care, improving birthing suites, day surgery unit and/or HVSSS, consolidation of ambulatory care, including relocation of allied health, improved diagnostic imaging capacity and research and education facilities.

It is noted there may be a need to review the masterplan to ensure it remains aligned with the District's strategic directions.

1.3.5 ST GEORGE MENTAL HEALTH SERVICE

The *SESLHD Mental Health Clinical Services Plan 2013-2018*⁸ presents an overview of current services and strategic priorities for the Mental Health Service in the five years to 2018.

The Plan identifies the scope and breadth of the community and those who currently, or in the future, need to access Mental Health Services.



1.3.6 CALVARY HEALTH CARE KOGARAH

The Calvary Strategic Plan 2016-2020 identified the continuation of palliative and end of life care as a key focus area, and a goal to “actively explore growth opportunities for quality aged, palliative and end of life, hospital and community care services”⁹ in order to benefit the increasing numbers of older people with multiple long term conditions, and those at end of life.

The District’s activity and demographics demonstrate there will continue to be a growing need for both community and inpatient subacute services now and into the future. It is envisioned that CHCK will continue to provide palliative care, rehabilitation and aged health services to the local community and continue to network closely with St George and Sutherland Hospitals. Currently there is existing capacity to meet the projected requirements in 2026, pending minor refurbishment and change to the current private revenue targets.

1.3.7 SUTHERLAND HOSPITAL AND COMMUNITY HEALTH SERVICES

The Sutherland Hospital (TSH) operates as a networked service with SGH & CHS and a range of other District facilities. A \$62.9 million capital development at TSH was completed in December 2017 and includes a new and expanded ED, purpose-built Children’s Emergency Unit, a new emergency short stay unit and expanded high-dependency and intensive care, general medical and surgical inpatient capacity.

The redevelopment of Sutherland Hospital will provide a range of benefits including:

- Creating capacity to efficiently and effectively meet the current and future demand for inpatient and emergency services to the local community and across the network
- Implementing new models of care to improve care processes, reduce costs and improve the quality and timely delivery of health services to the local community
- Improving health outcomes through timely access to appropriate, safe, quality inpatient care, with improved access to health services close to home for local residents.

In 2017, the Directorate of Primary, Integrated and Community Health (PICH) commenced implementing a new model of community based health care for the following services, including child and family health services previously managed by Sutherland Hospital:

- Child and Family Health Services
- Aged extended and integrated care
- Access and referral services and
- Some services that work with priority populations e.g. Multicultural Health, Carers Program, Homelessness Health, Youth Health and health services for people with a disability.

St George and Sutherland child and family staff have moved across to the new management structure. This change followed the SESLHD Health Care in the Community, Final Project Report with 14 recommendations being accepted by the SESLHD Clinical and Quality Council and District Executive Team in 2016.

⁸ URL: <http://www.seslhd.health.nsw.gov.au/HealthPlans/documents/MHSClinicalServicesPlan-May2014.pdf>

⁹ Calvary Strategic Plan 2016-2020 URL: <https://www.calvarycare.org.au/about/strategy/>

1.3.8 NSW HEALTH PATHOLOGY

NSW Health Pathology’s vision is ‘Leading through innovation and collaboration to deliver excellence in service and outcomes’. NSW Health Pathology – East (formerly SEALS) is committed to providing the SESLHD with a comprehensive range of diagnostic testing to ensure the highest quality of care for patients. The strategic plan for NSW Health Pathology is aligned with the NSW State Plan Towards 2021 which lists NSW Health Pathology as one of the key agencies who provide a ‘statewide service in support of high quality, value for money patient care’.

1.3.9 CENTRAL AND EASTERN SYDNEY PRIMARY HEALTH NETWORK

One of the key priorities for the Primary Health Networks (PHNs) is to address health inequities and improve access for disadvantaged populations. Partnership arrangements in population health action and local health needs assessments to inform overall health planning and data sharing are key activities. The CESPHN’s Strategic Plan 2016- 2018¹⁰ articulates how these priorities will be realised into the future.



1.3.10 UNIVERSITIES

St George Hospital is a major teaching hospital of the University of New South Wales (UNSW), and any development needs to consider the strategic intent¹¹ of the University, including the health and medical research hubs associated with its clinical schools (which includes SGH).

Objectives of the UNSW Medicine Strategy¹² include to deliver progressive coursework programs based on best-evidence and innovation; strengthen success in research grant funding; build capabilities around major health challenges of our society; and with partners build a unique, effective and efficient basic science and translational research and teaching environment.



It should also be noted that nursing and allied health staff education and training is provided from a number of universities, and important links have been established, most notably with Sydney University, the University of Technology, Macquarie University, University of Wollongong and the University of Western Sydney.

MARIDULU BUDYARI GUMAL - THE SYDNEY PARTNERSHIP FOR HEALTH, EDUCATION, RESEARCH AND ENTERPRISE (SPHERE)

SPHERE brings together three universities, two LHDS (SESLHD and SWSLHD), two Local Health Networks (St Vincent’s Health Network and Sydney Children’s Hospitals Network (SCHN)), seven Medical Research Institutes, nine major teaching hospitals (including SGH), and ex officio, the NSW Ministry of Health.

The aim of SPHERE is to “integrate outstanding research, top quality education and professional practices across partner organisations to improve health outcomes, deliver better healthcare, generate economic benefits, and be a magnet for recruitment and retention of staff and investment in health and research.”¹³ As a member of SPHERE, SGH & CHS campus planning provides an opportunity to incorporate its aims to create a world class health research, education and teaching campus.

¹⁰ http://www.cesphn.org.au/images/Central_and_Eastern_Sydney_PHN_Strategic_Plan.pdf

¹¹ UNSW 2025 Strategy URL: <https://www.2025.unsw.edu.au/>

¹² UNSW Medicine Strategy URL: https://med.unsw.edu.au/sites/default/files/_local_upload/others/Faculty_Strategic_Intent.pdf

¹³ <http://www.thesphere.com.au/maridulu-budyari-gumal/>

1.4 SOUTH EASTERN SYDNEY LOCAL HEALTH DISTRICT

OVERVIEW

SESLHD covers the 7 Local Government Areas (LGAs) from Sydney's Central Business District in the north to the Royal National Park in the south. The District also provides a key role in assisting residents of Lord Howe Island and Norfolk Island with access to hospital and health services. The District has a complex mix of highly urbanised areas, industrialised areas and low density suburbs and in 2017 has a population of over 900,000 people.

SESLHD'S FACILITIES AND SERVICES

The services provided across the District include hospital and outpatient services, population health programs and services, primary health care, community health / home based services, imaging and pathology, among others.

Facilities include six public hospitals and associated health services:

- Prince of Wales Hospital (POWH) and Community Health Service
- Royal Hospital for Women
- St George Hospital
- St George Community Health Services
- Sutherland Hospital
- Sutherland Community Health Services
- Sydney / Sydney Eye Hospital
- Mental Health Services
- Primary, Integrated and Community Health Directorate (PICH)
- Planning, Population Health & Equity (PPHE) Directorate
- Gower Wilson Memorial Hospital on Lord Howe Island.

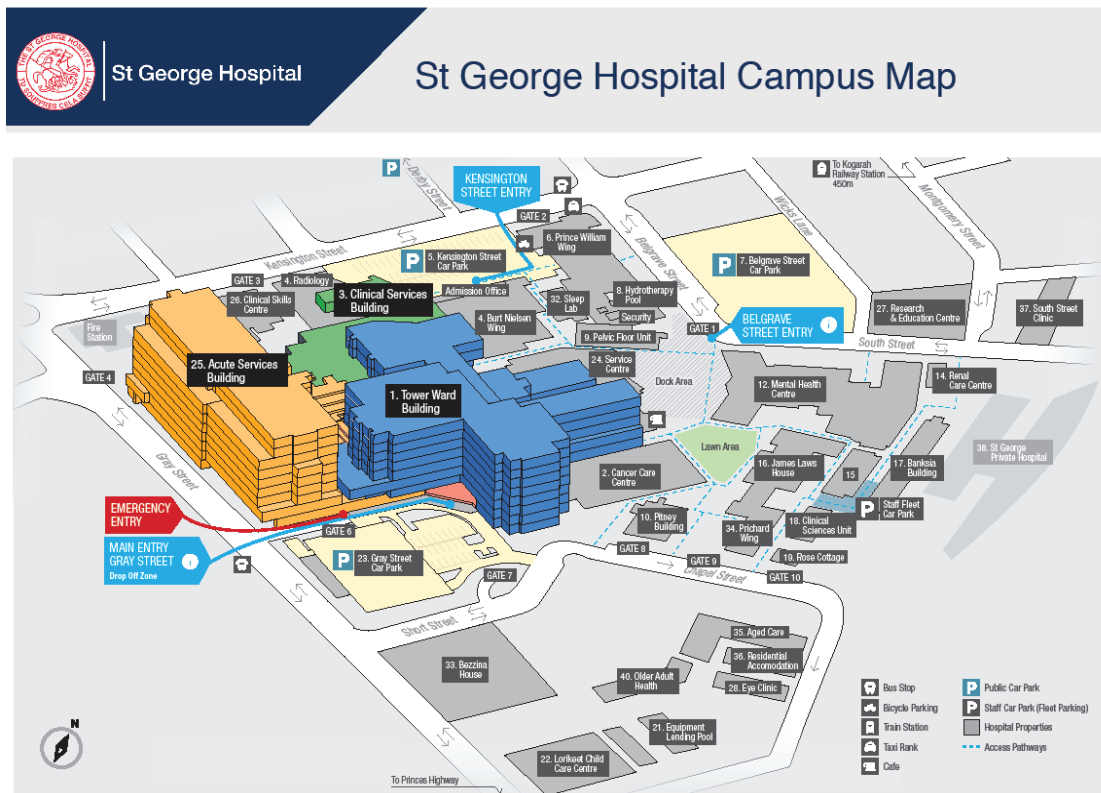


These are supported by a number of district directorates, including Improvement and Innovation Hub (iiHUB), Project Management Office (including Human Resources), Nursing and Midwifery, Medical, Finance and ICT; and units within the PICH (e.g. Integrated Care, SEARCH) and DPPHE (Strategy and Planning, Community Partnerships, Public Health, Health Promotion, Falls Prevention, Equity).

The District also provides one public residential aged care facility (RACF) (Garrawarra Centre), and oversees two Third Schedule health facilities: War Memorial Hospital Waverley (with Uniting Care) and CHCK (with Little Company of Mary Health Care).

From 1 July 2016, Norfolk Island residents transitioned to receive access to health systems consistent with other Australians, including access to the Medicare Benefits Schedule and Pharmaceutical Benefits Scheme. SESLHD was appointed to provide organisational governance and clinical support to the Commonwealth led health services on Norfolk Island through establishment of a Multi-Purpose Service under the new entity of 'Norfolk Island Health and Residential Aged Care Service'.

1.5 ST GEORGE HOSPITAL AND COMMUNITY HEALTH SERVICES INTEGRATED HEALTH SERVICES CAMPUS



The SGH campus is located in Kogarah, in the SESLHD. Starting as an 8 bed cottage hospital in 1894, it is now a major tertiary and teaching hospital of the UNSW and a tertiary referral hospital of NSW.

The campus provides a Level 1 trauma service for the District and to Illawarra/Shoalhaven and Murrumbidgee LHDs in accordance with the NSW State Trauma Plan. The Level 1 Trauma Service requires the support of a full range of critical care, rehabilitation and surgical services. The hospital is currently one of only 2 sites in NSW and one of three nationally that undertake peritonectomy surgery.

The hospital has approximately 550 acute and subacute beds and this number will increase with the staged opening of beds in the new Acute Services Building. A wide range of services are provided including emergency, critical care, surgery, cancer care, medical, women's and children's health, mental health, ambulatory care, outpatient clinics, community health / home based care, medical imaging, nuclear medicine, bone marrow transplant, and brachytherapy. SGH is also a leader in clinical innovation in palliative care (Community End of Life Pathway), aged care (geriatric case management), and general medical models. (A full list of health services is provided in the accompanying Technical Paper).

In the late 1980s, SGH underwent a \$200 million redevelopment to become a tertiary teaching hospital, providing the people of southern Sydney with specialist healthcare services closer to home, however there was no increase in the subacute bed base at that time or in the subsequent 3 decades.

1.5.1 RECENT CAPITAL DEVELOPMENTS ON THE SGH INTEGRATED HEALTH CAMPUS

SGH & CHS is currently undergoing a staged redevelopment to create an integrated health campus to provide high performing health care for the community now and into the future.

As part of this staged redevelopment, the following capital developments have occurred, to support the introduction of new models of care in purpose built facilities to best meet the acute health needs of the community.

EMERGENCY DEPARTMENT

A new \$41.2 million ED became operational in October 2014, providing increased capacity and improved facilities for patients and staff. The new facility provides long-term planning flexibility to cater for changing needs and SGH's role as a tertiary referral centre and as the level 1 trauma centre for the SESLHD.

The new ED provides:

- Five resuscitation bays
- A state-of-the-art paediatric zone with 12 treatment spaces
- An adult fast track zone
- Acute halls with 34 beds
- Emergency medical unit
- Satellite imaging
- Expanded waiting and triage areas
- A 6 bed Psychiatric Emergency Care Centre (PECC)
- An 8 space off-street ambulance drop-off zone.



ACUTE SERVICES BUILDING

Construction of a \$277million eight-level Acute Services Building above the existing ED has recently been completed providing:

- An intensive care unit (ICU)
- High dependency unit (HDU)
- Cardiac intensive care unit
- Eight additional operating rooms and one procedure room to complement the currently existing 4 rooms retained (another 4 existing rooms have been decommissioned)
- 128 new inpatient overnight beds including 45 single rooms with ensuites, 7 negative pressure isolation rooms and 6 dedicated bariatric rooms with ceiling mounted lifting devices
- A new sterilising services department
- Relocation of two Cardiac Catheter Laboratories
- Relocated Departments - JMO Unit, Nursing Workforce, Anaesthetic Department
- Expansion of Kitchen, Linen and Receiving Dock
- A new rooftop helipad.



MENTAL HEALTH SERVICES

Recent capital developments for Mental Health services on the SGH & CHS campus include the completion of:

- Subacute Mental Health Unit for Older People alongside the existing adult mental health acute inpatient unit, which provides integrated care with a seamless transition from acute to sub-acute, community to subacute and from subacute back into the community
- A 6-bed PECC within the new SGH ED.

1.5.2 FUTURE REQUIREMENTS

Recent capital developments are designed to meet the acute health care needs of our community into the future, however there remains existing infrastructure that is ageing and no longer capable or fit for purpose to meet the increasing demands placed upon it and for sustainability into the future. The subacute bed base has not increased for decades, ambulatory and outpatient services are delivered in a fragmented web of locations and have limited space to meet future demand, the current birthing suites are not fit-for-purpose, access to surgery is limited by operating room availability and particularly provision for HVSSS / Day Surgery, there remains 8 existing operating rooms requiring refurbishment and diagnostic imaging needs sufficient capacity and space to provide support services into the future.

The SGH Development Control Plan outlines a staged redevelopment of the campus. The next phase of redevelopment will include improving the capacity and functionality of subacute services (including rehabilitation, aged care and palliative care), birthing suites, HVSSS operating rooms and beds, outpatients, allied health and community based services, and diagnostic imaging, with dedicated research and education facilities to support this process. This will allow us to:

- Meet the projected increased demand from a growing and ageing population combined with the increase in the prevalence of long term disease
- Improve operational efficiency across the campus
- Respond to SESLHD priorities to provide prevention, early intervention and alternatives to hospital treatment
- Ensure integrated care along the care continuum and the life course
- Provide innovative models of care, which will see more services being delivered in a community based or non-admitted setting
- Deliver safe, quality and cost-effective person centred care.

This requires implementing new fit for purpose infrastructure and effective models of care and integrated service delivery arrangements so that the long term health needs of our population can be addressed into the future.

See Section 5.2 for an outline of future capital implications.

2. THE CASE FOR CHANGE

KEY POINTS

We are currently on an unsustainable path of ever increasing demand for health services and bigger expenditure.

If we do not redesign our system to be more focused on supporting people to remain healthy and manage their own care effectively, we will have neither the workforce nor budget to deliver harm-free personalised care to every patient, every time.

Recent redevelopments of the ED and the provision of a new acute services building will help meet the acute health care needs of our community into the future. Ongoing planning for the SGH & CHS campus provides an opportunity to continue a system transformation with our partners to best meet the long term health and wellbeing needs and expectations of our community sustainably.

The population served by SGH & CHS is growing and ageing, with an associated increase in long term and complex diseases and more people living with functional impairment, and this is likely to continue.¹⁴ There are also significant health inequities within the St George area, and addressing these inequities is an important step to reducing this increasing demand for health services.

These factors have placed increasing demands on existing acute-oriented healthcare systems:

ON AN AVERAGE DAY AT STG&CHS IN 2016/17 APPROXIMATELY:

214

people presented to the **emergency department**

118

people were **hospitalised**

730

people were seen in **outpatients/ambulatory care**

500

people were seen by **community health services**

8

babies were **born**

Continuing on this path is unsustainable, and requires a system redesign to ensure safe, effective and timely care is provided by the right team, in the right place, at the right time, equitably.

If we continue on this unsustainable path we will have:

- Increased risk of harm to patients due to poor infrastructure and inadequate technology
- Escalation of health inequities, despite the cause of the greatest inequities being considered potentially avoidable
- Episodic care for a single health condition rather than addressing the whole needs (physical, mental and social wellbeing) of the individual with:
 - Lack of continuity and connectedness between health and social care providers
 - Unnecessary and avoidable admissions and/or readmissions and/or delayed discharges
 - Inappropriate and/or delayed access to treatment
 - Compromised patient care and choice
 - Poorer patient outcomes.
- Increasing levels of patient, carer and family, community and staff dissatisfaction
- Significantly increasing waiting times
- More costly interventions and services
- Lack of translational research opportunities.

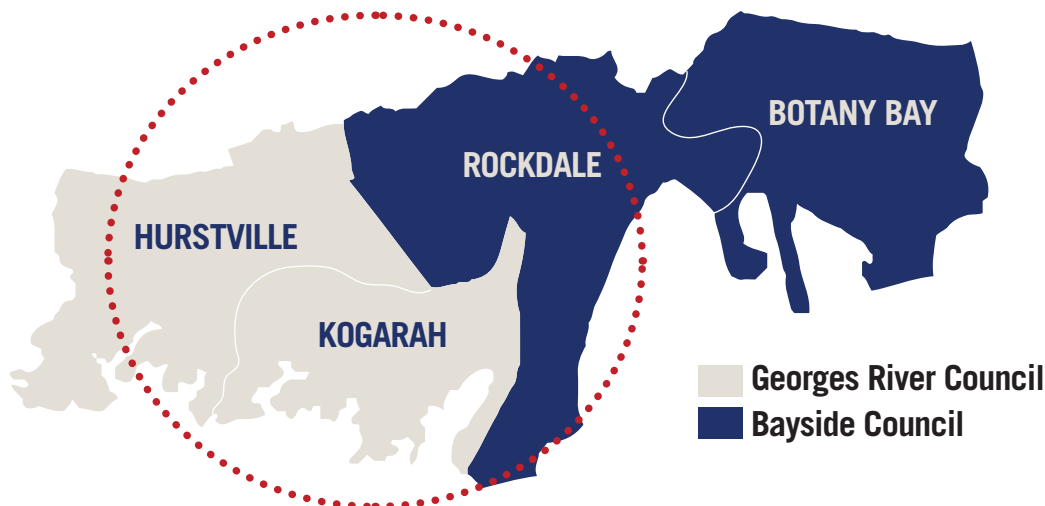
¹⁴ Murray, C.J, Vos, T, Lozano, R, Naghavi, M, Flaxman, AD, Michaud, C and et al. (2012). Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease study 2010. *Lancet* 380(9859): 2197–2223, DOI: [http://dx.doi.org/10.1016/S0140-6736\(12\)61689-4](http://dx.doi.org/10.1016/S0140-6736(12)61689-4)

2.1 OUR COMMUNITY AND THEIR HEALTH AND WELLBEING

ST GEORGE AREA

Includes the Local Government Areas of

- Georges River (an amalgamation of the former Kogarah and Hurstville LGAs) and
- The former Rockdale LGA (now amalgamated with Botany LGA to form the LGA of Bayside)



We have a population of **258,000** people

By 2031 the population is projected to grow by 25% to 322,000 people



with people aged 70 years and older the fastest growing age group



44% of the population were born in Non English Speaking Countries

The St George Area is more culturally diverse than Greater Sydney and NSW, with Chinese languages being the most common non English languages spoken in the area



People born in **China** represent 12.5% of the total St George Population



about **1,540** residents or 0.6% of our population identify as Aboriginal*



Rates for some conditions such as **diabetes** and **dementia** are higher in parts of St George than the rest of Sydney

There are pockets of **disadvantage** and **health inequities** within the St George area

*It is recognised that nationally the Aboriginal population is underestimated by approximately 18%. See the supplementary Technical Paper for more details of our community's demographics.

AT A GLANCE: ST GEORGE AREA HEALTH AND SOCIAL INEQUITIES

Socioeconomic context

- 5,100 adults are unemployed
- 9,400 children live in low-income welfare dependent families
- 47,500 adults had government support as their main source of income in the last 2 years
- 5,600 adults experienced a barrier to accessing healthcare in the last 12 months, mainly due to cost of service

Social and physical environment

- 21,400 people provide unpaid assistance to a person with a disability
- 3,700 residents receiving HACC services live alone (34% of HACC clients)
- 10,500 of low income households were under mortgage / rent stress
- 10,500 private dwellings have no motor vehicle

Vulnerability

- 17,500 residents were born overseas and report poor proficiency in English
- 9,000 residents are living in the community with a profound or severe disability
- 20,000 adults have high or very high psychological distress
- 300 children are developmentally vulnerable on two or more domains

Health measures and consequences

- 2,150 residents died prematurely
- 28,900 people aged 15 years and over self-assessed their health status as fair or poor
- 25,100 adults are current smokers
- 44,100 adults were obese.

Source: PHIDU Social Health Atlas of Australia. New South Wales & Australian Capital Territory. Data by Local Government Area. May 2017. Accessed May 26 2017

WHAT DOES THIS MEAN FOR ST GEORGE?

- The increasing demand for health services is unsustainable
- Those resident in the most disadvantaged areas are the most likely to be hospitalised
- Many causes of long term health conditions and death are potentially avoidable

PEOPLE FROM OUR MOST DISADVANTAGED AREAS IN ST GEORGE HAVE:

- The greatest growth rate in population, and the highest proportion of people aged over 70 years
- The least access to GPs

AND THE HIGHEST RATES OF:

- ED presentations
- Potentially preventable hospitalisations
- Prevalence and hospitalisation rates for diabetes and other long term conditions
- Falls hospitalisation
- Mental health presentations

WHAT WE CAN DO

- Use data for personalised, predictive, participatory and preventative health care
- Support people to stay healthy and self-manage their conditions
- Design services for those most in need
- Ensure access to services and health outcomes are equitable
- Redesign pathways of care for long term conditions (clinician led)
- Increase collaboration across disciplines for management of people with multiple comorbidities.

3. CREATING A NEW HEALTH AND CARE SYSTEM

KEY POINTS

We will transform our model of care to healthcare that is

**“Predictive,
Preventive,
Personalised and
Participatory.”¹⁵**



¹⁵ P4 Medicine Institute URL: <http://www.p4mi.org/p4medicine>

3.1 TRANSFORMATIONAL CHANGE

GOAL

TO IMPROVE THE HEALTH OF THE POPULATION, ENSURE A BETTER PATIENT EXPERIENCE AND PROVIDE BETTER VALUE

We are facing unprecedented health challenges at an enormous scale. Solutions cannot be found by making small changes to existing services. Instead, we must “create change at system level. *This means that everyone, from policymakers and commissioners to front-line staff, clinicians to patients, needs to be involved in the process.*”¹⁶

As noted in a recent literature review, “*all phases of implementation of a new model of care call for collaborative adaptation with stakeholders, the most important being the person receiving care in terms of what matters most to them.*”¹⁷

The redevelopment of the SGH & CHS campus provides an ideal opportunity to create system change that supports people to remain healthy, empowers them to manage their own care effectively where possible, and delivers a purpose built integrated health service campus so that when complex care is required it will be timely and appropriate to serve our community and others that access our services into the future.

CHANGING WHERE HEALTH HAPPENS

“In order to impact on people’s health, we need to look beyond health institutions ... Providing greater access to health care among vulnerable populations and enabling earlier identification helps prevent the emergence of more serious and costly problems later on.”

Wilson S. Langford K. 10 Ideas for 21st century healthcare. Innovation Unit

3.1.1 SESLHD JOURNEY TO EXCELLENCE AND THE TRIPLE AIM

The current program of transformational change across SESLHD has been guided by the SESLHD Journey to Excellence 2014-2017, and will be guided into the future by the SESLHD Journey to Excellence Strategy 2018-2021. This is underpinned by the Triple Aim¹⁸, a framework that describes an approach to optimising health system performance, with three dimensions that work simultaneously:

- Improving the health of populations
- Improving the patient experience of care (including quality and satisfaction)
- Reducing the per capita cost of health care.

Significant gains have been made across the District, as outlined in the diagram [on the next page](#).

¹⁶ Wilson S. Langford K. 10 Ideas for 21st century healthcare. Innovation Unit URL: <http://www.innovationunit.org/wp-content/uploads/2017/04/DIGITAL-VERSION10-Ideas-Final.pdf>

¹⁷ McKillop A, Shaw J, et al. Understanding the Attributes of Implementation Frameworks to Guide the Implementation of a Model of Community-based Integrated Health Care for Older Adults with Complex Chronic Conditions: A Metanarrative Review. *International Journal of Integrated Care*. 2017; 17(2):10. DOI: <http://doi.org/10.5334/ijic.2516>

¹⁸ Institute for Healthcare Improvement: The Triple Aim for Populations. URL: <http://www.ihl.org/Topics/TripleAim/Pages/Overview.aspx>

JOURNEY TO EXCELLENCE GAINS 2014-2017



This transformation has been person centred, and underpinned by respect for client and carer preferences and values. It recognises the importance of integration and coordination of care, as well as timely access to a broad range of treatment services, tailored to needs, delivered by a skilled and compassionate workforce.

Providing more care in community, primary care or outpatient based settings, investing in health data and information sharing technology, and forming partnerships and alliances with primary and social care services will help us to support health and wellbeing and reduce the demand on hospital based services into the future.

Transformation will also include implementing the three strategic directions of **SESLHD's Equity Strategy**¹⁹:

- Transform our health services to systematically improve equity
- Invest to provide more care in the community and more prevention and wellness programs
- Refocus our work to better address the social determinants of health and wellbeing.

¹⁹ SESLHD Equity Strategy. URL: <https://www.seslhd.health.nsw.gov.au/HealthPlans/documents/2016/SESLHD%20equitystrategy%20FINAL.pdf>

3.1.2 WHAT OTHERS ARE DOING WELL AROUND THE WORLD



Canterbury, NZ shifted activity into community based programs such as Acute Demand Management and Community Rehabilitation Enablement Support, **saving 45,000 bed days each year**



Kaiser Permanente Group in the Hawaii region experienced a **26% decrease in the rate of consumers visiting their physician following implementation of KP HealthConnect** which electronically connects members at home to their health care team, personal health information and to relevant medical knowledge to promote integrated health care



Jönköping, Sweden redesigned the care for elderly people by redeploying resources to the community, reducing overall hospital admissions by over 20%, hospital days for heart failure by 30% and wait times for referral appointments with specialists were reduced by 30 days over a 3-5 year period



Montreal, Canada achieved a **50% reduction in hospital alternate-level inpatient stays and increased patient satisfaction** after the introduction of a program of integrated care for vulnerable community-dwelling elderly persons, which serves as a single point of entry for care, with local professionals responsible for the full range and coordination of community, acute and long-term health and social services



Clalit Health Services, Israel shifted the balance of funding and resources from hospital to community-based and primary care services. Patients have a single electronic record, with data available in real time across all care settings. This has improved communication and integration across the system, and enabled targeted interventions to prevent hospital readmissions

Advances in research and technology and consumer-driven health care are changing the focus of medicine. The Institute for Healthcare Improvement²⁰ has focussed on five key areas:

- Improvement Capability: Ensuring that improvement science drives our work and that we extend the reach and impact of the improvement community
- Person- and Family-Centred Care: Putting the patient and the family at the heart of every decision and empowering them to be genuine partners in their care
- Patient Safety: Making care continually safer by reducing harm and preventable mortality
- Quality, Cost, and Value: Driving affordability and sustainability through quality improvement
- Triple Aim for Populations: Applying integrated approaches to simultaneously improve care, improve population health, and reduce costs per capita.

Health services provide care to diverse population groups along a continuum of interactions with multiple health care providers. As the demand for ongoing care increases, high performing health care systems have focused on expanding primary care and increasing community based services to reduce demand on acute hospital services.

In order to avoid fragmented care and identify people that require ongoing care, particularly those with complex and long term health conditions, high performing health systems deliver integrated care that provides coordinated patient and family centred primary, secondary, social and community support.

²⁰ Institute for Healthcare Improvement <http://www.ihl.org/Pages/default.aspx>

3.2 SHIFTING THE BALANCE IN HEALTH AND SOCIAL CARE

GOAL

TO MAINTAIN HEALTH AND WELLBEING AND KEEP PEOPLE OUT OF HOSPITAL WITH EARLY PREDICTIVE, PREVENTATIVE AND PROACTIVE HEALTH AND SOCIAL CARE

Health and wellbeing is strongly influenced along the life course by a range of factors outside of the health system. These factors, including access to food security, affordable housing, income security, social support, low education levels and social isolation are strongly linked to disadvantage and shape future health and wellbeing and people's ability to participate in society.

Socioeconomic disadvantage may also contribute to hospitalisations, for example due to greater disease severity, multiple comorbidities and poor health literacy. People with unmet resource needs may also be less healthy, have more 'no-show' appointments, more ED visits and be less likely to meet care targets.²¹

In order to support people to stay in their own homes for as long and as independently as possible, it will be necessary to prioritise investment in primary health and social care to allow alternatives to admission to be developed where it is clinically appropriate to do so. There will need to be a shift in the balance of care from acute hospital services to "comprehensive and responsive primary, community and social care services, along with comprehensive approaches to improving public health and the ability of patients to self-manage their long-term conditions."²²

To improve health outcomes and reduce demand on acute services, strategies to identify and address unmet health and social needs as part of routine care are needed. Structural population-wide strategies have been shown to have greater potential to reduce inequalities in health than strategies aimed at behavioural change alone, which may in fact increase health inequalities.²³

Health can therefore not work in isolation, and partnerships between health and other services, such as Department of Family and Community Services (FACS), local councils, Non-Government Organisations (NGOs) and volunteer organisations are required to optimally address these needs. Other partnerships may foster health promotion activities, prevent social isolation or promote healthy built environments.

CANTERBURY DHB, NZ

developed a number of new programmes and ways of working as part of its system transformation, including:

- Integrating across organisational boundaries
- Increasing investment in community-based services
- Strengthening primary care.

This resulted in a reduction in:

- Growth in admission rates, particularly for those aged 65+
- Length of stay
- Delayed discharges
- Use of RACFs

The Kings Fund 2017. Developing accountable care systems. Lessons from Canterbury, New Zealand

²¹ Berkowitz SA, Hulberg AC, Hong C, et al. Addressing basic resource needs to improve primary care quality: a community collaboration programme. *BMJ Qual Saf* 2015. Published Online First 30 Nov 2015. doi:10.1136/bmjqs-2015-004521. URL: <http://qualitysafety.bmj.com/content/early/2015/11/30/bmjqs-2015-004521.abstract>

²² The Scottish Government 2016. A National Clinical Strategy for Scotland p.26 URL: <http://www.gov.scot/Resource/0049/00494144.pdf>

²³ Centre for Health Economics, University of York, UK. The Economics of Health Inequality in the English NHS – The Long View. Feb 2017. URL: https://www.york.ac.uk/media/che/documents/papers/researchpapers/CHERP142_economics_health_inequality_NHS.pdf

3.3 OPPORTUNITIES FOR TRANSFORMATION

GOAL

TO PROVIDE HARM FREE, COMPASSIONATE PERSONALISED CARE IN THE RIGHT SETTING TO EVERY PERSON, EVERYTIME

SHIFTING THE BALANCE OF CARE



An ambulatory care precinct to drive efficiency and integration across disciplines



Increasing capacity for prevention and self-management of long term conditions



Increasing access to subacute beds to improve whole of hospital flow



High volume short stay unit for improved streaming of surgical patients



Right patient...
Right Time ...
Right Place



Building capacity for new models of care to avoid the need for admission



Improved access to diagnostic imaging for rapid diagnosis



Improved birthing suites and women's and children's services



More day only rehabilitation

Consultation with staff and the community and reviewing international and national literature suggests that opportunities include:

- Transforming care through new, innovative and integrated models of care with a shift in balance towards community care and person centred care as their foundation
- Integrating care across disciplines, sectors and organisations to improve continuity of care, and an emphasis on the whole patient journey
- Reshaping services from providing episodic care to life time management of health throughout the life course
- Applying multi-specialty/multi-disciplinary holistic approaches to care, particularly for long term conditions and high burden diseases
- Realigning services by treating patients with potentially avoidable hospitalisations in an ambulatory setting, improving care processes, and the quality and timely delivery of services
- Consolidating ambulatory care, outpatients and associated services to improve access to a range of health services in one location
- Releasing workforce resources for reinvestment, to free up highly specialised acute care resources for those requiring more complex and intensive treatment
- Identifying priority populations and addressing their health and social care needs through co-produced models of care and service delivery
- Empowering individuals to take responsibility for their health and wellbeing and self-manage periods of ill health where able to do so
- Facilitating teaching and translational research opportunities with teaching and research organisations
- Conducting community health needs assessments and creating community health dashboards to help identify health and wellbeing assets and weaknesses within a community
- Providing more opportunities for staff development, training and capacity building across and within disciplines
- Strengthening partnerships with PHN, general practice, communities, universities, research organisations, academic health science alliance and other agencies
- Progressing new digital technology and make better use and understanding of health intelligence to inform change, focus and direction.

4. MAKING IT HAPPEN

KEY POINTS

The development of the St George Integrated Health Services Plan provides an opportunity, in partnership with our community and other health and social care providers, to transform the way care is delivered, improve the patient and workforce experience, and provide sustainable services into the future to improve the health and wellbeing of our population.

4.1 IMPROVING POPULATION HEALTH AND WELLBEING

GOAL

TO SUPPORT RESPONSIVE PRIMARY, INTEGRATED COMMUNITY AND SOCIAL CARE SERVICES

Evidence indicates that we could achieve greater improvements in health outcomes, at a much lower cost, by increasing population health activity.²⁴ Population health programs and activities use approaches that target population groups rather than individuals, particularly among vulnerable communities, and aim to identify and reduce differences in health among population groups.

It is increasingly being recognised that each life stage influences the next, and social, economic and physical environments interacting across the life course can have a profound effect on individual and community health and wellbeing. Promoting a life course approach to health and wellbeing and increasing resilience is thus an important aspect of population health practice.

²⁴ Krogsbøll LT, Jørgensen KJ, Grønholm Larsen C, Gøtzsche PC. General health checks in adults for reducing morbidity and mortality from disease. Cochrane Database Syst Rev. 2012 Oct 17;10:CD009009. URL: <https://www.ncbi.nlm.nih.gov/pubmed/23076952>

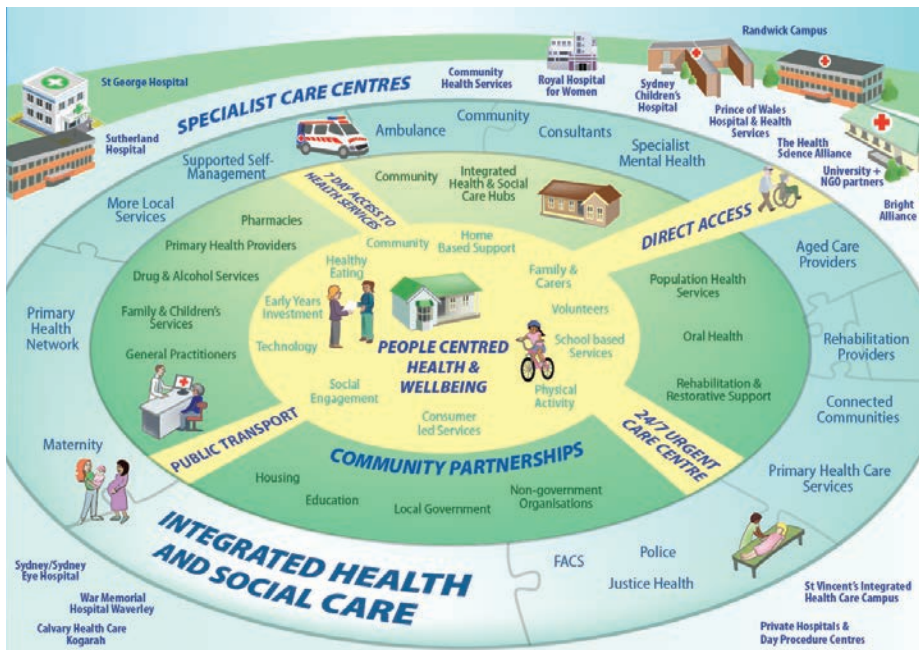
4.1.1 INTEGRATING ACROSS THE HEALTH AND SOCIAL CARE SYSTEM

GOAL

EVERYONE IN OUR COMMUNITY WILL HAVE ACCESS TO SAFE, EQUITABLE AND INTEGRATED SERVICES, PROVIDED EITHER AT HOME OR AS CLOSE TO HOME AS POSSIBLE

Integrated care “involves the provision of seamless, effective and efficient care that reflects the whole of a person’s health needs; from prevention through to end of life, across both physical and mental health, and in partnership with the individual, their carers and family. It requires greater focus on a person’s needs, better communication and connectivity between health care providers in primary care, community and hospital settings, and better access to community-based services close to home.”²⁵ Ageing and long term illness are the key drivers for care integration.

The aim is for a pro-active ‘life-course approach’ to improving health outcomes by tackling the socio-determinants of ill-health, not just episodes of care or disease-based approaches which ultimately lead to new silos of care. The delivery of effective, high-quality care “requires a systemic transformation that goes beyond merely adding new isolated interventions to the existing acute-focused healthcare system.”²⁶



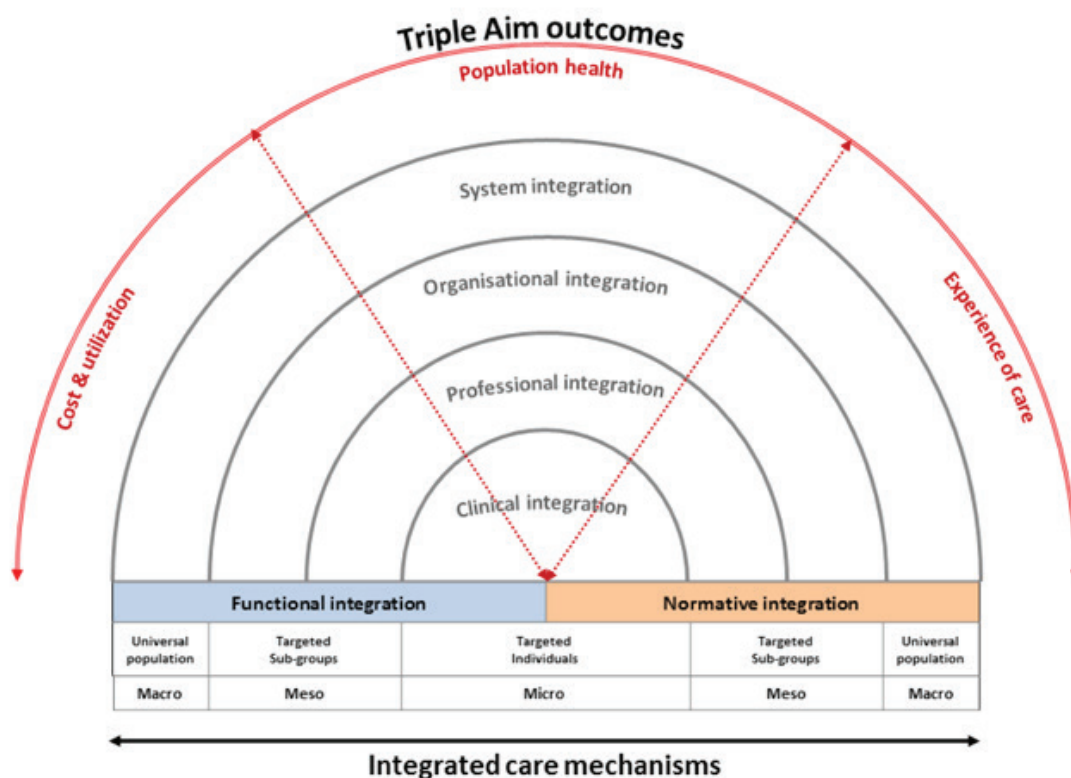
Adapted from Kings Fund Visualised sourced from Timmins N and Ham C. The Kings Fund: The quest for integrated health and social care. A case study in Canterbury, New Zealand. p.9

Population based models of care, designed around data analysis, local risk stratification and shared population registries, anticipate and address care at an early stage, and are tailored to a person’s needs. Care is delivered where possible in the community by multi-agency teams with clear care pathways, shared health records, and focus on personalised support to help individuals manage their own health conditions. Coordinating care will add value to healthcare by utilising the patient’s own capacity to self-manage their health and improve their outcomes.

A lack of integration in a fragmented and complex healthcare system causes enormous inefficiencies in healthcare delivery. Currently care support to people with complex needs may come from a diverse and often fragmented and ‘siloed’ web of services, resulting in poor care coordination and potential overlap of services for people with long term conditions, with potentially adverse outcomes and experiences.

²⁵ NSW Health. NSW Integrated Care Strategy URL: <http://www.health.nsw.gov.au/integratedcare/Pages/default.aspx>

²⁶ Mira JJ, Nuño-Solinis R, Guilabert-Mora M, Solas-Gaspar O, Fernández-Cano P, González-Mestre MA, et al. Development and Validation of an Instrument for Assessing Patient Experience of Chronic Illness Care. International Journal of Integrated Care. 2016;16(3):13. DOI: <http://doi.org/10.5334/ijic.2443>



Source: Valentijn, P.P., (2016). Rainbow of Chaos: A study into the Theory and Practice of Integrated Primary Care. International Journal of Integrated Care. 16(2), p.3. DOI: <http://doi.org/10.5334/ijic.2465>

Targeting health services at people with multiple long term diseases according to their levels of need and improving integration across the care continuum is an effective way to reduce unwarranted variation and costs and improve outcomes—for the health care organisation, the community, and the individual. The aim is to reduce avoidable hospitalisations, frequency of hospital admissions and ED attendance, and length of stay in hospital.

INTEGRATED CARE IN SESLHD

Integration between primary, secondary and tertiary care is a key focus of SESLHD’s Journey to Excellence. The SESLHD Integrated Care Strategy²⁷ outlines the goals of integrated care in SESLHD:

to create an agile, joined up system and a health intelligence structure that enables targeted action through innovative models that deliver care proactively.

SESLHD has adopted the “House of Care”²⁸ model, with effective organisational support structures and a focus on **person-centred coordinated care**.



²⁷ SESLHD Integrated Care Strategy 2015 URL: https://www.seslhd.health.nsw.gov.au/CDM/documents/SESLHD_Integrated_Care_Strategy.pdf

²⁸ NHS England. Enhancing the quality of life for people living with long term conditions – The House of Care. URL: <https://www.england.nhs.uk/house-of-care/>



WHAT ARE WE DOING NOW IN INTEGRATED CARE?

Current models of care available to people in the St George area that work to avoid the need for admission and readmission, help reduce length of stay and encourage ongoing care management in the community.

MODELS OF CARE:

- Day hospital rehabilitation services at SGH and CHCK
- Ambulatory Care Unit (ACU) which provides outpatient access for short term procedures and investigations to reduce the need for overnight admission and for the management of avoidable admissions including short term infusions, investigations and procedures, wound care and dressings
- Domiciliary care for people living with chronic heart failure
- Geriatric Flying Squad (GFS) to Residential Aged Care Facilities (nurse practitioner model) to provide geriatric assessment and short term case management in the community setting
- Palliative Care Nurse Practitioner working in RACFs to build capacity within the staff to manage care in place (provided by CHCK)
- The Respiratory Coordinated Care program (RCCP) is a hospital-based community program initiated by St George and now emulated by many other hospitals that provides home visits to patients who are unwell from a respiratory condition. This specialised hospital-based community program is also designed to assist people with advanced lung disease to live optimally well in their homes and prevents many hospital admissions as well as decreasing hospital lengths of stay
- Transitional Aged Care Program (TACP) provided from CHCK for short term multi-disciplinary restorative care for older people on discharge from the acute setting at both SGH and CHCK
- Aged Care Services Emergency Team (ASET) ensures the most appropriate model of care and care coordination is provided for patients over 70 years admitted to the ED
- Quick Response Program (QRP) for rapid multi-disciplinary response to community dwelling residents to avoid hospitalisation
- Cancer Outreach to provide support for cancer patients in their home
- Connecting Care in the Community, a linked health management program for people with program specific long term diseases who are at high risk of unplanned hospital or ED presentation. The Program works with primary care and other services to identify, rapidly assess and link patients to appropriate care early to reduce long term illness severity
- The Older Persons Mental Health Service provides assessment and treatment for people 65 years+ with mental health problems. Treatment is provided in both hospital and the community. The team also offers consultation and support to other aged care services
- “Sugar Fix”, which focusses on planning, coordinating and integrating diabetes services in the St George community and primary healthcare system. Newly diagnosed patients with Type 2 Diabetes Mellitus (T2DM) are managed using appropriate referral pathways led by their GP
- CALL model – Liver Clinics (SGH). This nurse led model of care between Tertiary Liver Clinic and Primary Health provides a coordinated and collaborative approach to diagnosing, assessing and managing people with chronic liver disease in the St George community. The implementation of this model demonstrates integrated and patient centred care, equity, efficiencies and cost savings for the service
- The Early Recovery after Surgery (ERAS) program provides education and support to selected elective surgical patients pre-op, during their hospital stay and as out-patients
- The Pre-admission Clinic Frailty Project aims to identify frail patients to improve patient experience and length of stay
- Multidisciplinary medical care, between specialties, disciplines, settings and facilities e.g. orthogeriatrics; ENT and respiratory; respiratory failure and neurology, urogynaecology and colorectal; gastroenterology and oncology, hepatobiliary surgery, peritonectomy, endocrine, Calvary Community Health (CCH), CHCK community palliative care and a range of allied health services, etc.
- A Paediatric Integrated Care Service is being planned which will provide multi-disciplinary clinics, expansion of the paediatric clinics, better clinical supervision and service through co-location

- Urogynaecology service provides integrated care between Obstetrics, Gynaecology, Urology and Colorectal services
- Pain Management Programmes run with physiotherapists, psychologists, pain specialists, drug and alcohol and dietetics to avoid the need for ED presentations/hospital admissions
- Developmental Assessment Service (Child, Youth and Families Directorate, PICH) provides assessment and early intervention for children and young people and with a developmental delay/ disability integrated with pre-schools, schools, GPs and FACS; and ongoing assessment, review and care of adults of all ages with a developmental disability in an integrated model with NGO providers
- The SGH & CHS Community Health team offers a range of services, including community nursing, continence advisory service, ASET, QRP and the Healthy at Home Program, with a single point of access referral number, for management of health related issues that are best serviced in the patient's own environment
- Calvary Community Health provide community, ambulatory and outpatient services including Allied Health (OT, Physio), CHSP Nursing and CHSP continence, and a multi-disciplinary Community Palliative Care Team, who work closely with SGH RCCP and Heart failure services
- PICH offers children's, youth and family services, a Developmental Assessment Service, sexual assault and domestic violence services
- There is close integration of Drug and Alcohol Services with those of Mental Health.



RECOMMENDATIONS FOR THE FUTURE

MODELS OF CARE:

- Expanding hospital and emergency avoidance strategies and targeted programs to address issues associated with long term conditions, frailty and ageing, including:
 - Expand and enhance ambulatory care services, including outpatients and community health / home based services across the age range
 - Develop and implement guidelines and pathways to improve the management of patients with long term diseases e.g. long term care pathways for patients presenting to ED
 - Enhance existing outreach services such as RCCP, cardiac rehabilitation, chronic heart failure program, GFS
 - Look for opportunities for advance practice nurses, allied health and pharmacy to manage prevention and hospital avoidance activity e.g. hospital initiated home medication review by pharmacists²⁹ and pharmacist-led smoking cessation inpatient programs; back pain review clinics by physiotherapists³⁰
 - Provide support for care in situ where possible, e.g. nurse practitioners in palliative care working with Residential Aged Care Facilities, GFS
 - Consider new outreach services, e.g. an outreach or community liaison pharmacist to facilitate the continuity of a patient's medication management³¹
 - Develop additional integrated models of care and resources to support the provision of multidisciplinary care from the acute setting to the community for services such as Aged care, Palliative care, Paediatric ambulatory care, diabetes care, developmental disability
- Consider introducing joint GP/Specialist clinics held in the community in a GP surgery hub, to provide easier access for patients to specialist services
- Consider the implementation of a Hospital in the Home (HITH) program
- Consider new multi-disciplinary clinics, e.g. podiatry with dermatology; urogynaecology with urology; renal medicine with urology service.
- Explore opportunities to work with CESPHN's Patient Centred Medical Neighbourhood program. CESPHN is currently implementing the Patient Centred Medical Neighbourhood program to support effective and efficient delivery of patient care, by equitably dispersing the care of patients across a practice-based medical neighbourhood. For example, stratifying patients at risk of admission or with complex medical conditions could be registered with the service; importance of team based care (care coordination), shared care plans, referral pathways, and embedding data driven culture

²⁹The Pharmacy Guild of Australia. Implementing and evaluating a parallel post-discharge Home Medicines Review (HMR) model.. <http://6cpa.com.au/wp-content/uploads/Implementing-and-Evaluating-a-Parallel-Post-discharge-Home-Medicines-Review-HMR-Model-Full-Final-Report.pdf>

³⁰NSW Agency for Clinical Innovation. Management of people with acute low back pain. URL: https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0007/336688/acute-low-back-pain-moc.pdf

³¹Poor communication of medical information at points of transition has been shown to be responsible for up to 50% of medication errors and up to 20% of adverse drug events. Omitting one or more medicines from the discharge summary exposes patients to 2.31 times the risk of re-admission to hospital. See SHPA Standards of Practice Chapter 6: Facilitating Continuity of Medication Management on Transition between Care Settings. <https://www.shpa.org.au/standards-of-practice>

- Include GPs in case conferences for complicated patients
- Request information from GPs (e.g. home situation, carer status, recent investigations, etc) to prevent unnecessary duplication of testing, services, etc.

TECHNOLOGY:

- Technological advances mean that in the near future many conditions will be treated in the home or community (remote monitoring, telehealth, etc.) rather than in a hospital and will require an effective system of integrated health care. Acute hospital services will need to work seamlessly in partnership with primary and community sector service providers and the person and their family/carer to support vulnerable populations within their local community or home environment. Care delivery will need to pro-actively engage and empower people and communities as partners in health
- The implementation of solutions to enhance communication across the GP to hospital interface is supported by the CESP HN. There is opportunity to capitalise on PHN initiatives such as digital health (secure messaging, MyHealth record readiness program) and HealthPathways initiatives
- Promote the use of MyHealth record for improved sharing of information
- Explore the range of technology that can support common long term conditions, including COPD, asthma and diabetes, and redress adverse lifestyle habits, for example using social media, apps, Skype and telehealth
- As the information on the HealtheNet platform is enhanced and pathology becomes available, there will be significant opportunity to identify patients requiring coordinated care.

Infrastructure solutions for consideration are documented in Section 5.1.6: Delivering joined up holistic care with outpatient and community based services.

4.1.2 COMMUNITY LED HEALTH AND WELLBEING

GOAL

TO ENABLE PEOPLE IN OUR COMMUNITIES TO HAVE THE SKILLS, KNOWLEDGE, RESOURCES AND SUPPORTIVE ENVIRONMENTS TO CREATE BETTER HEALTH AND WELLBEING AND TO ENSURE COMMUNITY ASSETS ARE RECOGNISED AND MOBILISED

Fundamental to providing health care is the need to engage people, to find out what matters to them to improve their health and wellbeing and to take an asset-based approach which focuses on people's abilities and assets rather than just their needs.

Often health professionals focus on the physical health condition rather than the whole person. New, empowering models of care which bring about a fundamental shift of power from providers to patients/clients include health literacy, peer support and care networks, asset-based community development models, and technology-enabled care plans.

Person and community centred care is an enabling approach that requires a collaborative partnership between the person, their carers and family, social networks, and service providers, with each respecting the knowledge and experience, i.e. the assets, the other can bring. It also means a shared responsibility and accountability for health care.

International evidence has found patient activation can be used to reduce health inequities and deliver improved outcomes, better quality care and lower costs. It "... provides a simple, evidence-based mechanism for establishing the capacity of individuals to manage their health – and then using that information to optimise the delivery of care."³² It increases individual's knowledge, skill, and confidence for self-management with research showing that appropriately designed interventions can increase patients' levels of activation, with associated health benefits.

Cultural sensitivity in communities is important in ensuring treatments are accepted and followed. Community engagement strategies greatly improve this by recognising the assets that exist in the community and developing healthcare services to work with and realise the value of those assets.

KPMG 2014. Creating new value with patients, carers and communities

³² Hibbard J and Gilbert H, 2014, Supporting people to manage their health. An introduction to patient activation. King's Fund URL: http://www.kingsfund.org.uk/sites/files/kf/field_publication_file/supporting-people-manage-health-patient-activation-may14.pdf

IMPROVING HEALTH LITERACY

There is a critical need to improve health literacy levels, which are generally low within the general population. This can be achieved by giving people the information, skills and confidence to make better choices about their health and improve self-management and compliance for improved clinical outcomes. Achieving improved outcomes requires:

- Modifications to communication, interpreter access and mixed-strategy interventions (for example combining adapted communications with behavioural skills coaching)
- Use of simplified text and teach-back methodologies that have been shown to be effective in other literacy interventions
- Use of plain language, involving consumers in the development of information, wayfinding and education materials
- Use of new technologies, e.g. video based interpreting.

BUILDING STRONG COMMUNITY ENGAGEMENT AND GENUINE PARTNERSHIPS

Health service redevelopment provides an opportunity to foster ongoing productive community relationships, by allowing all parties to identify needs, risks, opportunities and potential solutions to community issues that lead to more informed decision-making and improved (and often more sustainable) solutions.

By recognising and leveraging community assets, frontline service providers can develop solutions better tailored to service user need, increasing their impact. This includes adopting co-production and social impact approaches and integrating health and social care with other service providers and agencies. Service users and communities experience improved service outcomes and become partners in the delivery of their own care, building their capacity and resilience for the future. Ultimately this is more effective care, immediately and preventatively.

Community partnerships aim to improve population health and wellbeing by delivering better person centred care, improving community empowerment and resilience, promoting healthy behaviours, improving health literacy, and providing more accessible care. Examples include collaborations with local councils to promote safe and healthy environments, with easy access to public transport, and the provision of healthy built environments that promote physical and social activity.

Consumers are important partners and co-creators of any new care models. The experiences, skills and social networks of consumers as individuals, organisations or groups should be included at all stages of design, testing, implementation and review, in order to support patients' engagement in their own care. This requires widespread community involvement, and respect and value for cultural beliefs and practices.

The concept of co-production and an asset based approach uses the strengths and resources of people and communities, and places equal value on professional training and lived experience, skills and social networks, in order to empower people to make decisions about their own health and to be more responsible for their own health care.

HELPING PEOPLE TO HELP EACH OTHER

There are untapped resources in our communities that can be used to connect people to a rich network of people in their community to support health and social wellbeing, using models such as peer support and training, community capacity building and service user networks.

Wilson S. and Langford K. 10 Ideas for 21st century healthcare. Innovation Unit

This allows people and communities to be actively involved in identifying preferences, values and goals that are important to them, and supports them with interventions to be more independent, including early intervention and prevention, social inclusion, and short term restorative care.

Asset based approaches are particularly relevant for self-management of long term conditions, and have been found to increase patient engagement with their treatment recommendations, decrease length of stay and mortality, and increase satisfaction with their treatment overall.

The SESLHD Community Partnerships portfolio provides support to staff to engage and partner with consumers, carers and family, diverse community groups and individuals, our volunteers, NGOs and other partners so that services are designed around our communities needs and assets to reduce their need for hospital care.

The aim is to give communities a greater sense of control over their own health and wellbeing, resulting in better health and wellbeing outcomes.

GOAL 1

increase community participation and engagement

GOAL 2

ensure community voices are genuinely heard and understood

GOAL 3

improve our responsiveness to community input and shift towards a coproducing approach to health service design and delivery

PROMOTING WELLNESS ACROSS THE LIFE COURSE

Wellness is a philosophy that focuses on whole of system support to maximise a person's independence and autonomy.³³ It encompasses the connected physical, social, career, emotional and financial aspects of wellbeing and is based on the premise that even with frailty, long term illness or disability, people generally have the desire and capacity to make gains in their physical, social and emotional wellbeing and to live autonomously and independently.

Service design needs to support an individual's aspirations to maintain and strengthen their capacity to continue with their activities of daily living and social and community connections along the life course, with an emphasis on prevention and optimising physical function and active social participation.

The majority of our population keep well or are able to manage their own health needs in partnership with primary care, and do not interact with hospital services. Less than 20% of the NSW population presents to the ED or as an inpatient across NSW each year.³⁴

Acknowledging this, it remains important to identify and reduce health risk along the life course in order to keep our population well and reduce demand on our health services. For this to happen, Health cannot work alone, and needs to partner with other agencies and communities in a cross-sectoral approach to the life course management of health and wellbeing and reducing health inequities.

REDEFINING HEALTH

“There needs to be a cultural shift around the way we think about health services and their goals...”

This requires a change in mindset, reorientating services away from fixing problems toward fostering wider and more subjective, wellbeing goals.”

Wilson S. and Langford K. 10 Ideas for 21st century healthcare. Innovation Unit

³³Australian Govt. Dept. of Social Services Discussion Paper: Key directions for the Commonwealth Home Support Programme <https://www.dss.gov.au/ageing-and-aged-care-programs-services-commonwealth-home-support-programme/discussion-paper-key-directions-for-the-commonwealth-home-support-programme>

³⁴NSW Dept. of FACS 2012 Use of emergency and inpatient hospital services by ADHC clients –final report URL: https://www.adhc.nsw.gov.au/__data/assets/file/0004/263587/ADHC_and_NSW_Health_data_linkage_Final_report_Dec2012.pdf

PREVENTIVE HEALTH CARE

The increasing prevalence and cost of long term health conditions means that prevention, whether primary, secondary or tertiary, is important at all ages, including among the elderly, to ensure that further increases in life expectancy translate, as far as possible, into healthy years where the need for hospital and other health services is minimised. There is also an economic imperative to ensure the health of the working population is maintained as it ages.

Building in prevention as a part of normal activity in service delivery should be a priority e.g. in the management of smoking cessation, communicable disease prevention, healthy lifestyle (healthy weight and physical activity advice and interventions), and osteoporosis and falls prevention activity.

WHAT ARE WE DOING NOW TO FOCUS ON COMMUNITY LED HEALTH AND WELLBEING?

A number of improvement programs have been implemented to address prevention, wellness and population health needs and provide care in a more appropriate setting. These include:

- ‘The Wellbeing Network’ (St George Community Mental Health)
- ‘Doing It Differently’ Grants, a mentoring and grants initiative supported by SESLHD and Rockdale City Council, which aims to support the community of Rockdale to identify current and emerging issues, and devise and act upon solutions that will enhance resilience and wellbeing in the community. Grants awarded to community groups and NGOs range from \$2,500 to \$10,000. Workshops are held to assist with shifting the community mindset from needs and deficiencies to assets, resources and possibilities; identifying, mapping and connecting the diverse range of community assets; and harnessing the connected assets and vision to a hopeful and positive future for the community
- Early Years Collaborative, led by the Child, Youth and Family Directorate of PICH
- Staff Health and Wellbeing Program, aimed at promoting and enhancing wellbeing both physically and mentally for staff: “To care for others well, WE must be well.”

RECOMMENDATIONS FOR THE FUTURE

- Ensure services are co-produced and take an asset-based approach to improve community involvement in service design and delivery
- Ensure community voices are heard and understood
- Improve responsiveness to community input
- Where possible, efforts to capture patient and provider experience should be pooled (e.g. between CESPAN and SESLHD) to ensure a representation of different stages of the care continuum
- Embed formal structures to support person centred care, e.g. patient reported outcome measures, co-designed with patients and clinicians, which enable patients to provide direct, timely feedback about their health related outcomes and experiences³⁵
- Ensure organisational support to provide resources and build the capacity of staff and the community to achieve community engagement and build meaningful partnerships
- Collect evidence of change to support community partnerships and engagement
- Ensure staff receive education in how to educate patients, how to create resources and to deliver programs to the local communities
- Build a community-recognised identity around research, education and service delivery
- Develop the fields of Genomics and Microbiome in prevention and translational research
- Ensure demand created by community engagement campaigns can be met, e.g. for outpatient procedures as a result of preventive home testing, such as the bowel screening program.



³⁵For more information, see NSW ACI Patient Reported Measures. URL: <https://www.aci.health.nsw.gov.au/make-it-happen/prms>

4.1.3 REDUCING INEQUITY IN PRIORITY POPULATIONS

GOAL

TO REDUCE INEQUITIES IN HEALTH AND WELLBEING IN PRIORITY POPULATIONS WITHIN A GENERATION

An important strategy to reduce demand for health services and improve quality of life is to identify priority populations and target specific programs and services to prevent ill health and inequity of health outcomes. Targeted groups may include those outlined below (see Technical Paper for more information on St George area demographics).

PEOPLE FROM LOW SOCIO-ECONOMIC GROUPS

People in the lowest quintile of income groups' use about twice as much health care services as those in the highest quintile.³⁶ Being from a relatively low socioeconomic group is a predictor of many measures of health risk, such as smoking, obesity, oral health and cancer survival.

Rockdale LGA contains significant pockets of socio-economic disadvantage, and residents have higher rates of premature deaths due to cancer and cerebrovascular disease than the NSW average. Rockdale LGA residents also have a significantly higher rate of dementia hospitalisations than the NSW average, and are ranked first for this measure among the nine SESLHD LGAs. Rockdale LGA residents also have higher rates of diabetes, and are ranked first among the nine SESLHD LGAs for diabetes-related deaths.³⁷

Residents of St George LGAs do not have a greater proportion of dwellings rented from the Government Housing Authority than the NSW average, however this may reflect a lack of public housing available in the area.

The interaction between health and disadvantage is also evident in a higher percentage of people from lower socio-economic LGAs having their planned short stay surgery at SGH as non-chargeable patients rather than in a private hospital.

ABORIGINAL PEOPLE

Aboriginal people have relatively poorer health than all other population groups in SESLHD. There is a significant disparity between Aboriginal and non-Aboriginal people across most population health indicators, highlighting the importance of addressing the determinants of health and health risk factors. In NSW, the gap in life expectancy between Aboriginal people and the total NSW population is 8.6 years for males and 7.4 years for females, and the mortality rate for Aboriginal people is 1.5 times higher than the rate for non-Aboriginal people, with no significant change in this measure over the past 10 years.³⁸ These figures may be an underestimate, as Aboriginality is not always accurately recorded.

There are specific services which will see a greater proportion of Aboriginal people, with respect to the proportion of Aboriginal people in the district. Aboriginal people have a greater amount of health burden in comparison to non-Indigenous Australians, and this is especially seen in potentially preventable chronic diseases, such as diabetes, cardiovascular and chronic kidney disease. Together these account for 50% of the life expectancy gap between Aboriginal and Torres Strait Islander peoples and non-Indigenous peoples in Australia.³⁹

Other key services that Aboriginal people will increasingly access in the St George campus include:

- Services for women, babies and families
- Surgery
- Services for dementia and frailty
- Mental health services, in combination with other health conditions - Aboriginal people are now engaging with Mental health services at significantly higher rates than Non Indigenous Australians⁴⁰.

³⁶ SESLHD Equity Strategy URL: <http://www.seslhd.health.nsw.gov.au/HealthPlans/documents/2016/SESLHD%20equitystrategy%20FINAL.pdf>

³⁷ Source: PHIDU Social Health Atlas of Australia. New South Wales & Australian Capital Territory. Data by LGA. Published 2017: May 2017. Accessed June 2017

³⁸ NSW Health. Chief Health Officers Report, 2012, The Health of Aboriginal people of NSW URL: <http://www.health.nsw.gov.au/epidemiology/Pages/aboriginal-cho-report-2012.aspx>

³⁹ Askew, D., Brady, J., Brown, A., Cass, A., Davy, C et al (2015). To your door: Factors that influence Aboriginal and Torres Strait Islander peoples seeking care. Retrieved from <http://www.kvc.org.au/wp-content/uploads/2014/12/Paper-Mono-1-CD-20130624-v42-Submitted.pdf>

⁴⁰ Garvey D (2008). Review of the social and emotional wellbeing of Indigenous Australian peoples – considerations, challenges and opportunities. URL: http://www.healthinonet.edu.au/sewb_review

Social disadvantage is one of the many factors that contribute to the gap between Indigenous and non-Indigenous health. Aboriginal people live in many of the locations with entrenched high levels of social disadvantage, e.g. in relation to employment, education and income. Even within these relatively disadvantaged areas, Aboriginal people are consistently more disadvantaged than the non-Aboriginal population.

Good health for an Aboriginal person involves viewing health holistically. This involves addressing well-being socially, emotionally, culturally, physically, spiritually and environmentally. Wellbeing of family and the community are also important.⁴¹ The National Aboriginal and Torres Strait Islander Health Plan 2013-2023 recognises the centrality of culture and wellbeing in the health and wellbeing of Aboriginal and Torres Strait Islander people. As well as culturally appropriate welcoming spaces, culture can also influence Aboriginal people's decisions about when and why they should seek health services, their acceptance of treatment, the likelihood of adherence to treatment and follow up, or premature discharge, and the likely success of treatment.⁴²

PEOPLE WHO EXPERIENCE MENTAL ILLNESS

The life expectancy gap between people with mental illness and the general population is as much as 16 years less for males and 12 years for females, and appears to be rising. Many causes of death are due to preventable illnesses caused by increased high risk behaviours such as smoking, substance abuse, and exposure to communicable diseases such as hepatitis C. Some medications prescribed for people with mental illness are associated with weight gain and new onset diabetes. Mental illness also affects a person's ability to manage their diabetes, especially those on insulin treatment, which may result in multiple diabetic complications.

Other social disadvantage factors also often overlap with mental illness, such as homelessness, social isolation and unemployment, which may exacerbate mental illness and poor health and wellbeing.

PEOPLE WHO ARE HOMELESS

About 20% of NSW's identified homeless population live in SESLHD, with Sydney inner city representing 60% of our homeless. There is also a small but significant population of homeless in the St George area. People who are homeless typically have complex health and psychosocial issues, and face significant barriers to accessing health services. Many have other compounding health and social issues, such as mental ill health, family breakdown, domestic violence issues, financial stress, unemployment, etc.

VULNERABLE CHILDREN AND YOUNG PEOPLE

Children aged up to 15 make up 18% of the St George population, and Rockdale LGA, an area of socio-economic disadvantage, has the highest proportion of children living within it. There are considerable numbers of children in St George LGAs who are in Out of Home Care (OoHC) and have significant support and health needs due to past experiences of abuse and neglect.

Many of the risk factors for poor adult health are adopted in adolescence and are influenced by adverse childhood experiences. Investment in the early years of life with prevention, early intervention and clinical care is thus critical for potential long term investment in health and wellbeing.

VULNERABLE OLDER PEOPLE, PARTICULARLY THOSE WHO ARE SOCIALLY ISOLATED OR FRAIL

The proportion of older residents in St George LGAs is expected to grow much faster than the rest of the population. This will drive demand for health services to meet the needs of this cohort, in both acute and sub acute and ongoing community based care. As many as 85% of people aged over 65 have three or more long term conditions, and frail older people are at higher risk of falls, resulting in high numbers of emergency presentations and admissions and need for long term management. Many older people have additional social burdens such as financial hardship, social isolation (approximately 1 in 4 older people live alone) and many older people may be carers of partners or family members.

CULTURAL DIVERSITY

The St George area is very culturally diverse, Language and cultural barriers may result in a poor or different understanding of the health system and inequity in accessing health care, different understanding of the concepts of self-management, different beliefs about health and illness and its management, and perceived discrimination. This may result in poor participation in preventative health care, and over representation in long term disease statistics.

⁴¹ SESLHD Aboriginal Health Unit URL: http://www.seslhd.health.nsw.gov.au/Aboriginal_Health/resources.asp

⁴² Australian Government (2013). National Aboriginal and Torres Strait Islander Health Plan 2013-2023. URL: [http://www.health.gov.au/internet/main/publishing.nsf/content/B92E980680486C3BCA257BF0001BAF01/\\$File/health-plan.pdf](http://www.health.gov.au/internet/main/publishing.nsf/content/B92E980680486C3BCA257BF0001BAF01/$File/health-plan.pdf)

The demand for interpreter services is thus high, with 20% of SESLHD inpatient episodes in 2011-12 stating a preference for a language other than English during their admission process.⁴³ This is likely an underestimate of the need due to unmet demand. Evidence indicates patient safety is compromised when professional interpreters are not used for patients with limited English proficiency, potentially including adverse events, poorer patient experience and compliance, higher readmission rates, delays to theatre and medico-legal action and associated costs.⁴⁴

GAY, LESBIAN, BISEXUAL, TRANSGENDER, QUEER OR INTERSEX (GLBTQI+)

Individuals who identify as GLBTQI+ are especially susceptible to being placed at a socioeconomic disadvantage, to suffer discrimination in the workplace, to experience violence against them, and GLBTQI+ youth experience homelessness at a disproportionate rate. Those who undertake transgender reassignment or are intersex also face unique endocrine and metabolic challenges. This may result in significant inequalities in health and wellbeing outcomes, including mental illness and social isolation.

PEOPLE WITH PROFOUND OR SEVERE DISABILITY

In St George LGAs, almost 4% (8,955 people in 2011) have a profound or severe disability. People with a disability are more likely to have lower socio-economic status, fewer educational qualifications, be out of work, and experience discrimination. People with a disability often require more and complex health resources and services. The impact of the National Disability Insurance Scheme (NDIS) on health services has yet to be assessed.



WHAT ARE WE DOING NOW WITH PRIORITY POPULATIONS?

Some activities delivered by SESLHD with priority populations in the St George area include:

- Currently 51 grants to NGOs are administered within our LHD. In 2015/16 approximately \$13 million was distributed to NGOs with the aim of improving the health and wellbeing of people in the community, within a variety of health program areas including Aged and Disabled, Health Promotion, Drug and Alcohol, AIDS Prevention, Health Related Transport, External Health Services, Mental Health and Community Services
- A partnership between SESLHD's Health Promotion Team and Bayside Council to help address the health and social inequities found in this area
- Access to Mental Health Services for People Experiencing Homelessness Project for access to and continuity of mental health services to people with a mental illness experiencing homelessness who are accessing and transitioning between SESLHD mental health, drug and alcohol and ED Services and/or the homelessness Sector
- The Better Health for Homeless Men Project, a partnership between SGH and Mission Australia Centre (MAC) to identify the health needs and improve equity of access to healthcare for homeless men. An outreach clinic was established at the MAC with physician assessment and blood collecting on-site plus a monthly liver screening and treatment clinic, including portable fibroscan testing, and an on-site mental health clinic staffed by a psychiatrist. This is a person-centred, local solution for equitable health care for homeless men, providing services where homeless men are located, who may not otherwise access hospital based services, to improve health and potentially prolong life
- 'Community Assessment and Liver Liaison- CALL project for chronic liver disease (CLD)
- Community outreach services for HIV and sexual health services
- Needle exchange programs
- Mandarin speaking Pain Management program
- Older Persons Pain Management program (Rejuvenate)
- Macedonian screening days at BreastScreen Kogarah
- Health promotion programs, e.g. healthy eating and exercise programs in schools, sexual health services, HIV services, falls prevention programs

⁴³ SESLHD Implementation Plan for Healthy Culturally Diverse Communities 2014-2016. URL: http://seslnweb/Multicultural_Health/Documents/Policies_and_Plans/SESLHD_MHS_plan_FINAL_November2014.pdf

⁴⁴ SESLHD, 2016 Project Report "Our right to know": Use of professional interpreters for surgical consent URL: www.seslhd.health.nsw.gov.au/multicultural_health

- Homelessness health programs run by the Directorate of Primary Integrated Community Health
- Aboriginal Health services and programs serving the St George community include an Aboriginal Hospital Liaison Officer for St George and Sutherland Hospitals; Southern Sector 48 Hour Follow Up - 'Just calling to have a yarn' for post discharge support; Bulbuwil 'Healthy Living' - An Aboriginal Healthy Lifestyle Support Program; Narrangy-Booris - Aboriginal Early Childhood and Midwifery service; and an Aboriginal Health Education Officer - Chronic Care Services
- Frailty assessment tools used at pre-admission to identify those at risk of decline preoperatively
- Diversity Health team partnering with SESLHD Multicultural Health Service are seeking to increase the use of professional interpreters in the provision of informed consent when "interpreter needed" has been identified. Strategies include training and education of staff, interpreter promotional resources (banners and posters), and encouraging wards to purchase dual handset phones for telephone interpreters. This provides an opportunity to gauge a patient's health literacy, understanding of the risks and address post-operative recovery requirements.



RECOMMENDATIONS FOR THE FUTURE

- Ensure services are equitable and consider the needs of marginalised and vulnerable communities, e.g. equity of access to diagnostics for outpatients referred by GPs who not have the means to be seen privately, and address service gaps in publicly available specialist clinics, as many patients cannot afford the gap to see Specialists privately and may in turn present to ED
- Utilise the Mobile Dental Clinic (van) for priority populations such as residential aged care clients who may be unable to access mainstream services
- Increase health literacy programs, e.g. potential for educational sessions on medicine management (polypharmacy coaching), particularly for elderly people
- Increase interagency work including linking with GPs and PHN to keep people healthy in the community
- Consider the multidisciplinary needs of people with 'mild' delays or disabilities who may still have complex needs requiring integrated care to avoid the need for acute emergency presentations or long hospital stays, e.g. young people with intellectual disability, who have mental health problems, are more vulnerable to other health conditions, socioeconomic difficulties and poorer access to health and other care
- Improve health service delivery for Aboriginal people by addressing some of the factors that have historically affected how Aboriginal people can be disadvantaged when accessing health care services in an urban setting, by providing:
 - Welcoming and culturally appropriate models of care
 - A welcoming environment, i.e. creating a place where Aboriginal and Torres Strait Islander people feel safe, comfortable, accepted, and confident that they will be respected, will be listened to and will receive high-quality care. Negative experiences can lead to reluctance to access services, disengagement with clinicians and care in these settings, and high rates of discharge against medical advice. These, in turn, affect health and wellbeing⁴⁵
 - Working in Partnership with Aboriginal people to enable the health service organisation to identify priorities, understand cultural beliefs and practices, and involve Aboriginal and Torres Strait Islander people in determining their own health priorities
 - Engagement with the appropriate Aboriginal stakeholders from community in development of services⁴⁶
- Direct resources and programs to vulnerable communities and priority populations.

⁴⁵ The Wardliparingga Aboriginal Research Unit of the South Australian Health and Medical Research Institute (2017). National Safety and Quality Health Service Standards user guide for Aboriginal and Torres Strait Islander health. Sydney: Australian Commission on Safety and Quality in Health Care.

⁴⁶ As described in the National Safety and Quality Health Service Standards user guide for Aboriginal and Torres Strait Islander Health, pp7-8 Wardliparingga Aboriginal Research Unit, 2017

4.1.4 INVESTING IN THE EARLY YEARS

GOAL

FOR CHILDREN TO HAVE A HEALTHY, EQUITABLE START TO LIFE, PROMOTING HEALTH AND WELLBEING ALONG THE LIFE COURSE

The early years of a child's life help determine their future health, development, learning and wellbeing. A positive start in life helps children develop to their fullest, with benefits to the whole society through increased productivity, greater social inclusion and reduced public expenditure in health, welfare and crime related to disadvantage over the life course.⁴⁷

Conversely, evidence suggests that adverse childhood experiences such as poverty, parental mental illness, neglect, substance misuse, domestic violence and intergenerational trauma impact negatively on a baby and child's brain development. Babies and children that experience four or more significant adverse events release stress hormones such as cortisol which affect the development of parts of the brain that are essential to integrate new knowledge, suppress inappropriate behaviour and regulate emotions such as aggression, anxiety and fearfulness.⁴⁸

Biological events during foetal and early life also predispose a child to a greater risk of physical and mental health problems as an adult, for example, adults who had low birth weight are at increased risk of coronary heart disease, diabetes, hypertension and stroke in adulthood.⁴⁹

Children who have a poor start in life are thus more likely to develop learning, behavioural, physical health or emotional problems which may have consequences for themselves and to society into the future, due to increased social inequity, reduced productivity, and the high costs associated with entrenched intergenerational disadvantage.⁵⁰

Importantly, these relationships can be modified by positive patterns of postnatal growth. Programs aimed at reducing disadvantage during the early years of life have been shown to improve child outcomes and may yield higher returns on investment than interventions offered later in life.⁵¹ Similarly, many of the health-related behaviours that arise during adolescence have implications for both present and future health and development. Adolescence is a window of opportunity to prevent future complications of health in adult life.⁵²

Breastfeeding is important for optimal infant nutrition, growth and development and is a long term investment in the health and wellbeing of our children. Evidence shows that breastfed babies are less likely to suffer from necrotising enterocolitis, diarrhoea, respiratory illness, middle ear infection, type 1 diabetes and childhood leukaemia.⁵³ Breastfeeding has also been shown to result in lower mean blood pressure and total cholesterol, as well as higher performance in intelligence tests, and the prevalence of overweight/obesity and type-2 diabetes is lower among those who are breastfed.⁵⁴ Our vulnerable populations (see Section 4.1.3) have lower exclusive breastfeeding rates and these families also have higher rates of obesity and diabetes, so breastfeeding support services (inpatient and outpatient), particularly targeted at these population groups, is vital.

Supporting vulnerable children and their families provides a sound long term investment in health and social wellbeing. It helps to reduce the uptake of high risk behaviors such as drug and alcohol use, domestic violence and criminal activity, and builds the resilience of parents, carers and children to prevent high cost interventions in later life.⁵⁵

⁴⁷ Commonwealth of Australia 2009. Investing in the Early Years—A National Early Childhood Development Strategy URL: http://www.startingblocks.gov.au/media/1104/national_ecd_strategy.pdf

⁴⁸ NSW Dept. of Premier and Cabinet. Greater Western Sydney / Sydney East Regional Leadership Group (RLG) Business paper – early years collaborative.

⁴⁹ Australian Government Dept. of Health and Ageing 2011. National Framework for Universal Child and Family Health Services URL: [https://www.health.gov.au/internet/main/publishing.nsf/Content/AFF3C1C460BA5300CA257BF0001A8D86/\\$File/NFUCFHS.PDF](https://www.health.gov.au/internet/main/publishing.nsf/Content/AFF3C1C460BA5300CA257BF0001A8D86/$File/NFUCFHS.PDF)

⁵⁰ Commonwealth of Australia 2009. Investing in the Early Years—A National Early Childhood Development Strategy URL: https://www.coag.gov.au/sites/default/files/national_ECD_strategy.pdf

⁵¹ *ibid*

⁵² WHO 2014. Health for the world's adolescents, a second chance in the second decade URL: <http://apps.who.int/adolescent/second-decade/>

⁵³ Australian Government. Department of Health. Breastfeeding. URL: <http://www.health.gov.au/breastfeeding>

⁵⁴ Horta, Bernardo L.; Bahl, Rajiv; Martinés, José Carlos; Victora, Cesar G.; World Health Organization Evidence on the long-term effects of breastfeeding. Systematic reviews and meta-analysis. URL: http://www.who.int/maternal_child_adolescent/documents/9241595230/en/

⁵⁵ Australian Government Dept. of Health and Ageing 2011. National Framework for Universal Child and Family Health Services [https://www.health.gov.au/internet/main/publishing.nsf/Content/AFF3C1C460BA5300CA257BF0001A8D86/\\$File/NFUCFHS.PDF](https://www.health.gov.au/internet/main/publishing.nsf/Content/AFF3C1C460BA5300CA257BF0001A8D86/$File/NFUCFHS.PDF)

Strategies and models of care undertaken by SESLHD which will support vulnerable children and families in the St George area include:

- A proposed Child Health and Wellbeing Strategy (a collaboration between SESLHD and SCHN and human services agencies) to ensure a formalised strategic and coordinated approach to guide service delivery and address shared priorities for all children, with a focus on priority populations. It will advance equity and support prevention and early intervention in the early years. The Plan will monitor child health and wellbeing across South Eastern Sydney
- SESLHD Equity Strategy⁵⁶ which identifies actions to protect and improve the health and wellbeing of our local communities, focusing on those most in need. A key priority is to make greater investments in the early years health and wellbeing of our local communities, focusing on those most in need of life
- The SESLHD Kids and Families Action Plan identifies actions to protect and improve the health and wellbeing of pregnant women, children and young people
- The SESLHD 'Optimising health program', a nurse led screening of school students from refugee and vulnerable migrant populations
- Commonwealth healthy eating and active living programs supported by SESLHD's health promotion service in preschools and primary schools, e.g. 'Crunch n Sip', 'Munch n Move' and Go4Fun
- Child Wellbeing Coordinators role, to support health staff with their responsibilities in relation to the safety, welfare or wellbeing of children and young people
- SESLHD Children's Healthcare Network Clinical Nurse Consultant
- Out of Home Care Program in SESLHD and Sydney Children's Hospital (SCH), which coordinates health pathways for children and young people entering OoHC placements within SESLHD
- Youth Health Coordinator to enhance the access of young people to health services across the District
- Child development services provided by the Child, Youth and Family Directorate including the specialist Development Assessment Service for pre-school and school aged children with intellectual disability
- Transitional care (in partnership with SCHN) between children and adult services
- Participation in the "Early Years Breakthrough Collaborative", working collaboratively with other government and non-government agencies and non-for-profit organisations and local communities to protect and improve the health and wellbeing of vulnerable babies, children and families.



WHAT ARE WE DOING NOW TO INVEST IN THE EARLY YEARS?

- SGH provides a Level 5 Paediatric Medicine and Level 4 Surgery for Children service, with a 22 bed Paediatric Unit
- The SGH ED provides a specialised paediatric unit, including a dedicated Paediatric fast track zone
- Most children are seen locally by SGH & CHS, with referral to the Children's Hospital for more specialised services
- Midwifery Link Service and Narrangy-Booris Maternal, Child and Family Health
- St George Hospital provides a seven day a week inpatient and outpatient service to breastfeeding mothers and babies through the Clinical Midwifery Consultant for Lactation
- The Directorate of Primary and Integrated Health provides a multidisciplinary integrated care service, which provides a mixture of clinics and home visiting services at SGH and in the community, including:
 - Assessment and care for patients by child and family nurses and paediatric allied health in an ambulatory setting. Appropriate outpatient assessment and care can identify children and families that require early intervention and intensive follow up

⁵⁶ SESLHD Equity Strategy 2015 URL: <https://www.seslhd.health.nsw.gov.au/HealthPlans/documents/2016/SESLHD%20equitystrategy%20FINAL.pdf>

- Outpatient services provide care to neonates being discharged from SGH, children with developmental concerns and their parents Paediatric/newborn care
- Referral for step down follow-up in the community with nursing & allied health
- Developmental Services in Early Childhood 0-5 years
 - Referred from multiple sources for assessments and intensive treatment
 - School aged children more than 5 years of age (as above)
- Vulnerable groups (e.g. Bangladesh and Nepalese- CALD groups with poorer outcomes at age of commencing school)
- Kogarah Developmental Assessment Service, including outreach developmental assessment services and integrated care models for this vulnerable group
- Child, Youth and Families Health Services are leading a collaboration across health and non-government service boundaries to improve the developmental surveillance of children aged 6 months to 4 years from CALD backgrounds in the Rockdale area, and promote wellness among marginalised and vulnerable people and communities. Strategies include training non-health staff working with CALD families to use NSW Health developmental surveillance tools, and providing an outreach model of Child and Family Health Developmental Surveillance.



RECOMMENDATIONS FOR THE FUTURE

- Establish a paediatric outpatient service hub on the SGH & CHS campus, including a dedicated paediatric lumbar puncture room
- Provide more resources for prevention – obesity, smoking, diet - and early intervention activity in the community to get families off to a good start
- Address the significant increase in presentations from children and adolescents for mental health issues
- Implement multidisciplinary models of care essential for integrated care and long term management of children
- Provide consult room and more lactation support to see inpatients and outpatients to ensure babies receive optimal nutrition
- Provide midwives to support keeping mothers and babies together after birth
- Continue developing strategies to address the growing non-English speaking background (NESB) migrant population who may be more vulnerable
- Investigate potential to implement a multidisciplinary screening and assessment clinic for the 0-2 year old infants/toddlers and parents to identify developmental needs and initiate care before attending first appointment with paediatric allied health
- Explore telehealth services to reduce hours lost by clinicians in travel, conduct staff education and work with GP's, and to support people at home to avoid attending in person
- Establish a centralised referral system for outpatient appointments with a single point of access for referral and booking appointments, and registration for appointments and SMS reminder system.

4.1.5 STAYING HEALTHY IN THE MIDDLE YEARS OF LIFE

GOAL

TO ENSURE PEOPLE STAY HEALTHY, ACTIVE AND ENGAGED THROUGHOUT THE MIDDLE YEARS OF LIFE

Many middle aged people (aged 40 – 65) do not engage with their health, may have poor health literacy and may be living with major health risk factors which, if not addressed, have the potential to create long term ill health. This is particularly evident in areas of social disadvantage.

Improving health outcomes and reducing health inequalities for this cohort of ‘unworried unwell’ people requires a targeted preventive approach, to address health risk factors before they become long term health issues requiring more intense care and hospitalisation. People at risk are targeted either through their general practice, at their workplaces, or by outreach into the ‘hard to reach’ communities, such as the homeless, drug users, and people living with mental health issues.

Those at risk can then be given advice on how to prevent ill health and referred to preventative lifestyle programs such as for smoking cessation, healthy weight or increasing exercise; as well as improving access to screening programs and vaccinations. Advice for social issues may also be provided as part of an overall wellbeing program.

Convincing some of the target population of the importance of taking a preventive approach to their long term health and adhering to lifestyle changes can prove difficult. Community-based approaches (including social marketing) may have more success than practice-based approaches in delivering a message about who is a suitable candidate for screening and preventive services.⁵⁷

Any program targeting this population needs to consider interventions which do not rely solely on individuals to act on advice or that depend on individuals’ own resources. Actions to reduce poverty and inequality, or which regulate the environment (including health risks such as tobacco, alcohol and food) may prove more beneficial. Communities themselves often have the resources and assets to support their own health, and our approach should also include leveraging these assets by co-designing initiatives that benefit the community. Robust data collection is also required to ensure valid evaluation can occur.

WHAT ARE WE DOING NOW TO HELP PEOPLE TO STAY HEALTHY IN THE MIDDLE YEARS OF LIFE?

Strategies undertaken across SESLHD to support people to stay healthy in the middle years include:

- SESLHD’s Health Promotion Service promotes *Make Healthy Normal*,⁵⁸ a NSW Health initiative to support people to make lifestyle changes in diet and physical activity in order to reduce the impact of long term health conditions, including:
 - Get Healthy at Work, a joint initiative of the NSW Ministry of Health and WorkCover NSW that supports industries and workplaces to develop healthier work environments and lifestyles for staff, and reduce long term health conditions of working adults by addressing individual behavioural and workplace factors contributing to poor health, by supporting people to achieve their personal health goals. This is provided through community channels, including distributing information and materials through social media and events with local services and organisations such as councils, community organisations and business networks

⁵⁷Mackenzie M, O’Donnell C, Reid M, et al. National Evaluation of Keep Well Final Report: Summary of Findings and Implications for Policy and Practice 2011 URL: http://www.healthscotland.com/uploads/documents/15189-KWFinal%20Paper%20Summary%20of%20Findings%20_2_.pdf

⁵⁸URL: <https://www.makehealthynormal.nsw.gov.au/>

- Get Healthy Information and Coaching Service® (GHS) supports state and SESLHD goals to reduce the rate of overweight and obesity in the community, and contributes to the achievement of KPIs in SESLHD's Service Agreement with the NSW Ministry of Health. SESLHD's Health Promotion Service promotes the program by disseminating GHS information and resources through social media, websites, and events; engaging with community organisations and health practitioners to build their capacity for referring to the program to support self-management of long term health conditions; and working with NSW Health and the Chinese community to develop a bilingual coaching program in Chinese. At the end of June 2016, over 3,600 SESLHD residents had participated in the GHS
- Doing It Differently Grants is a mentoring and grants initiative supported by SESLHD and Rockdale City Council, (described in Section 4.1.2)
- The Better Health for Homeless Men Project (described in Section 4.1.4).



RECOMMENDATIONS FOR THE FUTURE

- Continue and enhance prevention programs such as tobacco cessation programs
- Maintain support and promotion of healthy lifestyles such as smoke free environments, outdoor gyms, etc.
- Explore further partnership opportunities to promote community wellbeing, e.g. with local councils, NGOs, businesses, etc.

4.1.6 HELPING PEOPLE TO LIVE WELL WITH LONG TERM CONDITIONS THAT ARE SIMPLE OR STABLE

GOAL

TO ENABLE PEOPLE LIVING WITH SIMPLE OR STABLE LONG TERM CONDITIONS TO LIVE WELL AND AVOID UNNECESSARY COMPLICATIONS AND ACUTE CRISES

Many people live well with long term conditions, with many of these conditions responsive to lifestyle changes and medications, and ideally self-managed with primary care support.

People living with long term conditions (such as diabetes, heart disease, kidney disease, asthma, osteoarthritis, some cancers, or HIV) can develop care plans in partnership with their primary care provider to encourage medication adherence, lifestyle changes, and ensure preventive care to safely manage their own care and prevent deterioration in their health and wellbeing.

Improving health literacy also helps to ensure patients understand their condition, available treatment options and success rates of treatment. Evidence suggests that promoting greater patient responsibility leads to improved mental and physical health outcomes, quality of life, wider social outcomes and optimal investment for healthcare investment and sustainability.^{59,60}

While most long term disease is managed in primary care, specialised care is still required for early detection and optimal management of complications and/or when severe events occur (e.g. for people with unstable diabetes requiring surgery, an acute exacerbation of the disease or acute complication such as foot infection). The demand for health services will continue to increase, due to the growing ageing population, the associated increase in incidence and prevalence of long term disease, and improvements in survivability, e.g. for cancer.

⁵⁹ International Alliance of Patient's Organisations, London 2007. What is patient-centred care? A review of definitions and principles. <http://www.patientsorganizations.org/attach.pl/547/494/IAPOPatient-CentredHealthcareReview2ndedition.pdf>

⁶⁰ Wood S, Finnis A, et al. At the heart of health. Realising the value of people and communities. NHS Realising the Value Report, March 2016. URL: http://www.nesta.org.uk/sites/default/files/at_the_heart_of_health_-_realising_the_value_of_people_and_communities.pdf

Strategies to help people live well with simple or stable long term conditions include:

- Population risk stratification, with a graded response from health promotion activities in the community through to supported case management as risk and complexity levels increase. Tailored interventions are designed for each at risk group
- Ensuring health and social care is planned and co-produced with consumers and the community to ensure engagement and avoid fragmentation of care
- Providing better joined up care between primary and tertiary care, i.e. improve relationships with local GPs to formulate pathways to allow early identification of long term health issues, better care planning and coordination, better referral processes and coordinated care on discharge
- Ensuring goal oriented care that “encourages each individual to achieve the highest level of health as defined by that individual.”⁶¹

SUPPORTING SELF-MANAGEMENT

Health professionals can increasingly focus on helping people to successfully manage their own health.

“This isn’t just about shifting responsibility onto the patient, but about recognising that patients themselves are a valuable resource and, with the right support, training and technology, can be empowered to manage and improve their condition.”

Wilson S. and Langford K. 10 Ideas for 21st century healthcare.

WHAT ARE WE DOING NOW TO HELP PEOPLE TO LIVE WELL WITH LONG TERM CONDITIONS THAT ARE SIMPLE OR STABLE?

- Suitably designed exercise/activity programs to improve functional ability, prevent falls and help maintain healthy weight, e.g. the evidence based Stepping On program for falls prevention which has been shown to reduce participants’ risk of falling by 31%⁶²
- The Sugar Fix Collaborative project between SESLHD and CESPHE, which provides timely and appropriate navigation of newly diagnosed diabetes clients accessing outpatient clinics. Early evaluation shows a reduction in the did not attend rates at the SGH outpatient clinic, and a reduction in the number of referrals
- SHARE, a not-for-profit organisation supported by NSW Health for residents living in SESLHD, deliver gentle aqua classes at SGH hydrotherapy pool and community based exercise programs throughout the area
- Community nursing and allied health to support self-management, e.g. with heart failure programs
- Patient education programs in self-management, e.g. for osteoarthritis, diabetes management, smoking cessation, falls prevention, pain management, etc.
- HIV Outreach programs
- Respiratory Coordinated Care Program for support and education of patients with chronic respiratory conditions in a community setting
- Nurse led GFS to RACFs to provide geriatric assessment and short term management in RACFs to prevent deterioration and hospital admission
- Transitional Aged Care to provide multi-disciplinary short term restorative care to older people on discharge from the acute setting
- Community nursing and allied health programs that are best serviced in the patient’s own environment
- Quick Response Program to provide short term support at home to older people presenting to ED to avoid the need for admission
- A public private partnership has been implemented for uncomplicated renal dialysis patients and for home dialysis training offsite.

⁶¹ kPMG 2014. Creating new value with patients, carers and communities URL: <https://assets.kpmg.com/content/dam/kpmg/pdf/2016/07/creating-new-value-with-patients.pdf>

⁶² NSW Office of Preventive Health. Stepping On. URL: <http://www.preventivehealth.net.au/stepping-on.html>



RECOMMENDATIONS FOR THE FUTURE

MODELS OF CARE:

- Align long term disease management e.g. for diabetes, osteoporosis, respiratory disease, heart failure, with ACI model guidelines and provide support to primary care for long term disease management to avoid hospital admission ⁶³
- Develop a patient centred model for Secondary Fracture Prevention; facilitating case identification with primary care physicians and the patient in partnership, to reduce the burden of fracture, particularly costly hip fracture, later in life. Fracture prevention programs have shown a reduction in the number of subsequent fractures, usually the more expensive hip, spine or pelvis fractures, with both cost benefits to health services and quality of life benefits for the patients involved ^{64,65,66}
- Take a more proactive approach to treating obesity and its related complications, according to established and verified models of care in an ambulatory setting in partnership with other stakeholders, primarily PHNs and GPs
- Develop an integrated care pathway for patients on home dialysis to increase the number receiving home delivered haemodialysis and peritoneal dialysis
- Increase the integration of outreach services such as RCCP and Heartlink, to improve efficiency and patient management, i.e. with shared facilities, administration, some staffing
- Increase integration of outreach services with cardiology, aged care, palliative care and community services to develop a collaborative service delivery model to care for all vulnerable patients in the community
- Establish a patient training and support program for at home self-administration of medications
- Ensure culturally appropriate health care is provided to Aboriginal people ⁶⁷
- Implement the recommendations of the 2014 review of long term disease management in culturally and linguistically diverse (CALD) communities coordinated by SESLHD multicultural health and long term disease management program: working with designated multicultural health workers; delivering programs through collaboration with existing community networks; and ensure that all interventions and information are culturally appropriate, and that professional interpreting services are consistently used.

STAFFING:

- Upskill the workforce to be specialised in outpatient clinics, e.g. nurse and allied health practitioners in speciality clinics
- Continue education of GPs and other providers on conditions relevant to new models of care.

TECHNOLOGY:

- Implement *HealthPathways*⁶⁸ in partnership with the CESP HN to provide condition specific information on assessment, management and local referral options for primary health clinicians to assist people to be managed by primary care
- Develop an integrated shared care record across health and social care to provide seamless care across community, primary and tertiary service components.

⁶³ NSW Agency for Clinical Innovation (ACI) Models of Care URL: <http://www.aci.health.nsw.gov.au/resources/models-of-care>

⁶⁴ Hunter Medical Research Institute, Fracture Liaison Service Cost Study, Draft economic analysis, November 2015

⁶⁵ ACI: NSW Model of Care for Osteoporotic Refracture Prevention. URL: http://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0003/153543/aci_osteoporotic_refractur.pdf

⁶⁶ Nakayama A, Major G, Holliday E, Attia J, Bogduk N. "Evidence of effectiveness of a fracture liaison service to reduce the re-fracture rate, Osteoporos Int., 09 Dec, 2015 (published online) URL: <http://www.ncbi.nlm.nih.gov/pubmed/26650377>

⁶⁷ NSW Health, 2010, Chronic Care for Aboriginal people Model of Care URL: https://www.aci.health.nsw.gov.au/resources/chronic-care/chronic_care_for_aboriginal_people/ccap/ccap/CCAP-moc.pdf

⁶⁸ HealthPathways is a web-based information portal supporting primary care clinicians to plan patient care through our primary, community and secondary health care systems. "Based on discussion and shared decision making, local clinicians determine local solutions (Pathways) for implementation. These pathways will provide information on assessment of symptoms and outline management options including access information about local services and referral process to services and specialists." These pathways will allow improved access to ensure patients receive the right care in the right place and help reduce the need for emergency presentation, specialist intervention and avoidable admission, reduce follow up appointments and reduce duplication or unnecessary diagnostics and investigations as these will be done in community prior to attendance at clinics and specialist appointments. Central and Eastern Sydney PHN. HealthPathways URL: <https://sydney.healthpathways.org.au/LoginFiles/Logon.aspx?ReturnUrl=%2F>

4.1.7 SUPPORTING INDEPENDENCE AND HEALTHY ACTIVE AGEING

GOAL

TO EMPOWER PEOPLE TO TAKE RESPONSIBILITY FOR THEIR OWN HEALTH AND WELLBEING AND BE SUPPORTED TO MANAGE PERIODS OF ILL HEALTH

Many people live happy, healthy and independent lives well into old age, however as people age they are more likely to live with disability, long term health conditions and increasing frailty and loss of independence. The World Health Organisation outlined a broad process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age.⁶⁹ This includes encouraging older people to keep physically and mentally active and socially engaged to support their ability to maintain independence, lead healthy lifestyles, and participate in and contribute to the community.

A life course approach to health and wellbeing helps to contain long term health and social care costs. With older people the focus becomes on preventing ill health, disability, dependency and loss of skills, and empowering older people to make their own decisions about their care needs and to improve their quality of life.

PRESCRIBE MORE THAN MEDICINE

Many health conditions have social as well as medical causes, but few patients ever receive a ‘social prescription’, such as referral to social activities or other suitable activities around self-defined goals, to boost confidence, reduce social isolation and help meet other people who can support them.

Wilson S. and Langford K. 10 Ideas for 21st century healthcare. Innovation Unit

Health and social care systems that facilitate these focus areas will help to reduce emergency admissions and re-admissions, reduce permanent admissions to residential and nursing care, improve the quality of life for consumers and their carers and family, increase the proportion of people that feel supported to manage own condition, and improve prevention measures such as vaccination and healthy lifestyle activities.

Interventions to enable older people’s independence, health and wellbeing include:^{70,71}

- Ensuring housing is suitable for their needs to enable them to live in their own homes for as long as possible, e.g. adapted with aids and technology to maximise their independence and safety
- Promoting age friendly communities and preventing social isolation, e.g. with volunteering programs and greater involvement of families and communities
- Promoting healthy lifestyles and wellness, e.g. with regular suitable exercise, cessation of smoking, reduced alcohol consumption, healthy eating and weight control
- Early identification and proactive interventions that limit independence, wellbeing and social engagement, e.g. problems with mobility, foot health, balance, chronic pain, visual and hearing impairment, incontinence and malnutrition
- Vaccinations to prevent acute illnesses e.g. Influenza and pneumonia
- Screening programs and health checks to identify health risk factors in older people, e.g. for cardiovascular disease, renal disease, osteoporosis, falls risk, diabetes, dementia and cancers
- Prehabilitation programs for those identified at risk of frailty or decline⁷², or prior to surgery.

⁶⁹ World Health Organisation (WHO) 2002. Active Ageing: A Policy Framework. WHO, Geneva. URL: http://www.who.int/ageing/publications/active_ageing/en/

⁷⁰Oliver D, Foot C, Humphries R. The Kings Fund 2014 Making our health and care systems fit for an ageing population. URL: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/making-health-care-systems-fit-ageing-population-oliver-foot-humphries-mar14.pdf

⁷¹European Innovation Partnership on Active and Healthy Ageing. Action Group A3. Prevention and Early Diagnosis of Frailty and Functional Decline, Both Physical and Cognitive, in Older People https://ec.europa.eu/research/innovation-union/pdf/active-healthy-ageing/gp_a3.pdf

⁷²For an example of this, see Uniting War Memorial Hospital, Waverley’s integrated rehabilitation and enablement program ‘iREAP’. A description of the service is available at: <https://www.cesphn.org.au/news/latest-updates/57-eneews/2381-war-memorial-hospital-s-integrated-rehabilitation-and-enablement-program-ireap-turns-one>



WHAT ARE WE DOING NOW TO SUPPORT INDEPENDENCE AND HEALTHY ACTIVE AGEING?

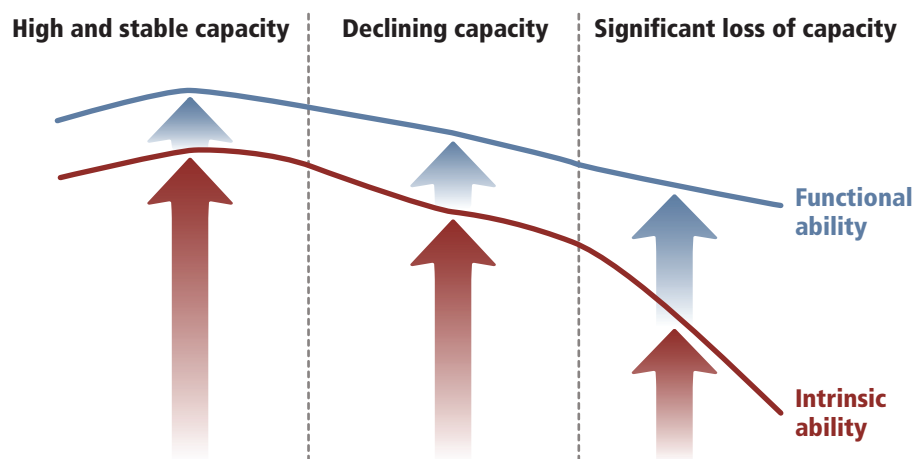
- “Strengthening for the Over 60’s”, a 9 week strength training program initiated by the Aged Care & Physiotherapy Departments at SGH and supported by the Commonwealth Department of Veterans Affairs, provides 54 classes per week over 14 venues in the St George area and Sutherland Shire, providing over 4000 episodes per annum
- SHARE, a not-for-profit organisation supported by NSW Health for residents living in SESLHD, deliver gentle aqua classes at SGH hydrotherapy pool and community based exercise programs throughout the area
- Quick Response Program, a service for elderly people presenting to the ED, offering a rapid response multi-disciplinary integrated service pathway to community-based care and avoiding hospital admission
- Aged Care Services in Emergency Teams to provide specialised care, assessment and treatment to older people presenting to the ED, in order to improve the health outcomes of older people and to minimise the requirement to remain in hospital and avoid the need for readmissions
- Aged Care community nursing and allied health programs (from SGH and CHCK) that are best serviced in the patient’s own environment
- Stepping On program for falls prevention which has been shown to reduce participants’ risk of falling by 31%⁷³
- Outpatient services including Allied Health to prevent deterioration, including for falls and mobility, cognitive disorders, geriatric medicine, pain, etc.
- Planning for the implementation of an Osteoporotic Refracture Prevention/Fracture Liaison Service, as part of the NSW Health leading better value care initiative, to identify and treat those at risk of osteoporosis and further fractures.



RECOMMENDATIONS FOR THE FUTURE

- Improve health literacy, in partnership with primary care
- Continue to develop networks and referral pathways in partnership with the CESP HN for integrated primary care services to support older people to remain independent in their home
- Consider post-discharge follow-up by Pharmacists of patients at high risk of medication misadventure⁷⁴
- Foster integrated services across primary and secondary care (including supported hospital discharge) to provide seamless pathways to keep older people well at home and prevent avoidable admissions.

Intrinsic capacity and functional ability do not remain constant but decline with age as a result of underlying diseases and the ageing process



Source: *Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity*. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO

⁷³ NSW Office of Preventive Health. Stepping On. URL: <http://www.preventivehealth.net.au/stepping-on.html>

⁷⁴ SHPA Standards of Practice Chapter 6: Facilitating Continuity of Medication Management on Transition between Care Settings.

4.1.8 HELPING PEOPLE TO LIVE WELL WITH COMPLEX COMORBIDITIES, INCLUDING DEMENTIA AND FRAILITY

GOAL

TO SUPPORT PEOPLE LIVING WITH COMPLEX MULTIPLE LONG TERM CONDITIONS TO REMAIN AS WELL AND INDEPENDENT AS POSSIBLE AND TO AVOID DETERIORATION OR COMPLICATIONS

To support clinical and service integration for older people with complex needs, *the Kings Fund** recommends:

- Health and social care professionals work together in multidisciplinary teams (with clearly defined roles) or provider networks
- Service-level design elements of care for frail older people include holistic care assessments and care planning
- A single point of entry and care coordination and/or case management
- Clinicians work with individuals and their carers and family to support understanding and self-management where possible
- Personal contact with a named care coordinator and/or case manager is more effective than remote monitoring or telephone-based support.

* *The Kings Fund 2014. Goodwin N et al. Providing integrated care for older people with complex needs. Lessons from seven international case studies.*

In order to deliver improved outcomes for people living with complex comorbidities, including dementia, frailty and mental health issues, the whole pathway of care needs to be considered, with particular attention to those communities where there is clear evidence of inequalities in access to care and treatment. This will link closely with SESLHD's work⁷⁵ to expand the role of primary care, to improve emergency care and to integrate health and care services across all responsible agencies.

Preventing unnecessary hospital admissions is a specific objective of healthcare reform in Australia. The complexity of multi-morbidity often results in increased emergency care presentations and hospital admissions, creating an unsustainable strain on healthcare services, workforce and budgets, and challenges health systems traditionally geared to the management of acute episodes and single-disease long term conditions.

High admission rates for long term diseases *"are an indicator of a health system which is not adequately investing in primary care and managing the integration between primary, secondary and tertiary care. This leads to excessive spending on treatments in hospital for conditions which can be better managed through primary care programmes."*⁷⁶

THE COMMONWEALTH GOVERNMENT'S HEALTH CARE HOME MODEL

aims to provide anticipatory care, risk stratification and case management by GPs to better manage and prevent deterioration of people with complex comorbidities and will potentially address many of the contributors to potentially preventable hospitalisations.

The GP practice will provide a patient with a 'home base' for the ongoing coordination, management and support of their conditions.

⁷⁵ SESLHD Roadmap to the Delivery of Excellence 2014-2017 URL: http://www.seslhd.health.nsw.gov.au/Planning_and_Population_Health/documents/RoadMaptothedeliveryofexcellence2014-2017.pdf

⁷⁶ Medline Healthcare Report 2017. Addressing key challenges in Australia's healthcare system. Insights with Australia's leading healthcare CEOs. URL: <http://hfdvdc.austhealthweek.com.au/ceo-report-addressing-key-challenges-in-australias?-ty-m=>

Interventions targeted at people with complex conditions have been shown to achieve more of their goals if they are multifaceted, for example combining a range of professionally focused changes (such as specialist geriatricians or case management) with patient/carer-focused interventions (such as better information or self-management) and considering patient preferences, including non-medical goals.⁷⁷ Identifying who is at risk of complexity is a crucial first step. Strong partnerships with health and social welfare agencies are required.

Recommended models include:

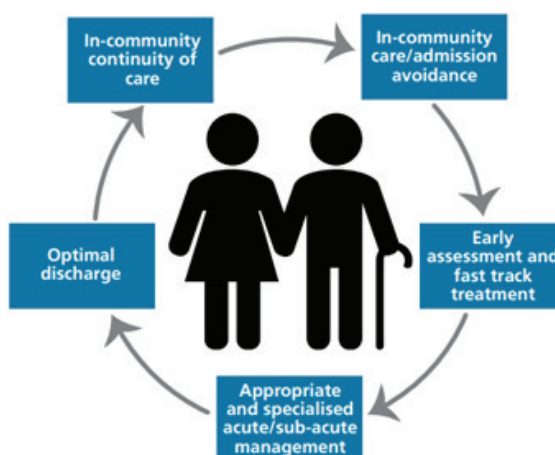
- Care that is anticipatory and predictive in non-admitted settings, e.g. prehabilitation, advanced practice nurse, secondary fracture prevention models, obesity management (preventing diabetes, liver failure, etc.), insulin pump management, allied health, etc.
- Early consideration with raised early kidney disease and allied health clinics
- Risk stratification, e.g. frailty screening tools, falls risk assessments
- Care coordination to support integration of health and social care services
- Collaboration with our primary health and social care partners
- Self-management supported by urgent access to specialty services should a patient's condition change, e.g. rapid access clinics and timely interventions to prevent deterioration.

The SESLHD Aged Care Services Plan 2015-2018⁷⁸ advocates for a continued shift in the balance of care to community and home settings, with an increase in services that reduce hospital length of stay and keep people well and out of hospital. Currently, inpatient aged care service models are progressing well, with reduced lengths of stay and bed days for older people over the last few years⁷⁹ reflecting the advantageous changes in care approaches and settings.

Community services should be leading and directing the aged care models, and are critical to an optimally functional aged care service.⁸⁰ This does not underestimate the importance of hospital services, however optimal aged care requires improved linkages between different parts of the aged care and other relevant sectors.⁸¹ This requires an increase in services that are integrated across the care continuum. It also requires improved staff capacity to implement best practice service delivery in the care and management of older persons in the hospital, community and residential aged care facility (RACF) settings.

The ACI has outlined a framework for the delivery of optimal integrated care for older people with complex needs, as seen in the diagram below.

STRATEGIC AGED HEALTH SERVICE DELIVERY CYCLE



Source: NSW Agency for Clinical Innovation. *Building Partnerships: A Framework for Integrating Care for Older People with Complex Health Needs*, p.19

⁷⁷ Hubertus J and Thorlby V&J. Developing care for a changing population: supporting patients with costly, complex needs. Nuffield Trust UK Discussion paper, May 2016. URL: <http://www.nuffieldtrust.org.uk/node/51>

⁷⁸ SESLHD Aged Care Services Plan 2015-2018 URL: http://www.seslhd.health.nsw.gov.au/Planning_and_Population_Health/documents/HealthPlans/FinalAgedCarePlan_22%20April_2015.pdf

⁷⁹ *ibid*

⁸⁰ Comment from A/Prof Peter Gonski, Director of Aged Care and Rehabilitation, SESLHD

⁸¹ See Southcare model for an example of this. Southcare is an integrated health care centre offering a range of services predominantly for frail older people and those with disabilities living in the Sutherland Shire community, with aged care and related services co-located in the Southcare building, in the grounds of Sutherland Hospital. URL: http://www.ssccl.org.au/_organisation/southcare-south-eastern-sydney-local-health-district/0b8a9b1d-c5c4-4ac6-8b32-eb4124c0aec9

FRAILTY AND DEMENTIA

Age related degenerative diseases often manifest in frailty, which can result in serious functional limitations and susceptibility to adverse outcomes. Recognising the growing incidence of frailty and dementia in our ageing population is an important consideration for health and social care services.

Frail elderly patients are more prone to adverse events as inpatients in hospital, and wherever possible, should have their health issues 'managed in place', with admissions from a RACF managed as an adverse event.

Frailty may present with nonspecific symptoms, such as fatigue, unexplained weight loss and frequent infections; with falls as a result of balance and gait impairment, fear and visual disturbance; delirium (approximately 30% of elderly people admitted to hospital will develop delirium); and fluctuating disability.⁸² Early identification of frailty and intervention to promote enablement and prevent functional decline, especially for older people admitted to hospital, should be a focus. Where dementia occurs, it usually corresponds to the degree of frailty. Using frailty indexes and outcome measures are important tools for prevention of deterioration of functional capacity.

At SGH & CHS, patient acuity* is increasing, with people living longer with multiple comorbidities. There are also increasing numbers of older people from a NESB. For aged care services, this means that the average age of patients is increasing, and increasing numbers of frail, older people living with dementia are presenting for behaviour management and have longer lengths of stay.

DELIRIUM

Delirium is an acute disturbance of attention and cognition and is most common in people with dementia, although it can affect any older person in hospital.⁸³ Delirium can be predictive of physical, functional and cognitive decline, leading to a decline in independence and a need for a higher level of care. It can also result in longer length of stay for the patient. Managing delirium in an acute care setting requires prompt identification and treatment of precipitating factors to prevent deterioration.



WHAT ARE WE DOING NOW TO HELP PEOPLE TO LIVE WITH COMPLEX COMORBIDITIES, INCLUDING DEMENTIA AND FRAILITY?

Aged Care Services at SGH & CHS provide Level 6 role delineation acute, subacute and community based care to the frail aged population of the St George area with an episode of acute illness or deterioration in function.

Services provided include:

- Aged Care Precinct, which includes two 30 bed units caring for the acutely ill older person, acute and sub-acute beds, and delirium and high dependency rooms
- 14 Outpatient clinics per week
- Aged Care provides clinical governance of the QRP and ASET to support hospital avoidance and short term management of people living in the community

To improve health outcomes of the frail aged and reduce healthcare costs, managing frailty requires a collaborative approach along the continuum of care, including:

- Early identification to identify frailty risk, facilitate timely referrals and guide interventions and care plans
 - Coordinated care with integrated primary care and community programs
 - Targeted interventions such as home falls risk assessment and care plans, community based prevention and management programs, frailty specific hospital pathways, responsive hospital avoidance programs
-

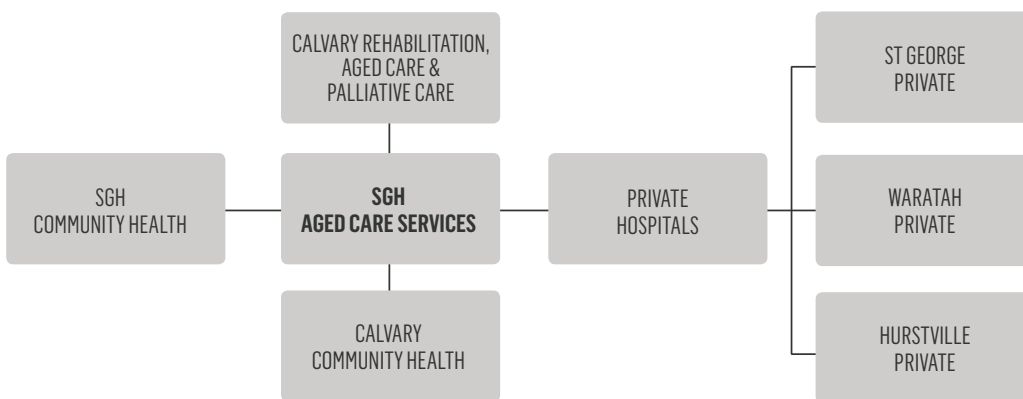
⁸²Oliver D, Foot C, Humphries R. The Kings Fund 2014 Making our health and care systems fit for an ageing population http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/making-health-care-systems-fit-ageing-population-oliver-foot-humphries-mar14.pdf

⁸³NSW ACI. Dementia and Delirium in Hospitals <http://www.aci.health.nsw.gov.au/chops>

*Note: In this document, acuity refers to the level of severity of an illness.

- Geriatric Flying Squad, a geriatrician and nurse practitioner model to support hospital avoidance from RACFs by providing early medical and nursing intervention for RACF patients flagged as potentially requiring transfer to the ED. The service provides training and education to RACF staff on improving the early detection and management of acutely unwell patients. The service also provides phone consultations to optimise patient care. Patients can be directly admitted to wards, bypassing ED
- Interconnection with acute, community services and rehabilitation services
- Consultants at SGH have admitting rights at a number of local private hospitals with aged care facilities, including St George Private (20 beds), Waratah Private (30 beds), Hurstville Private (18 beds) and President Private Hospital
- Older people with neurological problems are seen by the SGH Rehabilitation services
- In-centre renal dialysis is provided for patients with complex comorbidities requiring dialysis.

Inpatient, outpatient and community based services for the older St George area population are also provided by the networked services of CHCK, and by private hospitals, as seen in the diagram below.



CLINICAL NETWORKING OF SGH AGED CARE SERVICES

Other services provided by SGH & CHS to help people live with complex comorbidities include:

- The Delirium Care Project is a new educational program at SGH developed in collaboration with the University of Wollongong to improve the competence and skills of clinicians in recognizing patients at risk of developing delirium or with delirium, and its management
- Confused Hospitalised Older Person Study (CHOPS) in collaboration with the Clinical Excellence Commission (CEC) and General Practice NSW to improve care and reduce harm for hospitalised older people with dementia and/or delirium
- Dementia pathways
- Carers Top 5 program for dementia
- Orthogeriatric surgical service
- Surgical pre –op assessment for frailty
- Lightfoot frailty Viewer for e-health enabled identification
- Pain Management service for inpatients who have complex acute pain issues and all inpatients commenced on patient-controlled analgesia (PCA), epidural infusions, ketamine infusions and regional infusions, and outpatient chronic pain management
- Respiratory Coordinated Care Program for support and education of patients with long term respiratory conditions in a community setting

- Cancer outreach to support cancer patients at home. Increasingly the majority of cancer services is provided to non-admitted patients (rather than admitting patients) or at home. For example previously acute leukaemia patients were admitted for induction chemotherapy resulting in a reduction in blood cells leading to a hospital stay of several weeks. Nowadays, patients receive their chemotherapy and are discharged despite being immunocompromised as they are less likely to contract infections in their home (than in hospital) and receive outreach visits and/or attend outpatient clinics as required
- Transitional Aged Care to provide multi-disciplinary short term restorative care to older people on discharge from the acute setting (delivered from CHCK)
- Community nursing and allied health programs that are best serviced in the patient's own environment– including community health nursing, continence advisory service and services provided by Calvary Community Health
- The Directorate of Primary, Integrated and Community Health is responsible for the provision of Commonwealth funded community services to adults in the St George area. These services include Aged Care Assessment (ACAT), Community Packages (ComPacks), TACP, Commonwealth Home Support Program (CHSP) and the Community Care Supports Program (CCSP)
- The networked CHCK provides ACAT assessments, inpatient musculo-skeletal rehabilitation and some community services for aged care patients referred from SGH
- Older people with a pre-existing neurological problem e.g. stroke, who are admitted for another problem, may be referred to CHCK for ongoing care.

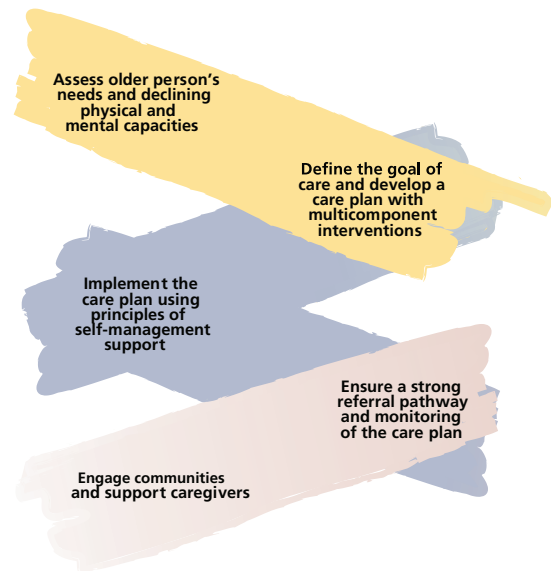


RECOMMENDATIONS FOR THE FUTURE

MODELS OF CARE:

- Introduce standardised frailty screening and assessment tools and pathways across all healthcare settings for: early identification of frailty risk; to facilitate timely referrals; guide intervention strategies and care plans; and provide measurement of patient related outcomes; in order to decrease frailty-related admissions, reduce length of stay, and improve function and independence
- Ensure continued screening and management of delirium, appropriately resourced, to prevent or reduce delirium and its complications and reduce length of stay
- Ensure appropriate end of life care planning and support and adherence to advanced care plans (ACP), and the implementation of advance care planning for appropriate inpatients prior to discharge from hospital
- Expand geriatric surgical liaison services to incorporate a broader range of surgical specialties
- Continuation of referrals to private hospitals where appropriate for acute and subacute aged care services
- Continue and expand the capabilities of the ACU as a proven admission avoidance model, with a multidisciplinary approach
- Consider expansion of nurse and allied health led clinics and of multi-disciplinary clinics, e.g. nurse led chronic kidney disease/hypertension clinic
- Explore potential for “Integrated Health Care Model”, to encompass for example a day hospital, or a diabetic clinic with educators, or joint physician/surgeon bariatric surgery clinics for people with multiple comorbidities
- Explore potential for some ambulatory/outpatient services to be provided more flexibly in the community, i.e. clinics could have ‘pluripotential’ to be delivered in ambulatory care or in the community (people’s homes or aged care facilities or a general practice ‘hub’)

- Increasing the availability of alternatives to hospital care to reduce potentially preventable hospitalisations, to better care for people at home and avoid ED presentation and admission. This may include:
 - expanded responsive outreach services to older people in the community and RACFs for more appropriate pre-emptive management and to avoid hospitalisation, e.g. GFS, ASET and QRP
 - expansion of community nursing and allied health services including new models of care and integration with existing programs, e.g. GFS, RCCP
 - explore the implementation of hospital-in-the-home (HITH) type services
 - foster in-home and community-based strength and balance programmes for falls prevention and maintained strength, mobility and function
- Develop pathways for long term and complex health conditions in collaboration with primary care with the HealthPathways model, to provide condition specific information on assessment, management and local referral options for primary health clinicians



Source: *Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity*. Geneva: World Health Organization; 2017.

- Establish a comprehensive long-term ventilation care pathway including multidisciplinary clinics combining ENT/respiratory/ICU/neurology specialties, dedicated inpatient areas, and adequate staff resources similar to the multidisciplinary lung cancer clinics which streamline flow, optimise care and reduce unnecessary appointments. This would enhance the current fledgling ENT/Respiratory multidisciplinary clinics and the Respiratory Failure/Neurology clinics
- Deliver effective follow up care, with good communication between hospitals and primary care to avoid re-admission and emergency presentations
- Continue the provision of ACAT,RAS, TACP, CHSP and ComPacks for St George residents
- Continue to work with the Ministry of Health and ADHC to improve services for people requiring NDIS-like services but who are currently ineligible
- Investigate the implications of establishing a 'Flying Squad' type service for neurology patients
- Investigate establishing a range of neurology clinics e.g. for young stroke patients, acute transient ischemic attack, separate first seizure and epilepsy clinics, acute and chronic dizzy clinic.

TECHNOLOGY:

- Develop an integrated shared care record across health and social care.

STAFFING:

- Review of staffing to increase capacity for community based services and specialised public outpatient's clinics (including multi-disciplinary clinic staff) to prevent deterioration, emergency presentation or hospital admission
- Consider LHD future funding opportunities for CHSP allied health community services (not currently funded).

INFRASTRUCTURE:

- The development of a purpose built aged care precinct, considering the needs of older people and those with dementia and delirium. Infrastructure solutions for consideration are documented in Section 5.1.2: providing appropriate Aged Care Services
- A centralised outpatient precinct. Infrastructure solutions for consideration are documented in Section 5.1.6: Meeting the increasing demand for outpatient and ambulatory care services.

4.1.9 PROVIDING ACCESS TO MENTAL HEALTH SERVICES

GOAL

ANY MEMBER OF OUR COMMUNITY AFFECTED BY MENTAL ILLNESS WILL HAVE EQUAL ACCESS TO SAFE, EVIDENCE- BASED, HIGH QUALITY CARE FOR ALL THEIR MENTAL HEALTH NEEDS

At the population level, mental illnesses are the leading cause of non-fatal disease burden in Australia. The experiences and needs of people with a mental illness vary significantly, based on the duration, type and severity of their illness. Serious and enduring mental illnesses are widely recognised as debilitating conditions that are closely associated with suffering, disability and premature mortality.

The life expectancy of people with serious mental illness is typically between 10 and 32 years shorter than the general population. Around 80% of this higher mortality rate can be attributed to the much higher rates of physical illnesses, such as cardiovascular diseases, respiratory illnesses, diabetes and cancer experienced by this population.

Many of these causes of premature death are due to preventable illnesses caused by increased high risk behaviours such as smoking, substance abuse, and exposure to communicable diseases such as hepatitis C. As many as 40% of adult smokers have a mental illness. Further, some medications prescribed for people with mental illness are associated with weight gain, obesity and new onset diabetes. Mental illness also affects a person's ability to manage long term illnesses, especially those on insulin treatment, which may result in multiple illness complications.

People living with mental illness are also more at risk of experiencing a range of adverse social, economic and health outcomes, such as homelessness, social isolation, and unemployment which may exacerbate mental illness and poor health and wellbeing.

People living with mental illness can and do recover to live productive lives in their communities. Recovery emphasises the need for a comprehensive community based service system that works to address the full impact of mental illness. The improvement of mental health treatment services in isolation will not address all the issues related to the support of people with mental illness and their recovery.

Improving the mental health of the community requires integrated and collaborative models of care with many partners to be responsive to an individual's often changing needs. These include the primary and private healthcare sector (GPs and other clinicians), the non-government sector, other SESLHD health services, government services provided by education, employment, housing and homelessness, aged care providers, police and the justice system.



WHAT ARE WE DOING NOW FOR MENTAL HEALTH?

Programs for St George residents undertaken by SESLHD Mental Health Services to maintain the health and wellbeing of those with mental illness include:

- The Keeping our Body in Mind program, an 18-week program of lifestyle and life-skills interventions to attenuate the antipsychotic medication-related increased weight and vulnerability to 'metabolic syndrome'
- South Eastern Sydney Recovery College offers recovery-focused educational courses aimed at supporting people to recognise and develop their own talents and skills. The courses are co-developed and co-delivered by people with a lived experience of mental health concerns and health care workers
- The Mental Health Patient Safety Program, which aims to systematically reduce harm experienced by people receiving care from mental health services by supporting frontline staff to test, gather real-time data and reliably implement interventions. The Program is centred on five work areas: Leadership and Culture, Least Restrictive Practices, Safer Medicines Management, Risk Assessment and Safety Planning, and Communication at Transitions.



RECOMMENDATIONS FOR THE FUTURE

MODELS OF CARE:

- Optimise management of the physical health of people living with severe mental illness (inpatient and community). Initiatives to include:
 - Physical health examinations conducted and escalation for specific medical review as appropriate
 - District-wide implementation of Keeping the Body in Mind Program
 - Effective monitoring of physical health of consumers prescribed antipsychotic medication, particularly in relation to the impact on cardio metabolic health
 - Clinical review for clozapine clinics
- Integrate care across disciplines, sectors and organisations to provide standardised workflow management and monitoring, with an emphasis on the whole patient journey to maximise outcomes
- Facilitate strong links to primary health care and the provision of appropriate supports to identify high risk patients
- Strengthen community-based care, including assessment, assertive early treatment and short term support including to support increased care coordination roles for other providers, as an alternative to hospitalisation where clinically indicated and safe
- Review inpatient model of rehabilitation with a view to transitioning to a community- based intensive rehabilitation model
- Reduce the frequency and severity of conduct problems at the time when intervention is likely to be most effective in order to prevent the development of severe behavioural problems in young children, through piloting and implementation of the state wide Got It! program locally
- Develop better consistency of service parameters of child, adolescent and youth mental health services across the LHD, e.g. service structure, pathways to care, models of care, evaluation strategies and measures, skill sets and competency frameworks
- Strengthen comorbidity services for young people with first onset psychosis, including physical health care
- Further develop and strengthen partnerships with geriatric medicine/aged care, residential aged care facilities and other service providers
- Monitor the implementation of the NDIS for people with a psychosocial disability
- Consolidate and extend partnerships with social housing providers and NGOs
- Develop vocational programs and partnership opportunities that align with IPS principles to improve employment and educational outcomes.

SERVICE DELIVERY:

- Implement the Mental Health Patient Safety Program through building capability and capacity of staff in improvement science, ensuring data systems are available and accessible at unit/ team level to drive and monitor improvement strategies, and governance and regular reporting
- Systematically reduce the harm experienced by people receiving care from mental health services by supporting frontline staff to develop, test and implement a range of targeted, service-focused improvement strategies and interventions. Targeted strategies include:
 - Provide the leadership framework that supports the improvement of safety and quality
 - Minimise harm to SESLHD MHS consumers resulting from restraint seclusion and other restrictive practices
 - Improve safe and effective medicine management
 - Ensure risk assessment and safety plans are implemented for every consumer whilst promoting recovery
 - Improve safe and effective consumer and carer focused communication at key transition points

- Continuously review and implement evidence-based best practice for patients in the most appropriate setting
- Secure access to long stay and supported accommodation through participation in the Ministry of Health's Pathways to Community Living Initiative
- Work towards equitable resource distribution for Child and Adolescent Mental Health Services across SESLHD
- Improve internal partnerships, including in-reach of inpatient, PECC and acute mental health teams
- Expand and consolidate consumer representation to facilitate collaboration in service design, review and decision making
- Support the roll-out of the 'Keeping our Staff in Mind' program, providing staff with first-hand experience of the consumer 'Keeping our Body in Mind' physical health assessment and individualised lifestyle program
- Strengthen the structure and employment of people with lived experience of mental illness in peer worker roles
- Expand the consumer workforce and develop sustainable structures.

STAFFING:

- Attract, develop, support and sustain a skilled mental health workforce
- Expand the consumer workforce and develop sustainable structures.

4.2 IMPROVING PATIENT/CLIENT EXPERIENCE OF CARE (INCLUDING QUALITY, ACCESS, RELIABILITY AND SATISFACTION)

4.2.1 PROVIDING SAFE, RELIABLE AND QUALITY CARE

GOAL

TO PROVIDE WORLD CLASS HEALTHCARE IN HOSPITAL AND IN THE COMMUNITY

The SESLHD Quality Plan outlines its guiding principles, including:

- The care we provide will be safe (harm-free), high quality and reliable
- We will be accountable for our healthcare services, within a just culture
- We will be open and transparent
- The care we provide will be compassionate
- All improvement will be local
- Healthcare analytics will utilise meaningful data
- We will focus on value, not volume
- Innovation will be locally lead, centrally supported and widely promoted
- We will invest in our staff through building capacity and capability in leadership and improvement.

Strategies to reduce harm and increase value to patients and the community include:

- Reducing hospital acquired infections
- Reducing variation, e.g. with standardised clinical pathways for agreed conditions
- Developing targets that focus on outcomes
- Implementation and evaluation of effectiveness of business rules
- Reducing avoidable admissions
- Avoiding discharge delay
- Reducing inappropriate polypharmacy to reduce the risk of drug interactions, delirium and falls
- Reducing unnecessary interventions
- Involving patients, families and carers and communities in design of services, care and joint decision making with clinicians
- Reducing falls in hospital
- Improving health literacy
- Ensuring a safety culture within all aspects of the organisation
- Evaluation of strategy implementation, then monitoring, data analysis and feedback.

“Our ambition is to build and accelerate SESLHD as a learning organisation and to consistently deliver safe, harm-free, quality and compassionate patient care.”⁸⁴



SESLHD QUALITY FRAMEWORK

⁸⁴SESLHD Quality Plan 2017-2020 URL: http://seslhnweb/Clinical_Governance/Resources_and_Useful_Links/SESLHDQualityPlan2017-20.pdf

INFECTION CONTROL

The importance of infection control in hospital facilities has been recognised by the Clinical Excellence Commission (CEC), who implemented the evidence based SEPSIS KILLS⁸⁵ program, which aims to reduce preventable harm to patients through improved recognition and management of severe infection and sepsis in emergency departments and inpatient wards throughout NSW. The focus of the program is to:

- Recognise risk factors, signs and symptoms of sepsis
- Resuscitate with rapid intravenous fluids and antibiotics
- Refer to senior clinicians and specialty teams, including retrieval as required.

SESLHD teams access CEC resources and other international literature to support their mission to reduce the incidence of harm from sepsis. A number of infection control Policies, Procedures and Guidelines are also available to staff.⁸⁶

For more information on the physical design of a hospital as an essential component of infection control measures, see section 5.2.2 Other Capital Implications.

SGH performs well in safety and quality audits compared to peer hospitals:

- For hand hygiene in Audit Period 2, ending June 2015, the estimated rate was 81.2% based on 2,636 hand hygiene 'moments', compared to the national benchmark of 70%.
- In 2015–16, the rate of Staph. Aureus blood stream infection was 1.01 cases per 10,000 bed days of patient care under surveillance, compared to national peer group performance of 1.02.

AIHW My Hospitals Report: St George Hospital

VARIATION

Although some variation is expected and associated with need-related factors such as underlying differences in the health of specific populations, or personal preferences, evidence suggests that much variation is likely to be unwarranted. "Understanding this variation is critical to improving the quality, value and appropriateness of health care."⁸⁷

As a major step towards reducing variation, clinicians from across SESLHD came together to develop consistent, safe and evidence-based clinical pathways and outcome measures for the top 10 elective surgical procedures across the district to ensure patient safety and reduce unwanted clinical variation in practice across the district. Eleven pathways have been developed thus far.



WHAT ARE WE DOING NOW TO PROVIDE SAFE, RELIABLE AND QUALITY CARE?

The SESLHD Patient Safety Program⁸⁸ aims to decrease the level of harm and to improve the safety, quality and reliability of healthcare for all patients at all times within our hospital settings, to ensure that all patients, in all SESLHD facilities receive safe (harm-free), effective, person centred care. The SESLHD Patient Safety Program contains a number of actions - or 'Essentials of Safety' - that are considered fundamental to the effective delivery of care across all acute settings. Each action is evidence based and contributes to reductions in harm and improvements to the safety, quality and reliability of healthcare provided to our patients. These actions include:

- **Hand Hygiene:** correct Hand Hygiene and hand care is an essential component to reduce healthcare associated infections and the number of micro-organisms in the hand, with 5 moments of Hand Hygiene identified as times when this should be performed
- **Multidisciplinary Ward Rounds:** a structured round where key clinicians involved in the patient's care meet together to discuss the patient's care and the coordination of that care
- **Clinical Procedural Safety Checklists:** ensuring that all the proper steps have been taken before and after surgery has been shown to minimise mistakes and enhance patient safety, e.g. WHO Surgical Checklist

⁸⁵ Clinical Excellence Commission. Sepsis Kills. URL: <http://www.cec.health.nsw.gov.au/patient-safety-programs/adult-patient-safety/sepsis-kills>

⁸⁶ Available at: http://www.seslhd.health.nsw.gov.au/Policies_Procedures_Guidelines/Clinical/Infection_Control/default.asp

⁸⁷ Australian Commission on Safety and Quality in Healthcare. Australian Atlas of healthcare variation 2017. URL: <https://www.safetyandquality.gov.au/atlas/>

⁸⁸ URL: http://seslhdweb/Patient_Safety_Program/

- **Transfer of Care:** the transfer of professional responsibility and accountability within patient care. Completing this reliably improves the safety, treatment and care for our patients
- **Leadership WalkArounds:** to provide an informal opportunity for senior managers to engage with frontline staff, to discuss patient safety issues and to demonstrate the organisation's commitment to a culture of safety
- **Aseptic Technique:** to protect patients during invasive procedures by using infection prevention and control measures to minimise the presence of infectious agents, and to reduce the risk of infection
- **Safety Huddles/Briefings:** taking the time to conduct safety briefings with frontline clinical staff increases the awareness of patient safety, making it part of the everyday routine of the unit. Huddles also help to foster a culture of safety within the organisation.

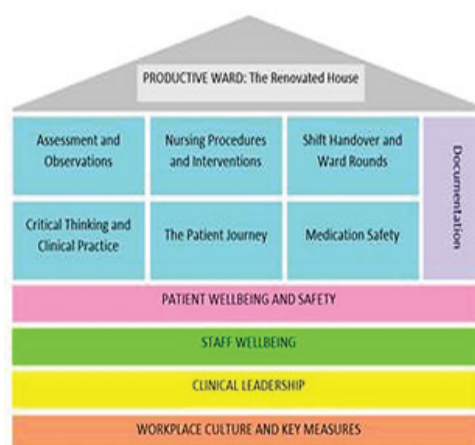
The program uses the Breakthrough Series Collaborative approach for improvement. Clinical teams from across SESLHD have come together to look at reducing harm and improving reliability across a number of points of care, including: VTE prevention and management; recognition and management of sepsis; recognition and management of the deteriorating patient; falls prevention; pressure injury prevention; safer use of medicines; surgical site infection prevention; catheter-associated urinary tract infection; and prevention and management of infection-related ventilator associated complication

Falls are one of the largest causes of harm in health care and are a national safety and quality priority.⁸⁹ SESLHD has produced the *SESLHD Falls Injury Prevention Plan 2013-2018*⁹⁰ to ensure our hospitals and health facilities provide a safe environment, one that is protective against falls, and an appropriate clinical focus on prevention both during care and after discharge.

Improvement programs undertaken at SGH & CHS to enhance safe, reliable care include:

- The inclusion of 45 single rooms with ensuites, as well as 7 negative pressure isolation rooms in the new ASB, which will improve the capacity for infection control
- Implementation of the Patient Safety Program, as outlined above
- The SESLHD Towards Zero Patient Safety Program analysed rates of Infection-related Ventilator Associated Complications at SGH and demonstrated 0% rates during the defined data collection period
- A pilot study on improving the appropriateness of urine specimen collection among catheterised patients in acute aged care (Infection Prevention and Control)
- A Rapid Assessment Liaison Nurse: Improving Access in Aged Care
- Keeping our patients nourished and hydrated (Surgery)
- 'HOPE : Helping Older People with End-stage Kidney Disease' (Renal Medicine)
- Improving patient flow and reducing access block during peak activity and Influenza season (Respiratory and Infection control)
- The renovated Productive House, building on the Productive Ward model, was implemented across the organisation to engage multidisciplinary teams to work collaboratively to apply the principles of lean thinking and process improvements.

This has empowered staff to review their existing ways of working and consider how these can be changed to improve direct patient care time. These strategies create enhanced patient care and outcomes and significantly impact staff morale and job satisfaction



⁸⁹ The Australian Commission on Safety and Quality in Health Care has developed Preventing Falls and Harm from Falls in Older People: Best Practice Guidelines for Australian Hospitals, Residential Aged Care Facilities and Community Care 2009 to reduce the number of falls experienced by older people in care and the harm endured from them. URL: <https://www.safetyandquality.gov.au/our-work/falls-prevention/falls-prevention-resources/>

⁹⁰ URL: <http://www.seslhd.health.nsw.gov.au/HealthPlans/documents/SESLHD-FallsInjPlan-Dec2013.pdf>

- Clinical Sepsis Pathways to ensure timely and appropriately administration of antibiotic (Antimicrobial Stewardship Team and Pharmacy)
- Technological improvements, including:
 - Implementation of the electronic medical record (eMR) for intensive care (eRIC) and the electronic hand over of care (eHOC), which provides medical and nursing discharge summaries from ICU which also includes a list of current medications, 12 hours of valid observations and other key information
 - Allowing shared care health records
 - The implementation of eMeds
 - The implementation of eMR2
 - Omnicell Automated Dispensing Cabinets implemented in Intensive Care Unit and After Hour Drug Room to improve medication safety and nurse efficiency.



RECOMMENDATIONS FOR THE FUTURE

- Continue to implement the SESLHD Patient Safety Program ‘Towards Zero Together’, to ensure harm free care
- Provide ongoing support for quality improvement projects
- Foster a just culture of quality, safety and learning
- Ensure community engagement to improve the patient experience and ensure patients are partners in their care
- Provide a portal for GPs, similar to that provided for consumers to make comments/complaints on patient treatment or management so that improvements or quality assurance can be maintained
- Use data analytics for quality improvement activities
- Continue service rationalisation projects
- Consider strengthening clinical pharmacy workforce to reduce medication errors⁹¹
- Ensure purpose built infrastructure and telehealth facilities to provide education and counselling to outpatient clinics
- Ensure discharge summaries are timely and complete, with governance from senior personnel.

⁹¹ Tong E et al. Reducing medication errors in hospital discharge summaries: a randomised controlled trial. Med J Aust 2017; 206 (1): 36-39

4.2.2 CARING FOR WOMEN, BABIES AND FAMILIES

GOAL

TO IMPROVE THE WELL-BEING OF WOMEN, BABIES AND FAMILIES AS THEIR WELL-BEING DETERMINES THE HEALTH OF THE NEXT GENERATION

Health workers have a key role in promoting the health and wellbeing of women, children and young people, including those whose families have vulnerabilities or are at risk. In SESLHD, Child, Youth, Women and Families Health advocates for improved health outcomes for children, youth, women and families, whether they are at home, in the community, in hospital, or homeless. Services are developed for people who have inequitable access to health information and/or services, and are at risk of poor health. This may include people who are socially and/or economically disadvantaged, from culturally or linguistically diverse backgrounds, or from Aboriginal or Torres Strait Islander backgrounds.

The health of women is often divided into major life stages (young women, women of child bearing years, women in mid-life and older women), each with their own characteristics:

- Adolescent and young women are at greater risk of some mental health problems (than adolescent men), have increasing sexual activity and may be susceptible to teenage pregnancy⁹² or sexually transmitted diseases
- Regular health checks of women of child bearing age can provide an opportunity to identify existing health risks in women and to prevent future health problems for women and their children
- In mid-life women experience a higher burden of long term disease and live more years with a disability
- For older women their longer life expectancy and pre-existing health concerns intersect with their social determinants of health including caring responsibilities, financial insecurity, etc.

For newborns and children the aim is give them the best start in life. NSW Health's Healthy, Safe and Well⁹³ focuses on preconception to 24 years of age, to promote health, prevent illness, embed early intervention and deliver integrated, connected care for all NSW children and families no matter where they live.

Families NSW is the NSW Government's prevention and early intervention strategy to help parents give their children a good start in life, by helping parents to build their skills and confidence in parenting, supporting parents and carers so they can respond to problems early, building communities that support children and families and improving the way agencies work together to make sure families get the services they need. SESLHD works in partnership with the NSW MoH, NSW Department of Education, FACS and Housing NSW, NGOs and communities to implement this Strategy.



WHAT ARE WE DOING NOW FOR WOMEN, BABIES AND FAMILIES?

SGH provides a Role Delineation Level 5 Maternity service, Level 6 Gynaecology service, Level 4 Neonatal service, Level 5 Paediatric Medicine and Level 4 Surgery for Children service.

Inpatient facilities include:

- Maternity unit - 26 inpatient beds, 6 birthing rooms and 1 assessment room
- Birth Centre - 2 birthing rooms for low risk women
- Paediatric unit - 22 inpatient beds
- Special care nursery - 12 cots
- Gynaecology Ward - 10 inpatient beds (co-located ward with extended day only inpatients).

Currently, birthing suites are at capacity, with an average of 10 women per month being diverted to other hospitals to receive care.

⁹² NSW Health, 2013, NSW Health Framework for Women's Health 2013. URL: <http://www.health.nsw.gov.au/women/Publications/womens-health-framework-2013.pdf>

⁹³ NSW Kids and Families, 2014, Healthy, Safe and Well: A strategic health plan for children, young people and families 2014–24. URL: <http://www.kidsfamilies.health.nsw.gov.au/media/233616/strategic-health-plan-final-low-res.pdf>

A range of outpatient clinics are provided on the SGH & CHS campus and in the community. Options for maternity patients include care through a GP Shared Care Service, community based antenatal care and early discharge to community based maternity care where clinically appropriate.

Other services provided by SGH & CHS and PICH for women, babies and families include:

- Caring for all high risk patients from Sutherland Hospital, for higher level services at SGH
- Care of post-natal returns from specialist hospitals
- Midwifery Link Service and Narrangy-Booris Maternal, Child and Family Health
- Implementation of the Quit for New Life smoking cessation program in the Aboriginal Maternal and
- Infant Health Services and Child and Family Health
- Sexual assault service – Adult – 24 hr service
- Domestic Violence service and screening - Adult
- Mindset (counselling service).



RECOMMENDATIONS FOR THE FUTURE

MODELS OF CARE:

- Provide an integrated networked range of services within and across LHDs to meet the choices and needs of women and their newborns
- Establish systems to enable women and their newborns to move seamlessly between maternity and neonatal services when the care they require is not available locally
- Improve the continuity of care across acute, ambulatory, community and primary health care continuum within an interdisciplinary framework
- Support normal birthing (including provision of water immersion facilities in labour and birthing), consistent with NSW Policy Directive PD2010_045 Towards Normal Birth
- Improve GP Shared care rate with improved resources to upskill GPs for accreditation.

STAFFING:

- More midwifery workforce to support Risk Associated Pregnancy (RAP) women
- More midwifery support for post-natal discharge to provide visits for high risk postnatal patients
- Resources to support lactation consultants to ensure optimal nutrition for newborns
- Resources to support GP training for Shared care model of antenatal care.

INFRASTRUCTURE solutions are documented in Section 5.1.4: Refurbished Birthing Suites and Section 5.1.6: Providing joined up holistic care with outpatient and community based services.

4.2.3 RAPID SUPPORT IN TIMES OF CRISIS

GOAL

TO PROVIDE RAPID ACCESS TO URGENT CARE WHEN REQUIRED, INCLUDING EFFECTIVE ALTERNATIVES TO HOSPITAL CARE

Providing timely access to urgent health care occurs in a number of settings for St George residents, as outlined below.

ST GEORGE HOSPITAL EMERGENCY DEPARTMENT

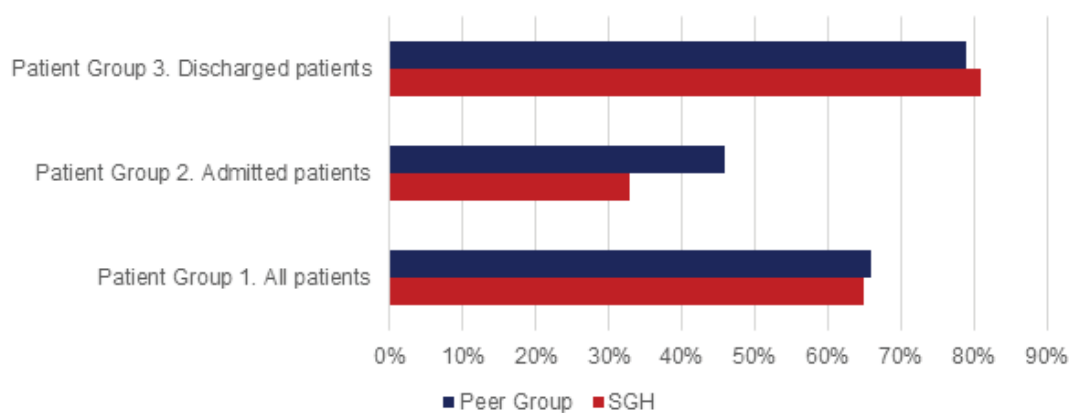
St George Hospital provides a Level 6 Emergency Medicine service for adults and children, providing vital health care for the acutely ill and injured. The purpose built department, opened in 2014, includes: five resuscitation bays; 34 treatment spaces; a 12-bed paediatric precinct; a 14-bed adult fast track with associated consulting rooms; a 12 bed short stay unit; an adjacent PECC; satellite imaging; and 8 ambulance bays, with capacity to expand to meet future demands of the growing population. The new Acute Services Block above the ED provides important close links to acute inpatient services.

The ED is a Level 1 Trauma Service for adults, one of 7 major trauma services across NSW, and provides the full spectrum of care for major and moderately injured patients, from initial resuscitation through to rehabilitation and discharge. This includes a 24 hour trauma reception team, prompt 24 hour availability of senior consultant level general surgeon, an appointed trauma director and a surgical trauma admitting service.⁹⁴ In addition to being a major trauma service, SGH is one of the first to incorporate a Trauma Case Management Program which increases efficiency, reduces length of stay, and minimises complications among admitted patients.

It is one of the busiest EDs in NSW, receiving more than 78,100 presentations in 2016/17, an increase in presentations of over 7% since its upgrade in October 2014.⁹⁵

St George Hospital performance is comparable to its peers in 2016/17, as seen in figure 2 below, except for admitted patients. This may be a reflection of the lack of acute capacity available in the hospital, which will potentially improve with the recent opening of the new Acute Services Building in late 2017. All urgency categories (time to treatment) performed well in comparison to national peer group performances.⁹⁶

Percentage of patients who departed ED within 4 hours, St George Hospital and peers, 2016/17



Source: AIHW. My Hospitals. Web update: Time spent in EDs in 2016-1716.
URL <https://www.myhospitals.gov.au/about-the-data/download-data>

⁹⁴ For further information on this model see NSW Institute of Trauma and Injury Management. URL: <https://www.aci.health.nsw.gov.au/networks/itim>

⁹⁵ Source: CaSPA Portal - ED Activity Analysis Tool v17.0 - Developed by Health Systems Planning and Investment Branch, NSW Ministry of Health

⁹⁶ AIHW. My Hospitals: St George Hospital Emergency Department. URL: <https://www.myhospitals.gov.au/hospital/1151C2130/st-george-hospital-nsw/emergency-department>

INTENSIVE CARE SERVICE

SGH ICU provides a Level 6 tertiary referral service providing comprehensive critical care to patients requiring ventilation and/or complex multiple system support.

Demand for intensive care services is increasing, due to more complex procedures being undertaken at SGH (e.g. Peritonectomy), the hospital providing a Level 1 Trauma Service, and increasing numbers of people with multi-morbidity. The greatest source of admission is from surgery, with other sources from ED, medical and radiology.

The new Acute Services Building provides a purpose built 52 bed ICU, HDU and cardiac intensive care unit, with close functional relationships with operating rooms, the ED and diagnostic services, designed to meet the future high level health support needs of the community into the future.

OTHER SETTINGS

PRIMARY CARE provides the majority of urgent care, with GP, nursing or allied health management to enable rapid assessment of an individual's care and support needs, with the aim of stabilising the situation and developing a care plan that avoids clinically unnecessary presentation or admission to hospital. The availability of or decision to use after-hours access to these services (such as after-hours Home Doctor services) or to crisis home support services will influence a person's attendance at the ED. Accessible, single shared records may improve a person's access to appropriate crisis support, particularly for out-of-hours decision-making for those with complex needs.

AMBULANCE SERVICES can play an important role in the management of lower acuity illnesses and injuries or in implementing shared care strategies with other services, allowing people to be managed in their own home as part of a wider integrated care pathway. Advanced care paramedics can provide initial management and stabilisation for a variety of conditions. Shared care protocols with local acute providers and community services can reduce the number of ambulance journeys to hospital, particularly for older people.⁹⁷

PROVIDING CARE IN PLACE FOR ELDERLY PEOPLE, for example the GFS provides rapid assessment and advice to RACFs or for community dwelling older people. Refer to section 4.1.8 *Helping people to live with complex comorbidities*, including dementia and frailty, for more information on models of care for elderly people in crisis.

OTHER CRISIS SUPPORT SERVICES are available to St George residents, including:

- Child Protection Unit (SCH)
- SESLHD Mental Health Service
- FACS Helpline
- NSW Poisons Information Centre
- Kids Helpline
- The National Sexual Assault, Domestic Family Violence Counselling Service
- Alcohol and Drug Information Service
- Lifeline
- Youth help - Eheadspace online chat
- Public Health Unit (Infectious diseases/environmental health issues).

⁹⁷ See Technical Paper for further information on Ambulance Services models of care



WHAT WE ARE DOING NOW TO PROVIDE RAPID SUPPORT?

SGH & CHS provides a number of models of care to provide rapid support in times of crisis, including:

- Level 6 Emergency Medicine Service
- Level 6 Intensive Care tertiary referral service
- Psychiatric Emergency Care unit (PECC): a specialist short stay mental health unit co-located adjacent to the ED, with a length of stay up to 48 hours, providing an opportunity for assessment, close observation, and treatment to support clinical stabilization
- Emergency Department Short Stay Unit (EDSSU): designated and designed for the short term treatment, observation, assessment and reassessment of patients with selected conditions, initially triaged and assessed in the ED, who are clinically stable and anticipated to require a period of observation or treatment less than 24 hours
- Level 1 Trauma Service
- Fast track assessment and management in ED: to treat ambulant, non-complex (single clinical system problem) patients who can be discharged in less than 2 hours
- Medical Assessment Unit (MAU): to provide streamlined short stay admission for non-critically ill medical patients with complex problems for intensive multidisciplinary assessment, observation and treatment prior to discharge or transfer to inpatient wards if required
- Geriatric Flying Squad: to provide geriatric outreach assessment and short term case management in the residential aged care setting
- Nurse practitioners in ED and community based services
- Allied health in ED for early assessment and management
- Quick response program: a multidisciplinary rapid response community team providing short term acute and sub-acute interventions to people aged over 65 years of age who have been discharged from ED or at risk of presenting to the ED, in order to assist people to remain at home safely and avoid the need for hospital admission
- Aged Care Service Emergency Team to ensure the most appropriate model of care and care coordination is provided for patients aged 70 years and older admitted to the ED
- Orthogeriatric model for best practice management of older people requiring emergency orthopaedic surgery.



RECOMMENDATIONS FOR THE FUTURE

MODELS OF CARE:

- Increase capacity of discharge-to-assess models, such as the existing QRP, to provide older people presenting to emergency with assessment and appropriate support to manage their crisis in their own home. The acute team ensures that the person's needs are assessed, and any acute illness stabilised and treated; then refer to a multi-disciplinary community team for short term management and support in the person's own home. Effective discharge-to-assess models require timely expert assessment on initial acute presentation to hospital and adequate capacity for providing ongoing assessment and support at home
- Increase partnership with ambulance e.g. for palliative care diversion to CHCK to avoid the need for acute admission, advanced paramedic models
- Implement an outpatient rapid response clinic with multi-disciplinary support, and potentially including telehealth support, whereby patients referred from ED, GPs, community based programs e.g. RCCP can be directly assessed and managed or referred for community based services, ACU or short stay admission if required, to prevent further deterioration and complications, and reduce potential ED presentations and admissions The need for this model of care has been considered by a number of different specialties, e.g. renal, endocrinology, aged care, respiratory, infectious diseases, ENT, gastroenterology, paediatrics, post-operative surgery, cancer clinics and procedures, etc.

- Consider providing extended pharmacy service in ED including dedicated Emergency Medicine Pharmacist, who have been shown to reduce hospital admissions⁹⁸
- Investigate more direct admission/fast track pathways to an inpatient bed and clinical protocols for agreed conditions once an assessment and diagnosis has been made by an appropriate health professional, with improved access and pathways between primary and specialist care e.g. for identified infectious diseases, those patients being managed in the community on a long term disease pathway, geriatrics to initiate immediate and appropriate care planning, treatment and investigations
- Consider HITH type services to provide treatment at home for people who would otherwise be admitted to an acute hospital ward or to reduce their length of stay in hospital. A range of clinical conditions can be effectively and safely managed without a person needing to stay in hospital, including cellulitis, pneumonia, deep vein thrombosis, COPD and urinary tract infections. Providing this option for suitable patients saves the patient an unnecessary stay in hospital and makes sure we have beds available for patients who need to be in hospital for their care. A 2012 meta-analysis found that HITH treatment reduced mortality by 19% and readmissions by 2% compared with in-hospital treatment. Patient and carer satisfaction is also higher. For further information on this model, see the NSW Health HITH Guideline ⁹⁹
- Provide telecare for people at risk. There are a range of technologies available to support older people in their homes such as falls alarms and devices to monitor vital signs or movement beyond safe areas, in order to alert crisis support
- Ensure timely and equitable access to ambulatory diagnostics including imaging and pathology to prevent delays in assessment, treatment and discharge
- Improve availability of investigation results by copying results to patient's GP, to avoid the need for GPs to follow up results on discharge from ED or inpatients
- Provide a safe space for women to attend for assessment and follow-up in relation to domestic violence and sexual assault and a sterile treatment room for the collection of forensic evidence.

STAFFING:

- Expand GFS services to avoid deterioration or hospitalisation of residents of residential aged care facilities
- Investigate the implications of establishing a 'Flying Squad' type neurology service
- Increase advanced practice nursing and allied health available in ED and outpatient settings to prevent and avoid admission, e.g. nurse led clinics in rheumatology outpatients to improve throughput and case management.

⁹⁸ Briggs S, Pearce R, Dilworth S, Higgins I, Hullick C, Attia J. Clinical pharmacist review: A randomised controlled trial. *Emerg Med Australia* 2015; 27: 419–26

⁹⁹ NSW Health. NSW Health HITH Guidelines 2014. URL: http://www1.health.nsw.gov.au/PDS/pages/doc.aspx?dn=GL2013_006

4.2.4 STREAMLINED SURGERY

GOAL

TO OPTIMISE ACCESS TO PLANNED AND UNPLANNED SURGERY FOR OUR PATIENTS

A range of surgery is provided on the SGH & CHS campus, from complex emergency surgery for the critically ill patient through to those who are fit and well requiring minimally invasive day surgery. This demand for surgery is likely to continue, however streamlining surgery with the implementation of best practice models of care will allow improved capacity to meet the forecasted rising demand.

The provision of eight new operating rooms, post-anaesthetic care unit, Sterilising Services Department and some additional surgical beds in the new Acute Services Building will help address some of the shortfall in infrastructure needs, particularly for trauma, emergency surgery and complex planned surgery (e.g. cardiothoracic, peritonectomy, etc.). However, the high demand for unplanned emergency surgery at SGH impacts on the ability to provide planned procedures, i.e. when resources are limited, patients requiring elective procedures are transferred to another facility or cancelled or deferred, adding to surgical waiting lists and sub-optimal patient care.

Separating planned and unplanned surgery through the use of dedicated beds, operating rooms and staff can provide more predictable and timely access to appropriate surgical services, and improve the quality of care delivered to patients.

Work by the NSW Surgical Services Taskforce has mapped a path that better utilises the surgical infrastructure and workforce to improve services for patients, attract and retain surgeons, anaesthetists and operating room staff, optimise available funding and enhance clinical training.¹⁰⁰

Some models include:

- Separating HVSSS aiming to concentrate suitable planned surgical cases in dedicated high-volume, short stay surgical units¹⁰¹
- Streaming planned and emergency surgery encouraging hospitals to plan for the predictable surgical workload for all specialities, to allocate the necessary operating room time and to plan for immediate access to operating rooms for the most urgent emergency surgery patients¹⁰²
- Continuing development of speciality centres recognising the high cost and complexity of some surgical services (e.g. peritonectomy)
- Consolidating low-volume high complexity procedures, a sub-set of some speciality centres, where rare procedures which are very costly and/or requiring lengthy hospitalisations are consolidated into facilities with caseloads above a certain threshold (e.g. oesophagostomies, pancreatectomies)
- Reducing unwarranted clinical variation where clinicians are actively involved in identifying, analysing and ultimately developing solutions to reduce unwarranted clinical variation
- Integrating service models
- A mapped out journey from pre-admission to discharge with multi-disciplinary pre-op assessment, an enhanced recovery after surgery (ERAS) pathway, and discharge checklist in operating room, so that patients may have a shorter length of stay and improved outcomes.¹⁰³

¹⁰⁰ NSW Health. (2011). Surgery Futures: A Plan for Greater Sydney. Accessed at URL: <https://www.aci.health.nsw.gov.au/resources/surgical-services/delivery/predictable-surgery/documents/surgery-plan.pdf>

¹⁰¹ NSW Health. (2012). GL2012_001 High Volume Short Stay Surgical Model Toolkit. Accessed at URL: http://www0.health.nsw.gov.au/policies/gl/2012/pdf/GL2012_001.pdf

¹⁰² NSW Health. (2009). GL2009_009 Emergency Surgery Guidelines. Accessed at URL: http://www0.health.nsw.gov.au/policies/gl/2009/pdf/GL2009_009.pdf

¹⁰³ Waxman B. (2013). Smoothing out the ride for surgical patients. Medical Journal of Australia, 407 URL: <https://www.mja.com.au/journal/2013/198/8/smoothing-out-ride-surgical-patients>



WHAT ARE WE DOING NOW TO STREAMLINE SURGERY?

- When the ASB operating rooms are commissioned in 2017/18 complex surgical procedures will be moved into the new operating rooms with other activity continuing to use the old operating rooms
- The District and SGH & CHS aims to manage patients in accordance with the Predictable Surgery Program, but full implementation of this Program is limited by infrastructure and resourcing. Despite these constraints there is progress including:
 - Developing clinical pathways
 - Review and rationalisation of surgical services
 - Rollout out of ERAS – to optimise recovery, eliminate unnecessary fasting and minimise complications following surgery with early mobilisation
 - Networked waitlist model where more than 600 patients had inter-hospital transfers to reduce their length of time on the waitlist
- Streaming of planned joint replacement surgery for St George residents to TSH
- SGH's orthogeriatric service where medical care for older patients with orthopaedic disorders is provided collaboratively by orthopaedic services and aged care or rehabilitation services
- Esurg Project - to streamline the surgical admissions process and reduce elective surgical waiting times at SGH for upper gastrointestinal surgery and vascular surgeries
- Use of Professional Interpreters for Surgical Consent project, which aims to increase the use of professional interpreters for patients with limited English proficiency, when giving informed consent for surgical procedures, in order to:
 - Improve patient safety
 - Improve patient satisfaction
 - Reduce delays to operating rooms and cancellations on day of surgery
 - Reduce medical errors and exposure to associated medico-legal action.



RECOMMENDATIONS FOR THE FUTURE

MODELS OF CARE:

- Establish a HVSSS Unit to enable streaming of short stay planned activity through dedicated HVSSS operating rooms and beds resulting in improved service efficiency and access to elective planned surgery and procedures
- Extend the range of procedures that are suitable for the short stay environment as models of care and medical technologies make early mobilisation and early discharge not only possible but preferable
- Establish a multidisciplinary optimisation clinic where patients on the elective surgical waiting list have an early screening and pre admission work up and care plan undertaken to ensure they are in optimal condition prior to surgery. For example:
 - When patients are added to the waiting list they are assessed by phone or attend an initial review
 - Patients with risk factors are referred to their GP to optimise their health prior to surgery. This model supports better outcomes, reduced rates of complications and length of stay. Target groups include the frail, aged and those with long term diseases and multiple comorbidities (e.g. diabetic patients, etc.)
 - More complex patients (e.g. those with complex airways disease, etc.) are managed by the multidisciplinary optimisation clinic

- Expand perioperative service in line with guidelines currently being developed by ACI, etc. For example:
 - Improve the patient journey through multidisciplinary preoperative assessment, ERAS pathway and a 'preflight' checklist in the operating room
 - Continue developing clinical pathways that support the patient journey through pre-admission, admission, preparation for the procedure/surgery, treatment, recovery and discharge
- Expand ambulatory care clinics that support pre and post-acute care. For example:
 - Consider the potential to expand HITH so patients are referred to post-acute care services in the community e.g. patients discharged with drains in-situ, requiring intravenous antibiotics, etc.
 - Ensure availability of a rapid access clinic for post-operative patients managed by HITH
 - Provide orthopaedic outpatient clinics, a requirement by the College for Specialist training
 - Expand Nurse Practitioner led pre and post-acute care clinics
 - Continue the orthogeriatric model and consideration of other shared care models as deemed clinically appropriate
 - Potentially redirecting patients from private rooms to outpatients (e.g. urology)
- Improve integration of services with:
 - Primary health care e.g. implement HealthPathways to reduce inappropriate referrals from GPs, investigate on site GP clinic, etc.
 - CHCK e.g. optimisation of patients, etc.
- Provide Vascular Doppler service (currently provided by St George Private Hospital)
- Maintain ongoing cooperation and integration with the St George Private Hospital
- Investigate potential integration and/or partnerships for clinical and translational research, e.g. Universities, industry, etc.
- Improve support for data collection (including clinical outcomes) and maintenance
- Provide appropriate staffing resources (medical, nursing, technical, educational, allied health and clerical) to enhance existing high quality service delivery.

INFRASTRUCTURE solutions for consideration are documented in Section 5.1.5: *Providing a short stay surgical precinct*

4.2.5 GOOD ACUTE CARE AND POST DISCHARGE PLANNING AND SUPPORT

GOAL

TO PROVIDE TIMELY ACCESS TO PERSON CENTRED QUALITY ASSESSMENT, TREATMENT AND MANAGEMENT AND EARLY DISCHARGE PLANNING, WITH GOOD POST-DISCHARGE SUPPORT IN THE COMMUNITY WHEN REQUIRED

Effective acute health services provide care that is person centred, compassionate and harm free, with timely access to specialist input. Lack of timely acute care can result in adverse medical outcomes, increased ED visits and hospitalisations, and potentially higher health care costs.

Improving access may be created by providing the needed specialty service, consult, or procedure more efficiently. This includes access to 7 day services and after-hours access to senior medical assessment, multidisciplinary team members, pharmacy, diagnostic and support staff.

Appropriate and accessible outpatient care can help prevent or control an acute episode, or manage a long term disease or condition, as well as provide appropriate follow up and ongoing care post admission.

Providing care pathways that provide standardised clinical processes can be effective in the minimisation of harm and variation in care and improve patient outcomes and experience. For example, Intermountain Health Care, USA introduced standardised clinical processes that produced dramatic improvements in patient outcomes and costs, e.g. more appropriate ventilator use led to a 10% reduction in the rate of ventilator-associated pneumonia, shorter length of stay in ICU and a reduction in cost by more than \$3,000 per ICU patient over two years.¹⁰⁴

The total cost of care may be reduced and resources to care for more people enhanced by increasing the availability of specialty practitioners, e.g. with telehealth, expanding the role of primary care providers to manage less complex patients, and enhancing communication and coordination e.g. with linked and shared medical records and care coordination roles enhanced.¹⁰⁵

Discharge planning should start at first contact. Early discharge planning, with clear clinical criteria for discharge, can deliver significant reductions in length of stay and reduce delays to transfer of care. Timely discharge, including on weekends, is assisted by 7 day working of all services, including multi-disciplinary community based services to allow earlier supported discharge. This can be assisted by complex case discharge coordination and management roles and systems.

Good acute care also recognises the importance of the patient's goals and preferences during their treatment and discharge planning process, in order to better prepare patients and their caregivers to be active partners for their anticipated health and community support needs.

Infrastructure to support good acute care requires close functional relationships with related specialties. This may include collocating specialties to promote integrated care.

Key factors to providing good acute care identified by the Kings Fund include:

- All emergency admissions should be reviewed by a consultant within 14 hours of admission
- Hospital inpatients must have timely access to diagnostic services to prevent delays in assessment, treatment and discharge
- Hospital inpatients must have 24-hour access, seven days a week, to consultant-directed interventions that meet the relevant specialty guidelines, either on-site or through formally agreed networked arrangements with clear protocols

Imison C, Sonola L, Honeyman M, Ross, S. Kings Fund 2014. The reconfiguration of clinical services. What is the evidence?

Better Pathways – ‘easy in and easy out’:

Developing care pathways that support patients early on to prevent them reaching crisis point, with smart triaging to the right clinician at the right time to ease access to services; and supportive networks in the community to help people keep well after discharge from secondary care.

Wilson S and Langford, K. 10 Ideas for 21st century healthcare. Innovation Unit

¹⁰⁴ Baker G.R., MacIntosh-Murray A, Porcellato C, Dionne L, Stelmachovich K and Born K. 2008. "Intermountain Healthcare." High Performing Healthcare Systems: Delivering Quality by Design. 151-178. Toronto: Longwoods Publishing URL: <http://www.longwoods.com/content/20146>

¹⁰⁵ Felland L, Lechner E, Sommers A. The Commonwealth Fund 2013. Improving access to specialty care for medicaid patients: policy issues and options. URL: http://www.commonwealthfund.org/~media/files/publications/fund-report/2013/jun/1691_felland_improving_access_specialty_care_medicaid_v2.pdf



WHAT WE ARE DOING NOW IN ACUTE CARE AND POST DISCHARGE PLANNING AND SUPPORT?

Recent capital infrastructure will provide new purpose built wards to improve access and allow the introduction of new and efficient models of care for emergency and acute services.

MODELS OF CARE:

- The Orthogeriatric model of care, which provides integrated care for frail older orthopaedic patients across the continuum of care¹⁰⁶
- Risk assessments e.g. for falls, frailty
- Infection control management
- Ambulatory Care Unit, a nurse led medical day treatment service, which provides space to administer IV and S/C medications, wound dressings and undertake minor specialised procedures that can be provided in an ambulatory setting to medically stable patients and avoid admission
- Clinical pharmacy services, including pharmaceutical review, drug information, medication history taking, patient counselling, provision of medication list and compliance aids
- Specialist outpatient clinics led by medical and nursing staff in an ambulatory setting, designed to complement routine specialist services that are more widely available in the community setting and which are usually provided within specialist's own consulting rooms. They are also an important part of the training program required by Specialist Colleges. The majority of SGH specialties provide an outpatient service
- Allied Health led specialist clinics and/or work as part of a multidisciplinary team
- Hospital avoidance through early intervention where timely access to outpatients reduces the need for admission e.g. for paracentesis for patients with chronic liver disease, infusions for patients with inflammatory bowel disease, infusions for treatment of osteoporosis
- Access to nutritional support and stomal therapy, including crisis management
- SESLHD is currently collaborating with CESPHN in the introduction of Health Pathways,¹⁰⁷ a web-based information portal supporting primary care clinicians to plan patient care through our primary, community and secondary health care systems
- The Admissions2Discharge (A2D) Together is a collaboration with SESLHD, Family and Community Services (Disability) South East Sydney District, Carer Program, and Metro-Regional Intellectual Disability Network (MRID) to improve the hospital experience for people with an intellectual disability who live in supported accommodation, who are unable to clearly communicate and are at greater risk of deterioration. By being prepared for admissions with a number of resources to improve interactions with the health service, this will improve their experience of health care and potentially reduce their length of stay in hospital¹⁰⁸
- Supported discharge with the use of ComPacks and TACS packages
- Increasingly, cardiology patients are being managed in the outpatient or community setting e.g. most Cardiac Catheter Laboratory patients are seen as outpatients and this is likely to increase in the future to meet the growth in demand and as models of care change, and increasing numbers of heart failure patients are managed in the community
- SGH uses the SESLHD transfer of care checklist for people being admitted and discharged from facilities. The discharge checklist is designed to ensure a safe and efficient discharge for those being transferred to another facility, to residential aged care facilities and discharged to home, and avoids the need for unnecessary readmission.

¹⁰⁶ NSW ACI. The Orthogeriatric Model of Care Clinical Practice Guidelines URL: http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0013/153400/aci_orthogeriatrics_clinical_practice_guide.pdf

¹⁰⁷ Central and Eastern Sydney PHN. Health Pathways Project. URL: <https://www.cesphn.org.au/programs/healthpathways-sydney>

¹⁰⁸ URL: <http://a2d.healthcare/>



RECOMMENDATIONS FOR THE FUTURE

MODELS OF CARE:

- Establish an **ambulatory care precinct** to provide efficiencies in acute and multi-disciplinary management and follow up care e.g.:
 - Implementation of standardised clinical pathways for agreed conditions
 - Effective use of HealthPathways to support referral and communication for GPs and hospital services, ensure greater integration and continuity of services and care for patients, reduce inappropriate referrals and improve patient care
 - Dedicated clinic time allocated to new or acute cases to ensure more timely access for high-priority patients
 - Explore potential for “Integrated Health Care Model”, to encompass things like a day hospital, or a diabetic clinic with educators, or joint physician/surgeon bariatric surgery clinics for people with multiple comorbidities
 - Establishment of an allied health precinct to allow improved collaboration in patient management and patient experience, MDT opportunities and shared resources
 - Closer collaboration with pain management, rehab and allied health services
 - Establishment of Basic Program Training clinics for training and accreditation for physicians and surgeons
- Expand the ambulatory care model as a proven hospital avoidance model including expanding:
 - Advanced practice roles in nursing and allied health to improve triage and rapid assessment and reduce waiting times, and provide cost savings in both ED and outpatient settings, e.g. nurse practitioner clinic in Rheumatology, chronic renal disease, allied health in ED
 - Allied Health in Outreach teams e.g. access to social work in QRP and ASET to address carer stress, etc.
 - Community based care for those aged under 65 years (CHCK provides community services for 65+), who have very long waiting lists for home care which can result in increased length of stay
 - Community allied health services. There are opportunities to provide earlier discharge if more were available e.g. Post-Acute Care Service similar to POWH, or HITH services including access to allied health
- Implement **rapid access clinics** for:
 - Patients that need urgent medical review but do not require ED intervention, with a single point of access to provide rapid access to specialist advice and a range of multidisciplinary and diagnostic skills and/or for known patients with long term conditions requiring urgent management as a hospital avoidance model
 - Patients who self-present or are referred by GPs, community health workers or other specialists
 - A medical emergency review clinic could be implemented for overnight ED patients who need surveillance but not admission, seen next morning by an advanced trainee in Ambulatory Care, e.g. patients with uncomplicated infection, hypertension
 - Departments, services and patient cohorts who may benefit from a rapid/crisis access clinic include Aged Care, Endocrinology, Respiratory, ENT, Gastroenterology (e.g. for patients requiring urgent paracentesis, infusion, etc.), Surgical services (for post-operative patients being managed by HITH type services), ‘at risk’ children, Nutritional Support and Stomal therapy as well as consideration of diversion from ED and/or known patients with long term conditions suffering a rapid deterioration
 - Clinics would run in normal business hours, subject to funding

- Expand **multidisciplinary health care**, both between specialties and disciplines, e.g.:
 - Orthogeriatric model of care to other surgical specialties
 - Enhancement of multidisciplinary care between Renal Medicine and Urology Service
 - Urogynaecology, urology and colorectal for assessment and treatment
 - Trauma clinic including medical, nursing (case management) and allied health input
 - ENT, head and neck, swallow and respiratory clinic for proactive management and/or monitoring of patients at risk of aspirating
 - ENT, respiratory, ICU, neurology specialties for long-term ventilation patients
 - Motor neurone disease clinic combined with SGH Respiratory Department and CHCK to optimise management of this growing cohort of patients
 - Endocrinology and
 - cancer (particularly thyroid, breast and prostate) clinics
 - geriatric (with potential for consultation to GFS for nursing home patients to avoid admission or outpatient appointment)
 - maternity for post gestational diabetes
 - Perioperative assessment clinics (e.g. with respiratory clinicians for patients with complex airway disease to assess their airways resulting in an improved inpatient admission and post-operative recovery)
 - Neurology (e.g. for multiple sclerosis, vestibular disorders, neuromuscular and first seizure epilepsy clinics)
 - Oncology, hepatobiliary surgery
 - A range of allied health services included in ambulatory care and specialty clinics
 - New Pharmacy roles, e.g. community liaison and outreach pharmacist working in a multidisciplinary team to provide follow up for patients at high risk of medication misadventure post-discharge; and implementing Post Discharge Hospital initiated Medication Review for patients at risk of medication misadventure
 - Optimisation clinic, for early screening and referral to GP e.g. frail, aged, multiple comorbidities
 - General medicine (in conjunction with PHN)
 - Cardiology (as part of chronic disease management with PHN)
 - Child and family screening and assessment clinic for the 0-2 year old infants/toddlers and parents to identify developmental needs and initiate care before attending first appointment with paediatric allied health.
 - Child and family, drug and alcohol and mental health services
- Provide **new outpatient clinics** to meet current gaps in service including: fracture; orthopaedic; upper GI; brain injury; cardiology (e.g. chest pain, high risk cardiology); asthma; biome; nurse led (e.g. in gastroenterology, renal CKD/hypertension, rheumatology, surgical pre and post-acute care, etc.), Transitional Pain Clinics, assessing after surgery patients at high risk of developing chronic pain/ high opiate usage; GP clinics; BBP and advanced trainee clinics; neurology (e.g. young stroke clinic, acute (TIA) clinic, first seizure clinics and epilepsy clinics, acute and chronic dizzy clinics); pain management classes for Arabic and Greek speakers; obesity and bariatric management service; osteoporosis and fracture liaison; seating; speech pathology service for school age children, etc.
- Consider implementation of a multidisciplinary HITH service, with staff working across specialties and specialists maintaining clinic involvement with their patients for review. For example for some cardiology, surgical, etc. This model helps avoid the need for re-admission, e.g. for the frail elderly discharged with a new diagnosis or new management plan which requires follow up support

- Relocation of services at Hurstville Dental Clinic and the Hurstville and Rockdale School Dental Clinics to create an oral health hub clinic with 10 chairs for adults and children with the capacity to grow specialist skill sets, improve economies of scale and staff security, provide opportunities for student placements and onsite access to sterilising and radiology services.

STAFFING:

- Provide an Ambulatory Care Precinct Manager/Coordinator
- Establish Ambulatory Care registrar cover and multi-disciplinary support, particularly for ACU patients
- Investigate the potential for continuing extended hours for outpatient/ambulatory services to meet increasing demand
- Provide resources to support GP training for Shared care models e.g. antenatal care
- Workforce review to support and enable enhanced ambulatory and community based services, to better respond to the health needs of those in the community, and allow more timely discharge from hospital.

OTHER POTENTIAL SOLUTIONS TO MEET DEMAND:

A productive and efficient purpose built Ambulatory Care Precinct will not meet the expected increased demand for non-admitted services alone. It will also be necessary to:

- Enhance community services to provide increased home based or community based care, particularly in the community based management of long term conditions, including cancer survival e.g. Cancer Outreach multidisciplinary team, including Pharmacist, to provide home based chemotherapy
- Work in close collaboration with community based services, general practice and in partnership with patients
- Some ambulatory/outpatient services may be provided more flexibly in the community, i.e. clinics could have 'pluripotential' to be delivered in ambulatory care or in the community (people's homes or aged care facilities or community centres)
- Work closely with the PHN and GPs to implement HealthPathways to provide condition specific information on assessment, management and local referral options for primary health clinicians and reduce demand for non-admitted hospital based services
- Consider a robust non-attendance policy to encourage patients to inform the clinic in advance when possible when they can't attend an appointment to improve DNA rates and allow more new appointments to be made.

INFRASTRUCTURE solutions for consideration are documented in Section 5.1.6: Delivering joined up holistic care with outpatient and community based services.

4.2.6 ACCESS TO PREHABILITATION, REHABILITATION AND REABLEMENT

GOAL

REHABILITATION AND RE-ABLEMENT WILL BE AVAILABLE WHEN NEEDED, IN THE APPROPRIATE SETTING, TO PROMOTE AND RESTORE AN INDIVIDUAL'S FUNCTIONAL ABILITY AND PREVENT DELAYED DISCHARGE FROM HOSPITAL

Prehabilitation, rehabilitation and reablement are restorative services on a continuum of care that promote and/or restore an individual's functional ability. Individual goals may include mobility, self-care and activities of daily living. Close links with other services that help address functional limitation such as equipment and home modifications are required.

Restorative approaches and programmes are used to help people improve their function, independence and quality of life; regain and/or maintain their physical and cognitive function and independence after an illness, disability or crisis; halt any decline in function; reduce delays to discharge; and to reduce their reliance on support services and higher care needs. Continued support as an outpatient or in the community may also be required. It should be noted that some people will continue to need ongoing home support services.

Inactivity is well documented as one of the leading causes of physical functional decline, and increasing physical activity is the most effective interaction to counteract this decline. Prehabilitation is designed to prevent physical functional decline in those at risk, for example to those identified at risk of falling, or pre-operatively to those identified at risk of post-operative decline, particularly older people living with complex long term health conditions. Similarly, in-reach rehabilitation to acute wards is designed to prevent further functional decline and promote independence and earlier discharge.

Evidence indicates that individuals who have limited physical fitness preoperatively have higher rates of morbidity and mortality during their hospital stay. Conversely, individuals who have better preoperative physical fitness experience less postoperative pain and have better physical functional status postoperatively.¹⁰⁹ Current evidence supports exercise rehabilitation to enhance physical fitness after surgery, and prehabilitation aims to maintain a normal level of functionality and achieve a quicker recovery of functional status during postoperative inactivity.¹¹⁰

Older people are the largest users of rehabilitation services, particularly for restoration of function after an acute hospitalisation. This patient population tends to take longer to recover, and often requires continuity of care and follow-up in the community to avoid further decline. Programs such as TACP support this pathway. There is a growing body of evidence¹¹¹ on the effectiveness of these approaches in assisting older people to improve their ability to function and reduce their need for ongoing services, with associated cost savings.

Building on people's strengths, capacity and goals, with the active involvement of carers and families, are important factors in any reablement approach to help people to remain independent in their daily living tasks, to live safely at home and to continue to participate and remain engaged in their local communities.

SGH REHABILITATION SERVICE

SGH provides a Level 6 specialised tertiary referral rehabilitation service that provides rehabilitation support to adult patients accessing the tertiary services of SGH as well as local rehabilitation services to patients within the local region. The service also accepts patients from other referral facilities including POW/RPA and community settings as required for patients that live within the catchment area.

The case mix includes stroke, neurological disorders, multi-trauma, lower limb amputations and deconditioning after a variety of acute medical and surgical diagnostic groups, in order to restore functional ability. The Unit accepts adults of all ages assessed as suitable for rehabilitation and accepted by a rehabilitation consultant.

¹⁰⁹ Cabilan C, Hines S, Munday J. Prehabilitation for surgical patients: a systematic review protocol. The JBI Database of Systematic Reviews and Implementation Reports, [S.l.], v. 11, n. 5, p. 112 -122, jun. 2013. ISSN 2202-4433. URL: <http://connect.jbiconnectplus.org/ViewSourceFile.aspx?0=8387>

¹¹⁰ Ibid

¹¹¹ Australian Govt. Dept. of Social Services Discussion Paper Key directions for the Commonwealth Home Support Programme <https://www.dss.gov.au/ageing-and-aged-care-programs-services-commonwealth-home-support-programme/discussion-paper-key-directions-for-the-commonwealth-home-support-programme>

There has been a significant increase in the clinical acuity of patients that are now accepted into the rehabilitation ward, due to people with complex medical conditions surviving longer and requiring rehabilitation, e.g. oncology and haematology, young people/transitional patients requiring ongoing care, and bariatric patients, and this is likely to continue. As SGH is a designated trauma centre, there are also increasing numbers of people presenting with moderate to severe acquired brain injury, who do not meet the admission criteria for the Liverpool Brain Injury Unit. Currently approx. 50% of patients are stroke patients.



WHAT ARE WE DOING NOW FOR REHABILITATION?

Services provided include:

- A 22 bed inpatient Rehabilitation Unit with multidisciplinary support and a designated rehabilitation gymnasium located in the Tower Block
- An Intensity of Therapy Program (ITP) to accelerate patient functional recovery in a subacute inpatient rehab setting through enhanced intensity of therapy on a 7-day per-week program with Allied Health and Nursing, thus reducing rehabilitation length of stay
- Rose Cottage, a refurbished day only rehabilitation centre on campus, provides a 6 week program of multi-disciplinary rehabilitation, resulting in earlier discharge and reduced length of stay on the ward, greater throughput, and fewer subacute patients waiting on acute wards
- In-reach Acute Rehabilitation Team (ART) provides rehabilitation in the acute setting to avoid decline in function, facilitates earlier discharge home and potentially avoids in-patient rehabilitation admissions where possible. This team provides a 10 bed equivalent service which has reduced the waiting list for rehabilitation and approximately 20% of patients are able to be discharged home without requiring transfer to the rehabilitation ward
- Multi-disciplinary outpatient rehabilitation services are available for those requiring assessment and ongoing care in the Prince William Wing.

Other prehabilitation, rehabilitation and reablement activity and pathways at SGH include:

- Referral to the networked services of CHCK for medically stable inpatient, Day Only and community based aged care and orthopaedic rehabilitation services where appropriate
- Referral to Liverpool Brain Injury Unit for specialised care of patients with moderate to severe brain injury once medically stable
- Referral to Transitional Aged Care Services (provided by CHCK) for short term restorative care post admission for older people
- Referral to TSH Osteoarthritis Chronic Care Program to provide interventions that support people with osteoarthritis of the hip and/or knee to self-manage their condition and comorbidities; reduce pain, increase function, and improve their quality of life; and avoid or defer joint replacement where possible
- Referral to community based exercise programs, e.g. falls prevention programs, SHARE for hydrotherapy or exercise programs
- Provision of RCCP and Heartlink programs for ongoing maintenance care of those with chronic respiratory or cardiac conditions.



RECOMMENDATIONS FOR THE FUTURE

MODELS OF CARE:

- Establish a rehabilitation precinct on the SGH & CHS campus, following the NSW Rehabilitation Model of Care, allowing different solutions for patients at different stages of their journey and reducing length of stay by minimising over-reliance on expensive in-patient rehabilitation. This would include a co-located Inpatient unit, day only service, well equipped gymnasium including gait laboratory, outpatient service and in-reach service to acute wards, which would consolidate expertise and infrastructure currently in disparate locations around the campus
- Expand day rehabilitation service at SGH, with adequate staffing to allow outpatient intensity to substitute for in-patient, and prevent delays to discharge, co-located in the rehabilitation precinct
- Continue to refer to and support Day Rehabilitation Unit services for appropriate cohort of patients at CHCK
- Expand day hospital capability to shift the balance in subacute care from inpatient to day only care
- Expand ART service to meet the increasing demand for rehabilitation in the acute setting, improve patient outcomes and reduce length of stay
- Provide an outreach domiciliary service to the community, with specialised rehabilitation staffing, potentially as part of a PACS or HITH service, for those people who can't access day rehabilitation
- Establish a Brain Injury Unit - to meet the gap in management of people with mild to moderate acquired brain injury, with rehabilitation available and further suitable community services on discharge. This Unit would act as a District wide service and meet the current gap in service provision for this cohort. Severe acquired brain injury patients will continue to be referred to Liverpool Hospital Brain Injury Unit
- Consider the establishment of orthotics service on site, which could be networked with TSH, to reduce delays for service, length of stay and reduce costs for orthoses as part of a patient centred 'one stop shop' in the rehabilitation precinct. Currently this is a contracted service
- Continue developing shared care pathways for surgical patients, starting with prehabilitation, with established markers of variance (process indicators and health outcomes) for post-procedure quality of recovery (e.g. physiological, physical, mobility with limited pain, post-operative cognitive (dys) function post anaesthesia/ surgery and/or dementia, emotional and social mental health)
- Consider partnerships to provide intensive post-admission care through a step-down unit providing services to the increasing number of clients requiring life-time care
- Consolidate and build on the direct relationship and partnerships between subacute and primary healthcare to enable people to remain at home or facilitate a direct admission to sub-acute services if required, in order to avoid costly acute admission and emergency presentations
- Ensure continued access to hydrotherapy on campus, with ease of access for inpatient as well as outpatient rehabilitation
- Consider direct admits from SGH ED to CHCK to avoid unnecessary acute admission
- Consider the establishment of a service level agreement with SGH to provide after-hours cover on site at CHCK, to allow higher acuity patients to be accepted
- Consider the development of prehabilitation programs, potentially at CHCK, where patients in the community identified at risk of frailty and falls or those with a degenerative neurological disease such as Parkinson's disease, are offered comprehensive early intervention to improve their quality of life and prevent avoidable hospital admissions¹¹²
- Consider development of other prehabilitation models of care (day only service) to prevent deterioration in functional ability, in collaboration with aged care, or for identified frailer adults requiring surgery in collaboration with surgical services
- Improve access to outpatient services for patient with long term rehabilitation needs
- Expand community based services to provide rehabilitation at home where appropriate
- Continue to refer to community services as appropriate provided by CHCK.

¹¹² See the iREAP model from the War Memorial Hospital Waverley as an effective example of this model

STAFFING:

- Increase staff to be commensurate with increased activity and appropriate for new or expanded models of care
- Increase the number of staff on ART team to meet the demand for rehabilitation on acute wards and reduce length of stay
- Employ a CNC as part of the wider rehab team
- Increase Specialist medical support due to the increasing demand and more complex patients now accepted by Rehabilitation.

INFRASTRUCTURE solutions for consideration are documented in Section 5.1.3 *Providing a rehabilitation precinct*.

4.2.7 EFFECTIVE PLANNING AND CARE FOR END OF LIFE

GOAL

IMPROVE END OF LIFE CARE BY INTEGRATING PATIENTS' WISHES THROUGHOUT THE MANAGEMENT OF LIFE-LIMITING ILLNESS AND ENSURING THAT PEOPLE WILL RECEIVE TIMELY HELP WHEN AND WHERE THEY NEED IT AT THE END OF LIFE

Greater choice is now expected in healthcare, including how a patient is cared for and the opportunity to be cared for and die in places of preference. Advanced care planning and palliative care are critical aspects of care in virtually all medical specialties at SGH & CHS.

Advanced care planning includes case identification, needs assessment, discussion and documenting the parameters of end of life care in terms of what is possible or recommended from a clinical point of view, along with what is explicitly desired or unacceptable from an individual.

An Advanced Care Plan (ACP) can be particularly helpful for people who:

- Have multiple or complex medical problems
- Are regularly admitted to hospital
- Suffer from a long term disease affecting major organs such as kidneys, lungs or heart
- Suffer from a serious or life-limiting illness such as cancer
- Have had a not-for resuscitation or other limitation of treatment order made in hospital
- Have previously suffered a critical event requiring resuscitation
- Are elderly or frail of health and receiving supportive care services
- Have a diagnosis of early memory problems or dementia
- Are relatively healthy but keen to plan for future healthcare.

The NSW Agency for Clinical Innovation (ACI) *Framework for the Statewide Model for Palliative and End of Life Care Service Provision*¹¹³ aims to ensure that all NSW residents have access to quality care based on assessed need as they approach and reach their end of life, in a range of clinical, community and home settings. An Australian systematic review of models of palliative care¹¹⁴ concluded that best practice palliative care should be accessible to all who need it in a timely manner, tailored to individual patient and family's palliative care needs, and extend beyond organisation and disciplinary boundaries as required via strategies that support community and coordination.

It recommended that population-based models of palliative care should support case management via integration of specialist palliative care with primary and community care services, and enable transitions across settings, including residential aged care settings. A multidisciplinary model of care with good communication between primary and secondary care and with the voluntary sector is essential.

“Providing care to people approaching and reaching the end of their life, their families and carers is everybody’s business.”¹¹⁵

There is evidence that early involvement in end-of-life care planning increases satisfaction and can increase the likelihood of someone being able to die at home.¹¹⁶ Consultation within the first 24 hours of admission has been demonstrated to positively impact length of stay.

There are some groups in the community who have special needs in relation to palliative and end of life care. These include people with dementia, children and adolescents, Aboriginal people and those from different cultural and linguistic backgrounds.

NSW Health acknowledges¹¹⁷ that of all the people in NSW who die of cancer or of other conditions where death is predictable, only about 10% receive specialist palliative care services in their last year of life. There is thus a great imperative to address this gap in the healthcare journey. Not all people wish to die at home, however increasing community based services would reduce the need for a large increase in palliative care beds and reduce the length of stay in these beds. This includes more home care packages available from NSW Health to support people in their last days at home and avoid the need for admission.

RECOMMENDED MODELS OF PALLIATIVE CARE

PEACH at SWSLHD provides palliative care at home in the last days of life, including evening RN visits and overnight tele support (in collaboration with Silver Chain nursing service); and MacMillan Trust in UK, a cancer trust for in-home palliative care nursing.

The King’s Fund identified opportunities for improving end-of-life care, including:

- Providing workforce training and support across a range of health and social care settings
- Identifying people in the last year of life in advance in order to discuss and plan care
- Ensuring effective assessment and advance care planning
- Strengthening coordination and discharge planning
- Ensuring adequate provision of specialist palliative care services
- Supporting RACF residents to die in the care facility rather than in hospital
- Providing home-based services, including care provided by primary care, domiciliary care teams, home health care providers and focused home nursing services, and training of these services in end-of-life care especially for elderly people and people with dementia.

Oliver D, Foot C & Humphries R. (2014) Managing our health and care systems fit for an ageing population The King’s Fund, London pp50

¹¹³ ACI (2013) Framework for the Statewide Model for Palliative and End of Life Care Service Provision URL: http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0019/184600/ACI-Framework-for-Statewide-Model-of-PEoLC-Service-Provision.pdf

¹¹⁴ Luckett et al 2014. Elements of effective palliative care models: a rapid review. BMC Health Services Research 2014;14:136. DOI: 10.1186/1472-6963-14-136 URL: <http://www.ncbi.nlm.nih.gov/pubmed/24670065>

¹¹⁵ NSW ACI, Palliative and End of Life Care – A Blueprint for Improvement (“The Blueprint”). Available at: <http://www.aci.health.nsw.gov.au/palliative-care-blueprint> Accessed 18 March 2016

¹¹⁶ Oliver D, Foot C & Humphries R. (2014) Managing our health and care systems fit for an ageing population The King’s Fund, London pp50 URL: http://www.kingsfund.org.uk/sites/files/kt/field/field_publication_file/making-health-care-systems-fit-ageing-population-oliver-foot-humphries-mar14.pdf

¹¹⁷ NSW Health, 2012, The NSW Government plan to increase access to palliative care 2012-2016

SGH PALLIATIVE CARE SERVICES

Palliative Care services at SGH are part of a networked level 6 service with CHCK and Sutherland Hospital, and provide a medical consultation and nursing service to patients with a life threatening illness from a variety of disciplines, including cancer and non-cancer diagnoses, when relief from symptoms or pain management may be required.

There are no designated palliative care beds at SGH, with patients transferred to CHCK or other appropriate facilities for multi-disciplinary inpatient palliative care. CHCK also provides all community based palliative care, to help keep people at home for as long as possible and avoid acute and sub acute admission.

The majority of patients seen by the service are oncology patients. Complex non-malignant patients reaching end of life are assessed by the Palliative Care service, and referred at discharge to the Community Palliative Care team (CPCT) for ongoing support if they have complex needs; otherwise, to the care of the treating specialist team e.g. Respiratory or Heart Failure services, and/or GP, often in RACFs – where follow up and referral at the appropriate time is difficult to achieve.

Not all patients type changed to Palliative Care at SGH are managed by the Palliative Care service, and there is a significant cohort of patients whose uncomplicated end of life care is managed by their treating specialist. Currently these patients are being managed on acute wards, which does not provide an ideal environment for end of life care and hampers whole of hospital flow.



WHAT ARE WE DOING NOW FOR END OF LIFE PLANNING AND CARE?

The SESLHD Plan for Comprehensive Care at End of Life,¹¹⁸ which aligns with the priorities of the National Safety and Quality Health Service Standards for End of Life Care,¹¹⁹ aims to enable SESLHD facilities to provide and demonstrate high quality end of life care to patients through ensuring:

- Early recognition that a person may be approaching or reaching the end of life
- Care provided is based on the carefully assessed needs of the patient, carer and family
- Seamless transitions occur across all care settings
- Appropriate access to specialist palliative care is provided when the patient/family and carer needs are complex
- Quality care is provided during the last days of life
- Support is given to people through loss and grief.

Advance care planning /directives at SGH recommend that all clinical departments discuss and have a clear plan that incorporates advance care planning and highlights departmental clinical triggers for either having or referring the patient for an ACP discussion. The wishes conveyed in an Advance Care Directive (ACD) can guide both treatment limitations and active treatment. Even if the patients and families decide not to proceed with documenting a formal ACD there is still significant benefit to the planning discussion.¹²⁰

SGH Palliative Care service provides care that supports the objectives of the SESLHD Plan for Comprehensive Care at End of Life, including:

- Consultative medical and nursing inpatient services
- Outpatient palliative care clinics
- Referral to dedicated inpatient specialist palliative care beds at CHCK when required
- Referral to community services for home based care, provided from CHCK
- Nurse practitioners (provided from CHCK) to support end of life management in RACFs.

Another model of end of life care at SGH includes HOPE: Helping Older People with End-Stage Kidney Disease.

¹¹⁸ SESLHD Plan for Comprehensive Care at End of Life URL: <http://seslhnweb/News/2018/Lifecare.asp>

¹¹⁹ National Safety and Quality Health Service Standards for End of Life Care, Second Edition, p. 43. URL: <https://www.safetyandquality.gov.au/wp-content/uploads/2017/11/National-Safety-and-Quality-Health-Service-Standards-second-edition.pdf>

¹²⁰ Clinical Business Rule SGSHHS CLIN314. Advance care planning/ directives at St George Hospital URL: http://seslhnintranet/SGSHHS/Business_Rules/Clinical/documents/A/Advance_Care_Planning_%20Directives_STG_SGSHHS_CLIN314.pdf



RECOMMENDATIONS FOR THE FUTURE

MODELS OF CARE:

- Consider a community wide long term care approach which focuses on any long term disease in need of palliative care,¹²¹ including addressing patient's psychosocial needs. Evaluation of this approach "supports more widespread adoption by other key care programs, particularly chronic care programs"¹²²
- Collaboration with the PHN to consider efficient, bespoke and sustained models of care to address for growing demand for community based palliative care services
- Start the advanced care planning conversation in the hospital setting, to allow general practice to continue to support the process rather than initiate it
- Expand CPCT to meet the rising demand from patients wishing to be cared for at home for as long as possible, including in homes and RACFs. With more community based care, some admissions could be avoided. The rate of people dying at home is directly related to the amount of in home nursing care that is available. A particular gap is in overnight support for palliative care patients at home
- Continue to liaise with the two nurse practitioners in CPCT working with Residential Aged Care Facilities, (who liaise with SGH and TSH teams), according to current integrated service working practice, to ensure residents can die at home
- Continue providing clinics in the Cancer Care Centre (with the exception of non-cancer haematology) rather than in an Ambulatory Care precinct due to most people seen in clinics are cancer care patients, with non-cancer patients being managed by GPs and other subspecialty services such as Heart and Respiratory Failure and Renal Supportive care, who refer back to Specialist Palliative Care if and when this is required
- Enhance pathways for direct admission to CHCK to avoid ED presentations and unnecessary acute admissions at SGH with:
 - Pathways for known patients from ED
 - Increased use of Ambulance Palliative Care Plans
 - Increased implementation of advanced care planning
 - GP referral for lower acuity patients
- Engage with medical specialty teams (e.g. aged care, renal, respiratory, cardiology) to develop sub acute pathways to admission to CHCK and earlier identification of palliative care needs
- Ensure that funding for new models of care is recurrent and not time limited
- Acknowledge the role of palliative care in integrated care, with potential for cross specialty registrar/ nursing training and development
- Consider the establishment of a District wide Palliative Care stream, separate from Cancer
- Consider the development of a Subacute Clinical Services Plan for SESLHD.

TECHNOLOGY:

- A centralised referral system and database for palliative care for inpatient and community services would improve access and referral for services
- Pathways to fast track admission from ED to CHCK of known patients and avoid the need for acute admission at SGH or TSH, e.g. with eMR alerts, CHCK admission criteria
- eMR flags for ACPs and ambulance palliative care plans, with links to palliative care service.

¹²¹ See The Catalan Institute of Oncology (Barcelona, Spain) model, a designated World Health Organization Collaborating Centre for Public Health Palliative Care Programmes, described in: Ela S, Espinosa J, Martínez-Muñoz M, Lasmarías C, Beas E, Mateo-Ortega D, Novellas A, Gómez-Batiste X. The WHO collaborating centre for public health palliative care programs: an innovative approach of palliative care development. *J Palliat Med.* 2014 Apr;17(4):385-92. doi: 10.1089/jpm.2013.0203. Epub 2014 Jan 16. URL: <http://www.ncbi.nlm.nih.gov/pubmed/24432817>

¹²² Gómez-Batiste X, Blay C, Martínez-Muñoz M, Lasmarías C, Vila L, Espinosa J, Costa X, Sánchez-Ferrin P, Bullich, Constante C, Kelley EJ. The Catalonia WHO Demonstration Project of Palliative Care: Results at 25 Years (1990-2015). *J Pain and Symptom Management.* 2016 Jul;52(1):92-9. doi: 10.1016/j.jpainsymman.2015.11.029. Epub 2016 May 24. URL:<http://www.ncbi.nlm.nih.gov/pubmed/27233146>

STAFFING:

- Provide additional staffing (medical, nursing and allied health) to support the growth in people requiring palliative care (cancer and non-cancer) at SGH
- Establish dedicated social work and allied health support at SGH for palliative care to reduce load on nursing staff and for better liaison services for patients
- Enhance CPCT support to meet the rising demand from patients wishing to be cared for at home for as long as possible, including in homes and RACFs
- Consider the introduction of medical support for nurse practitioners in RACFs, similar to the GFS model, to support advanced care planning, GP management of palliative care and avoid the need for admission
- Consider expansion of on site after hours medical cover (overnight and weekend) at CHCK to:
 - Allow for higher acuity patients to be accepted by CHCK
 - Avoid the need for transfer back to SGH ED of deteriorating patients from CHCK or CPCT
 - Allow earlier transfer to CHCK and reduce acute length of stay at SGH or TSH.

INFRASTRUCTURE:

- Provide palliative care beds for the cohort of patients at SGH who are not suitable for transfer to specialist palliative care at CHCK, e.g. too medically unwell, who require uncomplicated end of life care, or for short term symptom management, close to or within Oncology wards, with appropriate access to specialist palliative care provided when the patient/family and carer needs are complex
- Maintain specialist palliative care beds and service at CHCK
- Consider a public/private partnership with RACFs to provide dedicated palliative care beds for those not requiring medical support.

4.3 BUILDING BETTER VALUE, FINANCIAL RESPONSIBILITY AND SUSTAINABILITY ACROSS THE SYSTEM

GOAL

TO ACHIEVE FINANCIAL SUSTAINABILITY BY MAKING INVESTMENTS CONSISTENT WITH OUR AMBITIONS AND ELIMINATING WASTE

St George Hospital and Community Health Services are expected to deliver consistently high quality care at lower cost and against rising expectations and demand. Meeting these rising demands within existing funding and staffing resources will require new evidence based treatments, technologies and models of care to enable the delivery of the best care at an acceptable cost. Hard decisions will need to be made about which services will leave hospitals to be better managed in the community or ambulatory setting.

The Organisation for Economic Cooperation and Development (OECD) suggests that about one fifth of healthcare spending across OECD countries is wasted, “ranging from clinical (for example, adverse events and overprescribing of antibiotics) to operational (such as low levels of generic drug substitution and variation in procurement prices for same products) to governance related waste (for example..... time consuming reporting practices).¹²³

“Communities value affordability, accessibility, personalisation and quality, service deliverers seek quality, patient satisfaction, professional reward and remuneration, and governments merit quality, safety and cost–benefit return.”

Jackson C and Hambleton S. Value co-creation driving Australian primary care reform. *Med J Aust* 2016, 204 (7 Suppl): S45.

Safety, quality and reducing waste and inefficiency are important areas of focus in order to deliver sustainable health care into the future. This requires:

- An ongoing continuous improvement of processes and systems to define the appropriateness of care, i.e. low versus high value care, and an effective system to monitor progress
- Using state wide, national and international healthcare datasets to measure value and the benefit of change
- Identifying low value models of care currently in use and considering their service implications and potential for rationalisation
- In cooperation with consumers, staff, key partners and stakeholders, co-create new models of care aimed at reducing waste and improving integrated, person centred care
- Ensuring the perspective of patients and service users ¹²⁴ (in terms of their care experiences as well as their health outcomes) as well as the systems' or organizational perspectives are considered when measuring and evaluating outcomes
- Providing Research funding that is pertinent to:
 - Population health programs to keep people healthy along the life course
 - An ageing population, e.g. for Dementia and conditions of increased morbidity and disabling conditions in the latter stages of life
- Ensuring a sustainable workforce. The health workforce is ageing and it will be challenging to replace these experienced people. It is important to grow an effective, skilled workforce with both generalist and specialist skills to allow transformation of care into the future.

¹²³ Chalkidou, K. Eliminating waste in healthcare spending. *BMJ* 2017;356:j570 doi: <https://doi.org/10.1136/bmj.j570> (Published 07 February 2017)

¹²⁴ Nuño Solinís R, Stein KV. Measuring Integrated Care – The Quest for Disentangling a Gordian Knot. *International Journal of Integrated Care*. 2016;16(3):18. DOI: <http://doi.org/10.5334/ijic.2525>

EIGHT FORMS OF WASTE IN HEALTHCARE



UNDERUTILISATION



INVENTORY



MOTION



UNDERUTILISATION



TRANSPORTATION



WAITING



EXTRA PROCESSING



OVERPRODUCTION

Source: A3 Healthcare. Based on LEAN training philosophy. URL: <http://www.a3healthcare.com/training-and-certification/>

The incentives created by accountable care and other value-based purchasing initiatives (such as the new Medicare funding model for people with long term conditions managed by primary care – Health Care Homes¹²⁵) may prove cost effective in reducing emergency presentations and hospital admissions in the longer term. Securing greater value and sustainability for health services of the future is thus largely contingent on better models of care, support and treatment for these high need groups who need ongoing care, including at the end of life.¹²⁶

Funding and budgetary arrangements also need to consider the savings that ultimately accrue to society or consumers by improving outcomes for patients, rather than siloed delivery and funding models. Value and sustainability is thus based on what is best for the patient and health system, with a focus on achieving agreed outcomes that benefit whole communities. Taking a values-based approach to health makes improved wellbeing, independence, social connectedness, choice and control a priority, and supports people to manage their own care.

Combining information and data collected on disparities in health and wellbeing with strategies that reach and are coproduced with those people most in need will help generate improvement of population and community health, and thus provide greater value and long term sustainability for our health system.

“Delaying the onset of long term conditions into later old age will need very different interventions from traditional healthcare and will improve the value proposition for population health considerably.”

Involving patients and carers in the design of services, in identifying priorities for research and understanding their perceptions of care will improve their experience, create efficiencies and add value.

KPMG 2014. Creating new value with patients, carers and communities

¹²⁵ Aust. Govt. Media Release 31 March 2016. Health Care Homes to keep chronically-ill out-of-hospital. URL: [http://www.health.gov.au/internet/ministers/publishing.nsf/Content/B54E87C87AA06842CA257F8700210C62/\\$File/SL024.pdf](http://www.health.gov.au/internet/ministers/publishing.nsf/Content/B54E87C87AA06842CA257F8700210C62/$File/SL024.pdf)

¹²⁶ NHS Sept 2015 Realising the Value How should we think about value in health and care? URL: https://www.nesta.org.uk/sites/default/files/how_should_we_think_about_value_in_health_and_care.pdf

Value: broadening the focus	
Not only...	But also...
Specific clinical outcomes	Wider health and wellbeing impacts
What the system values, e.g. cost and value for money indicators	What people and their communities value, i.e. the outcomes most important to them
Patient experience, i.e. what direct contact with services feels like	Wellbeing, e.g. quality of life; people feeling supported, in control, socially connected and independent
Immediate outcomes of a single service, e.g. success of a treatment	Outcomes over time of all the services and support a person or community may draw upon
Individual outcomes for the person	Equity in health and wellbeing, with greatest value achieved by targeting people and groups with greater need, lower health literacy, least access etc

Source: NHS England. Realising the Value: New approaches to value in health and care. . URL: <http://www.health.org.uk/sites/health/files/RtVNewApproachesToValue.pdf>

LEADING BETTER VALUE CARE (LBVC) PROGRAM¹²⁷

NSW Health is changing its focus away from the traditional approach of measuring value in terms of volume/output in relation to costs, to measuring value in terms of the Triple Aim, (described previously in 3.1.1), with an emphasis on the delivery of value based care.

The key goals of the LBVC program are to:

- Focus on patients through adopting a patient experience and health outcomes approach
- Focus on value across the triple aim to support moving away from volume
- Address future demand and fiscal pressures by creating future system capacity through efficient and effective care and services.



LBVC initiatives will impact clinical teams across NSW who are caring for people:

- With osteoarthritis
- At risk of osteoporotic refracture
- With chronic heart failure
- With COPD
- With diabetes
- At risk of diabetes related foot complications
- At high risk of falls in hospital
- With end stage renal disease.

All of NSW shared services and pillar agencies are part of the support network for the implementation of the LBVC initiatives, including investment in analytics to support informed decision making. SGH & CHS's relationship with the CESPHN will be critical to the work of providing better value healthcare.

¹²⁷ NSW Health. Leading Better Value Care URL: <http://eih.health.nsw.gov.au/bvch>



WHAT ARE WE DOING NOW TO BUILD VALUE AND FINANCIAL RESPONSIBILITY AND SUSTAINABILITY ACROSS THE SYSTEM?

- Value Improvement Plans at SGH & CHS produced \$7.2 million worth of savings in 2016. There are a number of projects underway investigating variation, best practice processes and potential efficiencies. These include:
 - The investigation of variation in lengths of stay for cardiothoracic surgery patients
 - The sensible test ordering of Pathology project (STOP), to improve the quality of pathology ordered within our hospitals to minimize risk of harm to patients and to reduce waste. The project has already begun at Sutherland and SGH & CHS with significant savings and identified that the bulk of waste occurs through the repeat collection of 'routine' high frequency tests. The goal of the Project is to minimise unwarranted clinical variation in pathology ordering and reduce overall pathology collections, while improving pathology service user experience
 - Many of the new strategies submitted by SGH & CHS refer to renegotiations with vendors/suppliers to improve pricing and reduce expenditure on their goods and services
 - Increased data quality and improved access to data to make informed operational decisions
 - Introduction of the Vendor Managed Inventory (VMI) system.
The aim of the project is to: improve the supply chain management of ward Imprest medication and increase Pharmacy clinical capacity. This project will also assist with the adherence to the District's preferred supplier arrangement. This arrangement is District wide, thereby allowing facilities to purchase stock and District level (rather than facility level) volumes.
- LBVC initiatives underway include:
 - renal supportive care services
 - some high risk foot services, which will progress into the future
 - planning for the implementation of a refracture prevention service.



RECOMMENDATIONS FOR THE FUTURE

- Continue to identify opportunities to eliminate waste, duplication and variation across the system to provide reliable, exemplary care in the right place at the right time, delivered by the right clinicians
- Consider the development of care pathways for specified conditions to reduce variations in outcome
- Continue to implement the recommendations of the NSW Health LBVC Program.

4.3.1 EMBEDDING CONTINUOUS QUALITY IMPROVEMENT AND INNOVATION ACROSS THE SYSTEM

GOAL

TO CONTINUOUSLY IMPROVE THE SAFETY AND QUALITY OF HEALTHCARE AND PEOPLE'S EXPERIENCE OF CARE AT SGH&CHS

Quality improvement and innovation requires a systematic process focussing on activity to reduce waste, harm and variation, safety, transparency, providing efficiencies, and to improve health outcomes, performance, and patient satisfaction. Measurable goals need to be identified for tracking performance and evaluation so that improvements are linked to performance measures.

SESLHD is building the capacity and capability of staff across the system to use improvement science as an enabler to transform healthcare. Improvement science is “an applied science that emphasizes innovation, rapid-cycle testing in the field, and spread in order to generate learning about what changes, in which contexts, produce improvements. It is characterized by the combination of expert subject knowledge with improvement methods and tools.”¹²⁸ Improvement models employ Plan-Do-Study-Act (PDSA) cycles for small, rapid-cycle tests of change.

The SESLHD Improvement Academy aims to build a centre for lifelong learning within the District and to foster a culture of staff-led, continuous improvement. This will be achieved through building capacity and capability in improvement, including:

- Using customised education for the entire workforce at all levels of the organisation
- The Bright spots program, which provides an opportunity for teams across SESLHD to celebrate their achievements in improving patient care and share what makes them proud
- The Inspiring Ideas Challenge (TIIC) Program, to improve the health and wellbeing of patients, staff and/or the broader community, through the application of innovative ideas. The TIIC Program provides staff with the opportunity to contribute to and generate ideas as a SESLHD community and foster a culture of innovative thinking. SGH & CHS has submitted a number of initiatives
- Whole of system improvements using the Breakthrough Series Collaborative with facilities, multi-disciplinary teams and services are being used to identify specific and measurable aims in a chosen topic area, measure improvements over time (generally 6-15 months), and identify changes that facilitate the desired improvements.

WHAT ARE WE DOING NOW FOR IMPROVEMENT?

- Examples of Improvement programs currently underway include:
 - SESLHD Mental Health Patient Safety Program – Towards Zero Together, which aims to reduce harm to patients in hospital and those accessing our mental health services through initiatives such as improving the reliability of our clinical processes
 - SESLHD Acute Adult Patient Safety Program, with twenty-nine teams from across the District coming together to work on reducing harm and improving reliability for ventilator associated pneumonia, catheter associated urinary tract infections and recognition and management of the deteriorating patient
 - Emergency department – Management of Pain in the Fractured Neck of Femur Patient, with Fascia Iliaca Block (FIB)
 - ‘Nurse Lead Discharge in the ED’

¹²⁸ Institute for Healthcare Improvement. The Science of Improvement. URL: <http://www.ihl.org/about/Pages/ScienceofImprovement.aspx>

- 'The Heart of Caring', a framework to support the wellbeing of our nurses in delivering patient care. A range of resources have been developed, based on a collection of quotes and excerpts from fifty nurses and midwives who shared their stories of compassion, encouraging reflection on practice and engagement with one another to work towards providing the compassionate care every person deserves. This includes providing 'Person Centred Compassionate Care', 'making a difference to the care experience', 'supported by 'teamwork' and that 'self-care and well-being is essential to achieving better outcomes'
- The 'Big Conversation' provide opportunity for staff feedback on ways to improve service and system performance and find out what is important to them.



RECOMMENDATIONS FOR THE FUTURE

- Continue to identify and implement quality improvement opportunities both at SGH & CHS and working collaboratively across SESLHD
- Continue to foster and support innovation
- Ensure ongoing access to staff education
- Continue to build clinically led pathways to ensure standardised protocols for agreed conditions to reduce variation in outcomes and improved access to services (See Intermountain Healthcare¹²⁹, USA, which has over 120 standardised workflows)
- Continue to provide/enhance access for consumer, staff and community feedback.

4.3.2 ENABLING AN EMPOWERED WORKFORCE

GOAL

TO BE A LEARNING ORGANISATION THAT VALUES OUR PEOPLE AND INVESTS IN THEIR LEARNING TO ENSURE THEY HAVE THE RIGHT SKILLS AND KNOWLEDGE TO DO THEIR JOBS WELL

ENSURING ADAPTIVE LEADERSHIP AND DEEP CLINICAL ENGAGEMENT

Leadership is about connectedness through shared vision, co-ownership, co-design and empowering partners in implementation.¹³⁰

To be successful, organisations must constantly adapt and change in order to respond to a changing health context and environment. Leaders need to be responsive in seeking out and supporting new ways of working. Evidence suggests that the best performing hospitals have high staff engagement in decision making and widely distributed leadership. Leaders who engage staff, patients and others deliver better results on a range of measures, and engaging staff and patients is essential in making change and improvement happen.¹³¹

¹²⁹ Baker G.R., et al 2008. "Intermountain Healthcare." High Performing Healthcare Systems: Delivering Quality by Design. 151-178. Toronto: Longwoods Publishing. <http://www.longwoods.com/content/20146>

¹³⁰ Alimo-Metcalfe B, et al The impact of engaging leadership on performance, attitudes to work and wellbeing at work: a longitudinal study. J Health Organ Manag. 2008;22(6):586-98. URL: <https://www.ncbi.nlm.nih.gov/pubmed/19579572>

¹³¹ The Kings Fund Leadership Review 2012. Leadership and engagement for improvement in the NHS URL: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/leadership-for-engagement-improvement-nhs-final-review2012.pdf

Effective leaders motivate and engage staff and work across organisations and systems to deliver the transformational improvements and changed ways of working on which the health care system of the future depends.

Rising to the challenges of future healthcare will require leaders giving priority to patient and staff engagement, and to working in partnership with other systems. Integrated care and integrated systems require strong leadership across the different organisations and systems of care to support the needs of patients and populations. Leadership development programmes should thus bring together leaders from different groups and professions within and outside health care.

There is strong evidence to show the link between managerial and clinical leaders who have learned the skills of improvement and are able to put them into practice, with high levels of staff engagement and development and organisational performance.¹³²

A TRANSFORMED AND EMPOWERED WORKFORCE

A sustainable, skilled and adaptable health workforce is crucial to delivering high quality healthcare in the changing health landscape and to meet the challenges for health and social care into the future. This will include more flexible use of current staff, greater use of non-medical staff and new digital technologies.¹³³ New structures and career pathways will be required to retain and develop the health workforce of the future.

To address population health needs and a sustainable health economy, future work practice and models of health care will have greater emphasis on primary and preventative health care and addressing the inequities of health outcomes.¹³⁴ New workforce roles may emerge, and interventions to improve care for complex patients may require a realignment of clinical and professional roles of the workforce.

This may mean a change of setting for the delivery of health services from the traditional hospital-based model, and making use of our workforce in a way that makes best use of their skills, allows further changes in roles, and provides sustainable services. It may mean working in multidisciplinary and multi-organisational settings to deliver person centred care, as well as partnering with staff from non-medical backgrounds to meet people's social needs.

Workforce redesign will need to ensure the most efficient distribution of services, remove duplication of services, and ensure that patients receive the right care, in the right place, at the right time, with staff and consumers engaged in change management. Specialised staff will be essential to provide high quality, high technology care when such specialised intervention is required, however patients with multiple conditions may need clinicians with broader based skills who can provide more generalist care.

Key health staff in the future will include nurse practitioners and advanced scope of practice allied health practitioners, particularly for lower-risk patients. A greater variety of and access to community health / home based providers will also be required. A shortage of these key staff may limit the implementation of new models of care to meet demand.

It is also necessary to consider the complementary non clinical workforce and the enabling infrastructure and systems necessary to support the clinical workforce of the future. This includes managers, administrative staff, human relations, project support, business intelligence, finance, analytics, food services, cleaning, engineering, portering, etc. that allow the efficient delivery of patient care.

It is important to note that although evidence supports community-based alternatives to improve the quality of care, they are unlikely to deliver significant net savings.¹³⁵ In the current climate of activity based funding (ABF), this is an important consideration in implementing new models of care and workforce transformation.

Organisations with engaged staff and patients deliver better patient experience, fewer errors, lower infection and mortality rates, stronger financial management, higher staff morale and less absenteeism and stress, with improved organisational performance.

The Kings Fund Leadership Review 2012.
Leadership and engagement for improvement in the NHS

¹³² Baker G 2011. The Roles of Leaders in High-Performing Health Care Systems. London: The King's Fund. URL: www.kingsfund.org.uk/publications/articles/leadership_papers/the_roles_of_leaders.html

¹³³ Imison C, Sonola L, Honeyman M, Ross, S. Kings Fund 2014. The reconfiguration of clinical services. What is the evidence? URL: <https://www.kingsfund.org.uk/publications/reconfiguration-clinical-services>

¹³⁴ NSW Health. Health Professionals Workforce Plan 2012-2022 URL: <http://www.health.nsw.gov.au/workforce/hpwp/pages/default.aspx>

¹³⁵ NSW Health. Health Professionals Workforce Plan 2012-2022 URL: <http://www.health.nsw.gov.au/workforce/hpwp/pages/default.aspx>



WHAT ARE WE DOING NOW TO ENABLE OUR WORKFORCE?

- Identifying and nurturing its current and future leaders through offering a range of leadership programs, such as the Emerging Leadership program
- Offering mentoring and professional development opportunities for high-potential staff members
- Regular Staff Forums to keep staff engaged and aware.



RECOMMENDATIONS FOR THE FUTURE

- Build the capacity of senior staff with leadership and general management skills for the benefit of the health service of the future, with Staff Education programs including research and technology, population health, leadership, change management, system redesign and quality assurance and ensuring adequate time is made available away from clinical responsibilities for these initiatives
- Facilitate new career pathways into senior administrative roles beyond traditional boundaries, which will allow more diverse career pathways
- Ensure appropriate staffing resources to provide new ambulatory care and outpatient services and enhanced community services to support the shift in balance from acute hospital to community based care
- Partner with Universities to ensure that teaching and education aligns with new career pathways
- Recognise new workplace roles e.g. nursing and allied health led clinics, advanced practice nursing and allied health practitioners, allied health assistants, general physicians
- Acknowledge changed settings for some services, e.g. in homes and RACFs; increased day only services; digital monitoring; increased telehealth.

4.3.3 TECHNOLOGY ENABLED

GOAL

TO USE THE BEST AVAILABLE TECHNOLOGY AND DATA ANALYTICS TO HELP MAKE BETTER, SAFER QUICKER AND MORE INFORMED DECISIONS AND SERVICES

HARNESSING INNOVATIVE HEALTH TECHNOLOGY

Digital technologies are a critical enabler to transform the way healthcare is delivered. Harnessing technology has the potential to provide training and clinical decision support, to support standardisation of processes where required, to improve safety, reduce variation in outcomes, to improve access to services, and to enhance self-management.

The Kings Fund¹³⁶ identified key areas of technology that will continue to advance the provision of health care:

- The thin client or smartphone (app's and large scale research)
- At home or portable diagnostics (hospital level diagnostics in the home or Smart assistive technology)

¹³⁶ Gretton C, Honeyman M. The Kings Fund 2016 The digital revolution: eight technologies that will change health and care URL: <http://www.kingsfund.org.uk/publications/articles/eight-technologies-will-change-health-and-care>

- Smart or implantable drug delivery mechanisms (Smart pills and implants)
- Digital therapeutics (computerised cognitive behavioural therapy and new preventative digital therapies)
- Genome sequencing (falling costs and population level studies)
- Machine learning (Big data sets)
- Block chain (decentralised health records)
- Connected community (peer support and contributions to research).

Innovative health technology also facilitates the linking of information and services to improve patient access and efficiency, including MyHealth Record, telehealth and teleweb services, remote health monitoring and medication management technologies.

Technology may also be used to support people self-manage their health more easily, for example text reminders for lifestyle interventions, phone and web services to support self-management, computer games as therapy, apps and decision aids to support patient decisions, care navigation aids and peer support networks.

It can also be used to monitor the patient experience and outcomes, to ensure this is embedded in all performance management and governance.

TECHNOLOGICAL TRENDS SHAPING THE FUTURE OF HEALTH

In the future, health care will be increasingly personalised, with intelligent designs to improve the management of our health and wellbeing. Some of these intelligent designs may include¹³⁷ :

- Artificial intelligence: Using big data from virtual computer networks working together to advise on medical decisions from translational research, generating insights into lowering costs and creating better outcomes
- Genomics: DNA analysis will become a standard step when prescribing treatment, to ensure it is personalized and optimized for a particular patient's metabolic background
- Surgical and humanoid robots: Robotic-assisted surgery to enhance the skill of the surgeon and allow for less invasive procedures. Advanced robots will be able to perform an operation remotely. It is noted that robots have poor versatility and adaptability compared to humans, but they will become much more integrated into surgical teams
- Body sensors: Technology to measure critical health parameters in order to make better, more informed quantifiable decisions in convenient and inexpensive ways, e.g. electronic clothing paired with sensors
- Portable diagnostics and management: Evidence based customised medical applications for personalised care to allow diagnostic procedures with portable devices and able to be performed from home, e.g. for monitoring blood pressure or choosing medications. The smartphone may serve as a health-medical dashboard
- Simulation: Computational cognitive architecture will simulate how human physiology works. Virtual experimentation through simulation could test numerous samples on virtual patients in an extremely short time period, reducing the need for animal or human experimentation and improving the time to translation of research
- Augmented reality and virtual reality: To expand and enhance communication, e.g. a surgeon can stream a live surgery procedure in order to create an enhanced learning tool for students, or to allow patients to share information and concerns directly with health and social care providers
- Regenerative medicine: Seeks to aid those who suffer from organ failure or loss by providing them with artificially created replacement organs, i.e. to replace the functionality of organs with biomaterials and synthetic devices, and to grow functioning organs for replacement
- Proton Therapy: Technologically advanced treatment of cancer that causes less damage to healthy tissue surrounding the tumour, resulting in fewer side effects and a better quality of life during and after treatment. It is likely to replace traditional radiation therapy in the future

¹³⁷ Meskó B. The Guide to the Future of Medicine. URL: <https://medicalfuturist.com/wp-content/media/2013/10/the-guide-to-the-future-of-medicine-white-paper.pdf>

- Adherence Control: improving adherence and compliance are crucial to improving patients' health and decreasing the cost of healthcare. Technological solutions to make compliance easier such as a pill bottle that glows blue when a medication should be taken and red when a dose is missed, or tiny digestible sensors that can be placed in pills and transmit pill digestion data to physicians and family members is already under development
- Inter-disciplinary Therapies: Combining knowledge from different specialties and cognitive computing to improve patient outcomes, e.g. using social media and other digital technologies to help us collaborate for solutions.

DIGITALLY CONNECTED

Information Technology is managed by the SESLHD and is a vital component of providing safe, reliable, quality care.

The SESLHD ICT Strategy¹³⁸ identifies six focus areas to facilitate the priorities of the SESLHD Roadmap to the Delivery of Excellence:

- Core Clinical Systems
- Integrated Care Solutions
- Workforce and Business Management Systems
- Data and Analytics
- Access to Information
- Infrastructure and Security.



Source: SESLHD ICT Strategy

SGH & CHS uses Information Technology to manage patient bookings, hold patient information and monitor the patient journey. The key clinical information system is the eMR. The eMR receives patient demographic data from the Patient Administration System (PAS) and clinical data from attached modules. Examples of these modules are the Patient Flow Sheet, FirstNet (ED specific), SurgiNet (operating room specific), Outpatient Scheduling, Electronic Medications Management, Community Health and Outpatient Care, Mental Health and Drug and Alcohol. PACS/RIS and EIR systems digitise and store radiology images for both rapid access and integration with the patient's eMR. The ARIA integrated Cancer Patient data record is used at SGH.

The District Information Management Services has a dedicated support team that manages and configures the eMR. There are other teams that provide support for applications in addition to information technology operations who ensure that the ICT infrastructure is in place to support the clinicians in their day to day work. The redevelopment of the SGH & CHS campus will include:

- Core ICT infrastructure
- Service delivery platforms
- Service delivery applications
- Operational processes.

In response to technological constraints across NSW Health, eHealth NSW has developed and is in the process of deploying a number of clinical, corporate and infrastructure programs. These include:

- The eHealth NSW Information Services' application support services team for iPatient Manager has deployed a solution that automates SMS reminders for appointments
- The Health Wide Area Network will deliver a highly secure and reliable state-wide network

¹³⁸ URL: <http://www.seslhd.health.nsw.gov.au/HealthPlans/documents/2017/ICTStrategy.pdf>

eHealth NSW is working to:

- Provide a State-wide Conferencing, Collaboration and Wireless (CCW) solution that supports clinical services across NSW Health. Further, a number of telehealth terminals have been deployed across NSW to support the delivery of patient-centred care to regional and rural NSW patients
- The HealtheNet system can be accessed by NSW Health community health clinicians, through a patient’s eMR. HealtheNet provides a summary view of a patient’s available health information and also sends discharge summaries to a patient’s nominated GP
- A patient/guest Wi-Fi solution: Health Infrastructure will provide systems to facilitate in-building coverage for mobile phones in addition to Wi-Fi infrastructure, in accordance with agreed NSW Health standard.

ANALYTICS CAPABILITY

Health analytics is the “use of data, technology and quantitative and qualitative methods aimed at gaining insight for making informed decisions to improve health outcomes and health system performance.”¹³⁹ It is a useful tool to generate evidence to help streamline and inform operations in healthcare, drive better health outcomes for our patients and community, and ensure evidence-based practice is embedded in our health system. Health data is also collected to inform clinical decisions and can be used to shape personalized predictive medicine.

Data analytics can also assist clinical redesign. For example, the “Stranded Sam” project at St Vincent’s Hospital identified an organisation wide strategy to assist ongoing identification of factors that keep patients in hospital longer than anticipated for an acute illness by improved care coordination, resulting in improved patient flow and safety, reduced length of stay, an improved patient journey and reduced waste of hospital resources.¹⁴⁰

Data analytics at SESLHD is guided by the NSW Health Analytics Framework, which seeks to enable NSW Health “to provide world-class and truly integrated healthcare, by delivering data and insights that support evidence-based decision making, planning and performance”,¹⁴¹ with strong links to whole-of-government initiatives to drive a coordinated approach to analytics. The diagram below outlines the tools available from NSW Health for data analytics.

NSW HEALTH DATA ANALYTICS SNAPSHOT

Data	Security	Where
		 <p>An interactive web-based application on the health of the population of NSW. The app provides access to more than 200 indicator groups and 50,000 views.</p>
Aggregate	Open	 <p>A statistical portal for cancer incidence and mortality.</p>
		 <p>The Healthcare Observer provides access for users to explore data on the performance of the healthcare system.</p>
		 <p>The eChartbook provides an overview of the quality of healthcare services in NSW, designed for use by clinicians and other groups.</p>
Micro Data	Available on Request	<p>The Ministry of Health and the Cancer Institute NSW offer a data request service for access to data and statistics that are not publicly available.</p> <p>Local Health Districts hold highly granular and sensitive data about their own hospitals and performance. This is made available locally.</p>
Patient level linked data	Privacy protecting and Secure	 <p>SAPHaRI is a data warehousing and access facility optimised for sophisticated statistical analysis. It hosts more than 5 terabytes of data with 1,000 variables across 16 data sets.</p>  <p>The Centre for Health Record Linkage makes linked data accessible to the research, government and not-for-profit sectors. It has:</p> <ul style="list-style-type: none"> • linked over 140 data sets • 129 million linked records for 12 million individuals and is growing • releases 500 million records annually

NSW Health. Data analytics for better health. URL: <http://www.health.nsw.gov.au/ohmr/Publications/ref-data-analytics.pdf>

¹³⁹ NSW Health Data Analytics Framework, 2016. p.1. URL: http://www.ehealth.nsw.gov.au/_data/assets/pdf_file/0020/303752/NSW_Health_Analytics_Framework.pdf

¹⁴⁰ LZ Kershaw, B Gardiner, A Morgan, R Smith, C Tsang, S Whalen. St Vincent's Hospital, NSW: Stranded Sam to the Rescue of Long Stay Patients. ACI innovation Exchange. URL: <https://www.aci.health.nsw.gov.au/ie/projects/stranded-sam>

¹⁴¹ NSW Health Analytics Framework, 2016. p.1. URL: http://www.ehealth.nsw.gov.au/_data/assets/pdf_file/0020/303752/NSW_Health_Analytics_Framework.pdf



WHAT ARE WE DOING NOW TO ENSURE TECHNOLOGY ENABLED DECISION MAKING?

- SGH & CHS uses the organisational reporting and business intelligence for transformation (OrBiT) application. The application is a locally developed tool that assists data analysts and senior management in the district with health intelligence on performance, ABF and KPIs
- SGH & CHS uses the Lightfoot tool, a flow based system-wide approach for operational management and to view outcomes on improvement initiatives. For example, an improvement initiative reduced length of stay in stroke and aged care patients and another initiative improved flow of patients through the ED
- SGH is the first metropolitan hospital to implement the eRIC, to integrate ICU records with the eMR and allow for the delivery of ICU handover documents (eHOC), which provides medical and nursing discharge summaries from ICU to the wards
- EMR2 has been implemented across the campus which extends the use of existing eMRs by adding electronic clinical documentation to the inpatient setting
- The introduction of eMEDs, which replaces the National Inpatient Medication Chart and several other drug charts, including the MMP. It is a module within the eMR that enables documentation of medication histories, inpatient and discharge prescribing, nurse administration, and pharmacy review
- Sexual Health CASI (computer-assisted self-interview) – self registration and assessment
- Introduction of near patient testing and rapid molecular testing to improve turnaround time for pathology
- SMS reminders for outpatient clinics for some clinics
- The use of the myBeepr APP, a real-time, mobile, secure communication and workflow application for healthcare professionals which aims to improve communication and workflow for doctors whilst protecting Personal Health Information of patients. It allows collaboration in care teams to improve patient care.



RECOMMENDATIONS FOR THE FUTURE

- Implement a single, integrated patient record accessible from one system in real time that combines all information from multiple sources across the District (inpatient, outpatient, community, etc.) to allow integrated patient care
- Ensure information is accessible from anywhere: The ability to utilise patient information in the provision of care from any location and to provide shared care plans
- Provide a hospital website including a Directory of services available, Consultant list, patient criteria and referral processes
- Improve and increase telehealth capability
- Enable ability to provide remote patient monitoring
- Upgrade medical Imaging



Source: SESLHD ICT Strategy

- Provide a central referral portal, including telephone access for referral, with standard template that can be sent electronically and receipt acknowledged, including timeframe for appointment. Referral pathway should indicate additional information required
- Increased use of MyHealth record and encouragement of patient activation, to enable better communication of information between hospitals and general practice
- Provide greater access to and leverage of quality data to inform new approaches and models of care, including preventive health analytics
- Ensure that patient experience and outcome data is embedded in all performance management and governance
- Capitalise on PHN initiatives such as digital health (secure messaging, MyHealth record readiness program) and HealthPathways initiatives
- Consider a portal for GPs to make comment/complaint or recommendations for patient management / experience or their experience (lack of post discharge information, etc.) so that SGH&CHS can learn of issues and make improvement changes for improved quality of care.

4.3.4 STRENGTH IN EDUCATION AND TEACHING

GOAL

TO PROVIDE A HIGH PERFORMING EDUCATION, TEACHING AND RESEARCH ENVIRONMENT AND PROMOTE A RESEARCH CULTURE ON CAMPUS

The St George Hospital and Health Services Campus provides a high performing teaching, education and translational research environment, with great potential for further expansion. Strong partnerships will be required with universities and other key stakeholders such as professional colleges to enable new career pathways and align teaching and education and translational research with the challenges of future public health service delivery.

EDUCATION AND TEACHING

SGH & CHS is an eminent provider of clinical educational activities for medical, nursing, and allied health students at undergraduate and postgraduate levels, of orientation and training programs for new or junior clinicians, and of continuing and professional development programs. It is a principal teaching hospital of UNSW for medicine, with extensive education programs for medical students in place, as well as education for nursing and allied health students from their associated universities.

There is considerable educational expertise available in the hospital across all clinical disciplines, with dedicated medical and nursing education facilities, and specialist allied health educators. Many staff have experience in designing, conducting and evaluating educational activities, and are experienced and active health education researchers.

There are also a wide range of educational and advanced training opportunities available for staff from the NSW Health Education and Training Institute (HETI).



WHAT WE ARE DOING NOW IN EDUCATION AND TEACHING?

There is currently a wide range of clinical education service delivery modes, ranging from bed side or “point of care” teaching with the involvement of patient, student and educators, small group tutorials or discussion groups, computer training activities, lectures, conferences, clinical skills training, formal multi-disciplinary simulation activities, and on-line education e.g. HETI modules, in a variety of teaching spaces, including the St. George Clinical Skills Centre on Kensington St.

The Skills Centre is very active with a wide range of internal and external teaching programs for skills and simulation teaching. It provides a venue for courses within the hospital and workshops run for external groups. The Centre currently has two simulation rooms, three seminar rooms, a lecture room and a breakout area. The seminar room and skills and simulation rooms equipped with videoconferencing and connects to cameras, computers, simulators, microphones, medical equipment and a video projector. This permits distance learning as well as teaching. Simulators include Orpheus cardiopulmonary bypass simulator, and SimCentral simulation equipment. A number of advanced skills training course are available at the Centre.

The Medical Library, located on the 1st Floor of the Research & Education Building, provides an Information service for clinicians, researchers and support staff at St George Hospital, with on campus access to over 6,000 Journals and 20,000 Text Books.



RECOMMENDATIONS FOR THE FUTURE

The next stage of the redevelopment of the SGH & CHS campus provides an opportunity to create a world class educational environment, including:

- Skill Centre (the Skills Centre is currently within the Kensington Street footprint and a new place will need to be found for it in the redevelopment)
- Rooms for staff, community and other health care groups for educational meetings
- Point of care education space in all wards and outreach clinics
- There would also be benefit in collocating the Clinical Teaching Unit of UNSW [also in a demountable] with the Clinical Skills Centre to capitalise on sharing of resources.

See Section 5.1.8 for further recommendations for the delivery of education on the SGH & CHS campus.

4.3.5 EVIDENCE LED DECISION MAKING

GOAL

TO USE THE BEST AVAILABLE INFORMATION TO HELP MAKE BETTER, SAFER, QUICKER AND MORE INFORMED DECISIONS

RESEARCH

“We are committed to research. Research is the backbone of our ability to provide leading-edge healthcare to our patients and communities.”

Michael Still, Chair of the Board, SESLHD

Research is key to enhancing clinical care: the best clinicians are research active, so a strong research environment helps attract the best clinicians; leading research active clinicians provide training and mentoring to the workforce, thus reinforcing a research culture; and a research culture creates a workforce that is willing to both question the orthodoxy and more importantly to implement evidence-based improvements to clinical practice and patient care.¹⁴²

The vision of the SESLHD Research Strategy¹⁴³ is to be an internationally leading research-oriented health service that embeds research and innovation into services and thereby improves community outcomes. It spans prevention research within communities through to clinical research within hospitals and services. SGH & CHS and PICH shares this vision and is committed to producing and increasing its range of high quality research in partnership with universities and other peer organisations. In line with the SESLHD vision, the focus will be on applied and translational research that is directly relevant to improving health care and the wellbeing of patients and the community and be conducted by SGH & CHS and PICH staff.

St George clinicians conduct cutting edge translational research across the spectrum of medical, critical care, allied health, nursing and surgical specialties. Its role as a teaching and research centre is in keeping with the SESLHD Research Strategy and as part of broader research networks.

The campus has strong links with a number of Universities, principally UNSW. St George Clinical School provides *“nearly 200 active clinicians participating in research and education ... Research Supervisors work in a wide range of areas from immune malfunctions to gastro enteric pathology to disorders of bone joints and spine along with a very active research program in cancer diagnostic and treatment. Collaborations and interdisciplinary interactions are a hallmark.”*¹⁴⁴

The SESLHD Research Office supports the Human Research Ethics Committee, supports HREC applicants with study design, manages research governance reviews across the District and manages arrangements with the UNSW under the Affiliation Agreement.

The St George and Sutherland Medical Research Foundation¹⁴⁵ supports the varied research work of the medical staff and researchers at St George and Sutherland hospitals, and aims to foster a culture where education and research are seen to be complementary activities to the delivery of health care. It aims to increase research productivity and the reputations and



¹⁴² Prof Peter R Schofield, Executive Director & CEO, NeuRa

¹⁴³ URL: https://www.seslhd.health.nsw.gov.au/HealthPlans/documents/ResearchStrategy_Final.pdf

¹⁴⁴ UNSW Medicine: St George and Sutherland Clinical School. URL: <https://stgcs.med.unsw.edu.au/postgraduate-research>

¹⁴⁵ URL: <http://www.stgeorgemrf.com.au/>

relationships of the parties, attract high quality researchers and clinical staff in all health disciplines, attract research funding, and enhance medical training in all health disciplines . Its Capacity Building Grant Scheme provides substantive major grant support to strengthen and grow a team of quality researchers who will enhance overall research capacity and thereby increase the quantity and quality of innovative, internationally competitive research at St George and Sutherland Hospitals.

The Centre for Research in Nursing and Health (CRNH) is a joint initiative between the School of Nursing University of Wollongong and SGH and is accessible to all staff within the two institutions for research purposes. The aim of the Centre is to enhance evidence based health care in nursing and midwifery through knowledge generation, knowledge transfer and knowledge implementation. The Centre has established an extensive program of nursing research, education and postgraduate research training and supervision.

TRANSLATING RESEARCH INTO PRACTICE

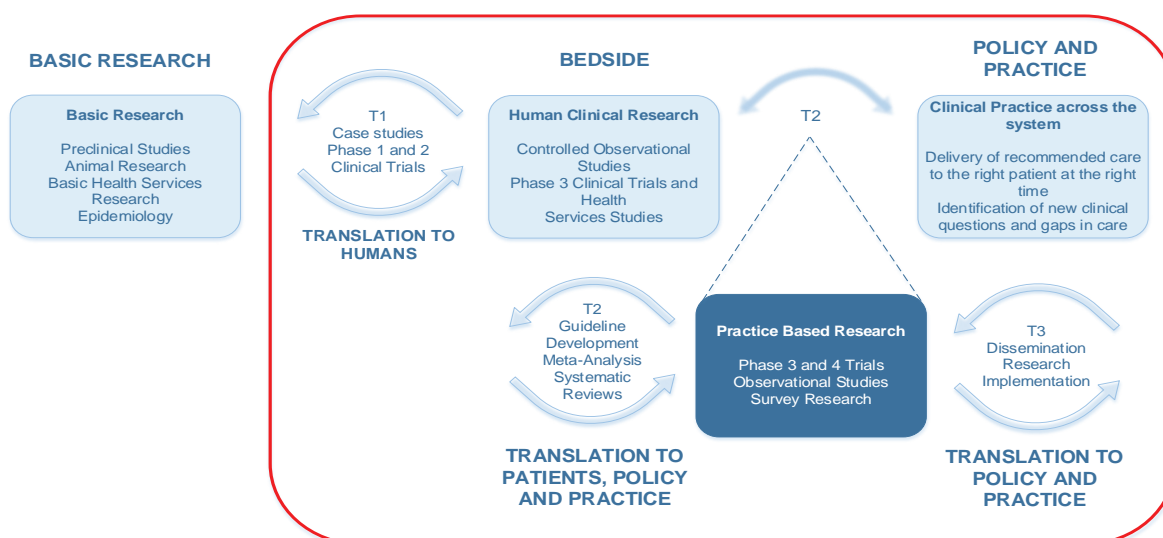
Advances in research and technology and consumer-driven health care are changing the focus of medicine from treating disease, to health care that is “predictive, preventive, personalized and participatory”.¹⁴⁶ Translational clinical research programs deliver sustainable health and medical research outcomes that advance knowledge and practice to improve patient care and health system performance, and consider advancing practice in areas of high clinical need. This includes medical, nursing and allied health research and multi-disciplinary research.

The SGH & CHS campus has strong links with Universities, principally UNSW, University of Technology Sydney (UTS), Sydney University, Australian Catholic University, University of Wollongong and Macquarie University. There are also linkage and inputs to major national databases such as ICNARC, AUSCR, SNAP and Biogrid, and to Emergency Care Institute and ACI Networks, as well as access to a wide range of data, including patient personal health records, medication records, biochemistry, haematology, radiology, human specimens – the Health Science Alliance (HSA) biobank, staffing/ workforce data, ARIA (cancer data), all with data linkage potential.

Progressing academic alliances is a key driver to enable the bringing together of the intellectual and clinical expertise, infrastructure, resources and capabilities of partners to improve the health and wellbeing of the local community as well as broader community of NSW. Collaborating with other research institutes and education providers will allow the SGH&CHS Campus to broaden its education and training system and build the capacity of all of its staff to participate in research and innovation and further education. It will also expand its ability to attract quality staff, and increase its potential for grant allocation, and most importantly, improve patient care.

Participation in clinical trials has been shown to improve patient outcomes. It is also important to consider that patient defined priorities are included in research.

MODEL OF TRANSLATIONAL RESEARCH FOR SESLHD¹⁴⁷



¹⁴⁶ P4 Medicine Institute, Seattle, WA, USA. URL: <http://www.p4mi.org/p4medicine>

¹⁴⁷ Accessed from SESLHD Research Strategy presentation June 2016



WHAT WE ARE DOING NOW IN TRANSLATIONAL RESEARCH?

Alliances and networks that facilitate timely translational research to practice include:

- *Maridulu Budyari Gumul* - The Sydney Partnership for Health, Education, Research and Enterprise (SPHERE)¹⁴⁸ links three universities (UNSW, UTS and Western Sydney University), two LHDs (SESLHD and SWSLHD), two Local Health Networks (St Vincent’s and SCHN), nine major teaching hospitals (including SGH) and seven Medical Research Institutes (Garvan Institute of Medical Research, Victor Chang Cardiac Research Institute, Neuroscience Research Australia, Black Dog Institute, Children’s Cancer Institute, Ingham Institute of Applied Medical Research and Centre for Eye Health), and ex officio, the NSW Ministry of Health
- Aboriginal Health services are participants in the Aboriginal Health and Wellbeing research stream of *Maridulu Budyari Gumul* – the Sydney Partnership for Health, Education, Research and Enterprise (SPHERE), which aims to mobilise, drive and accelerate research translation towards improving healthcare outcomes with respect to Aboriginal and Torres Strait Islander people through Aboriginal and Torres Strait Islander leadership and effective engagement in Aboriginal and Torres Strait Islander research, research translation, education and enterprise. This will build upon and strengthen capacity in and between multiple worlds: Aboriginal communities, service providers, policy makers and professionals and their non-Aboriginal counterparts; researchers and practitioners; in professional, educational and community settings
- Translational Cancer Research Network,¹⁴⁹ supports translation of research into improvements in cancer patient care and outcomes. Membership includes UNSW, cancer service providers across the SESLHD, as well as Border Medical Oncology and UTS.

The St George and Sutherland Medical Research Foundation is supporting thirteen broad areas of research:

- Diseases of Ageing
- Blood diseases and stem cells
- Cancer
- Skin disease
- Mental Health
- Women’s Health
- Children’s Health
- Gut and Liver disease
- Bone and Joint diseases
- Immunity, Allergy and Infection
- Obesity and metabolic diseases
- Intensive Care and Emergency Medicine
- Nursing and Allied Health Research.



The round of 2017 grants will establish outstanding research collaborations with and within the new Microbiome Research Centre (MRC). The MRC will be a multidisciplinary research centre of excellence of national and international significance embedded in St George and Sutherland Clinical School (SGSCS), with newly refurbished physical laboratories located in SGH.

¹⁴⁸ The Sydney Partnership for Health, Education, Research and Enterprise URL: <http://www.thesphere.com.au/>

¹⁴⁹ Translational Cancer Research Network URL: www.tcrn.unsw.edu.au

The MRC will target 5 broad priority initiatives aligned with core MRC divisions. These divisions align with existing strengths within our hospitals, as well as with priority research themes identified by both the Australian Government and UNSW:

- Maternal/foetal health
- Cancer
- Critical Care
- The Three I's: Infection, Immunity and Inflammation
- Mental Health/Neuroscience.

The Centre for Research in Nursing and Health is working with clinicians to conduct research, develop, implement and evaluate evidence based guidelines and promote best practice. Its Program of Research includes:

- Health and Cultural Diversity
- Clinical Excellence
- Long term Disease Management
- Education and Workforce Development
- Research Methodologies.

Extensive clinical research is also undertaken within specialty departments, for example in Cancer and Haematology, Cardiology, Endocrinology, ENT, Gastro-Hepatobiliary, Rheumatology, and in allied health and nursing services.



RECOMMENDATIONS FOR THE FUTURE

The SGH & CHS campus redevelopment, in concert with the St George and Sutherland Medical Research Foundation, the new MRC on site, the Centre for Research in Nursing and Health, *Maridulu Budyari Gumul* – the Sydney Partnership for Health, Education, Research and Enterprise (SPHERE) and its links with a number of Universities, and guided by the SESLHD Research Strategy, provides an opportunity to move Research forward in a coordinated and more sustainable way into the future to create a world class translational research facility.

See Section 5.1.8 for further recommendations for the future of research on the SGH & CHS campus.

4.3.6 PARTNERSHIPS THAT DELIVER

GOAL

WE WILL WORK TOGETHER WITH OUR PARTNERS TO ACHIEVE HEALTH AND WELLBEING FOR OUR COMMUNITIES, INCLUDING ADVOCATING FOR HEALTHY NEIGHBOURHOODS WHICH SUPPORT PEOPLE TO STAY WELL

Internationally, health care providers are faced with balancing the transformation of healthcare with increasing costs within financial constraints. Opportunities exist through external partnerships to provide innovative ways to reduce costs and improve services. These partners may include other public or private hospitals; other health and social care providers; research, education and training organisations; private industry, etc.

While partnerships can be a powerful tool for improving the quality of care and controlling costs, attention must be paid to some key issues:

- Equity: maintaining universal access
- Quality: ensuring accountable service delivery
- Costs: reducing perverse funding incentives and ensuring sound and transparent contractual arrangements.^{150,151}



WHAT WE ARE DOING NOW IN PARTNERSHIPS THAT DELIVER?

St George Hospital Campus has a number of successful partnership arrangements. These arrangements include:

- Shared services (Section 3.3)
- Contracting out – where a contractor is paid to manage a service with substantial autonomy (e.g. neuropsychology, orthotics, etc.)
- Leasing or licensing where an organisation manages and finances existing health facilities or utilises the facility (e.g. retail arrangements, car parks)
- Public Private Partnerships (e.g. renal dialysis service)
- Research and education.

Examples include:

- A partnership with SGH Diabetes services and CESP HN (previously SESML) with Sugar Fix, to coordinate and integrate diabetes services in the local community and primary healthcare system. Newly diagnosed patients with Type 2 Diabetes Mellitus (T2DM) are managed using appropriate referral pathways led by their GP
- Cancer Care now have GPs in Cancer Care clinic to support integrated care of cancer patients
- Cardiology is working with CESP HN in their long term disease management program
- Neurology is educating GP's about appropriate referrals and considering adopting Health Pathways to support this education process
- Strong links with other Australian and international peritonectomy services, NSW Cancer Institute, universities and pharmacological development.

150 Taylor R and Blair S, 2002, Public Hospitals: Options for Reform through Public-Private Partnerships. URL: <http://siteresources.worldbank.org/EXT/FINANCIALSECTOR/Resources/282884-1303327122200/241Taylor-010802.pdf>

151 Mitchell M. An Overview of Public Private Partnerships in Health. URL: <https://www.colleaga.org/tools/overview-public-private-partnerships-health>



RECOMMENDATIONS FOR THE FUTURE

- Further development of external partnerships with other health care providers, teaching, research, private and NGOs where improved quality of care can be achieved. SGH & CHS is a centre of excellence, and can provide a leadership role and engage partners such as GPs, NGOs, councils and schools, to do the things that hospitals do not do, e.g.
 - Provide education from hospital leaders to GPs and other providers
 - Provide other models of GP management supported by specialists, e.g. Sugar Fix model for diabetes management
 - Increase the number of partnerships and build on existing links with local GPs
 - Make GPs members of the hospital, e.g. a term as appointed members of the hospital, with joint GP/ Specialist clinics
 - Make opportunities to engage GP practice nurses, and provide education programs to assist them with patient management
 - Provide hospital nurse liaison services with GPs for the management of long term conditions
 - Investigate ways to further expand relationships with local Councils to improve health outcomes for its residents
- Continue fostering opportunities to develop a complementary peritonectomy service with Royal Prince Alfred Hospital
- Forge partnerships with local nursing homes to provide dedicated palliative care beds similar to the Braeside model¹⁵²
- Examine opportunities for partnerships with private nursing services in end of life care, for example the PEACH¹⁵³ model of care in SWSLHD, which is a partnership with LHD palliative care services and Silver Chain nursing to provide care packages including access to overnight care to clients in the last days of their life in their own home.

4.3.7 DEVELOPING NEW FUNDING MODELS

GOAL

TO PROVIDE SUSTAINABLE FUNDING MODELS THAT REWARD VALUE OVER VOLUME

To reduce the increasing demand on health services into the future, health services will need to develop a flexible range of solutions to best meet people's needs. There will need to be a greater emphasis on prevention, self-management and individual responsibility, and stronger links with social care support to address social determinants, improve health, increase resilience, and add purpose to lives in order to avoid hospitalisation.

To improve outcomes, changes to current payment incentives and the fee for service model that rewards volume over value will be required - for the health care organization, the community, and the individual. If the payment system is organised to cover an entire patient pathway and encourages self-management, rather than rewards episodic management of health, then the return on investment is potentially much greater.

Change the balance in healthcare spending

A WHO review found that increased availability of primary health care spending was associated with higher patient satisfaction and reduced aggregate health care spending as well as improved population health outcomes.

WHO Regional Office for Europe's Health Evidence Network (HEN) January 2004.

¹⁵² <http://www.hammond.com.au/locations/fairfield>

¹⁵³ Palliative Care Home Support Packages (PEACH) program. SWSLHD URL: <https://www.swslhd.health.nsw.gov.au/peach/>

Strategies include:

- Improving integration and care coordination across the care continuum
- Rewarding reduced unwarranted variation
- Leveraging external funding sources for translational research, including for clinical trials and access to new technologies and drugs, in order to provide ongoing improvements in services and quality of care
- Implementing new delivery models such as accountable care organizations, bundled payment arrangements, and medical home models, such as the Commonwealth's new Health Care Homes model.¹⁵⁴

This will allow greater coordination between PHNs and LHDs in the planning and procurement of health services for their local communities, and improved flexibility and innovation in the delivery of care.

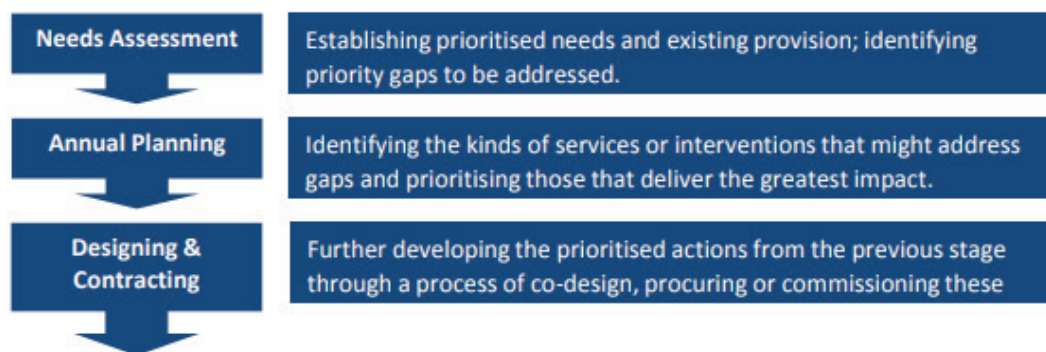
The transformation of the Canterbury, New Zealand health system was based on investment in alternative models of provision and community-based services, including developing new models of integrated working across organisational and service boundaries and new forms of contracting to support this integrating care; increasing investment in community-based services; and strengthening primary care. The health system is now supporting more people in their homes and communities and as a result has slowed the growth in demand for acute hospital services, particularly for older people.¹⁵⁵

HEALTH COMMISSIONING

Commissioning refers to the process of buying and planning healthcare for local areas. Collaborative commissioning involves two or more commissioning bodies working together to negotiate with a service provider. It is becoming increasingly relevant in integrated care delivery, with the potential for the collaboration of SESLHD and the CESP HN to commission the provision and procurement of community services.

Commissioning for populations¹⁵⁶ is characterised by approaches that:

- Are outcomes based, where outcomes attend to patients' priorities and to indicators of social and economic value alongside traditional metrics
- Reflect people's real lives, creating systems that are coherent and responsive to those engaging with them and aligned with everyday life
- Incentivise and support collaboration, giving rise to new and sustainable partnerships, networks and alliances
- Make and shape new markets, with rapid expansion of disruptive technologies to support individuals in their ordinary lives, and engagement with private sector investment in supporting this work
- Lead to culture change, under the leadership of visionary commissioners.



The flow from identifying needs through to designing and contracting¹⁵⁷

¹⁵⁴ 'Health Care Homes' delivered by GP practices or Aboriginal Medical Services, will be responsible for the ongoing co-ordination, management and support of a patient's care, as part of a person centred care plan. Risk stratified eligible patients will be able to enrol with the Home of their choice, empowering patients and their families to be partners in their own tailored care plan and take greater responsibility for the management of their conditions. Payments for Health Care Homes will be bundled together into regular quarterly payments, a change from the current fee for service model.

¹⁵⁵ Charles, A. The Kings Fund 2017. Developing accountable care systems. Lessons from Canterbury, New Zealand. URL: <https://www.kingsfund.org.uk/publications/developing-accountable-care-systems>

¹⁵⁶ G. Marr, Chief Executive SESLHD. August 2016 presentation: Reshaping the healthcare, teaching and research landscape to improve community health and wellbeing

¹⁵⁷ Australian Government Department of Health. PHN Commissioning. Designing and Contracting Services Guidance Version 1.0 - June 2016 URL: [https://www.health.gov.au/internet/main/publishing.nsf/Content/E11D6513E6583EA1CA2580D4000F0A70/\\$File/PHN%20Designing%20and%20Contracting%20Services%20v0.1.pdf](https://www.health.gov.au/internet/main/publishing.nsf/Content/E11D6513E6583EA1CA2580D4000F0A70/$File/PHN%20Designing%20and%20Contracting%20Services%20v0.1.pdf)

Different models of commissioning include:

- **Prime contractor model:** the commissioning body makes a contract with an organisation or consortium, who then makes sub-contracts with other service providers and takes responsibility for the day-to-day management of these providers
- **Prime provider model:** the commissioning body makes a contract with an organisation or consortium, but the organisation/consortium provides some of the services contracted for while making sub – contracts with other providers for other services
- **Alliance model:** a set of individual providers each enter into a single arrangement with a commissioning body to deliver services, with all the providers and the commissioners sharing risks and responsibility for meeting agreed outcomes. Relationships and delivery of care are managed by internal governance arrangements. For example, Canterbury DHB in New Zealand provides annual block grants to its providers and makes collective decisions with alliance partners on how to allocate savings from improvement initiatives and address overspends to ensure the viability of services. It does not rely on financial incentives or penalties for good or poor performance. The contracting alliance includes Canterbury DHB, Pegasus Health (a GP alliance), pharmacy, public and private nursing organisations, and laboratory providers.¹⁵⁸

In Canterbury, NZ, alliance contracting has shown ongoing benefits in health and social care, with community and acute care provider collaboration to address complex health and social care problems and taking a whole-of-system approach to planning and decision making to avoid hospitalisation.

Timmins N and Ham C. The quest for integrated health and social care. A case study in Canterbury, New Zealand. The Kings Fund 2013

Implementing and evaluating new interventions, particularly those with new or adapted clinical roles, takes time to show improved outcomes or generate cost savings.¹⁵⁹ Although minimising costs is vital to all health systems, evaluations of interventions designed to improve care for complex patients point to very limited reductions in hospital costs in the short term, and sometimes increased investment in other services is required. Policy-makers thus need to have realistic expectations about cost savings.



RECOMMENDATIONS FOR THE FUTURE

- Explore options for co-commissioning between the SESLHD and CESP HN. In 2016-17 services identified to be commissioned by CESP HN¹⁶⁰ were in the areas of:
 - Mental health
 - Suicide prevention
 - Drug and alcohol
 - Youth (headspace)
 - After hours
 - Aboriginal health
- CESP HN suggests collaboratively considering funding models and the intersection of Commonwealth and State funding to support equitable access to care.

¹⁵⁸ Charles, A. The Kings Fund 2017. Developing accountable care systems. Lessons from Canterbury, New Zealand. URL: <https://www.kingsfund.org.uk/publications/developing-accountable-care-systems>. p.7

¹⁵⁹ Hubertus J, Thorlby V&J. Developing care for a changing population: supporting patients with costly, complex needs. Nuffield Trust UK Discussion paper, May 2016. URL: <http://www.nuffieldtrust.org.uk/node/51>

¹⁶⁰ CESP HN Commissioning Framework 2016-2018. URL: file:///C:/Users/uptinw/Downloads/20160502Commissioning_framework.pdf

5. LOOKING AHEAD – COMPLETING THE TRANSFORMATION

KEY POINTS

An investment in infrastructure on the SGH & CHS campus will ensure staff will be better enabled to continue to deliver the highest standard of health care to the community, in world class fit for purpose facilities, using evidence based models of care, and with clinicians who are informed by the latest translational research.

5.1 AN INTEGRATED HEALTHCARE CAMPUS FOR THE FUTURE

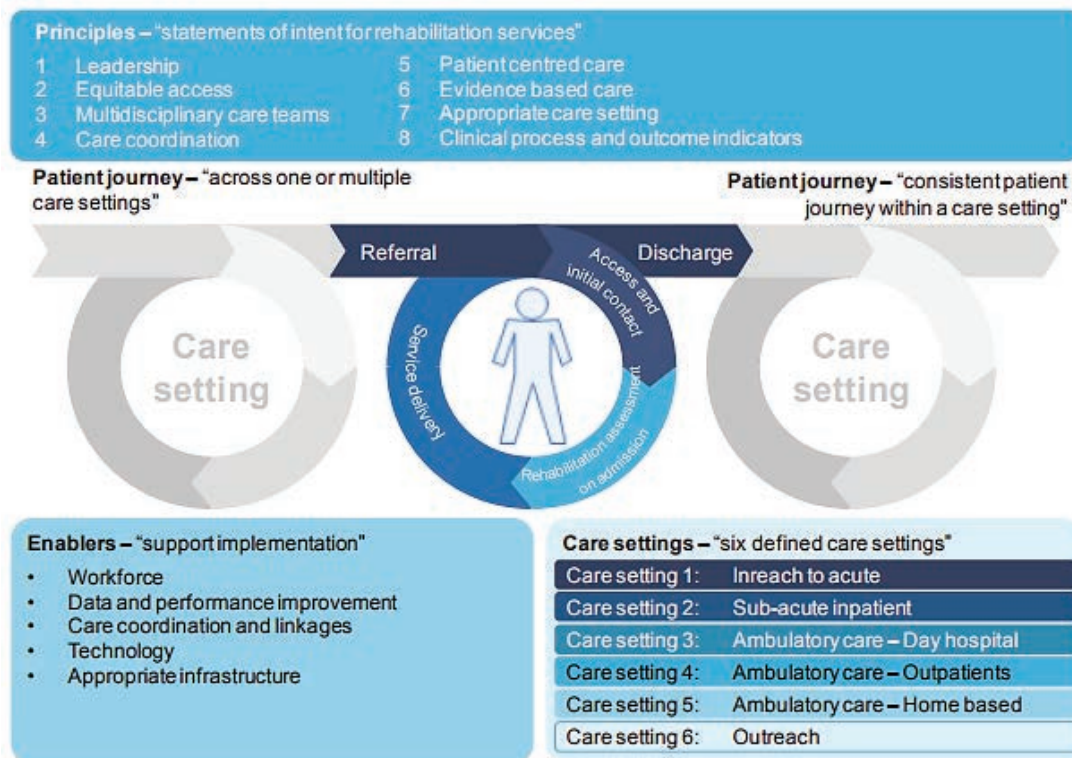
The proposed continued transformation of the STG&CHS Integrated Health campus would involve capital development including:

- **Expansion of subacute inpatient wards** (rehabilitation, aged care and palliative care) and the creation of a day rehabilitation centre, acquired brain injury unit and behaviour management unit
- **Refurbishment of birthing suites** to meet contemporary models of care
- **Provision of HVSSS facilities** for more appropriate streaming of planned and unplanned surgery
- **Development of a dedicated Ambulatory Care Precinct** to allow a more integrated care environment
- Provision of **increased capacity for diagnostic imaging**
- Dedicated **research and education** facilities.

5.1.1 PROVIDING A REHABILITATION PRECINCT

Currently, rehabilitation services are provided in disparate locations on the SGH & CHS campus, in spaces no longer adequate to meet demand or fit for purpose. This constrains efficiency of service provision to meet the demands of a growing and ageing population, or the needs of the higher acuity patients now being managed by SGH rehabilitation services, and hampers the service's ability to deliver the ideal model of care in the right place at the right time.

The ideal model of care as recommended by the NSW Rehabilitation Model of Care¹⁶¹ and the ACI Rehabilitation Implementation Toolkit¹⁶² describes six care settings in which rehabilitation services are delivered: in-reach to acute care, inpatient subacute, day hospital, outpatients, home based and outreach rehabilitation.



Source: NSW ACI. NSW Rehabilitation Model of Care URL: <https://www.aci.health.nsw.gov.au/resources/rehabilitation/rehabilitation-model-of-care/rehabilitation-moc>



RECOMMENDATIONS FOR THE REHABILITATION PRECINCT

A new purpose built precinct with co-located services would replace the current disparate services provided across the SGH & CHS campus, allowing improved staff and infrastructure efficiencies, concentration of expertise, better opportunities for education and training and an improved patient journey and experience with care provide in the right environment tailored to their needs. It would provide the ideal solution to allow a coordinated service that brings ‘different solutions for different stages of the patient journey,’ and deliver the right care in the right setting. It also provides efficiencies for staff.

INFRASTRUCTURE:

- Ideally all rehabilitation services would be co-located together on one floor, with dedicated allied health on site. This would allow more efficiencies in time and staffing and an improved patient experience
- Inpatient rehabilitation beds (increased to meet future projected demand) with bariatric capacity and purpose built bariatric rooms
- Purpose built rehabilitation day hospital services to reduce length of stay and reduce costs for expensive inpatient rehabilitation and meet increasing demand by allowing higher throughput on the rehabilitation ward and reduced outliers in acute beds

¹⁶¹ URL: <https://www.aci.health.nsw.gov.au/resources/rehabilitation/rehabilitation-model-of-care/rehabilitation-moc/NSW-Rehabilitation-MOC.pdf>

¹⁶² URL: https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0008/190871/ACI-Rehabilitation-Implementation-Toolkit.pdf

- A well-equipped gym and treatment area large enough to provide multi-disciplinary services for inpatient and day hospital patients, including a gait laboratory
- Provision of facilities and staffing for the manufacture and modification of orthotics (spinal, vascular, helmets, rehab, etc.) to assist in managing patients in the Trauma, Vascular, Neurosurgical, Rehabilitation and Brain Injury Units, including space for workshops, storage of stock, etc.
- Adequate storage areas (equipment, etc.)
- Outpatient clinic / therapy rooms for multi-disciplinary assessment and ongoing care
- A base for an expanded multidisciplinary in reach rehabilitation service (ART) to acute wards
- Close functional links to Neurology services and Aged Care
- Ease of access to the hydrotherapy pool
- Consider transport options for Day Rehabilitation.

5.1.2 PROVIDING APPROPRIATE AGED CARE SERVICES

Aged care services provide comprehensive assessment, treatment and management for people with long term or complex conditions associated with ageing, cognitive issues such as dementia and delirium, long term illness or disability. SGH provides a Level 6 role delineation geriatric medicine service.

It is recognised that not all older people accessing hospital services require aged care services however the need for aged care services is often not recognised and many people require “non-acute” aged care services. Sometimes, if recognised, it is not asked for because of delays.

Increasingly, services to manage older people in their own environments (home or RACF) such as the GFS, ASET, and QRP (see 4.1.8 for more information on models of care) will need to be implemented to avoid the need for presentation to the ED or admission to hospital. However when admission is required for the frail elderly, or those with dementia, a purpose built environment that caters for both acute and subacute needs will provide the safest, most appropriate care.



RECOMMENDATIONS FOR THE AGED CARE PRECINCT

To meet the future demands for Aged Care services at SGH, it is recommended that a purpose built aged care precinct be developed, considering the needs of older people and those with dementia and delirium.

INFRASTRUCTURE:

- Construction of subacute aged care beds specifically designed for aged care, in close proximity to the acute aged care beds
- Increase bed base for subacute aged care to complement the existing SGH acute aged care and CHCK sub-acute bed base
- A specialty behaviour management space, for patients who currently are managed on the acute ward (or transferred to the unit at TSH if a bed is available) and present safety issues to other frail patients and to staff. These patients typically have a longer length of stay and can create access block for acute aged care beds, which in turn can reduce access and flow to acute and subacute beds throughout the hospital
- A gymnasium area and associated equipment to allow for early reconditioning and ADL training of frail aged, including an outdoor mobility area (this could be as part of a shared gym with other sub-acute services)
- Ideal physical adjacencies would include proximity to rehabilitation services and ambulatory care services as well as access to outdoors for functional mobility retraining
- A day hospital type service to provide outpatient rapid access clinics as well as more geriatric outpatient assessment and management clinics to avoid the need for hospitalisation (this could be provided within an ambulatory care precinct), including access to remote monitoring and telehealth.

Well established links with and referrals to CHCK and local private hospitals will continue where appropriate for acute and subacute aged care services.

5.1.3 PROVIDING PALLIATIVE CARE

Currently there are no designated palliative care beds available at SGH, with palliative care services provided by a networked consultative service with CHCK. The existing infrastructure at SGH does not support current models of palliative care. As a result, many patients requiring uncomplicated end of life care are managed throughout the hospital. Although the trend in service delivery is towards people having their palliative care services delivered in the community and more people are choosing to die at home, not all people wish to die at home or can be effectively managed in the home environment, e.g. people living alone or without adequate carer support. Currently these end of life care patients who are not suitable for transfer to CHCK for specialist palliative care services occupy the equivalent of 12 acute beds at SGH.

In keeping with the objectives of the SESLHD Plan for Comprehensive Care at End of Life, provision of palliative care beds at SGH would meet the specialised needs of the cohort of patients currently managed at SGH who are too unwell to transfer to CHCK and require terminal care, require uncomplicated end of life care, or require short term palliation for symptom control as an inpatient. Patients that no longer require short term care will be referred to other appropriate care such as return to home with community support, or care in a hostel or nursing home. Appropriate access to Specialist palliative care consultation will continue at SGH as part of the networked service with CHCK and TSH, with those patients requiring specialist palliative care continuing to be transferred to CHCK or the CPCT.

Benefits of providing a palliative care unit include: ¹⁶³

- Consultation with palliative medicine specialists
- Nurses are trained in palliative care and will gain experience and have efficiencies being on one dedicated ward
- Patients can still be consulted by staff from other specialties on site as required
- Patients can often transfer back to their original ward or home when the palliation has been successful
- All clinical records are available in the hospital
- All diagnostic facilities are available in the hospital
- Potential for student and post graduate medical, nursing and allied health experience in palliative care to learn better end of life care and symptom management
- Ensuring that National Safety and Quality Health Service Standards for End of Life Care are met at SGH.



RECOMMENDATIONS FOR PALLIATIVE CARE AT SGH

Specialised infrastructure for palliative care would allow contemporary models of care to be practiced in a purpose built environment and allow experienced staff to work more efficiently and effectively, with access to other services e.g. allied health, to provide a better patient experience. This will allow support which better encompasses the physical, psychological, social and spiritual needs of all patients requiring end of life care.

The new beds will be used for patients requiring uncomplicated end of life care, for patients who have complex nursing as well as major medical problems who are more easily cared for in the Palliative Care Unit, and for patients waiting for transfer to CHCK for specialised palliative care or for transfer for palliation in nursing homes or at home who are otherwise currently occupying acute beds.

INFRASTRUCTURE:

- Construction of palliative care beds at SGH for both cancer and the growing cohort of non-cancer palliative care patients that are not suitable for transfer to CHCK.

¹⁶³ See International Association for Hospice and Palliative Care. A Hospital Palliative Care Unit. URL: <https://hospicecare.com/resources/publications/getting-started/8-a-hospital-palliative-care-unit>

5.1.4 REFURBISHED BIRTHING SUITES

SGH & CHS provides a Level 5 role delineation maternity service. Demand for maternity services is increasing at SGH for a number of reasons, including:

- The growing population
- The childbearing age population is increasing with new residential developments in the area and increasing numbers of new, younger migrants in parts of the catchment area e.g. towers in Hurstville and Wolli Creek
- There are increasing numbers of high risk pregnancies managed locally, including high risk pregnancies from TSH
- More complex patients presenting with multiple comorbidities, e.g. gestational diabetes, high body mass index and hypertension
- Evidence-based approach to the induction of labour¹⁶⁴ results in a longer closely supervised time required in birthing suites
- There has been a shift away from private to public patients
- Increasing inflows from women living outside the District.

Currently, Birthing facilities in the maternity unit are unable to operate at full capacity due to the poor configuration of rooms, resulting in an average of 10 women per month being diverted to other hospitals, including The Sutherland Hospital, The Canterbury Hospital, Royal Prince Alfred Hospital and The Royal Hospital for Women (RHW). The Birth Centre is not co-located with the main birthing facilities and/or maternity unit so can only accept low risk labour and birthing, resulting in underutilisation due to low numbers meeting the criteria for low risk birthing. The birthing suites are also used as Assessment Rooms, which hampers flow.

Birthing rooms currently do not include water immersion facilities so are unable to meet patient expectations, and there is currently no private area for women who have endured pregnancy loss after 20 weeks.



RECOMMENDATIONS FOR THE BIRTHING SUITES

It is recommended that fit for purpose birthing suites with water immersion facilities be provided in the acute care precinct, to improve flow through and capacity of the Unit and avoid the need for patient transfer, and enable the delivery of contemporary models of care into the future.

INFRASTRUCTURE:

- Relocate Birthing Services to Ward 2 West (formerly ICU space) where footprint allows co-location of Delivery Suite and Birth Centre and an additional assessment room. The location of the old ICU is directly on the theatre floor for those patients requiring emergency caesarean within 30 mins. This will also provide enhanced space for antenatal support services and specialty clinician offices
- Provide eight birthing suites with water immersion facilities, consistent with NSW Policy Directive PD2010_045 Towards Normal Birth
- Provide a suite for women who have endured pregnancy loss after 20 weeks to allow them to stay and be supported by their family and friends, and have access to professional care in a secluded unhurried setting.

¹⁶⁴ NSW Health Maternity- Management of Pregnancy Beyond 41 Weeks Gestation Guideline. URL: http://www1.health.nsw.gov.au/PDS/pages/doc.aspx?dn=GL2014_015

5.1.5 PROVIDING A SHORT STAY SURGICAL PRECINCT

The trend towards minimally invasive surgeries and faster recovery times mean that procedures previously performed in operating rooms are shifting to other settings such as day surgery or procedure rooms. However, implementation of NSW Health's High Volume Short Stay Surgical Model Toolkit (GL2012_001) is difficult due to a lack of dedicated operating / procedure rooms at SGH & CHS.

The existing infrastructure does not support current models of care (streaming short stay patients, separating planned and emergency surgery, etc.) and will not be able to meet future demand.



RECOMMENDATIONS FOR THE SHORT STAY SURGICAL PRECINCT

In order to meet this demand and provide efficiencies for operating room space to allow greater throughput, the development of a new stand alone HVSSS for appropriate streaming of planned short stay surgical and procedural patients away from more complex and/or unplanned activity is recommended.

This Unit would ideally be located in close proximity to the Acute Services Building operating room suite, with good access to medical imaging (x-ray and ultrasound) and sterilising services required. (If the HVSSS operating rooms are remote from the main operating rooms, consideration needs to be given to the transport and storage of sterile and used trays).

INFRASTRUCTURE:

- Construct a HVSSS unit including a requirement to 2025/26 of:
 - Seven operating rooms dedicated to HVSSS. This includes 3 new HVSSS operating rooms, 3 existing operating rooms to be refurbished in the clinical services block and 1 existing procedure room in the ASB
 - Seventeen day only and 39 overnight inpatient beds dedicated to HVSSS
 - Appropriate accommodation for day surgery admissions and post-anaesthetic care to enable implementation of ERAS model of care
 - Co-located pre-admission clinics, admission office
 - Adequate storage areas for clean and dirty trays.
 - Improved teaching and learning facilities and access including
 - point of care teaching facilities
 - multi-purpose teaching/meeting room
 - labs for staff, trainees and students from all clinical disciplines
- Consider shared office space between clinic / treatment rooms to foster training and education opportunities
- Refurbish the eight old operating rooms (currently 4 in use and 4 decommissioned) to create a total of 23 operating rooms (including 7 HVSSS and existing 8 operating rooms in ASB).

The table below summarises the SGH future operating theatre complex, giving a total of 23 operating rooms by 2026.

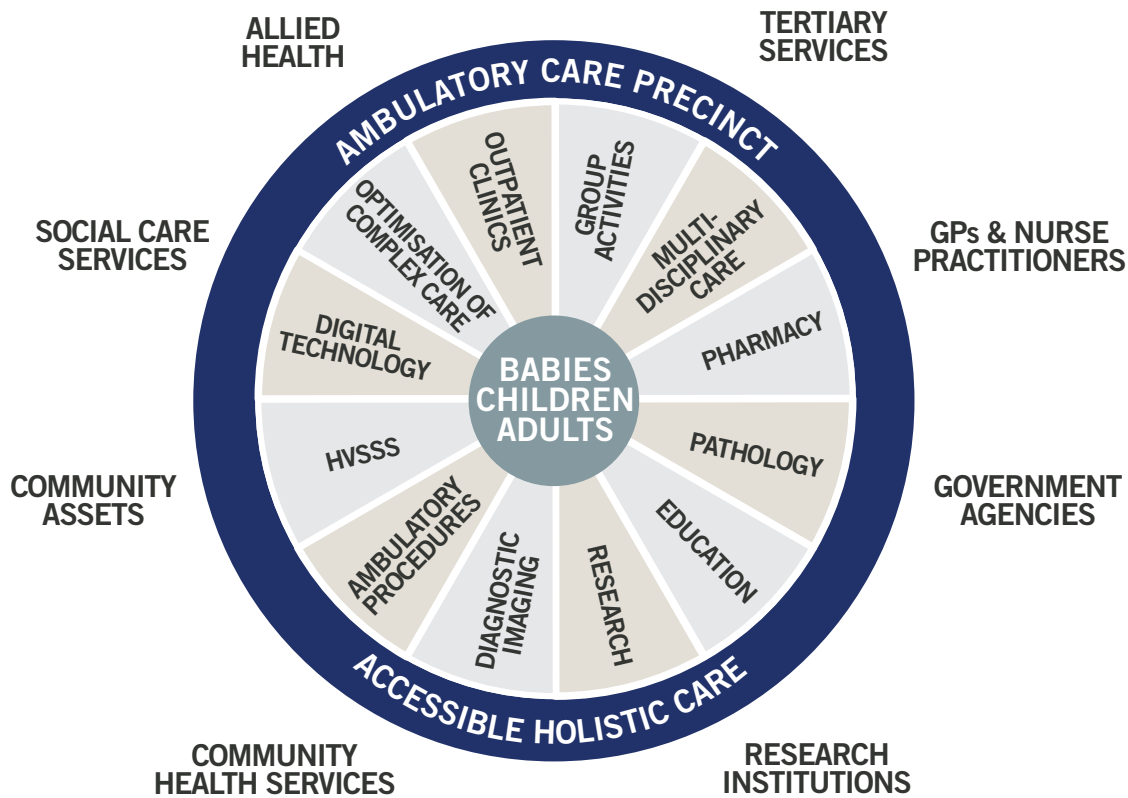
	CLINICAL SERVICES BLOCK (TO BE REFURBISHED)	NEW BUILD	ACUTE SERVICES BUILDING
HVSS OPERATING ROOMS	3	3	1
OPERATING ROOMS	8 (4 in use) (4 decommissioned)	0	8
TOTAL	11	3	9

TECHNOLOGY:

- Invest in appropriate information, communication and technology to support the efficient operation of the HVSSS unit e.g. ensure all patients are notified 10 days in advance of procedure, confirmation call 3 days prior and SMS 2 days prior.

5.1.6 DELIVERING JOINED UP HOLISTIC CARE WITH OUTPATIENT AND COMMUNITY BASED SERVICES

Our goal is to ensure people receive the right care, in the right place at the right time – every time.



5.1.6.1 MEETING THE INCREASING DEMAND FOR OUTPATIENT AND AMBULATORY CARE SERVICES

Internationally, ambulatory care is assuming a larger role in healthcare, with the opportunity to provide a high-quality, cost-effective, convenient and comfortable experience for patients, their families and caregivers in a variety of settings. It also allows an increased focus on population health, post-acute care and community and home-based services.

According to the NSW ACI, the provision of an outpatient service enhances the system as a whole to better integrate services across the continuum and includes the following criteria:¹⁶⁵

- The service meets a demonstrated population need, is consistent with the clinical capacity of the facility and responsive to local history and circumstances
- The service relates to a more complex pre or post-acute care admission
- Requires treatment in an acute setting due to patient complexity, need for input from other specialists and/or multi-disciplinary teams and proximity to higher level diagnostic services and drug therapies
- Provides a more appropriate care setting as an alternative to inpatient admission
- Contributes to professional training and research activities
- As part of a workforce package to attract and retain specialist staff into the public sector.

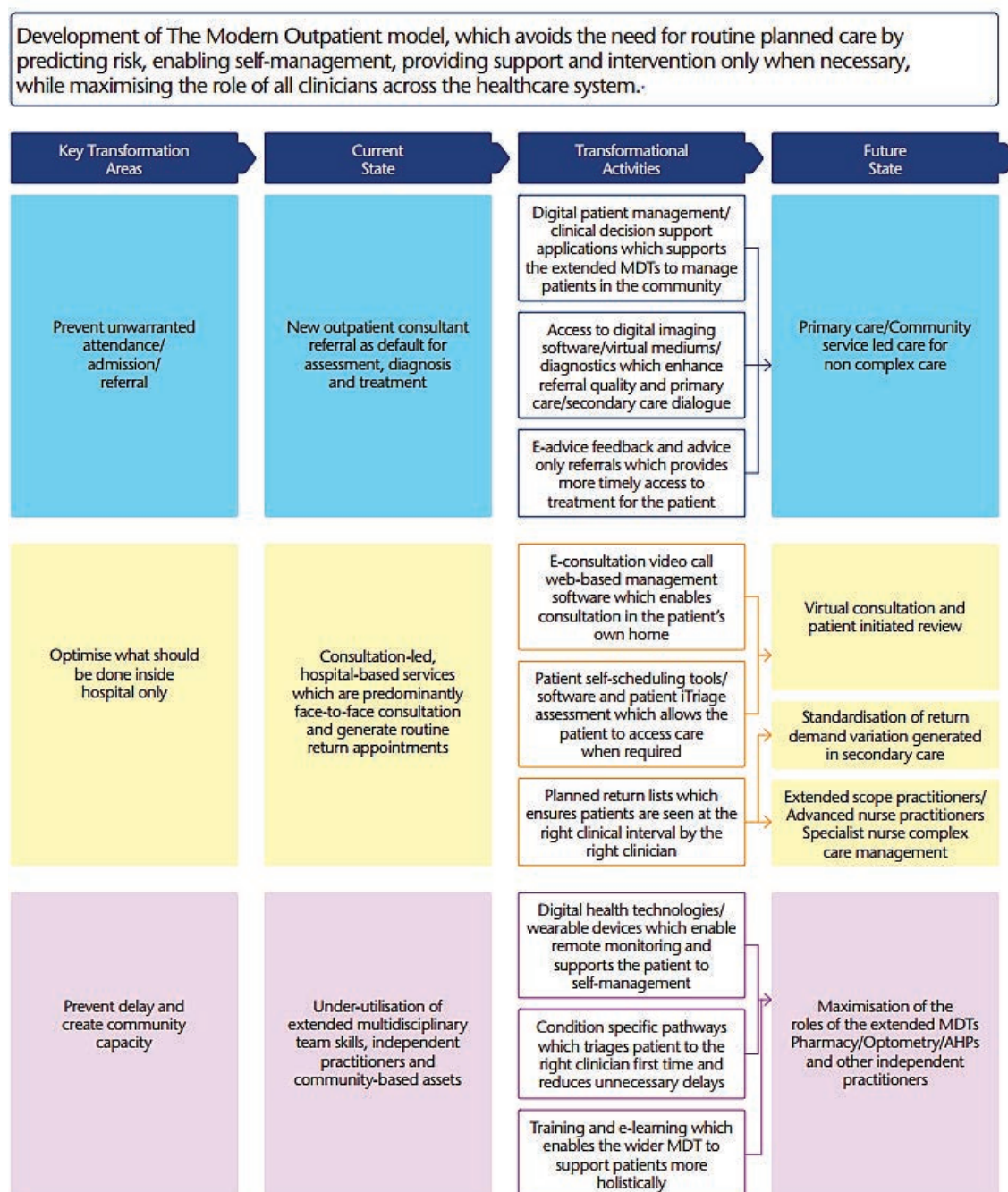
¹⁶⁵ NSW ACI. Specialist Outpatient Services Improvement Project. URL: <http://www.eih.health.nsw.gov.au/initiatives/specialist-outpatient-services-improvement-project>

New ways of delivering outpatient services, including moving to care that is anticipatory and predictive in a non-admitted setting from routine-based care, will help to reduce the workload of hospital specialists. By managing routine care in the community and primary care, more time will be available for them to see patients with more complex needs and those patients who need to be reviewed urgently or on time; and free up resources to be re-invested in community-based services or in other under resourced parts of the healthcare system.

This includes the introduction of more:

- Multidisciplinary clinics
- Nurse or allied health led clinics, potentially in community based settings
- Digital solutions instead of face to face consultation, e.g. tele-monitoring, virtual clinics.

The NHS Scotland is reimagining its outpatient model to meet this rising demand, by supporting greater patient self-management, and shifting the provision of services and resource into the community, as outlined in the diagram below.¹⁶⁶



¹⁶⁶ NHS Scotland. The Modern Outpatient: a Collaborative Approach. 2017-2020, p. 7 URL: file:///C:/Users/uptinw/Downloads/00510930.pdf

DEVELOPING AN AMBULATORY CARE PRECINCT FOR SGH & CHS

Currently outpatient and ambulatory care services at SGH & CHS are delivered as a fragmented web of disconnected services in a variety of locations around the campus. Doing more of the same is not a sustainable option for SGH & CHS and this shift in the balance of care is underway. Infrastructure requirements will be based around new models of care that support people rather than single disease pathways, that integrate health and social care, are increasingly community based, and enabled by technology, community partnerships and patient engagement in the management of their own healthcare.

Building a new, purpose built ambulatory care precinct would create a “front door” for ambulatory care, and improve links and ensure connectivity to the surrounding health precinct to better support patient health, their healthcare experience and community expectations and preferences. This would also result in improved patient access, flows and outcomes, reduce wait times and increase the Hospital’s ability to provide less invasive services. With improved technology and advances in anaesthetics and pain control, many less invasive procedures are now being performed on an outpatient or ambulatory basis.

Ambulatory care precincts can support efficient operational models and new services to respond to the future healthcare needs of the population, creating efficiencies in space requirements and throughput, staffing requirements, staff and patient time. A more integrated patient care pathway and comprehensive, coordinated care can be provided, with access to the range of providers and services available in the one place.

New technology in the precinct can support new models of care such as telehealth services, to allow a patient or GP to communicate effectively with health professionals through electronic means such as e-mail, Skype or with SMS results.

Provision of a flexible design would ensure future-proofing and an ability to change function to suit unanticipated uses with the introduction of new technology or models of care.

Centralising all appropriate outpatient services at STG&CHS in an Ambulatory Care Precinct, with a single point of access for referral and booking appointments, and registration for appointments would allow:

- Better opportunities for collaborative care with primary care
 - Improved integration of care between specialties and services
 - Greater collaboration between clinical disciplines
 - Greater potential for multi-disciplinary clinics
 - Centralised allied health services
 - A centralised information management and technology system to promote information sharing between clinicians
 - Efficiencies in booking systems, administration, reduction in appointment variations and reduced health resource utilisation
 - Greater opportunities for teaching and learning and translational research
 - Better opportunities for patient education
 - An improved patient journey and greater patient and staff satisfaction.
-



RECOMMENDATIONS FOR THE SGH & CHS AMBULATORY CARE PRECINCT

The development of an ambulatory care precinct will create a dedicated ‘one stop shop’ for ambulatory care services, and may include outpatient clinics, same day medical services (e.g. minor procedures, and/or infusions), same day surgery /procedural services, multi-disciplinary rehabilitation services, pain management services, co-located allied health services, mental health services, drug and alcohol services, sexual health services, diagnostic imaging services, pathology collection, etc. to provide better integrated and more accessible care for patients.

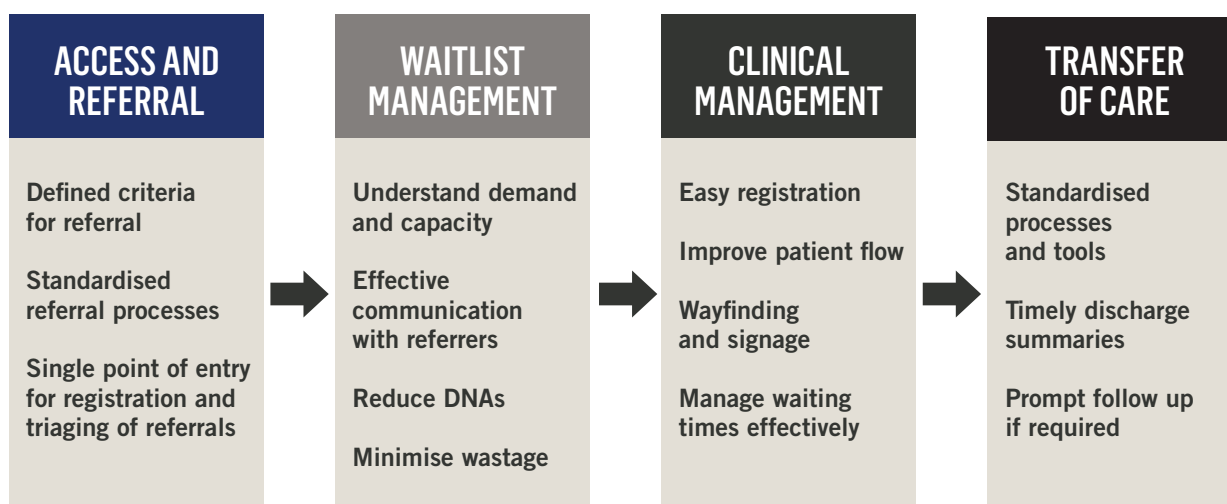
Increased access by specialties and disciplines to clinic space will potentially avoid the need for admission, and allow the introduction of MDT clinics, rapid access clinics and an increased number of clinics overall to improve access, reduce waiting lists, prevent patient deterioration, and provide staffing efficiencies.

The Ambulatory Care Precinct would ideally be adjacent to the Acute Services Building (ASB) with direct interconnections to allow rapid response to PACE calls and ease of access to other services e.g. Pathology, Pharmacy and Medical Imaging, if not located within the Ambulatory Care Precinct.

This precinct does not exclude a hybrid model where some services are located in an ambulatory care precinct and others may be in clinical speciality pods (e.g. cardiac services, renal services, surgical services, paediatric services, endocrinology services, gastroenterology services, etc.). Cardiology, for example, would ideally be in a discrete precinct with clinics, examination (including for allied health) and procedure rooms and offices and education rooms co-located with the Cardiac Cath Lab for staff, patient and service efficiencies.

Engagement with patients, carers and their families is an important consideration in the planning, design, implementation and evaluation of the Ambulatory Care Precinct and the implementation of new and existing models of care to ensure a “healthy neighbourhood” for users and staff.

ENSURING AN EFFICIENT AND EFFECTIVE OUTPATIENT EXPERIENCE



INFRASTRUCTURE:

- Centralise the majority of outpatient services, currently scattered around the campus, in the Ambulatory Care Precinct, with a single point of access for referral and booking appointments, with clear referral processes and criteria, and registration for appointments. This would allow:
 - Greater collaboration between clinical disciplines
 - Increased scope for MDT clinics
 - A centralised information management and technology system to promote information sharing between clinicians and GPs
 - Efficiencies in booking systems, administration, and utilisation of space with reduction in appointment variations and reduced health resource utilisation
 - Expanded capabilities of the ACU as a proven admission avoidance model
 - Better access to patient education spaces and electronic information for patients
 - An improved patient journey and greater patient and staff satisfaction
- Ensure close adjacency and direct connectivity with the Acute Services Building to enable urgent access e.g. for rapid response to PACE calls, respiratory services to respond to patients with acute airway obstruction, etc.

- Include a variety of outpatient rooms for example:
 - Standard clinic/therapy rooms used for planned speciality clinics
 - Multi-disciplinary clinic/therapy rooms of sufficient size to allow integrated care e.g. accommodating a patient with multi-morbidities, their family members and/or carer as well as multiple practitioners (refer to Section 4.1.1 Integrating across the health and social care system)
 - Multi-purpose and multi-function clinic/therapy rooms which could be shared by different specialties/ disciplines and allow for point of care teaching and supervision
 - Specialised clinic/therapy rooms, purpose built for equipment needs e.g. bronchoscopy, ultrasound, ENT equipment, ophthalmology equipment and testing, podiatry, urogynaecology, hand therapy, paediatric lumbar puncture, pain management, oral health, Disability Assessment Services etc.
 - Some Clinic/therapy rooms are provided with ensuite toilets to allow privacy and efficiency e.g. for urogynaecology, colorectal and stomal therapy patients
 - Ambulatory Care Unit, e.g. for minor procedures, infusions, intravenous antibiotics, dressings, etc. as well as accommodating longer stay patients e.g. long term tracheostomy patients who currently stay overnight each month for a tracheostomy change could potentially have appropriate care in this Unit
 - Dedicated urgent access clinic/therapy rooms e.g. for rapid access clinics as well as urgent paracentesis, infusions, nutritional support and/or stomal therapy, etc.
 - Group rooms for classes requiring specialised equipment e.g. health literacy programs, education programs, family counselling, patient support groups, etc. including a community noticeboard for information sharing
 - Gym space(s) for allied health, inpatients, pain management services, Cardiac, Heart Failure, and Respiratory rehabilitation
 - Gym space accessible to clients of the Mental Health Service e.g. Keeping Body in Mind program and Recovery College
 - Access to Procedure rooms, e.g. for cystoscopy, Botox injections, Dermatology excisions
- Ensure space is suitable for:
 - Shared technology enabled teaching spaces (patient, student and staff)
 - Shared technology enabled staff meeting rooms
 - Shared family meeting room/case conference
- Ensure sufficient space is provided for:
 - Co-located specialised allied health treatment areas, outpatient rooms, meeting rooms, equipment, equipment lending pool, storage and office space
 - An oral health hub clinic for adults and children with capacity for 10 chairs to meet the projected increase in demand, with services relocated and consolidated into the Ambulatory Care precinct from the Hurstville Dental Clinic (4 chairs- adults), Hurstville School Dental Clinic (2 chairs - children only) and Rockdale Child Dental Clinic (2 chairs - children only). This will allow capacity to grow specialist skill sets, improve economies of scale and staff security, provide opportunities for student placements and onsite access to sterilising and radiology services
 - Pain management services: clinics, meeting/education room, gym, storage, etc.
 - Co-locate all Women's Health and Obstetrics outpatient services in the ambulatory care precinct, including flexible consult rooms, dedicated procedure rooms and ultrasound facilities (in two rooms)
 - Provide Diabetes Education services in the ambulatory care precinct, with individual and group rooms, co-located with other related clinics e.g. the Diabetes clinic, with Maternity for women with Gestational Diabetes Mellitus to promote integrated care
 - Provide appropriate space for Genetic Counselling
 - Office space (including hot desks with computer access)
 - Provide appropriate space for the Disability Assessment Service (DAS), including ground floor disabled access suitable for large wheelchairs, wheelchair accessible corridors, separate waiting areas for adults and children, 2 family sized clinic rooms for Paediatrics and 2 for adults suitable for clients with challenging behaviours fitted with appropriate equipment for DAS clients, access to disabled toilets with adult change tables, office and storage space, access to workstations, group rooms and teleconference facilities

- Dedicated accommodation (office and storage space) for expanded community based services, including access to computers, Wi-Fi, storage, access to meeting, education and training rooms
 - Provide appropriate space for BreastScreen NSW South Eastern Sydney and Illawarra Screening and Assessment Service (currently located in Burt Neilson Wing)
 - Registrar room/s
 - Storage space for equipment, drugs, etc. as well as pamphlets, educational materials, promotional materials, etc. on site
 - Satellite branch of main pharmacy for outpatients and (potential) space for a commercial pharmacy
 - Access to designated outdoor space for key events
- Ensure consideration is given to the expected increase in translational research activity, particularly in the fields of microbiome and immunotherapy, with increased demand for clinic / therapy rooms, clinical storage (e.g. stool samples from patients and donors), research laboratory, beds for clinical trials, etc. located within the ambulatory care precinct
 - Consider dedicated Departmental spaces. Many Departments and services expressed a preference for dedicated spaces for their service within the Ambulatory Care precinct. It was suggested these spaces include for example clinic / therapy rooms, procedure rooms, research laboratories, specimen collection and clinical storage, staff offices, specialised equipment rooms etc. For further information refer to Appendix 2: Departmental Consultation Reports
 - Consider locating a centralised intake for District Aged Care and Child and Family Services, as proposed in the Griffiths Cowper Access Intake and Referral report, in the SGH & CHS Ambulatory Care precinct, with co-located offices, database, IT systems, etc.
 - Provide a separate waiting area suitable for children
 - Monitor and review access to clinical spaces for Child and Family Services and other community services
 - Foster a “healthy neighbourhood” within the Ambulatory Care Precinct
 - Consideration should be given to separate entry point for drug and alcohol services, including methadone treatment spaces
 - Note methadone dosing needs to be accessible 365 days per year, and requires space to securely store Schedule 8 drugs, capacity to separate staff from clients, and access to pharmacy and ED
 - Consideration of a separate entry point for Sexual Health and HIV Services, with close links to the HIV/ Immunology and Infectious Diseases department
 - Consideration of provision of a Primary needle and syringe program site (resourced and managed from Kirketon Rd Centre) with a discrete community face, including space to accommodate a member of staff, one to two clients, equipment storage, equipment dispensing machine, sharps disposal. Ideal physical adjacencies would be D&A Services, Sexual Health and the department of HIV Immunology and Infectious Diseases
 - Consideration of location of young people’s and adult Mental Health Services adjacent to Drug and Alcohol Services and Sexual Health Services
 - Locate Child and Adolescent Mental Health Services within the Ambulatory Care Precinct
 - Provide access to Oral Health Services in the Ambulatory Care Precinct for Mental Health clients
 - Continue providing cancer services from the Cancer Care Centre (currently local fundraising is enabling some redevelopment to accommodate increasing activity) with consideration of any future capital development to occur in master planning
 - Consider transport solutions/access to transport to Precinct and parking, particularly for frail elderly and the disabled to facilitate patient attendance.

TECHNOLOGY:

- Consider a shared, dedicated telemedicine facility within Ambulatory Care/Outpatient facility – to reduce number of patients transferred from other hospitals for consults; enable outreach to other facilities (e.g. regional and indigenous clinics; consult to GPs including with GP in nursing home (current funding limitation as treatment is only paid for if patient is with GP)
- Technology enabled offices to allow telehealth, skype for real time assessment, virtual clinics, remote monitoring, telephone follow up, advice to community teams, Guardianship hearings
- Access to teleconferencing and virtual clinic / therapy rooms
- Provide Wi-Fi and ensure reliability and availability across the campus
- Systems that screen patient's function at home to determine need/triage for appointment, e.g. ScreenIT for UQ
- Access to shared patient records
- SMS normal results to avoid appointments
- SMS reminders to avoid missed appointments
- Hospital website that contains a Directory of services available, consultant list and selection criteria for referral
- Centralised intake and booking for all outpatient referrals to ensure consistency and a standardised referral and booking process
- Access to online referral forms (potentially as a part of HealthPathways)
- Online booking systems where patients/GPs can register their referrals/details online for an appointment and receive confirmation of registration
- Linking outpatient clinic appointments and addressing ways to communicate well where a patient attends two or more outpatient services
- Waitlist management system to review demand/supply for services and improved reporting/recording of DNA's
- Self-registration for appointments, integrated with eMR/iPM to provide efficiencies for staffing and improved recording
- Wireless technology and linked medical records
- Patient Paging System that allows patients to wait for their appointment in a nearby location of their choice, e.g. café, and are paged when they are due to be seen by their treating health care provider. This reduces crowding in waiting areas and improves the patient experience.

STAFFING:

- Provide an Ambulatory Care Precinct Manager/Coordinator to support integrated care and centralised intake/triage staff to ensure efficiencies in appointments, communication, etc
- Establish Ambulatory Care registrar cover and multi-disciplinary support, particularly for ACU patients
- Investigate the potential for continuing/increasing the outpatient/ambulatory services with extended hours for services to meet increasing demand
- Provide resources to support GP training for Shared care models e.g. antenatal care
- Consider the appointment of a GP Liaison officer for better communication with GPs and improved integrated care
- Ensure staffing is commensurate with new activity
- Centralised registration, appointments, medical records, triaging, etc. to avoid duplication of administrative responsibilities.

5.1.6.2 COMMUNITY AND HOME BASED SERVICES

“Running community services in their traditional silos is no longer appropriate. They need to be more closely connected to all other parts of the health and social care system if they are to be a driving force in improving the health of individuals and communities. They need to be much more closely involved in key decisions about patients at an earlier stage in their journey through the system.”¹⁶⁷

In order to realise our ambition of moving more care out of hospital and closer to people’s homes, greater integrated service provision is required between hospital and community based services and primary care to ensure joined up holistic care. Substantial numbers of hospital bed days could be avoided and length of stay reduced if patients could be cared for in home or community settings if suitable services are available and easily accessible.

Expansion of community and home based services is critical to improving the quality of life of our community, in light of a growing and ageing population with multiple comorbidities and a primary health care system under strain with limited access to bulk billing. It also provides an opportunity to further our transformation of care, with larger multidisciplinary teams providing joined up holistic care with specialist services (community, home and hospital-based) which will offer a rapid and accessible response to every patient every time.

To achieve transformation, changes will need to occur to the distribution of workforce; greater collaboration between primary and tertiary health services; partnerships with social care services; and also leveraging the assets of the wider community to support people in their own homes, combat social isolation, and create healthier communities.



RECOMMENDATIONS FOR COMMUNITY AND HOME BASED SERVICES

MODELS OF CARE:

- More services to be community facing or provided in the community
- Maintain strong relationships with acute services, Maternity Services, Paediatrics Department
- Maintain and enhance relationships with:
 - Calvary Community Health
 - Sydney Children’s Network
 - SESLHD Drug and Alcohol Service and Mental Health Service
 - PHN and GPs
 - Residential Aged Care Facilities
 - Department of Family and Community Services
 - Department of Education
 - NGOs (multiple)
- Integrate more closely with psychiatry-Mental Health Services particularly regarding challenging behaviours
- Models of care for community nursing to be considered to address community needs for post-acute and chronic care management
- Models of care and service delivery to be reviewed for children, youth and families in context of recent organisational restructure
- Models of care and service delivery to be reviewed for Kogarah Community Nursing in context of increased inpatient capacity with opening of new facilities
- With the restructure of Child, Youth and Family Services, there is opportunity for increased integration between child and family nurses and paediatrics and Child and Adolescent Mental Health Services
- Explore opportunities for new multidisciplinary services and teams, particularly for 0-2 year old group.

¹⁶⁶ The Kings Fund 2014. Community services: How they can transform care. URL: <https://www.kingsfund.org.uk/publications/community-services>

INFRASTRUCTURE:

- Provide base in the Ambulatory care Precinct to allow greater collaboration with hospital services
- Provide access to meeting, education and training rooms and adequate storage space for educational material, equipment, etc.
- Centralise referral service with a single point of access for referral and booking appointments, and registration for appointments. Should result in an improved patient journey and greater patient and staff satisfaction
- SMS reminder system, and telehealth services to support people at home to avoid attending in person
- Office space and sufficient fleet car parking space is required on campus for Kogarah Community Nursing and QRP to minimise manual handling risks (due to the transfer of stock & equipment from office to vehicles) and increase clinician efficiency
- Sufficient fleet car parking space is required for Community Mental health Services and Drug and Alcohol services.

STAFFING:

- Expand workforce to existing programs to allow rapid and accessible services, e.g. community nurses and allied health for QRP. Currently CHCK supplies the only community based Dietetics & Social Work, and is at capacity
- Ensure increased workforce capacity across all Community Services (including those provided from SGH&CHS, PICH and CHCK) to meet increasing demand and changing models of care
- Explore the potential for workforce redesign to enable the most efficient use of staff and to avoid duplication of services
- Ensure adequate clinical and administrative support is provided to community based services
- Recurrent budgetary constraints are likely to continue and the current challenge is to reorient service provision to the most vulnerable.

5.1.7 PROVIDING APPROPRIATE DIAGNOSTIC IMAGING CAPACITY

SGH provides a Level 6 medical imaging service and a Level 6 nuclear medicine service.

Demand for diagnostic imaging services is increasing as it plays a critical role in disease prevention, early detection and treatment of patients. Diagnostic imaging has transformed healthcare by reducing the need for exploratory surgery, reduction in unnecessary procedures, shorter lengths of hospital stays by providing faster and more precise diagnosis. In the ED, advanced imaging can improve efficiency by facilitating the triaging of patients.

The existing infrastructure is inadequate to cater for the projected growth in demand for medical imaging. There is currently an extensive outpatient waitlist for ultrasound from privately referred outpatients. The department is also unable to offer an extended paediatric imaging service, and there is no capacity to offer Prostate, Cardiac or Breast Magnetic Resonance Imaging (MRI). The department also provides a networked MRI service to Sutherland Hospital. The medical imaging department location is also relatively remote from inpatients, resulting in lengthy patient transfers, delays in transporting patients to and from the department, and inappropriate infrastructure i.e. lifts and corridors do not necessarily accommodate bed size. This will become more of an issue, particularly in relation to the location of the new Acute Services Building accommodating intensive care patients.

A dedicated vascular laboratory is also required to cater for the growth in demand for vascular disorders and to avert the present outsourcing of inpatient services to private imaging facilities, thereby improving patient access and quality of care. Diabetics and high risk feet are a particular group with high use and need of this service, and is a priority in the Leading Better Value Healthcare initiative.

For nuclear medicine, the physical room space for the cameras was designed before the introduction of Single Photon Emission Computed Tomography (SPECT/CT) which now has resulted in inadequate room size and a lack of procedure rooms for the growing demand in targeted radionuclide therapies. Currently, the Positron Emission Tomography (PET) scanner is over half full with around 144 scans per month on average and the projections show an increase in PET utilisation with a corresponding decrease in SPECT/CT utilisation.

As with any increase in projected activity, particularly operating rooms, ED, inpatient and outpatient services there will be a substantial flow on impact on the demand for imaging services (including workforce, technology etc.) and any delays in medical imaging or nuclear medicine will have an adverse effect on the rest of the services provided by the hospital. In addition, with the population ageing and growing, diagnostic imaging will play an even more critical role in initial cancer diagnosis, treatment planning, and palliative therapies through interventional techniques and cancer monitoring.



RECOMMENDATIONS FOR THE SGH DIAGNOSTIC IMAGING SERVICES

To meet the future demands for diagnostic imaging services at SGH, it is recommended that a purpose built diagnostic imaging centre be developed. This would improve efficiencies in time and staffing and an improved patient experience.

INFRASTRUCTURE:

- Ensuring the physical location of the department in a new complex is optimised for patient flow and synergies with other departments that view medical imaging as the critical component (such as emergency, operating rooms, intensive care, inpatients)
- All medical imaging modalities must be co-located (currently they are located in three distinct areas)
- More appropriate sizing of SPECT/CT rooms as most of the existing camera rooms are smaller than ideal as they were designed before the introduction of SPECT/CT
- Ideally medical imaging (including the vascular laboratory) should be located in close proximity to nuclear medicine for ease of patient navigation. This would improve efficiencies in time and staffing and an improved patient experience. Some facilities could be shared, e.g. utility room, toilets, Conference/MDT/ Education rooms
- Future service and equipment implementation requires significant consideration of the siting of this equipment, floor loading, radiation shielding, equipment maintenance, dedicated supply and discharge of gases, HVAC and power.

5.1.8 PROVIDING WORLD CLASS RESEARCH AND TEACHING AND EDUCATION FACILITIES

Increasingly the focus of much of the SGH & CHS campus research will be on early intervention, prevention and health promotion from a research base, education and training through to clinically sound decision making. This will include embracing translational research in the fields of microbiome and immunotherapy, and colocation of research to a hub and spoke model from the MRC to create linkages to all research done on campus. SGH & CHS and PICH are active members of the Sydney Partnership for Health, Education, Research and Enterprise (SPHERE) to enable collaborative research. Other collaborations include various interstate and international partnerships.

A new MRC is currently in planning, with a space to be refurbished on the second floor of the Research and Education Centre with fundraising from the Medical Research Foundation. A Professor of Medicine and associated research team has been appointed at SGH & CHS. The MRC will incorporate all levels of research, from cellular research to clinical follow up research. In line with UNSW Strategy, the major focus, which includes a high proportion of research currently undertaken at SGH & CHS, will be on:

- Maternal/foetal health
- Cancer
- Critical care
- Infection, immunity and inflammation
- Mental health/Neuroscience.

Increasing knowledge of the microbiome will improve understanding of disease progression, enabling health promotion, disease prevention, potentially preventable hospitalisations and earlier treatment for a range of disorders.

Currently, there is little coordination between medical, nursing and allied health education or research or sharing of resources or information. Research activity is siloed around the campus, with little opportunity for collaboration or multi-disciplinary research. Funding for medical research is increasingly centred on collaborative multicentre research and less on individual research projects, so enhancing collaboration will increase grant opportunities.

Infrastructure currently available on the campus also hinders research and education. For example, most research is centred on outpatients, not inpatients, but there is little dedicated space or opportunity for access to potential outpatient research subjects. Similarly, access to point of care teaching space is extremely limited and typically occurs in corridors and patient rooms and is not fit for purpose. Access to UNSW information is restricted by firewalls and not immediately available to researchers, educators or students. Readily available access to information is essential to enable world class teaching and education to thrive.



RECOMMENDATIONS FOR RESEARCH AND EDUCATION

In order to demonstrate a commitment to research and education on campus for the long term and improve and promote collaboration, (interdisciplinary and inter specialty) to provide opportunities for multi-disciplinary research and educational opportunities, infrastructure solutions are required.

INFRASTRUCTURE:

- Ensuring a Clinical Skills Centre is provided on campus. This should be co-located with undergraduate education (Clinical School) with shared resources. This could be part of a new building, i.e. does not need to be a discrete building
- Ensuring MRC space is created in the proposed Ambulatory Care Centre (including research laboratories, clinic / therapy rooms, clinical storage (e.g. stool samples from patients and donors), beds for multidisciplinary clinical trials, staff offices, etc.) to provide opportunities for collaborative research, improve communication and sharing of information and knowledge, and prevent duplication
- Providing space in the ambulatory care centre for recruitment and assessment of outpatients for research, co-located with clinics
- Ensuring a discrete Nursing research space is maintained, while fostering links to collaborative research and facilitating the sharing of research resources
- Ensuring animal housing is maintained on campus for research and education (managed by UNSW) and noting the need to upgrade the building including creating a germ-free facility (there is potential for a state of the art experimental animal housing facility to be built as part of the hospital redevelopment, managed and recurrently funded by the UNSW)
- Providing appropriate point of care educational spaces.

TECHNOLOGY:

- Integrating UNSW and SGH & CHS systems for better access to information
- Ensuring education and research spaces are adequately equipped with Wi-Fi, audio-visual communications, etc.
- Funding for research software for researchers not affiliated with a university.

OTHER:

- Ensuring quarantined time is provided for clinicians to provide education and undertake research
- Maintain comprehensive research program (e.g. animal, clinical trials, new drug development, etc.)
- Continue fostering national and international training opportunities to broaden skill set of specialists e.g. peritonectomy, etc.
- Extending the MRI hours of operation, and second MRI system, to permit advanced clinical & translational research to benefit patient outcomes. The present service is limited with MRI research referred privately
- Provide regular GP education sessions and include a regular walking tour of the campus so GPs are familiar with what is available and where, so they can inform their patients.

5.2 CAPITAL IMPLICATIONS

5.2.1 CURRENT AND FUTURE CAPITAL IMPLICATIONS

CLINICAL DESCRIPTION	2017 PHYSICAL BEDS	2017 AVERAGE AVAILABLE (FUNDED) BEDS	PROJECTED 2020/21	PROJECTED 2025/26	PROJECTED 2030/31
DAY ONLY BEDS					
Day only rehabilitation			4	5	5
High volume short stay surgery	0	0	16	17	18
<i>Subtotal day only</i>			20	22	23
OVERNIGHT BEDS					
Rehabilitation	22	22	34	38	42
Rehabilitation – Acquired Brain Injury Unit	0	0	16	18	20
Palliative Care	0	0	15	17	18
Subacute Aged Care*			31	32	37
Subacute Aged Care – Behaviour Management Unit	0	0	7	8	9
High volume short stay surgery	0	0	36	39	43
<i>Subtotal overnight beds</i>	22	22	139	152	170
INTERVENTIONAL/PROCEDURAL SUITES					
HVSSS operating rooms (new**)	0	0	2	3	4
Refurbished operating rooms	8	4	8	8	8
Birth Suites	8	8	8	8	8
AMBULATORY AND OUTPATIENT					
Clinic / therapy rooms			109	118	129
Mental Health	24	24	33	39	46
SUPPORT SERVICES					
Medical Imaging					
X Ray	4	4	4	4	4
CT Scanner	2	2	3	4	4
MRI Scanner	1	1	2	3	3
Fluoroscopy	2	2	3	3	4
Angiography	1	1	2	3	3
Ultrasound	5	5	6	6	6
Mammogram	1	1	1	1	1
Vascular Laboratory	0	0	2	2	2
Nuclear Medicine***					
Gamma Camera	1	1	2	2	2
SPECT/CT	3	3	2	2	2
PET Scanner	1	1	2	2	2

*Currently there are 60 aged care beds that flex between acute and subacute according to demand and availability

** There are 7 operating rooms projected for HVSSS by 2025/26 which will include the use of 4 existing or refurbished operating rooms. Total operating rooms, including existing, will be 23 in 2025/26.

***The additional requirements for nuclear medicine i.e. uptake rooms, cardiovascular CT room, radiopharmacy etc. will be addressed in capital planning, however the requirements are detailed in section 5.3 nuclear medicine projections

5.2.2 OTHER CAPITAL IMPLICATIONS

Other capital implications identified in the consultation process for developing this Plan include:

NON-ASSET STRATEGIES (INCLUDING PUBLIC PRIVATE PARTNERSHIPS)

The District currently has a number of successful partnership arrangements where independent providers and the District are working together with the private or non-government sectors as a means of improving access, quality and cost of delivery of care, for example with uncomplicated renal dialysis provided off site.

In terms of capital planning, SESLHD and NSW's Health Infrastructure will review the procurement options available for the delivery of the SGH & CHS Campus Redevelopment. Included will be exploring opportunities for public private partnerships, for example:

- "...creating public infrastructure assets through private sector financing and ownership control
- A contribution by Government through land, capital works, risk sharing, revenue diversion or other supporting mechanisms and
- Engaging the private sector for a specified period for the delivery of related services."¹⁶⁸

MASTERPLANNING

The St George Development Control Plan (known as the Masterplan) completed in 2011 provided an overview of long term redevelopment of the campus.

This provided a baseline to evaluate options for any proposed future capital redevelopment on the campus and to identify locations of services to make better use of the site, improve patient centred care and operational efficiencies.

On completion of health service planning it is envisaged the Development Control Plan will be reviewed and updated as required including opportunities for future development zones e.g.

- Consolidation of teaching training and research (currently located in the Clinical Skills Centre, Research and Education Centre and the Pitney Building)
- Administration and support (currently housed in James Law House)
- Cancer Care Centre and Mental Health Precinct
- Provision of accommodation for rural patients and/or their families (including Bezzina House)
- Improved access to St George Private Hospital.

CAPITAL PLANNING

Following endorsement of the Integrated Health Services Plan, capital planning commences - led by NSW's Health Infrastructure and following the Process of Facility Planning¹⁶⁹

This phase of planning includes options analysis, project definition, detailed design, construction and commissioning.

It is in this phase of planning that the information detailed in the Integrated Health Services Plan is fleshed out e.g. physical adjacencies, office space and meeting room requirements, etc.

BEYOND 2026

The time horizon for this Plan extends to 2026 with projections provided to 2031. However, the life of the redevelopment will extend well beyond this timeframe. Therefore it is suggested, in keeping with the Campus master planning, sufficient space is provided around high cost infrastructure to allow for future technological requirements, reconfiguration of services, etc.

¹⁶⁸ NSW Government, 2012, NSW Public Private Partnerships Guidelines, URL: http://www.treasury.nsw.gov.au/_data/assets/pdf_file/0015/22605/NSW_PPP_Guidelines_2012_Final_Version_14_August_2012_dnd.pdf

¹⁶⁹ URL: <http://www.health.nsw.gov.au/assets/Pages/process-update.aspx>

STAGED COMMISSIONING

It is noted that the future space requirements (refer to 5.2.1) will have a phased opening based on the incremental growth in activity and to ensure matching to recurrent funding.

The commissioning timeline will be documented in the capital planning phase of this project.

5.2.3 PROVIDING APPROPRIATE INFRASTRUCTURE

PROMOTING A HEALING ENVIRONMENT

It is recommended that the use of specific design principles for a healing environment are employed when commissioning or refurbishing clinical areas. The design of health facilities should promote a healing and safe environment for all, particularly for people with mental health issues, children, older people and people with dementia. Modern health facilities should be open and connected to urban life, and be receptive to cultural and social events and shared community values.

The physical space can contain a variety of components that may contribute to a healing environment and support wellness and recovery in its design. These include interior design, colour, nature (images and green spaces), natural light, fresh air and ventilation, visual art, music, and aroma. In addition to these physical components, hospitals can offer healing spaces for patients, families, visitors, and staff to gather in or retreat to during the day as a way to enhance well-being. These include community spaces such as gardens, foyers, or resource centres for patients, family members and staff to retreat to, including covered outdoor seating areas for patients who are able to go outside, often with loved ones.

Using Aboriginal designs also acknowledges the traditional custodians on which the hospital is built. This is an important visual reminder that the campus is a 'culturally safe place' to visit.

Activities such as de-cluttering, improving signage to help with wayfinding, even lighting that can be adjusted to the time of day to improve vision and orientation, placing easy-to-grip handrails along ward corridors in contrasting colours to encourage activity, changing flooring to non-shiny surfaces, minimising unnecessary noise, making small social spaces to encourage conversation and reduce social isolation, the therapeutic use of outdoor space, and giving patients something meaningful to do have all been shown to benefit clinical outcomes, be cost effective and improve staff satisfaction.¹⁷⁰

The implementation of carer zones,¹⁷¹ dedicated facilities for a patient's carer or relative to stay overnight in some single rooms, could also be considered to enhance patient wellbeing.

The provision of a dedicated multi-faith spiritual centre on campus, with a base for chaplains of all faiths, in an easily accessible location, would enable the timely provision of spiritual care and provide holistic patient centred care to the whole health precinct.

HOSPITAL DESIGN FOR BETTER INFECTION CONTROL

The physical design and infrastructure of a hospital is an essential component of its infection control measure, and can influence the transmission of Healthcare associated infections, the most common complication affecting patients in Australian hospitals. Almost half of these are preventable.¹⁷²

Key design features that minimise transmission include:¹⁷³

- Surface finishes that are easy to clean and maintain
- Ventilation, air conditioning, cooling towers and water systems that meet prescribed standards
- The ability to isolate patients who are infectious or immunocompromised (see below: Improving the balance of single and multi-occupancy rooms)
- Workplace design, with features including separation of clean and dirty work flows; ready access to hand hygiene facilities and personal protective equipment (PPE); adequate storage; and adequate systems and procedures for waste management, cleaning and linen handling.

¹⁷⁰ Developing Supportive Design for People with Dementia. The King's Fund's Enhancing the Healing Environment Programme 2009-2012. URL: <http://www.kingsfund.org.uk/publications/developing-supportive-design-people-dementia>

¹⁷¹ Carer zones are dedicated facilities for a patient's carer or relative to stay overnight. For more information see Western Sydney Local health District Carer Program. URL: http://www.bmdhproject.health.nsw.gov.au/WWW_Blacktown/media/Media/Files/Fact%20Sheets/Blacktown-Hospital-Carer-Zone-Information-Sheet.pdf

¹⁷²The Australian Commission on Safety and Quality in Health Care Factsheet: Preventing and Controlling Healthcare Associated Infections, Standard 3. URL: <https://www.safetyandquality.gov.au/wp-content/uploads/2012/01/NSQHS-Standards-Fact-Sheet-Standard-3.pdf>

¹⁷³Australasian Health Facility Guidelines Part D - Infection Prevention and Control URL: https://aushfg-prod-com-au.s3.amazonaws.com/download/Part%20D%2001%20Introduction_7.pdf

According to the Health Facility Guidelines, “When considering infection prevention and control requirements, contingency plans should be identified for the bio-preparedness of each facility/service from initial planning and design phase through to completion. These may include fever clinic locations, isolation rooms, access, flow and logistics of an infectious disease outbreak, air conditioning supply and controls, water and waste management.”

MEETING THE NEEDS OF BARIATRIC PATIENTS

In 2015/16 at SGH there were 137 patients recorded with a primary or secondary diagnosis of obesity. These patients are more complex than other patients with a higher average National Weighted Activity Unit (NWAU) (4.98 compared to 1.54), and a significantly longer average length of stay (11.7 days 4.9 days). They were admitted for a variety of reasons (for example diseases and disorders of the circulatory and respiratory systems, endocrine, nutritional and metabolic diseases and disorders, etc.) and therefore are accommodated throughout the hospital.

While it is noted coding of obesity may be an unreliable measure, it is likely the data for SGH reflects an underestimate of the number of morbidly obese patients treated in SGH.

The prevalence of obesity is increasing and this trend is expected to continue, so it is considered prudent for the redevelopment to provide adequate infrastructure (including special rooms, furniture, equipment, etc.) to accommodate morbidly obese patients in subacute care, outpatients and short stay surgery.

These rooms could additionally be used by:

- Very tall patients
- Noisy or disturbed patients
- Rooming-in of relatives
- High dependency patients
- Patients requiring privacy
- Patients with a lowered resistance to disease or infection.

SUITED TO CHILDREN, ADOLESCENTS AND YOUNG ADULTS

Care of children, adolescents and young adults in hospital differs from those for adults. With an increasing number of children transitioning into adult care, space required may need to include:

- Family centred care
- The use of decor to create a positive environment that is as non-institutional as possible.
- An indoor area (e.g. an adolescents and young adults centre) that adolescents can use to meet with their peers/ friends, watch TV, listen to music or play games.

General principles around greater delineation of paediatric and adult zones include:

- Promoting the separation of traffic flows between patients and the public (including where possible the separation of adult and paediatric traffic flows)
- Separate and improved patient zoning for paediatric and adult patients. i.e. dedicated paediatric environments specialised to the treatment, care, and management of paediatric patients.

CONSIDERING THE NEEDS OF OLDER PEOPLE

With the increasing proportion of older people, considering the needs of older people in facility design is critical. Mobility and balance difficulties as well as vision and hearing impairment are common characteristics of older patients. The unfamiliar hospital environment, with its medical jargon, unfamiliar equipment, and disruption of life-long routines and habits, are significant sources of stress.

Health facilities can be alien and confusing places to a person with cognitive problems or dementia. An unsuitable environment can quickly contribute to confusion, agitation, distress, falls, longer lengths of stay and reduced independence. Examples include poor lighting reducing visibility, or bright lighting leading to overstimulation, poorly placed handrails limiting access, poor signage and cluttered spaces causing disorientation, and poor colour contrast between toilet seats and rails that may increase the risk of falls.

To lessen the impact of these factors design should consider:

- Providing good visual access so consumers can see everywhere they need to go
- Maximising penetration of natural light and, where possible, views
- Ensuring sufficient storage for mobility aids such as prescribed walking frames, mobile / wheel chairs, and lifters
- Discouraging long corridors as they cause echoes and orientation difficulties that may confuse the elderly
- Creating clear hospital wayfinding and signage with appropriate contrasting colour, lettering size and font type, and other orientation cues
- Ensuring sufficient space for walking with mobility aids as well as rest areas
- Providing parking and drop-off areas within easy access to major entrances and seating.

It is suggested dementia specific guidelines¹⁷⁴ be used in designing patient areas, including ambulatory care, in consultation with consumers, carers and family and staff.

ACCOMMODATING PEOPLE WITH DISABILITIES

Many people (including patients, clients, visitors and staff) attending the SGH & CHS campus have disabilities. They may face barriers to everyday activities such as hearing what is said, seeing small print, climbing stairs and understanding signage. It is important to note that many environmental barriers can be avoided with informed planning. It is therefore critical in the capital planning of the redevelopment that the needs of people with disabilities are met through consultation in line with NSW Health's Disability Inclusion Plan 2016-2019.¹⁷⁵

While the Australian Health Facility Guidelines contain an extensive list of references to ensure disabled access, some requirements are not as apparent. For example consumer feedback has highlighted the need for adult changing places,¹⁷⁶ which will assist people with severe disability and their carers to attend a number of appointments on one day, improving delivery of service.

CULTURALLY APPROPRIATE PHYSICAL ENVIRONMENT

It is suggested that all care and physical environments should be culturally appropriate. Specific actions in the detailed capital planning process could include:

- Continue ongoing involvement of the Aboriginal community and/or Aboriginal Health Unit in planning committees
- Improve signage throughout the buildings on the Campus acknowledging the traditional owners of the land
- Invest in a plaque at the Hospital's entrance acknowledging the traditional owners
- Install, where possible posters and/or art depicting Aboriginal culture or Aboriginal specific information to assist Aboriginal patients feel welcome and have an appropriate length of stay for any treatment received.
- Display Aboriginal artwork and cultural artefacts or interactive display
- Provide a centrally located and well-resourced spiritual care / multi-faith / reflective space centre easily accessible to patients, their families / carers and staff separate from clinical areas, as the spiritual aspect is part of holistic care, and a suitable space for chaplaincy staff
- Access to designated outdoor space for key events
- Retain Aboriginal room for patients, families and carers on campus.

¹⁷⁴ Alzheimer's Australia 2004, Dementia Care and the Built Environment, Position Paper 3. URL: https://fightdementia.org.au/files/20040600_Nat_NP_3DemCareBuiltEnv.pdf

¹⁷⁵ NSW Health's Disability Inclusion Plan 2016-2019 URL: <http://www.health.nsw.gov.au/disability/Publications/disability-action-plan-16-19.PDF>

¹⁷⁶ Adult Change Table: URL: <http://changingplaces.org.au/>

PROVIDING A SAFE AND HEALTHY WORKPLACE

SESLHD is committed to maintaining a safe and healthy working environment for workers and visitors to NSW Health facilities and services, in accordance with Work Health and Safety legislation,¹⁷⁷ Codes of Practice and Australian Standards.

Work, health and safety priorities should be reflected in the facility planning process. Priorities may be, for example: ensuring the precinct provides safe access and egress; future proofing fire detection; adequate storage, including adequate room for manual handling aids and security storage for records and for hazardous chemicals; non-slip surfaces that are easy to clean; lighting that is appropriate for the work to be undertaken and doesn't create unlit areas; and the facility's design meets 'crime prevention through environmental design' standards including no hiding/concealment places, appropriate access control, appropriate barriers between public and private areas, appropriate lines of sight for staff; and ready access to mechanisms for summoning assistance, e.g. duress alarms and rapid access to an appropriate duress response. There is an imperative to address and reduce violence and ensure staff safety across the campus.

It is also important to insure that allocated spaces for Community Cars are in close proximity to community offices to avoid work, health and safety issues, e.g. to prevent the need to carry stock, bulky items and equipment for long distances, or avoid inclement weather and other environmental hazards.

Facility design should also include communal areas for staff interaction, which helps encourage collegiality, integrated care and research, and the provision of a quiet or 'reflective' space for staff, possibly as part of a campus spiritual care centre, located separately from clinical areas. Providing outdoor rest and eating areas for staff and access to green space can also help improve staff wellbeing and social interaction. Other facilities to help improve staff health and wellbeing include the provision of a staff gym onsite, and ensuring adequate and secure storage for bicycles with close access to staff showers.

IMPROVING THE BALANCE OF SINGLE AND MULTI -OCCUPANCY ROOMS

Balancing the number of single rooms has been found to¹⁷⁸ :

- Reduce the rate of cross infection and transmission of infections between patients. This is particularly the case for long stay patients (e.g. people with spinal cord injury) who tend to have high levels of multi-resistant organisms.
- Decrease the number of patient transfers between beds and wards
- Reduce the length of stay
- Increase patient's privacy
- Decrease noise level and sleep disturbances
- Improve patient satisfaction and sense of control
- Decrease medication errors.

Conversely there are sound reasons for having multi-occupancy rooms including:

- Reduce falls for patients requiring supervision,
- Decrease sense of loneliness and isolation
- Lower capital costs.

Therefore it is recommended the redevelopment ensures an appropriate balance of single and multi-occupancy rooms throughout all inpatient areas, including provision of negative pressure rooms in line with the Australasian Health Facility Guidelines.

In addition the provision of carer zones in single rooms to allow carers to stay overnight has been shown to have benefits for patients, carers and staff (e.g. Blacktown and Mount Druitt Hospitals (BMDH) Expansion Project Stage 1).¹⁷⁹

¹⁷⁷ NSW Health 2013 Work Health and Safety: Better Practice Procedures. PD2013_050 URL: http://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2013_050.pdf

¹⁷⁸ Chaudhury H et al, 2004. The Use of Single Patient Rooms versus Multiple Occupancy Rooms in Acute Care Environments URL: https://www.healthdesign.org/sites/default/files/use_of_single_patient_rooms_v_multiple_occ_rooms-acute_care.pdf

¹⁷⁹ As part of the Blacktown and Mount Druitt Hospitals Expansion Project (Stage 1) almost 60 unique carer zones were commissioned in single rooms across the new facility. The carer zones were created directly in response to consumer feedback during design and provide dedicated facilities for a patient's carers or relative to stay overnight. See URL: http://www.bmdhproject.health.nsw.gov.au/WWW_Blacktown/media/Media/Files/Fact%20Sheets/Blacktown-Hospital-Carer-Zone-Information-Sheet.pdf

ENSURING FIT FOR PURPOSE ASSESSMENT, TREATMENT AND THERAPY SPACES

A number of departments have indicated the need for dedicated treatment and/or therapy spaces, including clinic and/or therapy rooms, treatment spaces and/or procedure rooms with specialised requirements and wheelchair access. Examples include:

- Specialised facilities for some allied health professionals, e.g. for hand therapy, activities of daily living training, hydrotherapy pool, Equipment Lending Pool, rehabilitation gymnasiums, e.g. an exercise gym for group classes such as cardiac and pulmonary rehabilitation, including a range of exercise equipment; and/or an open gym for 1:1 assessment and treatment with curtained bays and treatment plinths; and/or an open area accommodating a range of rehabilitation equipment
- Services who use specialised equipment that cannot be moved or shared and require secure storage, such as ophthalmology, urogynaecology, anorectal physiology, ENT, etc.
- Services that require specialised treatment facilities, such as urogynaecology who require ensuite bathrooms adjacent to clinic rooms and specialised bathroom equipment; dermatology clinics require access to natural light; ENT require acoustic privacy; chest clinic requires negative pressure room, etc.
- Procedure rooms (e.g. for renal, respiratory, gynaecology, etc.) where local anaesthetic plus or minus sedation are given. These rooms would require additional space for patient change rooms, recovery spaces and close proximity to sterilising services
- Provision for BreastScreen – note this is a separate entity to SESLHD but needs space provided in the proposed new building.

See Appendix 2: Departmental Consultation Reports for further detail on individual Department/Unit specialised infrastructure requirements.

PROVIDING ADEQUATE OFFICE SPACE AND MEETING ROOMS

In terms of capital planning, challenges associated with the number and location of offices and staff facilities across the range of disciplines was raised consistently throughout consultation from many staff working in a variety of areas. This includes adjacencies to clinical space. Many staff expressed need to be co-located to enable professional support and better coordination of their roles and workload within the increasingly desired multi-disciplinary team approach.

Any new development must ensure there is sufficient office space, meeting rooms and staff facilities for the efficient operation of clinical services.

PROVIDING ADEQUATE STORAGE

In terms of capital planning a key theme raised consistently throughout consultation from many staff working in a variety of areas was the lack of storage.

Any new development must ensure there is sufficient storage for equipment, goods and supply for the efficient operation of clinical services.

ENSURING CONNECTIVITY OF INFRASTRUCTURE

In order to ensure continuity of services once the new building is open and services move in, there needs to be a continued refurbishment of existing spaces.

Safe and efficient access and direct connectivity between the new building and the Acute Services Building (ASB) should also be ensured to enable ready access to core services and other related clinical and non-clinical services, particularly for floors 2-8. This will also ensure the provision of rapid review of patients by the medical team and for medical emergencies (PACE calls), and avoid the current issues associated with the disconnection of the Tower Ward Block and the ASB.

Ease of access to parking stations, drop off points and transport connections is also important for safety and accessibility for patients, families and carers and staff.

CONSIDERING THE NEEDS OF CORPORATE SERVICES

Corporate Services supply a wide range of non-clinical services that support the effective operation of clinical services across the St George Hospital campus, and any redevelopment needs to consider the increased demands placed upon these services. This includes factors such as adequacy of power supply for the new building, medical gas supply, air conditioning, fire safety considerations, security needs (extra cameras, etc.), water systems, dedicated and larger service lifts, cleaning rooms, utilities rooms for linen and waste, transport of linen and medical supplies, extra deliveries (food, linen, etc.), service vehicle parking, and adequate storage for the additional supplies required and waste produced for a new building/service.

The location of the Cashiers Office also needs to be considered in a new ambulatory care precinct, as well as the site and facilities required for 24 hour Switchboard services.

See the Appendix 2: Departmental Consultation Reports for further detail on requirements for Corporate Services.

5.3 SCENARIO PROJECTIONS

Base case projections are a requirement of the NSW Government for capital projects. They take account of population growth and ageing, patterns of disease but assume models of care and patient flows remain unchanged. Scenario analysis is a process of analysing possible future events by challenging the base case and considering alternative possible outcomes which must be quantifiable. A number of scenarios were developed for SGH that modify the base case analysis that aim to improve whole of hospital flow and shift the balance of care. A summary of the scenarios undertaken and outcomes are presented below.

SUBACUTE INPATIENTS:

SUBACUTE INPATIENT SCENARIOS:

- Revising trends for rehabilitation including more day only rehabilitation
- Establishing a District wide Acquired Brain Injury Unit to cater for the increase in number of people presenting with mild to moderate brain injuries
- Establishing a Behaviour Management Unit to cater for an increase in people requiring management of dementia
- Revising trend analysis for subacute aged care and palliative care

SCENARIO OUTCOMES:

- ✓ Improve whole of hospital flow
- ✓ Relieve demand on acute beds by ensuring patients are occupying the right bed at the right time
- ✓ Improve the length of stay (both acute and subacute) by streaming patients into dedicated units
- ✓ Improve capacity to provide more day only rehabilitation and introduce new models of care
- ✓ Increase capacity to provide palliative care on site

AMBULATORY CARE:

AMBULATORY CARE SCENARIOS:

- Establishing new clinics to meet gaps in services
- Increasing capacity of admission avoidance services e.g. rapid access/crisis clinics, quick response programs and more community based activity
- Increasing capacity to provide new models of care e.g. more multidisciplinary clinics and nurse or allied health led clinics
- Increasing capacity of services to provide care that is anticipatory and predictive

SCENARIO OUTCOMES:

- ✓ Provide an improved patient experience and staff satisfaction with a dedicated 'one stop shop' for ambulatory care services
- ✓ Allow for greater collaboration and integration between clinical disciplines
- ✓ Improve the management of patients with long term conditions
- ✓ Provide an appropriate care setting as an alternative to inpatient admission or ED presentation
- ✓ Care that is anticipatory and predictive
- ✓ Improve equity of access

HIGH VOLUME SHORT STAY:

HIGH VOLUME SHORT STAY SCENARIO:

- Increase capacity to provide a high volume short stay surgical model including dedicated:
 - Day only beds
 - Overnight beds
 - Operating theatres

SCENARIO OUTCOMES:

- ✓ Improve access to planned surgical services and reduce the wait list
- ✓ Improve operating theatre efficiency by streaming short stay patients away from the complex and unplanned activity
- ✓ Improve bed utilisation by releasing capacity (including beds, staff and other resources) and provide the opportunity for reinvestment of this capacity into unplanned and complex service needs

5.3.1 SCENARIO SUBACUTE INPATIENT ACTIVITY PROJECTIONS

ST GEORGE HOSPITAL

REHABILITATION

Assumptions

Uses NSW Health's HealthAPP projection tool

- Accounts for state-wide populations projections, epidemiological, clinical practice and technological changes
- Revising trends to account for type changing issues
- Increasing the proportion of day only rehabilitation
- Assumes the flow pattern between SGH and CHCK remain unchanged.

Note

There has been significant increase in demand and the clinical acuity and complexity of patients that are now accepted into the rehabilitation ward. Consequently, type changing issues have impacted on the projections. Specifically, there are episodes that are recorded as acute on the rehabilitation ward that have not been type changed and episodes where activity is recorded acute then subsequently type changed to subacute on the rehabilitation ward. On average over the last 3 years there have been around 83 separations and 1,200 bed days per year not counted in the subacute projections. Additionally for those episodes where type changing has occurred (whilst on the rehabilitation ward) there has been on average around 1,400 bed days not reflected in the projections. The projections have been adjusted to account for these issues. Adjustments have also been made in relation to the day only and overnight proportions.

In addition, in regard to ESRG 902 rehabilitation – other overnight. This activity is mostly geriatric evaluation management (GEM) activity but a small proportion of projected activity is for rehabilitation. This has been reflected for in the projections.

Table 1: Scenario projections for rehabilitation subacute inpatient activity, St George Hospital, 2013/14 to 2031

	DATA	2013/14	2014/15	2015/16	2021	2026	2031
DAY ONLY	Separations	1,156	1,219	1,308	1,518	1,739	2,005
	Spaces required				4	5	5
OVERNIGHT	Separations	391	383	313	476	520	578
	Bed days	8,419	7,329	7,209	11,288	12,337	13,726
	Average length of stay	21.5	19.1	23.0	23.7	23.7	23.7
	Beds required	26	22	22	34	38	42

Source: HealthAPP, FlowInfo v16.1

Inclusions: patient flag=subacute, version 5.0 ESRG, service category=rehabilitation

Exclusions: ED only, ESRG 844 Brain Dysfunction

Beds required is based on a 90% occupancy

REHABILITATION: BRAIN INJURY UNIT

Assumptions

Uses NSW Health's HealthAPP projection tool

- Accounts for state-wide populations projections, epidemiological, clinical practice and technological changes
- Establishing a brain injury unit for post-acute mild to moderate acquired brain injury to cater for the gap in management of this cohort
- 50% of Acquired Brain Injury (ABI) patients previously discharged home/or left against medical advice to be streamed into the ABI unit for rehabilitation
- It is planned that this service will be a district wide service as SGH is a Level 1 trauma service for the District.

Note

The scenario was developed to cater for the gap in management of post-acute mild to moderate ABI. This scenario streams patients that are currently occupying acute beds (and have very long lengths of stay) into a dedicated ABI unit. Specifically, it includes acute patients with an ICD 10 code of ABI with 50% of those patients previously discharged home/or left against medical advice to be streamed into the ABI unit for rehabilitation. This unit is for mild to moderate cases with the most severe continuing to be transferred to Liverpool Hospital Brain Injury Unit. The average length of stay applied is 30 days, however ESRG 844 brain dysfunction base case projections remain in the data which result in a slight variation in the projected average length of stay.

This scenario will also reduce the acute length of stay at SGH and therefore reduce the demand on acute services. It is projected that this unit will reduce the demand on acute inpatient services by 9 beds by 2026 at SGH. It should be noted that the planning for stage 2 – the acute services building was based on previous version of the acute inpatient modelling tool aIM2010 and planning/data that was available in 2012/13.

Table 2: Scenario subacute projections for acquired brain injury rehabilitation unit, St George Hospital 2021 to 2031

DATA		2021	2026	2031
SGH	Separations	106	124	142
	Bed days	2,899	3,374	3,959
	Beds required	9	10	12
DISTRICT WIDE (EXCLUDING SGH)	Separations	94	105	117
	Bed days	2,236	2,472	2,757
	Beds required	7	8	9
TOTAL	Separations	200	229	259
	Bed days	5,135	5,846	6,716
	Beds required	16	18	20

Source: HealthAPP, HIE, FlowInfo v16.1

Exclusions: ED only

ABI codes sourced from ABI AHIW paper

Beds required is based on a 90% occupancy

PALLIATIVE CARE

Assumptions

Uses NSW Health's HealthAPP projection tool

- Accounts for state-wide populations projections, epidemiological, clinical practice and technological changes
- Revising trend analysis to include most recent inpatient activity
- Assumes the flow pattern between SGH and CHCK remain unchanged.

Note

The scenario was developed to take into account recent improvements in the recording of palliative care data. The recording of palliative care data has improved from 2015/16 and has continued into 2016/17. The base case projections are based on pre 2014/15 data and therefore the improvements are not reflected in the base case projections. The current utilisation data supersedes the 2021 base case projections.

Table 3: Scenario projections for overnight palliative care subacute inpatient activity, St George Hospital 2013/14 to 2031

ESRG	DATA	2013/14	2014/15	2015/16	2021	2026	2031
PALLIATIVE CARE – CANCER RELATED	Separations	70	105	321	308	336	380
	Bed days	616	920	2,511	2,881	3,170	3,580
	Average length of stay	8.8	8.8	7.8	9.4	9.4	9.4
	Beds required	2	3	8	9	10	11
PALLIATIVE CARE – NON CANCER RELATED	Separations	113	129	261	351	411	506
	Bed days	521	575	1,339	1,914	2,151	2,504
	Average length of stay	4.6	4.5	5.1	5.5	5.2	4.9
	Beds required	2	2	4	6	7	8

Source: HealthAPP, HIE, FlowInfo v16.1

Inclusions: patient flag=subacute, version 5.0 ESRG

Exclusions: ED only, day only separations excluded due to small numbers

Beds required is based on a 90% occupancy

SUBACUTE AGED CARE

Assumptions

Uses NSW Health's HealthAPP projection tool

- Revising trend analysis to reflect a more reasonable projected average length of stay for geriatric evaluation management
- Adjusting the maintenance care projections to reflect the proportion of activity undertaken on the aged care ward.

Note

The data below captures geriatric evaluation management (GEM) and maintenance care. The data has been combined in the data table below as this is the mixture of patients that is seen on the aged care wards. A relatively small amount of palliative care is also undertaken on the aged care wards but this activity is reflected in the palliative care projections above.

GEM activity is sourced from ESRG 902 rehabilitation – other overnight (adjusted to take into account a small proportion of projected activity is for rehabilitation). The average length of stay was adjusted from the base case to reflect a more reasonable projected average length of stay (from 18.7 days base case to 7.6 days scenario). The historical data shows consistent trends for GEM, with the length of stay remaining around 6 to 7 days in the previous 7 years. The length of stay was increased slightly (compared to the current length of stay) to take into account the significant projected increase in the 85 + age group in the catchment population.

Most of maintenance care activity occurs in the aged care wards but some activity does occur outside aged care. On average for maintenance care, 72% of separations and 80% bed days occur on the aged care wards with the rest distributed across other acute beds in the hospital, this has been reflected in the historical and projected data below.

Table 4: Scenario subacute projections for aged care, St George Hospital 2013/14 to 2031

DATA	2013/14	2014/15	2015/16	2021	2026	2031
Separations	1,227	1,117	987	1,377	1,508	1,708
Bed days	8,619	7,318	6,376	10,025	10,623	12,131
Average length of stay	7.0	6.6	6.5	7.3	7.0	6.8
Beds required	26	22	19	31	32	37

Source: HealthAPP and FlowInfo v16.1

Inclusions: patient flag=subacute, ESRG V5.0, GEM: ESRG 902 Rehabilitation – Other overnight (GEM), ESRG 871 Maintenance Care, service category=GEM (historical)

Excludes: ED only.

Beds required is based on an 90% occupancy

SUBACUTE AGED CARE: BEHAVIOUR MANAGEMENT UNIT

Assumptions

Uses NSW Health's HealthAPP projection tool

- Establishing a Behaviour Management Unit to cater for the increasing cohort of people living with dementia that have behavioural issues.

Note

The scenario was developed to cater for the increasing cohort of people living with dementia that have behavioural issues (i.e. patients that are very anxious, agitated and at times aggressive). These patients have medical issues and therefore are not suitable for management under mental health services. The scenario is based on the assumption provided by clinicians that there are currently on average 5 separations per month that would be appropriate for admission into the unit. The projections are sourced from the ESRG 902 – rehabilitation other overnight, as around 97% of this activity is Geriatric Evaluation Management. An average length of stay of 27 days has been applied to the projections. These patients often have long length of stay due to the complexity of their issues, and require ongoing comprehensive multidisciplinary approach to manage their care.

Table 5: Scenario subacute projections for aged care behaviour management unit, St George Hospital 2021 to 2031

DATA	2021	2026	2031
Separations	85	92	110
Bed days	2,293	2,473	2,950
Beds required	7	8	9

Source: HealthAPP, HIE, FlowInfo v16.1

Exclusions: ED only

ABI codes sourced from ABI AHIW paper

Beds required is based on a 90% occupancy

It is important to note that the projections were calculated separately for the behaviour management unit (BMU) and subacute aged care using the adjusted ESRG 902 rehabilitation – other overnight. The BMU projections were then removed from the total aged care projections as the data is a subset of the aged care projections.

REHABILITATION

Assumptions

Uses NSW Health’s HealthAPP projection tool

- Accounts for state-wide populations projections, epidemiological, clinical practice and technological changes
- Includes public activity from the St George catchment population (Hurstville, Kogarah and Rockdale LGAs)
- Assumes models of care and patient flows remain largely unchanged.

Note

The subacute projections have been recently updated. The scenario (and historical data below) includes St George catchment residents and public patients only. It is important to note that the proportion of public patients has been declining in recent years due to the private revenue target increasing.

Table 6: Scenario projections for rehabilitation subacute inpatient activity, Calvary Health Care Kogarah, 2013/14 to 2031

	DATA	2013/14	2014/15	2015/16	2021	2026	2031
DAY ONLY	Separations	1,817	2,513	3,048	3,444	4,054	4,753
OVERNIGHT	Separations	221	271	298	349	420	482
	Bed days	4,243	4,801	5,535	7,218	8,461	9,717
	Average length of stay	19.1	17.7	18.6	20.6	20.1	20.1
	Beds required	13	15	17	22	26	30

Source: HealthAPP and FlowInfo v16.1

Inclusions: patient flag=subacute, version 5.0 ESRG, St George catchment population only (Hurstville, Kogarah, Rockdale LGAs), public patients only

Exclusions: ED only

Beds required is based on a 90% occupancy

PALLIATIVE CARE

Assumptions

Uses NSW Health's HealthAPP projection tool

- Accounts for state-wide populations projections, epidemiological, clinical practice and technological changes
- Includes public activity from the St George catchment population (Hurstville, Kogarah and Rockdale LGAs)
- Assumes models of care and patient flows remain largely unchanged.

Note

The subacute projections have been recently updated. The scenario (and historical data below) includes St George catchment residents and public patients only. It is important to note that the proportion of public patients has been declining in recent years due to the private revenue target increasing.

Table 7: Scenario projections for palliative care subacute inpatient activity, Calvary Health Care Kogarah, 2013/14 to 2031

ESRG	DATA	2013/14	2014/15	2015/16	2021	2026	2031
PALLIATIVE CARE – CANCER RELATED	Separations	160	165	157	204	222	249
	Bed days	2,362	2,498	2,316	3,033	3,329	3,728
	Average length of stay	14.8	15.1	14.8	14.8	14.9	14.8
	Beds required	7	8	7	9	10	11
PALLIATIVE CARE – NON CANCER RELATED	Separations	26	24	34	42	47	60
	Bed days	315	299	434	461	522	684
	Average length of stay	12.1	12.5	12.8	10.9	11.1	11.4
	Beds required	1	1	1	1	2	2

Source: HealthAPP and FlowInfo v16.1 for historical data

Inclusions: Patient flag=subacute, version 5.0 ESRG, St George catchment population only (Hurstville, Kogarah, Rockdale LGAs), public patients only
Beds required is based on a 90% occupancy

It is important to note in the projection of the subacute beds for SGH, the role of CHCK and the patient cohorts that are managed by the two sites was taken into account, ensuring no duplication of service is planned and that CHCK will continue to complement the subacute services provided at SGH into the future. There are key differences in the patient cohorts that CHCK manage compared to SGH which are outlined in section 4.2 of the Technical paper.

5.3.2 SCENARIO NON ADMITTED PROJECTIONS

Note

Baseline data was 2016/17 sourced from both OrBiT and EDWARD. Mapped IHPA Series 2 Clinics to inpatient SRGs (NSW Health's HealthAPP projection tool).

Scenarios were developed based on numerous clinical consultations, discussions with the SGH & CHS Clinical Council with additional advice and/or clarification provided by the Planning Advisory Group.

In total more than 70 scenarios were considered with the majority aiming to shift the balance of care and broadly grouped into the following:

- Acute to non-admitted e.g.
 - Focusing on care that is anticipatory and predictive in a non-admitted setting
 - Establishing new clinics (e.g. orthopaedics, neurosurgery, dizziness, fracture, biome clinics, etc.)
 - Enhancing post-acute follow-up
 - Fostering multidisciplinary clinics (e.g. peri-op, ENT/Respiratory/Cancer, allied health, trauma, etc.)
- Avoiding the need for ED presentations e.g.
- Rapid access / crisis clinics (e.g. patients needing urgent medical review but not ED intervention and/or for known patients with long term conditions requiring urgent management)
 - Aged care in the community
 - Nurse practitioner clinics (e.g. surgery, gastroenterology, etc.)
- Non admitted to GPs
 - Foster anticipatory care with GPs
 - Continue adoption of Health Pathways (e.g. inappropriate referrals, routine peri-op care, etc.)

Table 8: Scenario projections for non-admitted patients, 2016/17 to 2031

	2016/17	2021	2026	2031
OPD ACTIVITY IN PROPOSED BUILDING				
Occasions of service	213,692	348,014	380,836	414,995
Service events	184,046	297,274	325,048	354,575
NWAU 16	10,703	16,894	18,461	20,164
Clinic / therapy rooms		109	118	129
COMMUNITY HEALTH / HOME BASED SERVICE				
Occasions of service	160,294	211,622	235,366	261,287
Service events	139,445	181,019	201,312	223,849
NWAU 16	5,353	7,132	7,940	8,844

Sources: OrBiT, HIE, HealthAPP, clinician's advice, Victorian Health space requirement benchmarks

Note: Service event projections are based on rate of service events to occasions of service by IHPA Clinic Type in 2016/17. NWAU projections are based on average NWAU per service event by IHPA Clinic Type in 2016/17

Exclusions: Non admitted activity provided in separate settings e.g. cancer care centre, operating theatre / procedure rooms, medical imaging, emergency, etc.

Table 9: Scenario projections for non-admitted mental health patients, 2016/17 to 2031

	2016/17	2021	2026	2031
MH ACTIVITY IN PROPOSED BUILDING				
Occasions of service	72,184	88,219	104,272	123,245
Service events	26,722	32,658	38,601	45,624
Clinic / therapy rooms	24	33	39	46
HOME BASED SERVICE/INPATIENT SETTING/OTHER				
Occasions of service	22,192	27,122	32,057	37,890
Service events	7,373	9,011	10,651	12,588

Sources: HIE (supplied by MH), Victorian Health space requirement benchmarks applied. Average room duration sourced from Mental Health

Note: NWAU projections will be provided for the financial impact statement. The above projections are base case projections only.

Inclusions (MH activity in proposed building): face-to-face activity that has occurred in community health settings and hospital based ambulatory care setting

5.3.3 SCENARIO HIGH VOLUME SHORT STAY SURGICAL PROJECTIONS

Assumptions

Used NSW Health's High Volume Short Stay Surgical Model Toolkit¹⁸⁰ specifying:

- Diagnosis Related Groups (DRGs) considered suitable for HVSSS and
- Methodology for calculating dedicated HVSSS beds and operating rooms.

Note

Planned surgical activity at SGH has been constrained by a lack of operating rooms and it was considered some patients without private health insurance requiring HVSSS were impelled to have their procedures in private facilities (i.e. these patients were paying out-of-pocket).

Analysis demonstrated SGH has proportionally more emergency surgical activity than its peer hospitals (41% at SGH and 34% at peers) indicating there may be inequitable access to planned surgery in the public health system for residents of the St George area due to lack of public hospital operating room availability.

Further analysis compared the rate of private health insurance (age standardised rate (ASR) per 100 population) for Hurstville, Kogarah and Rockdale LGAs with other metropolitan LGA's, identifying Ashfield, Parramatta and Penrith having similar rates. Next the percentage of HVSSS separations occurring in private hospitals was compared for each of the above LGAs. This found 73% of St George residents attended private hospitals for HVSSS separations versus 62% for LGA's with comparable private health insurance coverage.

Therefore the scenario partially reversed HVSSS flows of Hurstville, Kogarah and Rockdale residents from private hospitals to SGH to take account of the constrained surgical activity and to ensure equitable access for local residents.

Finally to assist managing planned surgical activity in a timely manner the District has instigated inter-hospital transfers. The transfers from SGH were reversed to allow people to receive care closer to home.

Table 10: Scenario projections for High Volume Short Stay Surgical, 2015/16 to 2031

	2015/16	2021	2026	2031
Separations	7,275	8,348	9,041	9,867
Bed days	10,135	11,028	11,899	13,080
Beds		52	56	61
- day only		16	17	18
- overnight		36	39	43
Operating rooms		7	7	8
NWAW	5,647	6,660	7,213	7,872

Source: FlowInfo V16.1, HealthAPP,

Inclusions: planned surgical activity, select DRGs based on those identified in HVSSS Surgical toolkit

¹⁸⁰ NSW Health, 2012, High Volume Short Stay Surgical Model Toolkit (Document Number GL2012_001), URL: http://www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2012_001.pdf

5.3.4 SCENARIO BIRTHING SUITES PROJECTIONS

Assumptions

- Trend analysis calculated for the period 2010/11 and 2016/17
- Adjusted the projection to take into account that on average 10 women per month are diverted to surrounding hospitals
- Average room utilisation based on previous 3 year averages (9.5 hours)
- 80% occupancy is applied
- The projections are based on the availability of 16 hours per day and 336 days per year.

Table 11: Scenario projections birthing suites, St George Hospital 2013/14 to 2031

DATA	2013/14	2014/15	2015/16	2021	2026	2031
Activity (ward level)	2,990	3,028	3,052	3,324	3,437	3,537
Projected requirement	8	8	8	8	8	8

Source: HIE, SESLHD, Strategy and Planning Unit (methodology). DPE 2016 population projections

The projections show that 8 birthing suites are required by 2026. Whilst there is no increase projected, the birthing suites require reconfiguration to ensure that all suites can accept low and high risk births. Currently, the birthing centre is not co-located with the main birthing facilities and/or maternity unit so it can only accept low risk labour and birthing, resulting in underutilisation due to low numbers meeting the criteria for low risk birthing. In addition, the birthing suites are also used as Assessment Rooms, which hampers flow.

5.3.5 SUPPORT SERVICE PROJECTIONS

MEDICAL IMAGING

Assumptions

- Trend analysis between 2010/11 and 2016/17 segmented by inpatients/outpatients and treatment modality
- The projections are based on the availability of 12 hours per day and 240 days per year
- 85% occupancy is applied
- Average procedure times were provided by the Medical Imaging.

Table 12: Projections for medical imaging, St George Hospital 2017- 2031

TREATMENT MODALITY	2017	2021	2026	2031
General X-Ray	4	4	4	4
CT Scanner	2	3	4	4
MRI Scanner	1	2	3	3
Fluoroscopy	2	3	3	4
Angiography	1	2	3	3
Ultrasound	5	6	6	6
Mammography	1	1	1	1
Vascular Laboratory	0	2	2	2

Source: Radiology Information System. September 2017, SESLHD Strategy and Planning Unit projection methodology

As with any increase in projected activity, particularly operating rooms, ED and outpatient services there will be a substantial flow on impact on the demand for medical imaging services (including workforce, technology etc.) and any delays in access will have an adverse effect on the rest of the hospital.

Medical imaging data is robust and it shows strong trends in demand across most modalities and is consistent with the projected trends for medical imaging, that is, the increased utilisation of minimally invasive procedures (i.e. diverting both planned and emergency activity from operating rooms to interventional radiology), increasing use of MRI, computerised tomography and interventional radiology.

The projections show that by 2026 MRI requirements will increase from 1 to 3 MRI rooms. It is important to note that there are currently significant access issues for MRI due to the fact the SGH is the only tertiary referral hospital with one single unit. As result, there is 6 month wait list for paediatric MRI (and MRI is preferred over CT due to exposure to radiation for paediatric safety). SGH is also unable to provide breast, prostate and cardiac MRI (these patients are referred to the private sector).Ultrasound requirements are projected to increase from 5 to 6 by 2026, the increase in room requirements is largely due to unmet demand. CT requirements are projected to increase from 2 to 4 rooms and angiography requirements are projected to increase from 1 to 3 rooms by 2026.

To improve patient access and quality of care for patients with vascular disorders a dedicated in house vascular laboratory is required. Growth is projected for vascular disorders e.g. Diabetics and high risk feet are a particular group with high use and need of this service, and is a priority in the Leading Better Value Healthcare initiative.

NUCLEAR MEDICINE

Assumptions

- Trend analysis between 2010/11 and 2016/17 segmented by inpatients/outpatients
- PET scan projections are based on 8 months of activity then regression analysis applied to ascertain a 12 month period. Applied the POWH PET growth rate
- Projections are based on the availability of 8.5 hours per day and 240 days per year
- 85% occupancy is applied
- Average procedure times were sourced from Nuclear Medicine.

Table 13: Projections for nuclear medicine, St George Hospital 2017- 2031

MODALITY	2017	2021	2026	2031
Gamma Camera	1	2	2	2
SPECT/CT	3	2	2	2
PET Scanner	1	1	2	2

Source: Nuclear Medicine department. October 2017, (SESLHD Strategy and Planning Unit Methodology)

PET services began operating in February 2017 and utilisation has increased substantially over the period from 124 scans to 150 scans in September. Already, operationally the service is over half full with the scanner being utilised nearly 5 hours per operational day, with around 90% of patients being referred from outpatients. It is expected that there will be increase in demand for PET with a corresponding decrease in SPECT/CT. Oncology is currently a major source of referrals which will increase with the growing and ageing population combined with earlier detection of cancers and widening indications for molecular imaging. The ageing population will also increasingly utilise neurology, cardiology and aged care imaging services.

Nuclear medicine camera (both SPECT/CT and gamma camera) utilisation has increased substantially over the period from 1,299 scans in 2012 to 1,944 scans in 2016 representing annual growth rate of 10.6% or an average of 168 more scans per year, with outpatients and inpatient scans increasing at the same rate. The Department provides scans to outpatients (approximately 62% of patients), inpatients and those referred from the ED.

Similar to medical imaging, any increase in hospital activity (particularly outpatients) will flow on to greater demand for nuclear medicine. The additional requirements detailed below are not projected on (i.e. based on data) but are based on clinician advice and are required for any expansion of nuclear medicine.

Table 14: Other capital requirements for nuclear medicine, St George Hospital 2017- 2026

TREATMENT MODALITY	2017	2021
CT Coronary Angiography	1	1
Bone Densitometry	1	2
Exercise Laboratory	1	1
Uptake rooms	4	8
Examination rooms	1	3
Therapy area	1	1
Radiopharmacy	1	1
Hot laboratories	2	2
Counting room	1	1
In-vivo laboratory	1	1

Source: Nuclear Medicine department. September 2017

REFERENCES

- Academic Health Science Partnership <https://research.unsw.edu.au/node/126956>
- AHA Committee on Research 2016. Next Generation of Community Health
URL: <http://www.aha.org/research/cor/community-health/index.shtml>
- AHHA. Deeble Institute for Health Policy Research Think Tank: Hospital avoidance and prevention Communique 23 May 2017. URL: http://ahha.asn.au/sites/default/files/images/ahha_think_tank_communique_hospital_avoidance_and_prevention_0.pdf
- Alimo-Metcalfe B, Alban-Metcalfe J, Bradley M, Mariathasan J, Samele C. The impact of engaging leadership on performance, attitudes to work and wellbeing at work: a longitudinal study. *J Health Organ Manag.* 2008; 22(6):586-98. URL: <https://www.ncbi.nlm.nih.gov/pubmed/19579572>
- Alzheimer's Australia 2004, Dementia Care and the Built Environment, Position Paper 3.
URL: https://fightdementia.org.au/files/20040600_Nat_NP_3DemCareBuiltEnv.pdf
- Askew, D, Brady. Brown, J, Cass, A, Davy, C et al (2015). To your door: Factors that influence Aboriginal and Torres Strait Islander peoples seeking care.
URL: <http://www.kvc.org.au/wp-content/uploads/2014/12/Paper-Mono-1-CD-20130624-v42-Submitted.pdf>
- Australasian Health Facility Guidelines. Part D - Infection Prevention and Control
URL: https://aushfg-prod-com-au.s3.amazonaws.com/download/Part%20D%2001%20Introduction_7.pdf
- Australian Bureau of Statistics <http://stat.abs.gov.au>
- Australian Bureau of Statistics: 4233.0 – Health Literacy, Australia 2006 (pub. 2008)
URL: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4233.0>
- Australian Commission on Safety and Quality in Health Care. National Quality and Safety Health Service Standards, 2nd edition, 2017
URL: <https://www.safetyandquality.gov.au/our-work/assessment-to-the-nsqhs-standards/nsqhs-standards-second-edition/> Australian Commission on Safety and Quality. National Clinical Care Standards <http://www.safetyandquality.gov.au/our-work/clinical-care-standards/>
- Australian Commission on Safety and Quality in Health Care. Australian Atlas of Healthcare Variation 2017.
URL: <https://www.safetyandquality.gov.au/atlas/>
- The Australian Commission on Safety and Quality in Health Care Factsheet: Preventing and Controlling Healthcare Associated Infections, Standard 3.
URL: <https://www.safetyandquality.gov.au/wp-content/uploads/2012/01/NSQHS-Standards-Fact-Sheet-Standard-3.pdf>
- Australian Commission on Safety and Quality in Health Care 2009. Preventing Falls and Harm from Falls in Older People: Best Practice Guidelines for Australian Hospitals, Residential Aged Care Facilities and Community Care. URL: <https://www.safetyandquality.gov.au/our-work/falls-prevention/falls-prevention-resources/>
- Australian Government. Ageing and Aged Care Aged Care Service List - New South Wales as at 30 June 2016
<https://agedcare.health.gov.au/aged-care-service-list-new-south-wales-as-at-30-june-2016>
- Australian Government. Dept. of Health. Ageing and Aged Care. Social Services Discussion Paper Key directions for the Commonwealth Home Support Programme
URL: <https://agedcare.health.gov.au/ageing-and-aged-care-programs-services-commonwealth-home-support-programme/discussion-paper-key-directions-for-the-commonwealth-home-support-programme>
- Australian Government. Department of Health. Breastfeeding. URL: <http://www.health.gov.au/breastfeeding>
- Australian Government. Department of Health. National Primary Health Care Strategic Framework
<http://www.health.gov.au/internet/publications/publishing.nsf/Content/mental-pubs-n-recovgde-toc>
- Australian Government Department of Health. PHN Commissioning. Designing and Contracting Services Guidance Version 1.0 - June 2016 URL:
[https://www.health.gov.au/internet/main/publishing.nsf/Content/E11D6513E6583EA1CA2580D4000FOA70/\\$File/PHN%20Designing%20and%20Contracting%20Services%20v0.1.pdf](https://www.health.gov.au/internet/main/publishing.nsf/Content/E11D6513E6583EA1CA2580D4000FOA70/$File/PHN%20Designing%20and%20Contracting%20Services%20v0.1.pdf)

- Australian Government Dept. of Health and Ageing 2011. National Framework for Universal Child and Family Health Services URL: [https://www.health.gov.au/internet/main/publishing.nsf/Content/AFF3C1C460BA5300CA257BF0001A8D86/\\$File/NFUCFHS.PDF](https://www.health.gov.au/internet/main/publishing.nsf/Content/AFF3C1C460BA5300CA257BF0001A8D86/$File/NFUCFHS.PDF)
- Australian Govt. Dept. of Social Services Discussion Paper: Key directions for the Commonwealth Home Support Programme <https://www.dss.gov.au/ageing-and-aged-care-programs-services-commonwealth-home-support-programme/discussion-paper-key-directions-for-the-commonwealth-home-support-programme>
- Australian Government Media Release. 26 Nov 2015. A new blueprint for mental health services <http://www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2015-ley151126.htm>
- Australian Government Media Release 20 March 2016 www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2016-ley021.htm
- Aust. Govt. Media Release 31 March 2016. Health Care Homes to keep chronically-ill out-of-hospital. [http://www.health.gov.au/internet/ministers/publishing.nsf/Content/B54E87C87AA06842CA257F8700210C62/\\$File/SLO24.pdf](http://www.health.gov.au/internet/ministers/publishing.nsf/Content/B54E87C87AA06842CA257F8700210C62/$File/SLO24.pdf)
- Australian Govt. National Mental Health Commission. A national framework for recovery-oriented mental health services <http://www.mentalhealthcommission.gov.au/our-reports/contributing-lives,-thriving-communities-review-of-mental-health-programmes-and-services.aspx>
- Australian Government (2013). National Aboriginal and Torres Strait Islander Health Plan 2013-2023. URL: [http://www.health.gov.au/internet/main/publishing.nsf/content/B92E980680486C3BCA257BF0001BAF01/\\$File/health-plan.pdf](http://www.health.gov.au/internet/main/publishing.nsf/content/B92E980680486C3BCA257BF0001BAF01/$File/health-plan.pdf)
- Australian Govt. National Mental Health Commission. Contributing Lives, Thriving Communities - Review of Mental Health Programmes and Services <http://www.mentalhealthcommission.gov.au/our-reports/contributing-lives,-thriving-communities-review-of-mental-health-programmes-and-services.aspx>
- Australian Indigenous HealthInfoNet, 2016, Overview of Aboriginal and Torres Strait Islander health status 2015. <http://www.healthinonet.ecu.edu.au/uploads/docs/2015-overview.pdf>
- Australian Institute of Family Studies. The NSW Strategic Plan for Children and Young People <https://aifs.gov.au/cfca/2016/05/03/report-acyp-nsw-consultations-children-and-young-people>
- Australian Institute of Health and Welfare <http://www.aihw.gov.au/>
- Australian Institute of Health and Welfare 2017. Burden of Cancer in Australia: Australian Burden of Disease Study 2011. Australian Burden of Disease Study series no. 12. Cat. no. BOD 13. Canberra: AIHW. URL: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129559772>
- Australian Institute of Health and Welfare 2012. Dementia in Australia. Cat. no. AGE 70. Canberra <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=10737422943>
- Australian Institute of Health and Welfare 2013. Dementia care in hospitals: costs and strategies. Cat. no. AGE 72. URL: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129543386>
- Australian Institute of Health and Welfare 2016. Aged care services and places. URL: <http://www.aihw.gov.au/aged-care/residential-and-home-care-2014-15/services-and-places/#data>
- Australian Institute of Health and Welfare. My Hospitals: St George Hospital Emergency department. URL: <https://www.myhospitals.gov.au/hospital/1151C2130/st-george-hospital-nsw/emergency-department>
- Baker G.R., et al 2008. "Intermountain Healthcare." High Performing Healthcare Systems: Delivering Quality by Design. 151-178. Toronto: Longwoods Publishing. <http://www.longwoods.com/content/20146>
- Bauer UE, et al. Prevention of chronic disease in the 21st century: elimination of the leading preventable causes of premature death and disability in the USA. *Lancet*. 2014 Jul 5,384(9937):45-52. <http://www.ncbi.nlm.nih.gov/pubmed/24996589>
- Berkowitz SA, Hulberg AC, Hong C, et al. Addressing basic resource needs to improve primary care quality: a community collaboration programme. *BMJ Qual Saf* 2015. Published Online First 30 Nov 2015. doi:10.1136/bmjqs-2015-004521. <http://qualitysafety.bmj.com/content/early/2015/11/30/bmjqs-2015-004521.abstract>
- Berkman N D, Sheridan SL, Donahue KE, Halpern DJ, Crotty K. 2011. Low Health Literacy and Health Outcomes: An Updated Systematic Review. *Annals of Internal Medicine*, 155, 97-107 <http://www.ncbi.nlm.nih.gov/pubmed/21768583>
- Briggs S, Pearce R, Dilworth S, Higgins I, Hullick C, Attia J. Clinical pharmacist review: A randomised controlled trial. *Emerg Med Australia* 2015; 27: 419-26
- Bryan A, 2011, Surgery risks for obese overplayed, *MJA*, 28 November, 2011 <https://www.mja.com.au/WWinsight/2011/45/surgery-risks-obese-overplayed>

- Cabilan C, Hines S, Munday J. Prehabilitation for surgical patients: a systematic review protocol. The JBI Database of Systematic Reviews and Implementation Reports, [S.l.], v. 11, n. 5, p. 112 -122, jun. 2013. ISSN 2202-4433. URL: <http://connect.jbiconnectplus.org/ViewSourceFile.aspx?0=8387>
- Calvary Strategic Plan 2016-2020 <https://www.calvarycare.org.au/about/strategy/>
- Caplan GA, Sulaiman NS, Mangin DA, Aimonino Ricauda N, Wilson AD, Barclay L. A meta-analysis of 'hospital in the home'. *Med J Aust* 2012;197(9):512-9
- Cardona. B, A. Stebbing, M. Fine, C. Duncan, P. Samsa and K. Eagar (2017) Ageing Well at Home: Measuring the Impact of Community Care for Older People. Final Report of the Development and Field Trial of the Australian Community Care Outcome Measure. Department of Sociology, Macquarie University, Sydney and Australian Health Services Research Institute (AHSRI), University of Wollongong, Wollongong. www.agedcareoutcomes.net
- Central and Eastern Sydney Primary Health Network. <https://www.cesphn.org.au/>
- Central and Eastern Sydney Primary Health Network Strategic Plan http://www.cesphn.org.au/images/Central_and_Eastern_Sydney_PHN_Strategic_Plan.pdf
- Central and Eastern Sydney Primary Health Network Commissioning Framework 2016-2018. URL: file:///C:/Users/uptinw/Downloads/20160502Commissioning_framework.pdf
- Central and Eastern Sydney PHN. HealthPathways URL: <https://sydney.healthpathways.org.au/LoginFiles/Logon.aspx?ReturnUrl=%2f>
- Centre for Health Economics, University of York, UK. The Economics of Health Inequality in the English NHS – The Long View. Feb 2017. URL: https://www.york.ac.uk/media/che/documents/papers/researchpapers/CHERP142_economics_health_inequality_NHS.pdf
- Chalkidou, K. Eliminating waste in healthcare spending. *BMJ* 2017;356:j570 (Published 07 February 2017) URL: <http://www.bmj.com/content/356/bmj.j570.full>
- Charles, A. The Kings Fund 2017. Developing accountable care systems. Lessons from Canterbury, New Zealand. URL: <https://www.kingsfund.org.uk/publications/developing-accountable-care-systems>
- Chaudhury H et al, 2004. The Use of Single Patient Rooms versus Multiple Occupancy Rooms in Acute Care Environments URL: https://www.healthdesign.org/sites/default/files/use_of_single_patient_rooms_v_multiple_occ_rooms-acute_care.pdf
- Chen, A and May, T. Transforming Health. Shifting our health systems from illness treatment and prevention to health creation. The Young Foundation, 2017 URL: <https://youngfoundation.org/publications/transforming-health-shifting-health-systems-illness-treatment-prevention-health-creation/>
- Clinical Excellence Commission. Sepsis Kills. URL: <http://www.cec.health.nsw.gov.au/patient-safety-programs/adult-patient-safety/sepsis-kills>
- Commonwealth of Australia 2009. Investing in the Early Years—A National Early Childhood Development Strategy URL: http://www.startingblocks.gov.au/media/1104/national_ecd_strategy.pdf
- Doyle et al. Making change last: applying the NHS institute for innovation and improvement sustainability model to healthcare improvement. *Implementation Science* 2013, 8:127 Page 2. URL: <http://www.implementationscience.com/content/8/1/127>
- Draper B, Karmel R, Gibson D, Peut A & Anderson P. 2011. The Hospital Dementia Services Project: age differences in hospital stay for older people with and without dementia. *International Psychogeriatrics* 23:1649-58. <http://www.ncbi.nlm.nih.gov/pubmed/21902861>
- Ela S, Espinosa J, Martínez-Muñoz M, Lasmarías C, Beas E, Mateo-Ortega D, Novellas A, Gómez-Batiste X. The WHO collaborating centre for public health palliative care programs: an innovative approach of palliative care development. *J Palliat Med.* 2014 Apr;17(4):385-92. doi: 10.1089/jpm.2013.0203. Epub 2014 Jan 16. URL: <http://www.ncbi.nlm.nih.gov/pubmed/24432817>
- Emergency Care Institute <http://www.ecinsw.com.au/sites/default/files/field/file/ED%20Internet%20Survey%20FINAL%202015%20edits%20for%20web.pdf>
- European Innovation Partnership on Active and Healthy Ageing. Action Group A3. Prevention and Early Diagnosis of Frailty and Functional Decline, Both Physical and Cognitive, in Older People https://ec.europa.eu/research/innovation-union/pdf/active-healthy-ageing/gp_a3.pdf
- Felland L, Lechner E, Sommers A. The Commonwealth Fund 2013. Improving access to specialty care for medicaid patients: policy issues and options. URL: http://www.commonwealthfund.org/~media/files/publications/fund-report/2013/jun/1691_felland_improving_access_specialty_care_medicaid_v2.pdf
- Frankel A, Haraden C, Federico F, Lenoci-Edwards J. A Framework for Safe, Reliable, and Effective Care. White Paper. Cambridge, MA: Institute for Healthcare Improvement and Safe & Reliable Healthcare; 2017. <http://www.ihl.org/resources/Pages/IHIWhitePapers/Framework-Safe-Reliable-Effective-Care.aspx>

- Garvey D (2008). Review of the social and emotional wellbeing of Indigenous Australian peoples – considerations, challenges and opportunities. URL: http://www.healthinonet.ecu.edu.au/sewb_review
- Gómez-Batiste X, Blay C, Martínez-Muñoz M, Lasmarías C, Vila L, Espinosa J, Costa X, Sánchez-Ferrin P, Bullich, Constante C, Kelley EJ. The Catalonia WHO Demonstration Project of Palliative Care: Results at 25 Years (1990-2015). *J Pain and Symptom Management*. 2016 Jul;52(1):92-9. doi: 10.1016/j.jpainsymman.2015.11.029. Epub 2016 May 24. URL:<http://www.ncbi.nlm.nih.gov/pubmed/27233146>
- Goodwin N, Dixon A, Anderson G, Wodchis W. The Kings Fund 2014. Providing integrated care for older people with complex needs. Lessons from seven international case studies https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/providing-integrated-care-for-older-people-with-complex-needs-kingsfund-jan14.pdf
- Greater Sydney Commission. Towards Our Greater Sydney 2056 <http://www.greater.sydney/towards-our-greater-sydney-2056>
- Greater Sydney Commission. Revised Draft South District Plan. Overview. Local Government Areas: Canterbury-Bankstown, Georges River, Sutherland. : <https://www.greater.sydney/draft-south-district-plan>
- Gretton C, Honeyman M. The Kings Fund 2016 The digital revolution: eight technologies that will change health and care URL: <http://www.kingsfund.org.uk/publications/articles/eight-technologies-will-change-health-and-care>
- Hibbard J and Gilbert H, 2014. Supporting people to manage their health. An introduction to patient activation. King's Fund http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/supporting-people-manage-health-patient-activation-may14.pdf
- Highlands Health Consulting, 2015, NSW Peritonectomy Services Planning: Report prepared for NSW Ministry for Health - Final Report
- Horta, Bernardo L.; Bahl, Rajiv; Martinés, José Carlos; Vitoria, Cesar G.; World Health Organization. Evidence on the long-term effects of breastfeeding. .Systematic reviews and meta-analysis. URL: http://www.who.int/maternal_child_adolescent/documents/9241595230/en/
- Hubertus J, Thorlby V&J. Developing care for a changing population: supporting patients with costly, complex needs. Nuffield Trust UK Discussion paper, May 2016. URL: <http://www.nuffieldtrust.org.uk/node/51>
- Hunter Medical Research Institute, Fracture Liaison Service Cost Study, Draft economic analysis, Nov. 2015
- Imison C, Sonola L, Honeyman M, Ross, S. Kings Fund 2014. The reconfiguration of clinical services. What is the evidence? URL: <https://www.kingsfund.org.uk/publications/reconfiguration-clinical-services>
- IHI: Improving Patient Flow: The Esther Project in Sweden. URL: <http://www.ihl.org/resources/Pages/ImprovementStories/ImprovingPatientFlowTheEstherProjectinSweden.aspx>
- Institute for Healthcare Improvement. The Science of Improvement. URL: <http://www.ihl.org/about/Pages/ScienceofImprovement.aspx> on C and Hambleton S. Value co-creation driving Australian primary care reform. *Med J Aust* 2016, 204 (7 Suppl): S45. <https://www.mja.com.au/journal/2016/204/7/value-co-creation-driving-australian-primary-care-reform>
- International Alliance of Patient's Organisations, London 2007. What is patient-centred care? A review of definitions and principles. <http://www.patientsorganizations.org/attach.pl/547/494/IAPOPatient-CentredHealthcareReview2ndedition.pdf>
- International Association for Hospice and Palliative Care. A Hospital Palliative Care Unit. URL: <https://hospicecare.com/resources/publications/getting-started/8-a-hospital-palliative-care-unit>
- Jackson C and Hambleton S. Value co-creation driving Australian primary care reform. *Med J Aust* 2016, 204 (7 Suppl): S45. URL: <https://www.mja.com.au/journal/2016/204/7/value-co-creation-driving-australian-primary-care-reform>
- Kershaw LZ, Gardiner B, Morgan A, Smith R, Tsang C, Whalen S. St Vincent's Hospital, NSW: Stranded Sam to the Rescue of Long Stay Patients. ACI innovation Exchange. URL: <https://www.aci.health.nsw.gov.au/ie/projects/stranded-sam>
- Kindig D.and Stoddart G. What Is Population Health? *American Journal of Public Health*: 2003, Vol. 93 <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447747/>
- Kiran T, Pinto A. Swimming Upstream to tackle the social determinants of health. *BMJ Qual Saf* doi:10.1136/bmjqs-2015-005008 <http://qualitysafety.bmj.com/content/early/2016/01/07/bmjqs-2015-005008.full>
- KPMG 2014. Creating new value with patients, carers and communities URL: <https://assets.kpmg.com/content/dam/kpmg/pdf/2016/07/creating-new-value-with-patients.pdf>

- KPMG. Pharmacy eHealth Workforce Initiatives Project. NSW Ministry of Health, 2015. <http://www.health.nsw.gov.au/workforce/alliedhealth/Documents/pharmacy-eHealth-workforce-initiative.pdf>
- Krogsbøll LT, Jørgensen KJ, Grønhøj Larsen C, Gøtzsche PC. General health checks in adults for reducing morbidity and mortality from disease. *Cochrane Database Syst Rev.* 2012 Oct 17;10:CD009009. URL: <https://www.ncbi.nlm.nih.gov/pubmed/23076952>
- Luckett et al 2014. Elements of effective palliative care models: a rapid review. *BMC Health Services Research* 2014;14:136. DOI: 10.1186/1472-6963-14-136 URL: <http://www.ncbi.nlm.nih.gov/pubmed/24670065>
- Mackenzie M, O'Donnell C, Reid M, et al. National Evaluation of Keep Well Final Report: Summary of Findings and Implications for Policy and Practice 2011 URL: http://www.healthscotland.com/uploads/documents/15189-KWFinal%20Paper%20Summary%20of%20Findings%20_2_.pdf
- McCarthy D et al. Models of Care for High-Need, High-Cost Patients: An Evidence Synthesis. The Commonwealth Fund Issue Brief, Oct 2015. <http://www.commonwealthfund.org/publications/issue-briefs/2015/oct/care-high-need-high-cost-patients>
- McKillop A, Shaw J, Sheridan N, Steele Gray C, Carswell P, Wodchis WP, et al. Understanding the Attributes of Implementation Frameworks to Guide the Implementation of a Model of Community-based Integrated Health Care for Older Adults with Complex Chronic Conditions: A Metanarrative Review. *International Journal of Integrated Care.* 2017; 17(2):10. DOI: <http://doi.org/10.5334/ijic.2516>
- Medline Healthcare Report 2017. Addressing key challenges in Australia's healthcare system. Insights with Australia's leading healthcare CEOs. URL: <http://hfddvic.austhealthweek.com.au/ceo-report-addressing-key-challenges-in-australias?-ty-m=>
- Meskó B. The Guide to the Future of Medicine. URL: <https://medicalfuturist.com/wp-content/media/2013/10/the-guide-to-the-future-of-medicine-white-paper.pdf>
- Mira JJ, Nuño-Solinís R, Guilabert-Mora M, Solas-Gaspar O, Fernández-Cano P, González-Mestre MA, et al.. Development and Validation of an Instrument for Assessing Patient Experience of Chronic Illness Care. *International Journal of Integrated Care.* 2016; 16(3):13. DOI: <http://doi.org/10.5334/ijic.2443>
- Mitchell M. An Overview of Public Private Partnerships in Health. URL: <https://www.colleaga.org/tools/overview-public-private-partnerships-health>
- Murray, CJ, Vos, T, Lozano, R, Naghavi, M, Flaxman, AD, Michaud, C and et al. (2012). Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease study 2010. *Lancet* 380(9859): 2197–2223, DOI: [http://dx.doi.org/10.1016/S0140-6736\(12\)61689-4](http://dx.doi.org/10.1016/S0140-6736(12)61689-4)
- Muthuri SG, Hui M, Doherty M, Zhang W. What if we prevent obesity? Risk reduction in knee osteoarthritis estimated through a meta-analysis of observational studies. *Arthritis Care Res* 2011; 63:982–90 URL: <https://www.ncbi.nlm.nih.gov/pubmed/21425246>
- Nakayama A, Major G, Holliday E, Attia J, Bogduk N. “Evidence of effectiveness of a fracture liaison service to reduce the re-fracture rate, *Osteoporos Int.*, 09 Dec, 2015 (published online) URL: <http://www.ncbi.nlm.nih.gov/pubmed/26650377>
- National Health Performance Authority. My Healthy Communities: Explore the Data <http://www.myhealthycommunities.gov.au/explore-the-data>
- National Safety and Quality Health Service Standards for End of Life Care, Second Edition, p. 43. URL: <https://www.safetyandquality.gov.au/wp-content/uploads/2017/11/National-Safety-and-Quality-Health-Service-Standards-second-edition.pdf>
- NHS England. Enhancing the quality of life for people living with long term conditions – The House of Care. URL: <https://www.england.nhs.uk/house-of-care/>
- NHS England Sept 2015 Realising the Value How should we think about value in health and care? URL: https://www.nesta.org.uk/sites/default/files/how_should_we_think_about_value_in_health_and_care.pdf
- NHS England. Realising the Value: New approaches to value in health and care. URL: <http://www.health.org.uk/sites/health/files/RtVNewApproachesToValue.pdf>
- NHS Scotland. The Modern Outpatient: a Collaborative Approach. 2017-2020 URL: <file:///C:/Users/uptinw/Downloads/00510930.pdf>
- NSW Agency for Clinical Innovation. Health Economics and Evaluation Team, Clinical Program Design Implementation Portfolio, ACI. Diabetes Service Utilisation Analysis (Internal Document)
- NSW Agency for Clinical Innovation. Building Partnerships: A Framework for Integrating Care for Older People with Complex Health Needs. URL: https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0003/249483/Building_Partnerships_Framework.pdf

NSW Agency for Clinical Innovation. Dementia and Delirium in Hospitals <http://www.aci.health.nsw.gov.au/chops>

NSW Agency for Clinical Innovation (2013) Framework for the Statewide Model for Palliative and End of Life Care Service Provision URL: http://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0019/184600/ACI-Framework-for-Statewide-Model-of-PEoLC-Service-Provision.pdf

NSW Agency for Clinical Innovation Models of Care URL: <http://www.aci.health.nsw.gov.au/resources/models-of-care>

NSW Agency for Clinical. Management of people with acute low back pain. URL: https://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0007/336688/acute-low-back-pain-moc.pdf

NSW Agency for Clinical Innovation Model of Care for Osteoporotic Refracture Prevention. URL: http://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0003/153543/aci_osteoporotic_refracture.pdf

NSW Agency for Clinical Innovation. Patient Reported Measures. URL: <https://www.aci.health.nsw.gov.au/make-it-happen/prms>

NSW Agency for Clinical Innovation. Public Specialist Outpatient Services <http://www.eih.health.nsw.gov.au/initiatives/specialist-outpatient-services-improvement-project>

NSW Agency for Clinical Innovation. Reducing Unwarranted Clinical Variation <http://www.eih.health.nsw.gov.au/initiatives/reducing-unwarranted-clinical-variation-taskforce>

NSW Agency for Clinical Innovation. Rehabilitation Implementation Toolkit. URL: https://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0008/190871/ACI-Rehabilitation-Implementation-Toolkit.pdf

NSW Agency for Clinical Innovation. Rehabilitation Model of care URL: <https://www.aci.health.nsw.gov.au/resources/rehabilitation/rehabilitation-model-of-care/rehabilitation-moc/NSW-Rehabilitation-MOC.pdf>

NSW Agency for Clinical Innovation. Specialist Outpatient Services Improvement Project. URL: <http://www.eih.health.nsw.gov.au/initiatives/specialist-outpatient-services-improvement-project>

NSW Agency for Clinical Innovation. The Orthogeriatric Model of Care Clinical Practice Guidelines. URL: http://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0013/153400/aci_orthogeriatrics_clinical_practice_guide.pdf

NSW Bureau of Health Information, Adult Admitted Patient Survey results for All Inpatients Jan – Dec 2014. http://www.bhi.nsw.gov.au/healthcare_observer

NSW Bureau of Health Information, E.Ithcare_observer

NSW Bureau of Health Information, Outpatient Patient Survey results for February to March 2014. http://www.bhi.nsw.gov.au/healthcare_observer

NSW Dept. of Family and Community Services 2012. Use of emergency and inpatient hospital services by ADHC clients –final report URL: https://www.adhc.nsw.gov.au/__data/assets/file/0004/263587/ADHC_and_NSW_Health_data_linkage_Final_report_Dec2012.pdf

NSW Department of Family and Community Services. Volunteering <http://www.volunteering.nsw.gov.au/volunteers/benefits-of-volunteering>

NSW Department of Planning and Environment. <http://www.planning.nsw.gov.au/Research-and-Demography/Demography/Population-Projections>

NSW Government. NSW Carers Strategy 2014 – 2019 https://www.adhc.nsw.gov.au/__data/assets/file/0017/300077/NSW_Carers_Strategy_2014-19.pdf

NSW Government, 2012, NSW Public Private Partnerships Guidelines, URL: http://www.treasury.nsw.gov.au/__data/assets/pdf_file/0015/22605/NSW_PPP_Guidelines_2012_Final_Version_14_August_2012_dnd.pdf

NSW Govt. State Infrastructure Strategy 2021-2032 http://www.infrastructure.nsw.gov.au/pdfs/SIS_Report_Complete_Print.pdf

NSW Govt. State Priorities <https://www.nsw.gov.au/premiers-priorities>

NSW Health Centre for Epidemiology and Evidence. Health Statistics New South Wales. Sydney www.healthstats.nsw.gov.au.

NSW Health Chief Health Officers Report, 2012, The Health of Aboriginal people of NSW URL: <http://www.health.nsw.gov.au/epidemiology/Pages/aboriginal-cho-report-2012.aspx>

NSW Health, 2010, Chronic Care for Aboriginal people Model of Care URL: https://www.aci.health.nsw.gov.au/resources/chronic-care/chronic_care_for_aboriginal_people/ccap/CCAP-moc.pdf

NSW Health Culturally & Linguistically Diverse (CALD) Carer Framework: Strategies to Meet the Needs of Carers 2009. http://www0.health.nsw.gov.au/policies/gl/2009/pdf/GL2009_018.pdf

NSW Health. Data analytics for better health. URL: <http://www.health.nsw.gov.au/ohmr/Publications/ref-data-analytics.pdf>

NSW Health Data Analytics Framework 2016. URL: http://www.ehealth.nsw.gov.au/__data/assets/pdf_file/0020/303752/NSW_Health_Analytics_Framework.pdf

NSW Health Disability Inclusion Plan 2016-2019 URL: <http://www.health.nsw.gov.au/disability/Publications/disability-action-plan-16-19.PDF>

NSW Health. eHealth NSW Strategy for NSW Health 2016-2026. URL: <http://www.health.nsw.gov.au/ehealth/documents/ehealth-strategy-for-nsw-health-2016-2026.pdf>

NSW Health. (2009). GL2009_009 Emergency Surgery Guidelines. Accessed at URL: http://www0.health.nsw.gov.au/policies/gl/2009/pdf/GL2009_009.pdf

NSW Health Framework for Women's Health 2013 <http://www.health.nsw.gov.au/women/Publications/womens-health-framework-2013.pdf>

NSW Health. NSW Health Guide to Role Delineation 2016 <http://www.health.nsw.gov.au/services/Pages/role-delineation-of-clinical-services.aspx>

NSW Health. (2012). GL2012_001 High Volume Short Stay Surgical Model Toolkit. Accessed at URL: http://www0.health.nsw.gov.au/policies/gl/2012/pdf/GL2012_001.pdf

NSW Health. Hospital in the Home Guideline. 2014 URL: NSW Health. NSW Health HITH Guidelines. URL: http://www1.health.nsw.gov.au/PDS/pages/doc.aspx?dn=GL2013_006

NSW Health. NSW Health Professionals Workforce Plan 2012 – 2022 <http://www.health.nsw.gov.au/workforce/hpwp/Publications/health-professionals-workforce-plan.pdf>

NSW Health. NSW Institute of Trauma and Injury Management. URL: <https://www.aci.health.nsw.gov.au/networks/itim>

NSW Health. NSW Integrated Care Strategy <http://www.health.nsw.gov.au/integratedcare/pages/default.aspx>

NSW Health. Leading Better Value Care URL: <http://eih.health.nsw.gov.au/bvh>

NSW Health: List of private hospitals, day procedure centres and nursing homes licensed to supply drugs of addiction under the NSW Poisons and Therapeutic Goods Act 1966. As at June 2017. <http://www.health.nsw.gov.au/Hospitals/privatehealth/Documents/list-da-facilities.pdf>

NSW Health, 2014. Maternity- Management of Pregnancy Beyond 41 Weeks Gestation Guideline. URL: http://www1.health.nsw.gov.au/PDS/pages/doc.aspx?dn=GL2014_015

NSW Health. NSW Refugee Health Plan 2011-2016 http://www0.health.nsw.gov.au/policies/pd/2011/pdf/PD2011_014.pdf

NSW Health. NSW State Health Plan: Toward 2021 <http://www.health.nsw.gov.au/statehealthplan/Pages/NSW-state-health-plan-towards-2021.aspx>

NSW Health. Policy and Implementation Plan for Healthy Culturally Diverse Communities 2012-2016 (updated plan in development) http://www0.health.nsw.gov.au/policies/pd/2012/pdf/PD2012_020.pdf

NSW Health, 2010, Process of Facility Planning. URL: http://www.health.nsw.gov.au/assets/Documents/full_pofp_more_than_10m_v.3.0_.pdf

NSW Health. (2011). Surgery Futures: A Plan for Greater Sydney. URL: <https://www.aci.health.nsw.gov.au/resources/surgical-services/delivery/predictable-surgery/documents/surgery-plan.pdf>

NSW Health. The NSW Aboriginal Health Plan 2013-2023 URL: <http://www.health.nsw.gov.au/aboriginal/Publications/aboriginal-health-plan-2013-2023.pdf>

NSW Health, 2012, The NSW Government plan to increase access to palliative care 2012-2016 URL: <http://www.health.nsw.gov.au/palliativecare/Publications/palliative-care-plan-2012-2016.pdf>

NSW Health Whole of Health Program <http://www.health.nsw.gov.au/wohp/Pages/default.aspx>

NSW Health 2013 Work Health and Safety: Better Practice Procedures. PD2013_050 URL: http://www0.health.nsw.gov.au/policies/pd/2013/pdf/PD2013_050.pdf

NSW Institute of Trauma and Injury Management. URL: <https://www.aci.health.nsw.gov.au/networks/itim>

NSW Kids and Families, 2014, Healthy, Safe and Well: A strategic health plan for children, young people and families 2014–24. URL: <http://www.kidsfamilies.health.nsw.gov.au/media/233616/strategic-health-plan-final-low-res.pdf>

NSW Mental Health Commission. Living Well: A Strategic Plan for Mental Health in NSW 2014-2024 [http://nswmentalhealthcommission.com.au/sites/default/files/141002%20Living%20Well%20-%20A%20Strategic%20Plan%20\(1\).pdf](http://nswmentalhealthcommission.com.au/sites/default/files/141002%20Living%20Well%20-%20A%20Strategic%20Plan%20(1).pdf)

NSW Office of Preventive Health. Stepping On. URL: <http://www.preventivehealth.net.au/stepping-on.html>

Nuño Solinis R, Stein KV. Measuring Integrated Care – The Quest for Disentangling a Gordian Knot. International Journal of Integrated Care. 2016; 16(3):18. DOI: <http://doi.org/10.5334/ijic.2525>

Nutbeam D. Health Promotion Glossary (1999) Health Promotion International, 13(4): 349-364. 1999 Accessed from slide presentation

Oliver D., Foot C. and Humphries R. Making our health and care systems fit for an ageing population. The Kings Fund 2014 http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/making-health-care-systems-fit-ageing-population-oliver-foot-humphries-mar14.pdf

P4 Medicine Institute <http://www.p4mi.org/p4medicine>

Public Health Information Development Unit (PHIDU) Social Health Atlas of Australia. New South Wales & Australian Capital Territory <http://phidu.torrens.edu.au/>

PWC. Strategy and Reimagining Health Reform in Australia. <https://pwc.docalytics.com/v/strategy-reimagining-health-reform>

Salford Royal NHS Foundation Trust Service Development Strategy 2014/15 to 2018/19 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/390716/SALFORD_Publishable_Summary_StrategicPlan_1415.pdf

SESLHD Aboriginal Health Unit http://www.seslhd.health.nsw.gov.au/Aboriginal_Health/resources.asp

SESLHD Aged Care Services Plan 2015-2018 URL: http://www.seslhd.health.nsw.gov.au/Planning_and_Population_Health/documents/HealthPlans/FinalAgedCarePlan_22%20April_2015.pdf

SESLHD Drug and Alcohol Clinical Services Plan 2017

SESLHD, 2015, Equity Strategy. <http://www.seslhd.health.nsw.gov.au/HealthPlans/documents/2016/SESLHD%20equitystrategy%20FINAL.pdf>

SESLHD Falls Injury Prevention Plan URL: <http://www.seslhd.health.nsw.gov.au/HealthPlans/documents/SESLHD-FallsinjPlan-Dec2013.pdf>

SESLHD Health Care Services Plan 2012-2017 http://www.seslhd.health.nsw.gov.au/Planning_and_Population_Health/Key_Planning.asp

SESLHD ICT Strategy URL: <http://www.seslhd.health.nsw.gov.au/HealthPlans/documents/2017/ICTStategy.pdf>

SESLHD Implementation Plan for Healthy Culturally Diverse Communities 2014-2016. URL: http://seslhnweb/Multicultural_Health/Documents/Policies_and_Plans/SESLHD_MHS_plan_FINAL_November2014.pdf

SESLHD Integrated Care Strategy 2015 http://www.seslhd.health.nsw.gov.au/CDM/documents/SESLHD_Integrated_Care_Strategy.pdf

SESLHD Journey to Excellence Strategy 2018-2021 URL: http://seslhnweb/Journey_to_Excellence/docs/2017/SESLHDJourneytoExcellenceStrategy2018-2021-v13.pdf

SESLHD Needs and Assets Assessment: New and Emerging Communities – Final Report. August 2016. http://seslhnintranet/multicultural_health/Documents/Current_Projects/New_and_Emerging_Communities_SESLHD_August2016.pdf

SESLHD: Our Year in Review 2015/16. URL: http://seslhnweb/CE_Newsletter/2016/12/7/yearinreview.pdf

SESLHD Patient Safety program URL: http://seslhnweb/Patient_Safety_Program/Points_of_Care/Default.asp

SESLHD Patient Safety and Quality Plan 2012-2015

SESLHD, Peritonectomy & Intraperitoneal Chemotherapy: A Guide for patients and their carers. URL: https://www.seslhd.health.nsw.gov.au/SGH/patients_and_visitors/documents/PeritonectomyandIntraperitonealChemotherapy.pdf

SESLHD Plan for Comprehensive Care at End of Life URL: <http://seslhnweb/News/2018/Lifecare.asp>

SESLHD Population Health Report Card, Dec 2014. http://www.seslhd.health.nsw.gov.au/HealthPlans/documents/PopHealthReportCard_NonConfidentialVersion_Dec14.pdf

SESLHD Population Health Directorate Plan. 2014- 2017. http://seslhnweb/Planning_and_PopulationHealth/documents/Health_Plans/PopulationHealthDirectoratePlan2014-2017.pdf

SESLHD, 2016 Project Report “Our right to know”: Use of professional interpreters for surgical consent URL: www.seslhd.health.nsw.gov.au/multicultural_health

SESLHD Quality Plan 2017- 2020 URL: http://seslhnweb/Clinical_Governance/Resources_and_Useful_Links/SESLHDQualityPlan2017-20.pdf

SESLHD Research Strategy 2017-2021. URL: https://www.seslhd.health.nsw.gov.au/HealthPlans/documents/ResearchStrategy_Final.pdf

- SESLHD Road Map to the delivery of excellence – 2014–2017 http://www.seslhd.health.nsw.gov.au/Planning_and_Population_Health/documents/RoadMaptothedeliveryofexcellence2014-2017.pdf
- SESLHD Strategy 2012-2017. URL: <http://www.seslhd.health.nsw.gov.au/HealthPlans/documents/SESLHDStrategy2012-2017final-Diagram25MAY12.pdf>
- SGS Economic and Planning, 2013, Kogarah Employment Lands and Economic Development Strategy, Final Report, Kogarah City Council. URL: <http://www.georgesriver.nsw.gov.au/StGeorge/media/Documents/Employment-Lands-and-Economic-Development-Strategy.pdf>
- SHPA Standards of Practice Chapter 6: Facilitating Continuity of Medication Management on Transition between Care Settings.
- Society of Hospital Pharmacists of Australia. Standards of Practice. URL: <https://www.shpa.org.au/standards-of-practice>
- St George and Sutherland Medical Research Foundation. <http://www.stgeorgemrf.com.au/>
- SWSLHD Palliative Care Home Support Packages (PEACH) program. URL: <https://www.swslhd.health.nsw.gov.au/peach/>
- Sydney Metropolitan Local Aboriginal Health Partnership Agreement: Aboriginal Health Priorities 2015 – 2016 https://www.schn.health.nsw.gov.au/files/attachments/smlahp_ahp_2015_-2016_doc_final.pdf
- Taylor R and Blair S, 2002, Public Hospitals: Options for Reform through Public-Private Partnerships. URL: <http://siteresources.worldbank.org/EXTFINANCIALSECTOR/Resources/282884-1303327122200/241Taylo-010802.pdf>
- Tenbenschel, T. et al., (2017). How do Policy and Institutional Settings Shape Opportunities for Community-Based Primary Health Care? A Comparison of Ontario, Québec and New Zealand. *International Journal of Integrated Care*. 17(2), p.13. DOI: <http://doi.org/10.5334/ijic.2514>
- The Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement. IHI Innovation Series white paper. Boston: Institute for Healthcare Improvement, 2003. www.IHI.org
- The Kings Fund 2014. Community services: How they can transform care. URL: <https://www.kingsfund.org.uk/publications/community-services>
- The Kings Fund 2017. Developing accountable care systems. Lessons from Canterbury, New Zealand URL: <https://www.kingsfund.org.uk/publications/developing-accountable-care-systems>
- The Kings Fund 2013. Improving the patient experience. Developing Supportive Design for People with Dementia
- The King's Fund's Enhancing the Healing Environment Programme 2009-2012. URL: https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/developing-supportive-design-for-people-with-dementia-kingsfund-jan13_0.pdf
- The Kings Fund Leadership Review 2012. Leadership and engagement for improvement in the NHS URL: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/leadership-for-engagement-improvement-nhs-final-review2012.pdf
- The Pharmacy Guild of Australia. Implementing and evaluating a parallel post-discharge Home Medicines Review (HMR) model. URL: <http://6cpa.com.au/wp-content/uploads/Implementing-and-Evaluating-a-Parallel-Post-discharge-Home-Medicines-Review-HMR-Model-Full-Final-Report.pdf>
- The Scottish Government 2016. A National Clinical Strategy for Scotland p.26 URL: <http://www.gov.scot/Resource/0049/00494144.pdf>
- The Sydney Partnership for Health, Education, Research and Enterprise URL: <http://www.thesphere.com.au/>
- The Wardliparingga Aboriginal Research Unit of the South Australian Health and Medical Research Institute (2017). National Safety and Quality Health Service Standards user guide for Aboriginal and Torres Strait Islander health. Sydney: Australian Commission on Safety and Quality in Health Care.
- Timmins N and Ham C. The quest for integrated health and social care. A case study in Canterbury, New Zealand. The Kings Fund 2013 http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/quest-integrated-care-new-zealand-timmins-ham-sept13.pdf
- Thompson C, Williams K, Morris D, Lago L, Kobel C, Quinsey K, Eckermann S, Andersen P and Masso M (2014). HWA Expanded Scopes of Practice Program Evaluation: Extending the Role of Paramedics Sub-Project Final Report. Centre for Health Service Development, Australian Health Services Research Institute, University of Wollongong. <http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1383&context=ahsri>
- Tong E , Roman C, Mitra B, Yip G, Gibbs H, Newnham H, Smit D, Galbraith K and Dooley M. 2017 Reducing medication errors in hospital discharge summaries: a randomised controlled trial. *Med J Aust* 2017; 206 (1): 36-39

- Translational Cancer Research Network www.tcrn.unsw.edu.au
- UNPD. 2014. Ensure Healthy Lives and Well-Being for All: Addressing Social, Economic and Environmental Determinants of Health and the Health Divide in the Context of Sustainable Human Development. p. 12
URL: <http://www.eurasia.undp.org/content/dam/rbec/docs/UNDP-RBEC-HIV-SEEDS.pdf>
- UNSW 2025 Strategy URL: <https://www.2025.unsw.edu.au/>
- UNSW Medicine Strategy https://med.unsw.edu.au/sites/default/files/_local_upload/others/Faculty_Strategic_Intent.pdf 2016
- UNSW Medicine: St George and Sutherland Clinical School. <https://stgcs.med.unsw.edu.au/postgraduate-research>
- Valentijn P et al (2015) Towards an international taxonomy of integrated primary care: a Delphi consensus approach. *BMC Fam Pract*, 16(1):64-015-0278-x URL: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4446832/table/Tab5/>
- Valentijn, P.P., (2016). Rainbow of Chaos: A study into the Theory and Practice of Integrated Primary Care. *International Journal of Integrated Care*. 16(2), p.3. DOI: <http://doi.org/10.5334/ijic.2465>
- Vinson T and Rawsthorne M. Dropping off the Edge Report 2015. Jesuit Social Services.
URL: <http://dote.org.au/findings/full-report/>
- Waxman B. (2013). Smoothing out the ride for surgical patients. *Medical Journal of Australia*, 407
URL: <https://www.mja.com.au/journal/2013/198/8/smoothing-out-ride-surgical-patients>
- World Health Organisation (WHO) 2002. Active Ageing: A Policy Framework. WHO, Geneva. URL: http://www.who.int/ageing/publications/active_ageing/en/
- WHO Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva: World Health Organization, 2008. http://www.who.int/social_determinants/thecommission/finalreport/en/
- WHO 2014. Health for the world's adolescents, a second chance in the second decade
URL: <http://apps.who.int/adolescent/second-decade/>
- WHO Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO. URL: <http://apps.who.int/iris/bitstream/10665/258981/1/9789241550109-eng.pdf?ua=1>
- WHO Regional Office for Europe's Health Evidence Network (HEN) January 2004. What are the advantages and disadvantages of restructuring a health care system to be more focused on primary care services? <http://www.nhsalliance.org/wp-content/uploads/2013/06/Jan-2004-What-are-the-advantages-and-disadvantages-of-restructuring-a-health-care-system.pdf>
- Wilson S. Langford K. 10 Ideas for 21st century healthcare. Innovation Unit
URL: <http://www.innovationunit.org/wp-content/uploads/2017/04/DIGITAL-VERSION10-Ideas-Final.pdf>
- Wood S, Finnis A, et al. At the heart of health. Realising the value of people and communities. NHS Realising the Value Report, March 2016. URL: http://www.nesta.org.uk/sites/default/files/at_the_heart_of_health_-_realising_the_value_of_people_and_communities.pdf
- Yates J, Gabriel M. Housing affordability in Australia. Sydney: Australian Housing and Urban Research Institute; 2006 URL: <https://www.ahuri.edu.au/research/nrv-research-papers/nrv3-3>

APPENDIX 1: ABBREVIATIONS

ABBREVIATION	FULL NAME
AAGR	Average annual growth rate
ABI	Acquired Brain Injury
ABS	Australian Bureau of Statistics
ABF	Activity Based Funding
ACAT	Aged Care Assessment
ACI	NSW Agency for Clinical Innovation
ACP	Advanced Care Plan
ACU	Ambulatory Care Unit
AHSP	Academic Health Science Partnership
AIHW	Australian Institute of Health and Welfare
aIM	Acute Inpatient Modelling Tool
ART	Acute Rehabilitation Team
ASB	Acute Services Building
ASET	Aged Care Services Emergency Team
ASR	Age Standardised Rate
CALD	Culturally and Linguistically Diverse
CaSPA	Clinical Services Planning Analytics
CCSP	Community Care Supports Program
CEC	Clinical Excellence Commission
CESPHN	Central and Eastern Sydney Primary Health Network
CHCK	Calvary Health Care Kogarah
CHS	Community Health Services
CHSP	Commonwealth Home Support Program
Cmty Hlth	Community Health
COAG	Council of Australian Governments
ComPacks	Community Packages
COPD	Chronic Obstructive Pulmonary Disease
CPCT	Community Palliative Care Team
CRAGS	Community Rehabilitation and Assessment Unit
CT	Computed Tomography
DAS	Developmental Assessment Service
DRG	Diagnosis Related Code
DVA	Department of Veterans Affairs
ECP	Extended Care Practitioner
ED	Emergency Department
EDSSU	Emergency Department Short Stay Unit
eMR	Electronic Medical Record

ABBREVIATION	FULL NAME
ERAS	Enhanced Recovery After Surgery
eRIC	Electronic Record Intensive Care
ESRG	Enhanced Service Related Group
FACS	Department of Family and Community Services
GFS	Geriatric Flying Squad
GHS	Get Healthy Information and Coaching Service
GP	General Practitioner
GLBTI+	Gay, Lesbian, Bisexual, Transgender, Queer or Intersex
HDU	High Dependency Unit
HETI	Health Education and Training Institute
HIE	Health Information Exchange
HITH	Hospital in the Home
HSA	Health Science Alliance
HVSSS	High Volume Short Stay Surgery
HVAC	Heating, Ventilation and air conditioning
ICU	Intensive Care Unit
IHC	Intermountain Health Care
LBVC	Leading Better Value Care
LGA	Local Government Area
LHD	Local Health District
LOS	Length of Stay
MAC	Mission Australia Centre
MRC	Microbiome Research Centre
MRI	Magnetic Resonance Imaging
MRSA	Methicillin-resistant Staphylococcus Aureus
NDIS	National Disability Insurance Scheme
NEPT	Non-emergency patient transport
NESB	Non-English speaking background
NESC	Non-English speaking country
NGO	Non-Government Organisation
NSLHD	Northern Sydney Local Health District
NWAU	National Weighted Activity Unit
OACCP	Osteoarthritis Chronic Care Program
OoHC	Out of Home Care
OOS	Occasion of Service
OPD	Outpatients Department
OrBiT	Organisational Reporting and Business Intelligence for Transformation

ABBREVIATION	FULL NAME
PACE	Patient with Acute Condition for Escalation
PAS	Patient Administration System
PECC	Psychiatric Emergency Care Centre
PEM	Public Equivalent Model
PET	Positron Emission Tomography
PHIDU	Public Health Information Development Unit
PHN	Primary Health Network
PICH	Primary, Integrated and Community Health Directorate (SESLHD District)
POWH	Prince of Wales Hospital
PTS	Patient Transport Service
QRP	Quick Response Program
RACF	Residential Aged Care Facility
RCCP	Respiratory Coordinated Care Program
SCH	Sydney Children's Hospital, Randwick
SCHN	Sydney Children's Hospitals Network
SEALS	South Eastern Area Laboratory Service
SEIFA	Socio-Economic Indexes for Areas
SESLHD	South Eastern Sydney Local Health District
SGMHS	St George Mental Health Service
SHH	Sacred Heart Health Hospice
SLA	Statistical Local Area
SLHD	Sydney Local Health District
SNAP	Australian National Sub-Acute and Non-Acute Patient Data Collection
SOS	Southcare Outreach Services
SPECT/CT	Single Photon Emission Computed Tomography
SSEH	Sydney/Sydney Eye Hospital
SSU	Short Stay Unit
SRG	Service Related Group
SGH	St George Hospital
SGH & CHS	St George Hospital and Community Health Services (Organisational Title)
SVHN	St Vincent's Health Network
TACP	Transitional Aged Care Program
TCRN	Translational Cancer Research Network
UNSW	University of New South Wales
UTS	University of Technology Sydney
WHO	World Health Organisation

APPENDIX 2: CONSULTATION REPORTS

The following process was followed to inform the development of the Departmental consultations summaries:

Meetings were held with individual clinical and clinical support departments and other relevant stakeholders. The Director of the Department (or representative) and other departmental representatives were present at these meetings, to identify service specific issues, proposed models of care and discuss data and projection methodologies.

It is assumed that the view of the Department and stakeholder groups were represented at these consultations.

The Strategy and Planning Unit documented the discussion and created a summary of the consultation (as seen below).

The summary document was then sent to each group for review and if necessary amendments were made to ensure an accurate and complete representation on the discussion was documented.

ABORIGINAL HEALTH

SCOPE OF SERVICES

- The St George Aboriginal Health service is managed within the Diversity Health portfolio, reporting to the Department Heads of Social Work at St George and Sutherland Hospitals
- There is one Aboriginal Hospital Liaison Officer (AHLO) working across St George and Sutherland. The current incumbent is a female
- The Aboriginal Hospital Liaison Officer (AHLO) works closely with the SESLHD Aboriginal Health Unit
- Aboriginal health services provided to the St George Hospital Campus include hospital liaison with a focus on social and cultural care, linking patients and families to local and or appropriate services out of the St George area
- Aboriginal Health services and programs serving the St George community include the Aboriginal Hospital Liaison Officer for St George and Sutherland Hospitals; Southern Sector 48 Hour Follow Up - 'Just calling to have a yarn' for post discharge support; Bulbuwil 'Healthy Living' - An Aboriginal Healthy Lifestyle Support Program; Narrangy-Booris - Aboriginal Early Childhood and Midwifery service; and an Aboriginal Health Education Officer - Chronic Care Services. Most used services include Bulbuwil (healthy lifestyle), Narrangy Booris (Early Childhood) and Centrelink
- Types of assistance requested of the AHLO include social and cultural support, accommodation for family visiting from out of area, transport and other financial issues and provide information about hospital services.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**
 - Demand for community based and outpatient services remains high, due to:
 - Growth of Aboriginal population in the southern part of the District
 - Demographics include higher percentages of youth and children
 - Earlier age at onset of chronic/long term conditions
 - Injuries, including acquired brain injury, are now increasingly seen. They are the second leading cause of disease burden for Aboriginal and Torres Strait Islanders and external injuries was the third leading cause of death accounting for 15% of deaths in 2011-2015 in Australia
 - The leading causes of injury were:
 - Intentional self-harm
 - Motor vehicle accidents
 - Accidental poisoning
 - Assault
 - Mortality of Aboriginal males was twice the rate for Aboriginal females and injury hospitalisation rates have increased almost 40% since 2005
 - Alcohol and substance use has been found to be factors in suicide, transport accidents as well as assaults
- **Activity**
 - Between 2012/13 and 2016/17, there was a total of 2172 admissions identified as Aboriginal at St George Hospital, 30% male 70% female
 - The average age was 40 years. The median age was 47 years with an age range from new born to 99 years
 - The number of admissions from regional areas in NSW during that time was 279, approximately 10%
 - The number admitted each year was reasonably consistent ranging between 31 and 57 admissions
 - The highest numbers are for renal medicine admission. There is a reasonably even spread for most of the other major specialties

- **Operational description**

- The majority of referrals to the Aboriginal Health Service come from within the hospital and outpatient services and specialty areas such as ICU (trauma), Surgical, Medical Assessment Unit (MAU), High Dependency Unit (HDU), Cancer Services, Cardiac and Preadmission clinics
- There has been an increase in ED consultation however this has been noted as a minor part of overall numbers for the AHLO. It was noted that most patients leave ED prior to being seen by the AHLO unless admitted into the hospital
- Networking occurs within the services with close links with Diversity Health coordinators
- Hours of operation are dependent on staff availability, and time allocation is split between St George Hospital and The Sutherland Hospital

- **Staffing**

- 1 FTE

- **Technology**

- No specialised technological equipment was identified in the consultation

- **Models of care**

- Within St George Hospital, the model of care is an Aboriginal liaison service model

- **Infrastructure**

- Office is located on ground floor Prichard Wing.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- There is a growing Aboriginal population within SESLHD, particularly in the Sutherland and northern areas of the district
- The population will travel, including from out of district, to access the specialist services provided at St George Hospital
- There is unmet demand not fully explored for Aboriginal people

- **Constraints on activity**

- Models of care have limited Aboriginal perspectives, of particular note was the importance of increasing the focus of 'older age related' services having age-specified criteria and not recognising the earlier onset of conditions with Aboriginal clients
- Many Aboriginal and Torres Strait Islander people find health service organisations – including hospitals– unwelcoming. Negative experiences can lead to reluctance to access services, disengagement with clinicians and care in these settings, and high rates of discharge against medical advice. These, in turn, affect health and wellbeing (Wardliparingga Aboriginal Research Unit, 2017)
- There is limited appropriate space across the campus for culturally specific activities and gatherings for both small and larger groups
- One room has been allocated within the St George Campus
- An additional culturally safe space for Aboriginal patients within an outpatient setting would be highly valued given the likely increased demand for specialised outpatient services
- Activity is constrained by a lack of human resources and space. Expansion of the service and reorienting mainstream services remain a priority

- **Accommodation for families**

- Patients from regional areas often need additional assistance with accommodation. There are very restricted options

- **Possible new clinics/ services**

- Any additional clinics would be subject to staffing and infrastructure requirements.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- Maintain strong relationships with Aboriginal specific services and acute services
- Work in Partnership with Aboriginal people to enable the health service organisation to identify priorities, understand cultural beliefs and practices, and involve Aboriginal and Torres Strait Islander people in determining their own health priorities
- Continue ongoing engagement and involvement of the Aboriginal community and/or Aboriginal Health Unit in planning committees, particularly at the stage of facility design and interior decorating and maintain this involvement and engagement with the same people/ organisations from the start/design phase
- **Service solutions**
 - Consideration needs to be given to funding sources and accommodation options to enable families to provide care and support
 - Increase FTE of AHLO staff and address gender mix
- **Infrastructure solutions**
 - Use Aboriginal designs/plaques to acknowledge the traditional custodians on which the hospital is built. This is an important visual reminder that the campus is a 'culturally safe place' to visit
 - Display Aboriginal artwork and cultural artefacts or interactive display depicting Aboriginal culture or Aboriginal specific information to assist Aboriginal patients feel welcome and have an appropriate length of stay for any treatment received
 - Retain Aboriginal room for patients, families and carers within acute campus; and include an additional space within any new subacute/ambulatory care building.

AGED CARE SERVICES

SCOPE OF SERVICES

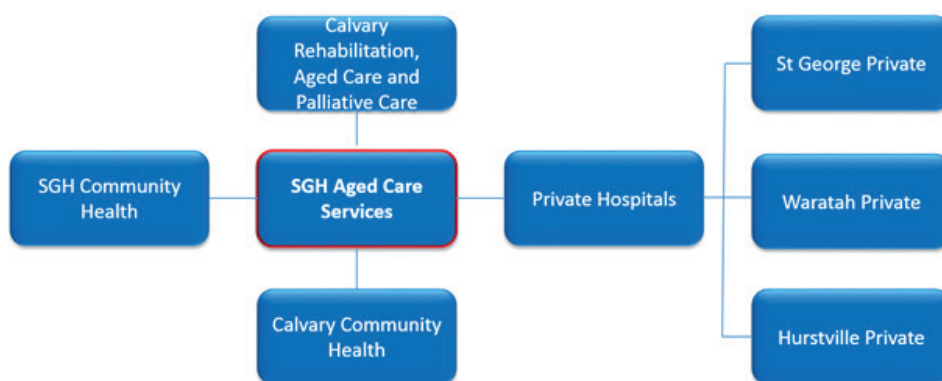
St George Hospital (SGH) Aged Care Services provide acute, subacute and community based care to the frail aged population of the St George area.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**
 - Aged care patients are frail aged with an episode of acute illness or deterioration in function who require acute, subacute and follow up care or ongoing care in the community. There are many older people throughout the hospital and in the community who do not require aged care services, however the need for aged care services is often not recognised and many people require "non-acute" aged care services. Sometimes, if recognised, it is not asked for because of delays
 - The main drivers of demand include:
 - more people living longer with multi-morbidities requiring treatment for acute episodes of ill health
 - more people staying at home for longer requiring ongoing care
 - increasing numbers of people living with dementia in the community and in Residential Aged Care Facilities (RACFs) requiring stabilisation, including violent behaviours
 - management of delirium

- **Operational description**

- Services provided at SGH include:
 - Aged Care Precinct includes two 30 bed units caring for the acutely ill older person, acute and sub-acute beds, and delirium and high dependency rooms
 - 14 Outpatient clinics per week
 - Aged Care provides clinical governance of the Quick Response Program (QRP) and Aged Care Services Emergency team (ASET) to support hospital avoidance and short term management of people living in the community
 - Geriatric Flying Squad (GFS), a geriatrician and nurse practitioner model to support hospital avoidance from RACFs
 - Interconnection with acute, community services and rehabilitation services
- Clinical networking:



- Older people with neurological problems are seen by the SGH Rehabilitation services
- Older people with a pre-existing neurological problem e.g. stroke, who are admitted for another problem, may be referred to Calvary Health Care Kogarah (CHCK) for ongoing care
- CHCK provides ACAT assessments, inpatient musculo-skeletal rehabilitation and extensive community services, predominantly for people aged over 65 years, including TACS, allied health, nursing, etc.
- Consultants at SGH have admitting rights at CHCK and a number of local private hospitals with aged care facilities, St George Private (20 beds), Waratah Private (30 beds), Hurstville Community (18 beds) and President Private Hospitals
- TSH provides a specialised behaviour management unit, however this is at capacity and cannot meet demand for SGH residents

- Role delineation: Level 6 Geriatric Medicine

- **Activity**

- Aged care wards are currently at capacity, with more than 20 outlier patients in other wards across the hospital on a daily basis, despite hospital avoidance programs (QRP, ASET and GFS and community services) in the community, and this is likely to continue
- Current average length of stay is 14 days
- Outpatient activity is limited by space and staffing

- **Models of care**

- Inpatient wards for the management of acute conditions in the older person, commonly dementia and delirium, incontinence; and sub-acute care for reconditioning prior to transfer to rehabilitation or discharge
- ASET provides clinical assessment and interventions for aged clients with a range of geriatric problems and unstable chronic and complex conditions
- The GFS to RACF provides early medical and nursing intervention for RACF patients flagged as potentially requiring transfer to the Emergency Department (ED). The service provides training and education to RACF staff on improving the early detection and management of acutely unwell patients. The service also provides phone consultations to optimise patient care
- Aged Care Related Community Health Services – including community health nursing, continence advisory service, Community Packages (ComPacks)
- Transitional Aged Care Service (delivered from CHCK) for short term management post discharge to the community
- All models of care are underpinned by strong networking and collegiality with other aged care service providers

- **Staffing**

- Nursing: Nurse Unit Manager, Clinical Nurse Specialists, Consultants, Nurse Educators, RN's, ENs
- Medical: Registrar and Resident Medical Officers, Specialist Medical Officers,
- Allied Health: Physiotherapists, Dietitians, Occupational Therapists, Social Workers, etc.
- Support services: administrative/clerical staff, housekeeping, hotel services admin, etc.

- **Infrastructure**

- Physical location of service delivery
 - Aged Care Precinct (7 South and 7 West)
 - Outpatient clinics held in Prince William Wing and Chapel St
 - Community health and QRP, based in Community Health
 - ASET team based in the ED.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- Patient acuity is increasing, with people living longer with multiple comorbidities
- Average age of patients is increasing
- Increasing numbers of older people living with dementia are presenting for behaviour management and have longer lengths of stay
- Increasing numbers of older people are from a non-English speaking background (NESB)

- **Constraints on activity**

- Waiting list: 6-8 weeks for Geriatrician outpatient clinics
- Avoidable admits: With an expansion of hospital avoidance programs in the community, there is a potential to further reduce admissions
- Potential changes in care settings
 - A Behaviour Management Unit has the potential to reduce length of stay, with a specialised area for violent patients
 - Increased staffing for higher intensity home based care e.g. QRP would support earlier discharge
 - Limited on ward rehabilitation facilities currently available which delays conditioning of acute patients
 - Borderline patients could have an earlier discharge but this requires a doubling of QRP

- Direct admits: The GFS can admit directly from RACFs to inpatient wards (public and private hospitals) when required, bypassing ED
- Unmet demand
 - There is no capacity to meet the demand for behavioural management, particularly for older people with violent behaviours. These people have a long length of stay and have no other appropriate facility available for them when acutely unwell
 - There is currently no Hospital in the Home (HITH) service from SGH due to no medical staffing for this model, however some HITH condition types can be managed currently by the community team e.g. cellulitis
- Potential for new clinics/ services
 - A Day Hospital to provide investigations, therapies, Community Rehabilitation and Geriatric Service assessment and a drop-in service
 - A daily outpatient crisis clinic would allow early assessment and management and prevent admission and deterioration for up to 20 patients per day. Patients would be referred by General Practitioners (GPs), other specialists or community health teams
- **Infrastructure**
 - Lack of behaviour management unit
 - Insufficient community based activity to meet demand and prevent admission
- **Technology**
 - The introduction of My Aged Care has slowed some referral processes
 - Some inappropriate referrals may be addressed by the introduction of HealthPathways
- **Staffing**
 - Training of all clinical staff to undertake basic multidisciplinary assessment may assist timely assessments.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

To meet the future demands for Aged Care services at SGH, it is recommended that a purpose built aged care precinct be developed, considering the needs of older people and those with dementia and delirium. This would include:

- An expansion in the sub-acute bed base, specifically designed for aged care
- No bed base increase for acute beds, with a shift in service towards acute community based care and extra staffing directed towards this
- An 8 bed specialty behaviour management space
- A gymnasium area and associated equipment to allow for reconditioning and ADL training of frail aged, including an outdoor mobility area (this could be a shared gym with other sub-acute services)
- **Service solutions**
 - A significant expansion of community based services, including GFS, ASET and QRP, to better care for people at home and avoid ED presentation and admission, with appropriately increased staffing
 - A day hospital type service to provide outpatient crisis clinics as well as more geriatric outpatient assessment and management clinics to avoid hospitalisation, as part of an ambulatory care precinct
 - Continuation of referrals to private hospitals where appropriate for acute and subacute aged care services.
- **Infrastructure solutions**
 - Ideal physical adjacencies would include proximity to rehabilitation services, gym and ambulatory care services as well as access to outdoors

- **Technology solutions**
 - remote monitoring with telehealth
- **Staffing solutions**
 - Staffing would be commensurate with level of service delivered.

ALLIED HEALTH

SCOPE OF SERVICES

Allied health services at SGH&CHS include the departments of Nutrition and Dietetics, Occupational Therapy, Physiotherapy, Podiatry, Social Work and Speech Pathology.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**
 - All age groups adults and paediatrics are seen by allied health clinicians
 - Patients are referred to allied health from other clinicians within the hospital, GPs, and external allied health clinicians and medical specialists
 - The main factors driving current demand for allied health include:
 - The growing aging population with long term medical conditions
 - The increasing complexity of patients, with multi-comorbidity
 - Growing numbers of people requiring long term management
- **Operational description**
 - Each department provides inpatient services with exception of podiatry
 - Allied health work Monday – Friday, access after-hours and weekend dependent on allied health departments
 - Most outpatient services are discipline specific and are provided both within their department or as part of a team e.g. rehabilitation service
 - There are some well-established multidisciplinary team (MDT) clinics e.g. Paediatric Feeding clinic, Renal Supportive care clinic, Hepatology clinic, specialist Swallow Clinic and Head and Neck Cancer clinic
 - Some allied health clinicians are part of outreach teams e.g. QRP and ASET, dependent on the specialty.
 - There is limited community services currently provided by allied health from SGH
 - Some allied health services provide a District wide service, e.g. lymphoedema management
- **Staffing**
 - Allied Health: Dietitians, Occupational Therapists, Physiotherapists, Podiatrists, Social Workers and Speech Pathologists, with a variety of seniority and specialisation within each discipline
 - Other: Allied health assistants, administrative/clerical staff
- **Activity**
 - Inpatient activity is increasing with increased throughput and increasing complexity of patients with more requiring allied health support.
 - Non-admitted activity is currently limited by space issues

- **Models of care**

- Allied health cover all wards at SGH and the ED
- Outpatients receive scheduled appointments, with some departments providing crisis management, e.g. social work for sexual assault and domestic violence
- Most outpatients are admitted for a course of therapy and discharged, however some patients require ongoing maintenance therapy, e.g. long term tracheostomy patients, pulmonary patients, heart failure patients, laryngectomy and lymphoedema patients
- Allied health provide Day only services for rehabilitation in Rose Cottage
- Waiting List
 - All disciplines have a waiting list for outpatients. Referrals are triaged according to need.
 - Paediatric Speech Pathology has a waitlist of up to 18 months for initial assessment and service limitations on intervention. Community Paediatric Speech Pathology has a lengthy waiting list (3 – 12 months on average). Early intervention is prioritised. There are service limitations on intervention
 - No waiting lists are closed to new referrals

- **Infrastructure**

- Departments are located in a variety of settings across the hospital, with no centralised base.
- Outpatient services are provided in a number of locations, either in discipline departments, or clinical spaces as available (Prince William Wing, Prichard Wing, Cancer Care, Integrated Care Burt Neilson Wing, Hydrotherapy) with some services requiring specialised equipment and treatment spaces, e.g. physiotherapy gym, hand therapy splinting and speech pathology combined voice/ENT clinic
- The ASET team is based in ED.

CURRENT ISSUES AND CHALLENGES

- **Constraints on activity and models of care**

- Currently allied health services are fragmented and infrastructure does not facilitate collaboration for patient care
- Demand for outpatient services is growing in line with new models of care
- Inability to adjust / increase staff resources to meet demand for outpatients due to space limitations.
- Inpatients and outpatients are becoming more complex and often require longer treatment times and/ or longer courses of treatment
- There are limited allied health community services, especially for those aged under 65 years (CHCK provides community services for 65+), resulting in very long waiting lists for home care and can result in increased length of stay
- Impact of National Disability Insurance Scheme (NDIS) and where allied health providers are placed in relation to this, e.g. for people under 65 with a disability
- There are increasing numbers of people from culturally and linguistically diverse (CALD) background, with difficulty accessing interpreters in a timely manner, with delays to treatment as interpreters are not readily available for face to face services and are not based on campus
- There is limited early and timely allied health assessment and treatment (prehab) for patients on the surgical waitlists including patients identified as frail and/or malnourished

- **Specific department challenges include:**

- Limited dietetic community services. Nil for paediatrics. Dietetics provided by CHCK 1 FTE with 50% Commonwealth Home Support Services (CHSP) funded and 50% ABF for St George region
- Most podiatry services are outpatient based, and cannot meet current ACI guidelines. CHCP funded Podiatry is based at CHCK

- QRP/ASET - patients would benefit from access to social work, occupational therapists and other disciplines as required
- Day only rehab is currently limited due to lack of space in Rose Cottage, and more could be provided in a larger space with coordinated allied health services in one location
- There is limited school age speech pathology service
- No seating clinic at SGH
- **Opportunities for new clinics/ services and changes in care setting**
 - More appropriate/earlier referrals to allied health could be made with closer networking between allied health and specialist outpatient clinics
 - Increased MDT medical and surgical clinics e.g. bariatric, neurology, respiratory and trauma
 - Crisis MDT clinics to address demand for people that need urgent assessment and advice, but do not need to present to ED, e.g. for influenza, chronic conditions, geriatric assessment, gastrostomy clinics
 - Increased access to Allied Health in Outreach teams e.g. social work for QRP and ASET
 - Opportunities to provide earlier discharge if more allied health community services were available, e.g. Post-Acute Care Service similar to Prince of Wales Hospital (POWH), or HITH services
 - Allied health involvement in pre admissions, could identify those in need of prehab, early discharge requirements e.g. equipment requirements, follow up appointments, community service requirements
 - MDT allied health clinics for patients that require multiple allied health services
 - A short stay unit could potentially provide appropriate care for long term tracheostomy patients who currently stay overnight for scheduled and emergency tracheostomy change
 - MDT Group treatment/ education for particular conditions or patient cohort
 - Enteral nutrition community service
 - Potential to shift some chronic disease management to the community/Primary Health Network (PHN)/utilising Health Pathways from outpatients services e.g. Lymphoedema
 - Post-discharge models of care
 - Day rehabilitation Unit at CHCK has potential to expand Any new service would require staffing commensurate with the service provided
- **Technology**
 - There is no access to videoconferencing e.g. for Guardianship hearings
 - Wi-Fi is not reliable/available across the campus
 - No access to telehealth facilities which could allow more patients to be seen remotely and avoid outpatient department (OPD) appointments
 - No centralised referral or booking system
 - Requirement for Allied Health working across multiple electronic systems – e.g. in Cancer Services eMR and ARIA
- **Infrastructure**
 - Currently allied health is dispersed in various locations which impedes communication and MDT work and makes wayfinding difficult for patients
 - There is potential for increased staff efficiencies and reduced duplication of services if allied health are collocated
 - Lack of IT resources limits services provided and information sharing

- **Staffing**

- Staffing: Current staffing levels limit the number of outpatient and community services that can be provided.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

Shifting care into outpatients and the community will require workforce redesign, as inpatient services are currently prioritised, however dependent on service need

- **Service solutions**

- Allied health to be integrated with medical and surgical outpatient clinics, Preadmission and Ambulatory Care Unit to avoid delay to assessment and treatment, better triaging of appointments for allied health and improved sharing of information
- Better access to multi-disciplinary allied health staff in community teams and outreach services for hospital avoidance and reduced length of stay
- Provision of advanced practitioner allied health, e.g. in ED, crisis clinics, surgical clinics, frailty clinics, back pain assessment to avoid admission
- New clinics to meet gaps in service e.g. bariatrics, paediatrics, multi-disciplinary pre-admission, seating clinics
- 7 day service
- Access to short stay unit for some patients to avoid overnight stay, e.g. for tracheostomy change patients
- Improved links with PHN, PHN commissioning model for allied health
- HITH model
- Improved collaboration and sharing of patient management in the primary care setting based in the community

- **Infrastructure solutions**

- All allied health co-located, to allow improved collaboration, MDT working and shared resources
- Shared office space and group rooms for meetings and education
- Shared rooms for group therapy e.g. pulmonary rehab, heart failure, stroke, cardiac rehab as well as MDT clinics
- One large shared gym space
- Hydrotherapy pool retained for inpatient and outpatient use
- Adequate storage space for each discipline's equipment, including bariatric
- Sound proof rooms available for Speech Pathology voice work
- Some isolation rooms for infection control, e.g. Podiatry patients with MRSA

- **Technology solutions**

- Telehealth for MDT e.g. for remote therapy, patient education, counselling, and guardianship hearings
- Patient apps to monitor programs e.g. exercise prescription
- Access to shared records
- Centralised referral and booking system

- **Staffing solutions**

- Greater use of allied health assistants to allow therapists to see more new patients and to manage complex patients
- Staffing for new services would be commensurate with level of service provided.

AMBULATORY AND OUTPATIENT DEPARTMENT

SCOPE OF SERVICES

The SGH OPD provides specialist outpatient clinics led by medical and nursing staff in an ambulatory setting. The majority of SGH specialties provide an outpatient service. Appropriate outpatient care can help prevent or control an acute episode, or manage a chronic disease or condition, as well as provide appropriate follow up and ongoing care post admission.

The ACU is a nurse led medical day treatment service, which provides space to administer IV and S/C medications, wound dressings and undertake minor specialised procedures that can be provided in an ambulatory setting to medically stable patients.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Outpatient services provide care to people of all ages (with the exception of minors 16 and younger in ACU and OPD) in the local and wider population
- Demand for outpatient services is increasing, due to:
 - A growing and ageing population
 - Increasing numbers of people living longer with long term conditions
 - Increased activity from new models for hospital avoidance
 - An increasingly culturally diverse population
 - Technological improvements allowing more procedures to be performed in an ambulatory setting

• Operational description

- Outpatient clinics are currently scattered across the campus. A core set of clinics are held in the Outpatients Unit in the Prince William Wing, however the majority of clinics are held in different locations scattered around the campus, with limited coordination between services
- Some clinics require specialised equipment, e.g. ENT, and/or procedure rooms, e.g. for women's health procedures, bone marrow biopsy
- Networking occurs with some clinics, e.g. SGH provides a hosted Diabetes service for Sutherland Hospital
- Hours of operation vary between clinics, however the Outpatients Department opens from 0800 to 1630 Monday to Friday, and the ACU is currently trialling a 7 day service, open 0800 to 1700 Monday to Friday, and 0830- 1600 Saturday and Sunday. ACU usual hours of operation are Monday to Friday 0800to 1700, and Saturday 0800-1630

• Models of care

- Currently there is no centralised referral system for outpatient appointments
- OPD currently doesn't use a wait list system. Patients are booked as per triage recommendation
- Patients are given a dedicated appointment time and a reminder SMS 3 days prior to their appointment
- The ACU model of care allows people to be seen in an ambulatory setting to avoid hospitalisation, however these patients tend to be more unstable. ACU currently has registrar medical support provided by General Medicine- staff page reg/intern when needed. ACU needs to have an "In house" designated ACU medical registrar
- Surgical Clinics see post procedure/post admission follow up only
- There are gaps in service for some specialties, e.g. orthopaedics, neurosurgery
- Increasingly, procedures are able to be performed in an ambulatory setting to avoid admission

- **Staffing**

- ACU: RNs x 8 each shift Mon- Fri, admin staff x 3 nursing staff and 1 admin on weekends
- OPD: 1x RN and EN, 3 x admin and a supervisor Admin, plus medical staff for individual clinics

- **Infrastructure**

- The OPD is located on Ground floor, Prince William Wing and consists of 8 consult rooms
- The ACU is located on Level 1 of the Clinical Services Building, and consists of 6 beds (1x 4 bed bay and 2 single rooms), 14 chairs, 1 venesection chair and 1x dressings room
- Other clinics are dispersed throughout the campus, including Doctors' offices
- Community Health Service offices are also dispersed across the campus.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- Shifting the balance toward more ambulatory and community based care to prevent hospital admission and manage treatment and care means that the demand for ambulatory services and specialist outpatient clinics will continue to increase
- There is a growing migrant population from a NESB
- The rising levels of obesity and other comorbidities is increasing demand for services
- There is unmet demand from some cultural groups, e.g. Aboriginal people, some migrant groups

- **Constraints on activity**

- Models of care
 - Some referrals could be more appropriately managed by GPs and do not need specialist intervention
 - There is no centralised referral or booking system which leads to confusion and waste for referrers, clinicians and patients
 - There is a lack of clinic space across the campus, with OPD clinic rooms and ACU at capacity
 - Haematology patients are currently seen in the ACU, however there is potential for them to return to Cancer Care if space is provided
- Waiting list:
 - Currently most clinics are at capacity and have varying waiting lists, depending on specialty, with unknown levels of unmet demand
 - Some clinics have stopped taking referrals due to extended wait periods
 - No OPD clinics currently breach a 12 month waiting period
 - Variations in scheduling and booking practices between services, overbooking for did not attend appointment (DNA) and clinic schedules do not reflect true service capacity
- Avoidable admits
 - ACU activity is constrained by a lack of infrastructure and could be expanded to increase the number of suitable patients managed there to avoid admission, subject to staffing
 - There are a large number of "Did not arrive" (DNA) and/or late cancellations for non-admitted patients, which is exacerbated by the inability to be flexible with clinic times and staff availability
 - In July 2017, 17% of patients were classified as Did Not Arrive (DNA) in OPD
- Direct admits:
 - There is currently no designated pathway for direct or crisis admission to outpatient services

- Unmet demand
 - A number of clinics have closed their books to new referrals, so patients are having to go privately, to other hospitals, or are not being seen
 - Some patients are referred inappropriately and would be better managed by their GPs
- Possible new clinics/ services
 - Potential to implement a rapid access clinic/crisis clinic model managed by an Ambulatory Care based registrar, with specialist consultation as required, who would oversee the medical needs of ACU clients as well. This would be most useful for people with acute exacerbations of chronic conditions, people with influenza, etc. that may require specialist support to avoid deterioration
 - Gaps in clinical services that are not currently provided at SGH include:
 - * Fracture clinic
 - * Orthopaedic clinic
 - * Upper GI clinic
- Any additional clinics would be subject to staffing and infrastructure requirements
- **Infrastructure**
 - Currently clinics are scattered across several locations across the campus and do not have a coordinated or centralised referral or booking system. This wastes both patient and staff time, causes duplication and inefficiencies in administration processes and staffing, and creates access delays. Wayfinding is also difficult particularly for patients who attend appointments in multiple locations and/or English is a second language
 - Many clinic rooms are not fit for purpose with some clinics being provided in clinician's offices
- **Staffing**
 - OPD clinics are a requirement for College accreditation in medical training, and some specialties are not currently able to meet that commitment
 - Increasing the number of clinics would be incumbent on the ability to provide appropriate staffing.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**
 - Centralise all appropriate outpatient services in an Ambulatory Care Precinct, with a single point of access for referral and booking appointments, and registration for appointments. This would allow:
 - Greater collaboration between clinical disciplines
 - A centralised information management and technology system to promote information sharing between clinicians and GPs
 - Efficiencies in booking systems, administration, reduction in appointment variations and reduced health resource utilisation
 - An improved patient journey and greater patient and staff satisfaction
 - Some of the demand could be avoided through the implementation of Health Pathways in partnership with the PHN to provide condition specific information on assessment, management and local referral options for primary health clinicians
 - Establishment of Basic Program Training clinics for training and accreditation for physicians and surgeons
 - Establishment of a rapid access/crisis ambulatory care clinic (described earlier) with a single point of access to prevent emergency presentation or deterioration by providing rapid access to specialist advice from hospital clinicians and a range of multidisciplinary and diagnostic skills. Patients may be referred by GPs, community health workers or other specialists. Clinics would run in normal business hours, subject to funding.
 - Continue and expand the capabilities of the ACU as a proven admission avoidance model

- A High Volume Short Stay Surgery (HVSSS) model is supported
- Explore potential for “Integrated Health Care Model”, to encompass things like a day hospital, or a diabetic clinic with educators, or joint physician/surgeon bariatric surgery clinics for people with multiple comorbidities
- Explore potential for some ambulatory/outpatient services to be provided more flexibly in the community, i.e. clinics could have ‘pluripotential’ to be delivered in ambulatory care or in the community (people’s homes or aged care facilities)
- Investigate the potential for continuing extended hours for outpatient services to meet increasing demand all being subject to staff and medical availability
- Other models of ambulatory care to explore include Gold Coast Hospital

- **Infrastructure solutions**

- Developing an ambulatory care precinct to create a ‘front door’ for ambulatory care services, which may include outpatient clinics, same day medical services (e.g. minor procedures, and/or infusions), same day surgery /procedural services, multi-disciplinary rehabilitation services, medical imaging services, pathology collection, etc. to provide better integrated and more efficient care for patients
- Clinic rooms would be a combination of multi- purpose rooms which could be shared by different specialties, fit for purpose specialty rooms, e.g. infusion rooms, rooms requiring specialty equipment, group rooms, rehabilitation spaces including a gymnasium and multi-disciplinary allied health spaces, education rooms, etc
- This precinct does not exclude a hybrid model where some services are located in an ambulatory care precinct and others may be in clinical speciality pods (e.g. cardiac services, surgical services, cancer services etc.)
- Space should be provided for community based services for offices and storage of equipment
- Consideration should be given to the location of the precinct to allow:
 - close interconnections to the Acute Services Building to ensure rapid PACE access
 - nearby access to Diagnostics, collection centres for Pathology, Bloodbank, Hot Lab and Pharmacy if not located within the Ambulatory Care Precinct

- **Technology solutions**

- Technology to improve service provision and efficiency such as a self-registration system, SMS reminder system, online booking system and telehealth services to support people at home or in rural settings to avoid attending in person

- **Staffing solutions**

- A centralised Ambulatory Care Precinct would create efficiencies for staffing and allow greater collaboration between specialties and disciplines
- Ambulatory Care registrar cover and multi-disciplinary support would be required, particularly for ACU patients
- An Ambulatory Care Precinct Manager/Coordinator would be required.

BREASTSCREEN NSW SOUTH EASTERN SYDNEY AND ILLAWARRA SCREENING AND ASSESSMENT SERVICE

SCOPE OF SERVICES

The BreastScreen NSW South Eastern Sydney & Illawarra Screening and Assessment Service is one of nine screening and assessment services coordinated by BreastScreen NSW. The administration of this service is based at SGH, co-located with a screening and assessment service.

Other fixed screening and assessment services administered from Kogarah are located throughout the region, including at The Randwick Royal Hospital for Women and Crown Street – Wollongong; and fixed screening units at Miranda, Myers - Bondi Junction, David Jones Elizabeth Street - Sydney CBD, David Jones - Wollongong, Stockland Shellharbour, Berry Street -Nowra and Boree Street – Ulladulla.

BreastScreen NSW is part of the national program, BreastScreen Australia, which is a joint Commonwealth/State government funded free mammography service. BreastScreen aims to reduce mortality associated with breast cancer with early detection improving survival and enabling treatment options to be less invasive. At a state level, the program is coordinated and managed by The Cancer Institute NSW which has a Performance and Funding Agreement with each Local Health District.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Services are targeted at women aged 50-74, however are available to women aged 40 years and over
- Demand is driven by population growth and the ageing population in the St George area, and also by education/media campaigns for screening
- The service at Kogarah will accept women from any area, however the majority of women are from the local catchment area

• Operational description

- BreastScreen services provided at SGH:
 - Free screening and assessment of women for the early detection of breast cancer
 - Free follow-up of women requiring further investigation
 - Administrative centre for the service, including data management, Call centre for the service to schedule appointments, accept referrals and address queries. Also to collate and distribute invitation and reminder letters for women in the target population, distribution of results and reports
- A mobile van for community screening is available for 4 months of the year and is used throughout the South Eastern Sydney and Illawarra region
- Hours of operation at SGH: Monday-Friday 0830 – 1630, with extended hours on Thursdays until 1900 and Saturday mornings.

• Activity

- Activity has been stable over the past 3 years at the SGH service, however it is one of the busiest services in NSW

• Models of care

- There has been no significant changes to models of care in the past 3 years and Cancer Institute guidelines are in place
- The assessment clinics involve a multi-disciplinary team of radiologists, surgeons, radiographers, counsellors and clerical staff

- Women can self-refer, or may be referred by GPs or specialists
 - Initial assessment includes screening mammography
 - Investigation of possible mammographic abnormalities may include additional mammographic views, ultrasound, needle biopsy and less commonly, surgical biopsy, up to the point of a definitive benign or malignant diagnosis
 - Community based care is provided in regional shopping centres and communities (as listed above) and in a mobile van when available (shared with other LHDs throughout the year)
 - The Kogarah service uses the SGH sterilising service
 - SMS reminders and letters are sent for appointments
- **Staffing**
 - 50.9 FTE in total plus Medical
 - Medical – 18.8 FTE (VMO)
 - HSM – 4.1
 - CMO – 0.8
 - Admin Assistant 22.1
 - Radiographers 18.8
 - HEO 2.1
 - Counsellors 2.1
 - Analyst 1
 - Clinical Coordinator (GP VMO)
- **Infrastructure**
 - The Kogarah screening and assessment service is located at SGH, on the 2nd floor of the Burt Neilson Wing, above Radiology
 - The South Eastern Sydney and Illawarra Screening and Assessment Service administration centre is collocated with the service in the Burt Neilson Wing.

CURRENT ISSUES AND CHALLENGES

The increasing migrant population in the St George area requires specific education campaigns to encourage early detection and screening

- **Constraints on activity and models of care**
 - Waiting list:: There can be a waiting list of 3 – 5 weeks for screening
 - “Did not arrive” and/or late cancellations for non-admitted patients/ clients
 - Approximately 10% of women DNA screening appointments
 - Unmet demand: There is potential to meet demand at the Kogarah service with an increase in operational hours
 - Potential for new clinics/ services: There is potential for another Ultrasound machine and room as this becomes increasingly used for assessment
 - Technology: Letters are currently mailed out and require a mailing machine which is noisy and requires a room
- **Infrastructure**
 - The current location has limited space and is poorly configured and room size inadequate, e.g. to accommodate equipment and 4-5 people for results of breast screen – patient, 1-2 support people, doctor, counsellor; Assessment room – radiologist, radiographer, patient, support person; one patient toilet - No disabled access

- The administrative centre has insufficient space to accommodate necessary equipment (mail machine, photocopier, etc.) and call centre staff have limited space (currently 7 workstations) and is shared with data entry
- The mobile screening van has limited locations available to it due to space and access to power constraints.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

There is currently no proposed changes to the model of care and service will continue to follow Cancer Institute guidelines

• Service solutions

- Expanding hours of operation to meet demand

• Infrastructure solutions

- Ideal physical adjacencies include close proximity to the radiology department, as the services uses SGH VMO radiologists
- A second Ultrasound and capacity for a 3rd to meet expected increased demand for ultrasound screening
- Redesigning spaces to promote better flow and function
- Call centre workstations and data/admin/office space to be in separate rooms (do not require co-location with screening and assessment services, however there would be economies and efficiencies with staffing if co-located
- Designated spaces for 3 mammography rooms , tomography room (also used for biopsies), 2 ultrasound rooms (with capacity for 3rd), reading room to accommodate 2 large screens, assessment room, inner and outer waiting rooms for 30 people, adequate storage for sterile equipment, etc.
- Patient change rooms and toilets
- Meeting room/education space

• Technology solutions

- Increased online self-registration for appointments
- Increased emailed or SMS results (i.e. reducing mail outs).

CALVARY HEALTH CARE KOGARAH - PALLIATIVE CARE

SCOPE OF SERVICES

Calvary Health Care Kogarah (CHCK) provides specialist palliative care services to the residents of the St George area and the Sutherland Shire. The aim of the service is to help patients to achieve their goals and improve their quality of life.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Adults who have palliative care needs for conditions which include:
 - Cancer
 - Chronic diseases including respiratory, cardiac, renal, diabetes, dementia
 - Neurodegenerative disorders

- Young adult and paediatric patients are managed in partnership with Sydney Children's Hospital
- Approximately 80% of patients are malignant, with the majority of non- malignant patients having shared care with their medical specialists and GPs and primary health teams
- There is a growing CALD community accessing services, with the largest CALD groups being Chinese, Arabic, Greek and Macedonian
- Patients are generally aged over 65 years, however all patients over 16 are eligible for care
- The majority of patients have a number of comorbidities
- The main drivers of demand include:
 - The growing and ageing population
 - People living longer with chronic disease
 - Increased demand for people to return home with complex issues
 - Increased use of treatments that are prolonging life
- **Operational description**
 - CHCK Palliative Care service provides a Role delineation Level 6 networked service with St George and Sutherland Hospitals
 - Service provided:
 - 32 inpatient beds
 - Motor Neurone Disease Service with care provided from Palliative care and Rehabilitation, with own social worker and CNC, and medical support
 - Ambulatory care allied health services
 - Multi-disciplinary Community palliative care team (CPCT), including in reach to RACFs
 - CPCT provides a 7 day service and 24 hour after hours telephone advice and on call crisis service (with criteria for home visits after hours)
 - All community based palliative care to the southern half of South Eastern Sydney Local Health District (SESLHD) is provided by the Calvary CPCT
 - Ambulatory palliative care services are provided 5 days per week on site (currently gym only)
- **Activity**
 - Community based palliative care activity is increasing and currently at capacity, with up to 350 people seen in the community at any one time
 - The CPCT receives 70-100 new referrals per month
 - The Motor Neurone Disease service has 35 patients currently
 - Ambulatory activity in the gym is at capacity, with potential for growth in ambulatory palliative care rehabilitation if resources (staff and infrastructure) were available
 - Inpatient activity has reduced in recent years due to increased community activity, decreased inpatient activity and shortened length of stay
 - Beds at CHCK are able to be flexed up and down with rehabilitation to meet demand
 - Average length of stay has decreased in recent years to 14 days, reflecting the changed model of care to increased community management for as long as possible, with admission for episodes of short term management as required, including short admissions for end of life care, where the main episode of care has been given in the community

- **Models of care**

- Referrals for community and inpatient palliative care are triaged on a needs basis, with community patients a priority for admission over hospital based patients. Patients are discharged and readmitted to the service (community and inpatient) as care needs change
- A consultative medical palliative care service is provided to patients at St George and Sutherland Hospitals and to St George Private Hospital with referral to inpatient or community palliative care services as required. Specialists rotate between the 3 hospitals, with three of the Specialists having direct appointments at SGH and 2 with VMO appointments at SGH and/or TSH
- Most people choose to be cared for at home for as long as possible, with approximately 60% choosing to die in the Palliative Care Unit and resources available to provide all options
- Models to reduce the need for an acute admission or ED presentation and provide appropriate care in the right setting include:
 - Ambulance Palliative Care plans, where RACF or community dwelling patients under palliative care are transferred directly to CHCK, bypassing ED; or contact with CPCT is made to manage patient at home to prevent admission. These plans need to be completed prior to discharge from the acute or sub-acute setting
 - End of Life Plans to prevent acute activity
 - Direct admission to CHCK by the CPCT to avoid acute admission
 - In reach to RACFs in southern SESLHD to support capacity building in palliative care of RACF staff to provide care in place and avoid transfer, and to provide specialist palliative care support when required, integrated with the GFS model
- Transitional Aged Care Program (TACP) and ComPacks are used to reduce length of hospital stay and help people to be managed for longer at home provided they have rehab goals. Small % of our population
- A palliative care rehabilitation service for inpatients and outpatients, including patients with MND, is available to maintain functional capacity and improve quality of life for those receiving palliative care, with daily group exercise sessions in the gym and hydrotherapy pool
- Home care support is provided in collaboration with Hammond Care and St Vincent's Health Service. St Vincent's are part of the consortium

- **Staffing**

- Palliative Care Medical Specialist: 2.16 FTE between 3 hospitals
- Registrar 0.6 CMO
- Registrar: 2 FTE, RMO: 2 FTE
- CPCT: 13.6 FTE over 7 days, including nurses, physiotherapists, medical specialists, social workers, occupational therapists, also pastoral care workers and volunteers
- Specialist Palliative Care Nurses
- New Nurse Practitioner role commenced in CPCT in May 2017
- Allied health: Social Workers, Physiotherapists, Occupational Therapists
- Pastoral Care team
- Bereavement Support Staff and Counselling
- A large Palliative Care Volunteer workforce, many of whom work in the community to support carers

- **Infrastructure**

- All inpatient and ambulatory services and CPCT offices are based on the CHCK campus.

CURRENT ISSUES AND CHALLENGES

• Changing patient demographics

- The population is ageing and living longer with chronic disease
- Improved survival for oncology patients with ongoing needs
- Increasing CALD population, with individual cultural expectations and needs, e.g. the Chinese community may have expectations regarding care within the family but do not generally choose to die at home
- Increasing demand for palliative care in RACFs (60 RACFs currently covered by service)

• Funding arrangements with 2 Specialist Palliative Care services in District means funding is split

• There is no clinical stream for District wide Palliative care

• Constraints on activity

- Waiting list: There is no waiting list, however patients are triaged according to need
- Avoidable admits:
 - Community based palliative care services are keeping people at home for as long as possible to avoid acute and subacute admission, however this model is at capacity
 - Patients are readmitted for short term management thus throughput is increased but length of stay decreased
 - Changes in care settings
 - Increasing numbers of people are choosing community based care for as long as possible, and this is likely to continue, however the majority are choosing to die in hospital
 - Increasingly non-malignant patients will require short term episodes of care, with earlier identification for the need for palliative care to improve quality of life
 - There is a lack of GPs who have palliative care expertise and limited community services available, resulting in increased burden on carers and carer stress
- Direct admits: New models of care (see proposed strategic initiatives below) will increase the capacity of CHCK to accept palliative care patients directly without the need for an unnecessary transfer to ED or an acute admission
- Unmet demand
 - There is growing demand for palliative care in the last 3 months of life, requiring access to prompt service which is currently not available to all within existing resources
 - There is no medical clinic for palliative care currently at CHCK
 - There is little access to home care services for people under 65
 - Carer support and grief management is under resourced, with no Activity Based Funding support for bereavement counselling
 - There are inadequate government funded 48 hour care packages available for people in the last stages of life
 - There is limited capacity to manage the Aged Care sector, including bed block due to inability to discharge to RACF in a timely manner and limited access to respite beds or step down beds

• Potential for new clinics/ services

- Currently there is no overnight or weekend medical cover at CHCK, which reduces the complexity of patients that can be admitted, management of deterioration of admitted patients and times of admission. Coverage would allow potentially 2 more patients per day to be accepted, and reduce the number of patients transferred from CHCK to SGH ED and acute admission

- **Technology**
 - Lack of a shared health records hampers integration of care
 - Currently no centralised referral or navigation pathway for palliative care
- **Infrastructure**
 - Ambulatory services are at capacity in available space, despite expansion
 - Lack of on-site Pathology or Radiology
 - Lack of 'step down' beds for patients waiting for RACF, etc.
- **Staffing**
 - All services provided are contingent on adequate staffing, with current changes in models of care to provide efficiencies and manage more throughput made within existing staffing levels.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Models of care**
 - To meet the increasing demand for community services, referrals will be triaged to the CPCT or to a newly developed nurse led ambulatory clinic. This clinic would provide carer assessment, referral to allied health and other ambulatory services to support people to be managed at home. It is envisaged that this would be a 50:50 split of ambulatory to community care in the future
 - Reintroduction of medical clinic at CHCK (requires increased medical staffing)
 - Enhanced Nurse Practitioner led palliative care in reach service to RACFs with increased social work staffing to avoid ED presentations and better manage residents in situ
 - Enhanced community based palliative care team support to meet the rising demand from patients wishing to be cared for at home for as long as possible
 - Establish on site after hours medical cover (overnight and weekend) to:
 - Allow for higher acuity patients to be accepted by CHCK
 - Prevent transfer back to SGH ED of deteriorating patients from CHCK or CPCT
 - Allow earlier transfer to CHCK and reduce acute length of stay at SGH or TSH
 - Enhance pathways for direct admission to CHCK to avoid ED presentations and unnecessary acute admissions with:
 - Pathways for known patients from ED
 - Increased use of Ambulance Palliative Care Plans
 - Increased implementation of advanced care planning
 - GP referral for lower acuity patients
 - Engagement with medical specialty teams (e.g. aged care, renal, respiratory, cardiology) to develop subacute pathways to admission to CHCK and earlier identification of palliative care needs
 - Enhance palliative care rehabilitation ambulatory services to improve quality of life and maintain functional independence for as long as possible
 - Provide support for at risk carers
 - Future implications of cannabis trials and outcomes on assisted dying will need to be addressed
- **Infrastructure solutions**
 - Address subacute capacity issues at SGH with access to step down beds, potentially located at CHCK
 - Investigate opportunities to expand subacute bed base at CHCK

- **Technology solutions**

- A centralised referral system and database for palliative care for inpatient and community services would improve access and referral to services
- Pathways to fast track admission from ED to CHCK of known patients and prevent acute admissions at SGH or TSH e.g. eMR alerts, CHCK admission criteria
- eMR flags for advanced care plans and ambulance palliative care plans, with links to palliative care services

- **Governance solutions**

- A District wide Palliative Care stream, separate from Cancer
- Development of a Subacute Clinical Services Plan for SESLHD

- **Staffing solutions**

- Employment of an after- hours on site JMO at CHCK
- Upskilling of GPs to provide primary palliative care, (with funding by case conferencing) to support palliative care of RACF and community dwelling residents
- Upskilling of RACF staff via in reach CPCT
- Increased staffing for in reach model (nursing and social work)
- CPCT Registrar
- Enhanced Medical staffing to support medical clinics, RACFs, CPCT Registrar
- Increased access/links to Liaison Psychology and Psychiatry with SGH
- Increased access to speech pathology and dietetics support.

CALVARY HEALTH CARE KOGARAH - REHABILITATION AND AGED CARE SERVICE

Calvary Health Care Kogarah (CHCK) is an Affiliated Healthcare Organisation of SESLHD, owned and operated by Little Company of Mary Health Care and is the largest sub-acute hospital in NSW.

DESCRIPTION OF CURRENT SERVICE DELIVERY

Referrals are accepted for residents of St George, who are aged over 18 years, are medically stable and able to participate in rehabilitation goals. Residents of the Sutherland Shire and other areas are also taken when capacity is available.

- **Patient demographics**

- an growing and ageing population
- more complex patients presenting with multiple co-morbidities, including increasing numbers of younger patients with complex neurodegenerative disorders
- Significant increase in service demand following the introduction of My Aged Care, with more patients with complex needs (including cognitive impairment) choosing to stay at home

- **Operational Description**

- CHCK provides a Level 5 role delineation Rehabilitation service, networked with SGH
- Multidisciplinary Rehabilitation and Aged Care services provided include:
 - Inpatient Rehabilitation Unit (63 beds), specialising in multidisciplinary medical, surgical and aged care rehabilitation

- Day Rehabilitation Unit (DRU) and Hydrotherapy Pool (Monday to Friday)
 - Group activities for falls prevention, frailty and Parkinson's Disease
 - Rehabilitation and Aged Care Services, including the Aged Care Assessment Team (ACAT); Transitional Aged Care Service; CHSP include the Continence Advisory Service; Occupational Therapy, Nursing, Dietetics and Podiatry, Mary Potter House Dementia Day Respite Centre and overnight respite care; and Community Aged Care Rehabilitation including physiotherapy, occupational therapy, speech pathology, dietetics, social work, neuropsychology, nursing and medical assessment
 - Outpatient clinics e.g. Motor Neurone Disease, Chronic Pain management, Rehabilitation and Aged Care
 - Multi-disciplinary Community Services for aged care, disability and other support services
 - a wide range of support services, including Bereavement Counselling, Disability Services, Diversity Health Service; Driver Assessment and Training, Equipment Lending Pool, Pastoral Care, Pharmaceutical Services
 - Referrals are received from a variety of sources, including SGH, other public hospitals, private hospitals, residential aged care facilities, self-referrals and GPs
- **Activity**
 - Non admitted activity is at capacity, with long waiting lists for some services in the community, particularly allied health
 - Average length of stay for admitted activity has reduced from 18.2 days in 2014/15 to 17.4 days in 2016/17
 - Day Only activity: currently on average 40 patients are seen per day
 - 41 Transitional Aged Care packages available
 - There is no maintenance activity currently at CHCK
 - Approximately 60% of activity is private, but acceptance is based on clinical need
- **Models of care**
 - The rehabilitation service is provided by a MDT including doctors/specialists, nurses and allied health professionals (physiotherapists, occupational therapists, psychologists, social workers, speech pathologists, Dietitians and podiatrists)
 - Referrals to the rehabilitation unit are entered into SESLHD's centralised Rehabilitation Data Base, assessed for suitability and prioritised for inpatient services in terms of need and being medically stable to be transferred for admission or an outpatient or community based appointment
 - Inpatients are largely admitted for rehabilitation post orthopaedic surgery or fracture, or for reconditioning for those with medical comorbidities. No acute strokes or amputees are seen at CHCK
 - There are increasing numbers of referrals for pre –surgery functional optimisation , e.g. prior to surgery or to reduce risks from frailty
 - CHCK has had access to ComPacks for the last 6 months, which has allowed a reduction in length of stay and improved flow
 - OPD groups are run to try and reduce waiting lists, but groups also have waiting lists
 - A registrar provides support to local RACFs for behaviour management and assessment for referrals to inpatient rehabilitation
- **Staffing**
 - The staffing profile (500 staff, 350 FTE) is 36% nursing, 30% allied health, 5% medical with the residual being administrative support staff
 - There are three rehabilitation consultants with admitting rights and Geriatricians with admitting rights and a Clinical Nurse Specialist who assesses and screens referrals at SGH in consultation with the rehabilitation consultant

- **Infrastructure**

- All rehabilitation services are provided from the Kogarah campus in purpose built facilities, including a large well equipped gymnasium and hydrotherapy pool
- The DRU has been extended three times to try and meet capacity.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- Increasing numbers of higher acuity patients requiring rehabilitation
- Increasing numbers of patients under 65 with progressive neurological diseases with complex needs and equipment requirements
- Increasing numbers of bariatric patients requiring specialised equipment who are resource intensive
- Increasing numbers of people with complex psychosocial issues, e.g. elder abuse, family breakdown
- Increasing numbers of people are choosing to stay at home rather than residential aged care facilities, which increases community service needs
- There are other private facilities in the area now providing private rehabilitation inpatient services
- Changes to the funding arrangements for community services with the Aged Care reforms and the NDIS

- **Models of care**

- Waiting Lists
 - Rehabilitation Inpatient Unit Waiting List: 1-4 days after patient assessed as being medically stable
 - Day Rehabilitation Unit
 - * 50 patients on the waiting list
 - * Orthopaedic patients are prioritised for admission to the program
 - * Longer wait list for patients with chronic disease and general deconditioning
 - Ambulatory and Community Health Waiting List (based against the ACAT guidelines)
 - * Priority 1: 24-48 hours
 - * Priority 2: 2-14 days
 - * Priority 3: 60 days
 - * Physiotherapy - 6 months waiting list (70 patients)
 - * Occupational therapy - 104 patients on waiting list
 - * Social worker - 30 patients on waiting list
 - * Strong and Steady Program - 60 patients on waiting list
- Unmet demand: There are gaps in service for:
 - Under 65 years age group who are not eligible for the NDIS. Funding is being withdrawn for Community Care Supports Program (CCSP) services however not all clients will be eligible for the NDIS
 - Under 65 years age group with progressive neurological disorders - these patients have complex needs and require highly specialised equipment
 - Bariatric rehabilitation for obese patients (all age groups)
 - Post-oncology treatment rehabilitation
 - Palliative care rehabilitation
 - Group activity to prevent admission (falls prevention, etc.) on an ongoing basis to maintain levels of independence

- Younger people with dementia in community setting
- Multidisciplinary approach at home, similar to TACS, for non-admitted patients
- TACS is not available for people under 65 years
- TSH does not routinely refer its post-op orthopaedic patients to CHCK

- **Potential new services**

- Multidisciplinary approach for home based rehabilitation
- Seating clinic to prevent pressure areas (OT).

- **Technology**

- No central intake service for inpatient rehab and palliative Care Service
- Current ICT platform does not support sharing of patient information with SGH. eMR2 will be implemented by the end of 2017

- **Staffing**

- Community services staffing cannot meet demand
- No capacity to increase groups
- No overnight medical cover on site
- Only one CNS at CHCK for assessing patients at SGH and SGH Private
- Any new or expanded services would be contingent on increased staffing to provide them

- **Infrastructure**

- Limited outpatient clinic/ambulatory care space
- Hydrotherapy pool maximum capacity 10-15 patients
- No onsite radiology or pathology

- **Private Health Insurance Policies and Rates**

- CHCK is a third schedule hospital service. There is a need to be financially autonomous. The service is susceptible to changes with private insurance policies (e.g. BUPA removing funding for day only rehabilitation) and private health insurance rates (target 57%). Patient flow from SGH is impacted by the private health insurance target and out of home care is affected.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS FOR CONSIDERATION

- **Service solutions**

- Consider a District –wide approach to subacute care
- Establish an internal bed management unit to better manage patient flow
- Consider direct admits from the community, e.g. from ambulance service, GPs
- Consider direct admits from SGH ED to avoid unnecessary acute admission
- Expand low acuity pathways in community and ambulatory care to address avoidable acute/subacute hospital admissions
- Review opportunities to expand/optimize service delivery in relation to:
 - palliative care rehabilitation
 - oncology rehabilitation

- services for neurodegenerative conditions
 - psychogeriatric services
 - Cognition clinic
 - in-reach assessment service in residential aged care facilities
 - ongoing maintenance of patients including consideration of partnerships with local gyms and better integration with other community service providers
 - Strong and Steady Program
 - Parkinson’s Disease Program (early intervention)
 - frail, aged and dementia patients (multi-disciplinary management in the community)
 - brain injury unit for mild to moderate cases
 - Aboriginal community
 - chronic disease management
 - day rehabilitation services
 - bariatric rehabilitation
 - prehabilitation (pre-op, frailty)
 - ongoing maintenance programs to prevent deterioration and acute admission (including investigating partnerships with NGOs, private gyms, etc.)
- Consider the establishment of an Service Level Agreement with SGH to provide after-hours cover on site at CHCK, to allow higher acuity patients to be accepted

• **Infrastructure solutions**

- Expand Ambulatory care facilities including a larger gymnasium, larger hydrotherapy pool and more clinic spaces and group rooms
- Onsite/mobile pathology and radiology service
- Centralise intake with links to intake at SGH

• **Staffing solutions**

- Appropriate levels of MDT staffing to meet the increasing demand from a growing and aging population and increased numbers of people living with multi-morbidities
- Overnight medical cover to allow more patients with higher acuity levels to be managed at CHCK.

CANCER AND BLOOD DISORDERS SERVICES

SCOPE OF SERVICES

SGH Cancer and Blood Disorders Services are focussed on cancer prevention, diagnosis and treatment of a wide range of cancers. The service provides for both inpatients and outpatients including medical oncology, radiation oncology, haematology (both benign and cancer related), cancer genetics, allied health and supportive care services as well as palliative care services at the SGH.

SGH has MDT’s for the following tumour groups: Breast, Colorectal, Hepatocellular Carcinoma, Head and Neck, Gynaecological, Lung, Lymphoma, Prostate Brachytherapy and Upper Gastrointestinal, Neuroendocrine, Peritonectomy.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Most inpatients are adults: 17% are aged 50-59 years, 23% are aged 60 – 69 years, 28% are aged 70 – 79 years and 18% are aged 80 years or older
- Given the older patient cohort there is greater likelihood these patients will have comorbidities and potential for significant decompensation
- While only 54% of inpatients were born in Australia, more than 76% speak English at home
- Approximately 0.3% of inpatients identify as Aboriginal and/or Torres Strait Islander
- The catchment for inpatients is predominantly from surrounding area: 67% from the combined Local Government Areas (LGAs) of Rockdale, Hurstville, Sutherland, Kogarah, 10% from Sydney Local Health District and 7% from South Western Sydney Local Health District

• Operational description

- Services are provided from a range of locations
 - Cancer Care Centre including radiotherapy, oncology pharmacy, a day unit (including 3 beds and 10 chairs for chemotherapy, stem cell transfusions, etc.), medical haematology and housing the Prostate Cancer Institute
 - Clinical Services Building: Ambulatory Care Centre (for transfusions, infusions, venesections, bone marrow biopsies, etc.), pathology and blood collection
 - Inpatient wards: 4 East – Oncology and 4 North – Haematology, to be relocated to the Acute Services Building
 - Prince William Wing: haematology clinics
 - Pitney Building: clinical trials
 - Outreach / home based services
- The service has strong networks with CHCK and Hurstville Private Hospital

• Activity

- Outpatient data is becoming more robust but trend data is unreliable and the activity is limited by space
- Inpatient separations have been trending up over recent years, while the beddays have been decreasing (reflecting a shorter average length of stay) along with the average Public Equivalent Model (PEM, reflecting decreasing cost and complexity of patients)
- Of all inpatients approximately 10% have a cancer flag

• Models of care

- Cancer care is an integrated multidisciplinary service
- Increasingly the majority of cancer services are provided to non-admitted patients (rather than admitting patients). For example previously acute leukaemia patients were admitted for induction chemotherapy resulting in a reduction in blood cells leading to a 1 month hospital stay. Nowadays, patients receive their chemotherapy and are discharged despite being immunocompromised as they are less likely to contract infections in their home (than in hospital) and receive outreach visits and/or attend outpatient clinics as required
- The aim of treatment is curative therapy with intensified effort to resolve complications and, if required, a gradual transition to palliative care
- Clinical trials are an important part of treatment – when approved drugs are exhausted it enables use of clinical trials drugs

- **Staffing**

- Cancer services are provided by a multi-disciplinary team of specialists who are experts in treating and supporting patients with cancer including:
 - Medical: Medical Oncologists, Radiation Oncologists, Haematologists, Registrar and Resident Medical Officers
 - Nursing: Nurse Unit Manager, Cancer Care Coordinators, Clinical Nurse Specialists, Consultants, Nurse Educators, Registered Nurses
 - Allied Health: Physiotherapists, Dietitians, Occupational Therapists, Social Workers, Psychologists, Speech Pathologists
 - Other: Radiation Therapists, technical assistants, researchers administrative/clerical staff, etc.
 - There are also strong links with other speciality services including surgery, pathology, etc.

- **Infrastructure**

- The physical location of cancer services is scattered across the SGH campus.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- As the population increases and ages it is likely there will be greater demand for services and patients who are admitted will tend to be sicker resulting in a longer length of stay

- **Constraints on activity**

- Avoidable admits: given the number of non-admitted patients with complex conditions there is an ongoing need for rapid access to a range of clinics and treatments to prevent admissions
- Potential for new clinics / services: Fundraising is underway to redevelop the Cancer Care Centre / Day Centre to accommodate 18 chairs and 2 procedure chairs and 3 bedrooms

- **Infrastructure**

- Unwell patients must go to multiple locations across the campus to access the care they need due to the fragmentation of services
- Existing space in the Cancer Care Centre is nearing capacity
- Lack of office space

- **Staffing**

- Cancer services currently has a lack of access to allied health professionals

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Develop models of care to enable rapid access to clinics and procedures

- **Infrastructure solutions**

- In the short-term redevelop Cancer Care Centre to accommodate increasing activity
- In the longer term consider co-location of Cancer services as part of Master Planning phase
- Co-locate non-cancer haematology in the proposed Ambulatory Care precinct.

CARDIOLOGY SERVICES

SCOPE OF SERVICES

Cardiology services provide inpatient services, a coronary intensive care unit, outpatient (clinical, procedural and rehabilitation) and community based services.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**

- Main driver of current demand is the increasing growing and ageing population living longer with multiple comorbidities, and requiring long term management, particularly for heart failure support

- **Operational description**

- Inpatient ward, CICU and cardiac catheter labs
- General and sub-specialty Outpatient clinics, held Mon-Friday (morning or afternoon sessions, depending on clinic). Average appointment times 30 minutes for a new patient and 20 minutes for follow up appointments
- Non –invasive testing procedures (ECG, ECHO, Halter, Stress tests) are provided for inpatients and outpatients (average 40 minute sessions per patient)
- Remote monitoring is provided for pacemaker patients
- Community nursing services are provided for heart failure patients
- Outpatient Cardiac Rehabilitation including assessment, education and classes
- Clinical Trials Unit

- **Activity**

- Outpatient activity is at capacity, with Doctors' offices acting as clinic spaces when 4 clinics are running concurrently
- Unmet demand for non-invasive services is now outsourced, mainly to Southern Heart and Hurstville Private, e.g. for ECHO services
- Now seeing approximately 70% of all EP on site (was previously outsourced)
- Heart failure service is at capacity: one nurse sees 20 – 30 patients per week, each for multiple visits, as an alternative to inpatient admission
- A review of Cardiology outpatient services activity and capacity is currently underway

- **Models of care**

- Increasingly, patients are being managed in the outpatient or community setting e.g. most Cardiac Cath Lab patients are seen as outpatients and this is likely to increase in the future to meet the growth in demand and as models of care change, and increasing numbers of heart failure patients are managed in the community
- BPT and advanced trainee clinics (required for accreditation)
- General and sub specialty clinics are held e.g. for Pre-assessment, pacemaker, Arrhythmias and complex clinics

- **Staffing**

- Medical: 5 FTE Specialist Medical Officers; Registrars and Resident Medical Officers
- Nursing: Nurse Unit Manager, Clinical Nurse Specialists, Consultants, RN's, ENs, AINs
- Exercise Physiologists for cardiac rehab
- Other: administrative/clerical staff, researchers

- **Infrastructure location and configuration**

- Currently inpatients and CICU are located in the Tower Block (a new CICU and 2 new Cardiac Catheter Laboratories will open late 2017 in the new Acute Services Building)
- Outpatient clinics are held in the Cardiology Department on the first floor of the Clinical Services Building
- Non-invasive procedures are held in the Cardiology Department
- Clinical Trials Unit and Heart Failure offices are situated on the ground floor of the Clinical Services Building
- Cardiac Rehabilitation is held in the Physiotherapy department gymnasium in the Prince William Wing.

CURRENT ISSUES AND CHALLENGES

- **Constraints on activity**

- Waiting list
 - All Outpatient Cardiology clinics have a 6 month waiting list
 - Outpatient TOE procedures 2 month waiting list
 - Outpatient coronary angiogram waiting list 6 weeks
 - Outpatient Pacemakers 2 months
 - Outpatient EP without GA requirement 6 months
 - Outpatient EP with GA requirements have waiting periods greater than 12 months (2 years if no change to anaesthetic outpatient sessions)
- Avoidable admits / referrals
 - Some admissions/ deterioration could be prevented with more clinics and community based services but currently outpatient clinics are at capacity and limited by space, equipment and staffing, and heart failure service limited by staffing
 - There are currently no HITH services available from SGH, although some cardiology services could potentially be delivered by this model to prevent admission
 - GP management of long term patients is currently limited
- Unmet demand
 - Cardiology has increased the number of clinics held, however the waiting list remains
 - Currently there is limited capacity for timely follow up from ED, and these patients are often referred privately
 - The increasing demand for inpatient non-invasive testing procedures reduces the Unit's capacity to provide outpatient testing procedures
 - There is a greater need for sequential testing on separate days, e.g. Exercise ECG before Stress ECHO or Nuclear scan. If access to one of these is delayed, the whole system is delayed and patients wait longer
 - Potential MBS changes for Cardiology means that activity may be diverted back to the public system, with the potential to double the demand for services i.e. if new caps and time intervals on rebated items including ECHO, Exercise Stress ECHO and Cardiac computerised tomography (CT) are implemented. This could result in:
 - * Increased inpatient length of stay if testing needs to be performed prior to discharge due to lengthy OP waits

- * Increased demand for outpatient investigations (potentially doubling of current) and considerably longer waiting lists
- * Increased admissions where timely sequential outpatient or private hospital cardiac investigation is not considered clinically appropriate
- * Inequitable services for those who cannot afford non MBS care

- **Potential for new clinics/ services**

- Potential for a multidisciplinary clinic in the future if services collocated
- Potential to implement Chest Pain clinic, High Risk clinic (dependent on staffing and clinic space availability)
- Cardiology is currently working with the PHN and its chronic disease management program to implement a clinical model to support GPs and a Business model to support chronic disease management, to try to reduce referrals and OP appointments for Cardiology
- HealthPathways (in partnership with PHN) is in process of implementation, and may potentially allow more appropriate referral and GP management in the long term
- Potential to double Heart Failure Service if nursing staff available

- **Technology**

- Lack of self-registration for patients mean adminstraion staff are very busy during clinics and cardiac rehab staff have to do this for their patients

- **Infrastructure**

- Insufficient clinic space and purpose built rooms for outpatients creates inefficiencies and limits throughput
- Insufficient waiting area space when clinics at capacity
- Spaces available are not fit for purpose, e.g. Dr's offices, which then reduces access to computers, etc. for others
- Services are fragmented, which is inefficient for staff and patients and difficult for wayfinding
- A third Cardiac Cath Lab (projected for 2021) may be required sooner due to increasing demand

- **Staffing**

- Any increase in clinics or services would be contingent on appropriate staffing levels and infrastructure.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Create a Cardiology Precinct, with all outpatient clinics, non-invasive testing, Clinical Trials and clinical staff offices co-located to provide efficiencies for staff, services and patients and potentially allow MDT clinics
- Increase access to clinic space to reduce waiting lists and potentially prevent admission or prevent deterioration and meet future increased demand
- Increase community outreach services for Heart Failure
- Potential for some cardiology conditions to be managed in a future HITH model
- Improved and increased chronic disease management in partnership with the PHN
- Implement HealthPathways to assist management of referrals and management of chronic cardiac conditions by GPs
- Potential for new clinics: MDT, Chest Pain, High Risk

- **Infrastructure solutions**

- Adjacencies:
 - A Cardiology Precinct would ideally be linked to the Acute Services Building (ASB) adjacent to the Cardiac Cath Labs, with clinics, examination and procedure rooms, clinical offices and education/meeting rooms, and office space for community services and cardiac rehabilitation all collocated
 - Third Cath Lab would ideally extend from ASB at the same level (level 3) and adjacent to the TOE/Procedure room
 - Transthoracic Echocardiography x 3 , Stress ECHO x 1, Trans-oesophageal ECHO/Procedure room x 1 with supporting infrastructure (e.g. reporting rooms, holding area, recovery beds, clinic rooms)
 - Close adjacency and ease of access to core services e.g. Pathology, Medical Imaging
- Space for groups and classes with relevant equipment for Cardiac rehabilitation. This could be a shared gym space and education/group rooms in an Ambulatory care precinct
- Ensure purpose built spaces for specialty equipment needs

- **Technology solutions**

- Space for Telehealth for remote monitoring and advice/management, e.g. for remotely monitoring Pacemakers; for medical advice to community teams to avoid ED presentation
- SMS reminders to avoid missed appointments
- Wireless technology and linked medical records

- **Staffing solutions**

- Staffing would be commensurate with level of service delivered.

CHEST CLINIC

SCOPE OF SERVICES

The St George Chest Clinic operates within the outpatient setting; and is part of a broader TB service.

The Clinic may be considered a hub for TB testing, migrant and health care staff screening and treatment for the southern sector, and is the largest in the district. There are other clinics at Sydney Hospital/Eye Hospital; POWH and St Vincent's' Health Care.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**

- All ages are seen, with the 20-40 year age group being the main group
- The large majority of patients are overseas born (estimated at 80-90% of cases)
- Children are seen for preventive therapy and administration of full treatment
- Two important groups are people migrating from overseas into the area and SESLHD staff

- **Operational description**

- Services are provided in an outpatient clinic
- Comprehensive service which involves seeing patients face to face nurse and doctor; radiology, pathology, pharmacy, interacting and working in the community, home-visiting patients and with other chest clinics and interstate
- Staff health

- Hours of operation are Monday-Friday 0830-1700
 - One day per week doctor clinic
 - Working towards a second doctor clinic one day per week – i.e. 2 doctor clinics per week
 - Community based directly observed therapy, large contact screenings within the community when a patient is identified with TB
 - Services include tuberculin skin testing, BCG vaccination, use of radiology service, blood tests, microbiology, histopathology and bronchoscopy services
 - Patients come to clinic either daily or three times per week for medications and those on preventative treatment attend the clinic monthly for nurse -dependent clinical assessment and to collect medications and attend blood tests
- **Activity**
 - Current non-admitted activity is under-reported, due to staffing issues and change in reporting method
 - For 2016/17, service records show a total of 11,706 occasions of service i.e. an undercount of 2,398 occasions of service
 - Trends: There is a pattern of increased activity pushed by :
 - Preventative therapy - new biological suppressive agents being used by rheumatology and other specialties require assessment of latent TB infection before they are started; they are commenced on 9 months of preventative therapy which involves monthly pickups of medication, blood tests and Doctor’s appointments. There has been a huge increase over last decade
 - Migration group - WHO recommendation endorsed by the National TB Advisory Committee and accepted by NSW Health that all children under 11 years are screened and where indicated provided with preventative therapy. (This increase in child numbers was meant to be offset by a decline in adult referrals, but this decline has not eventuated and the staff input into each child treatment is much larger than each adult assessment in any case.)
 - Active TB has increased in numbers, in complexity, in delayed diagnosis, and an increase in multidrug resistance cases. The treatment of such cases is complex and prolonged, involving PICC lines for intravenous therapy and the expense of newer and dearer drugs and multiple testing for adverse effects (audiology, nerve conduction, frequent ECGs etc.)
 - Increase in requirements for reporting to NSW Health, resulting in additional staff time for recording and reporting
- **Staffing**
 - Nursing: 3.2 FTE
 - Medical: VMO @ 9-10 hours /week, 0.2FTE Registrar
 - Administration: 1 FTE
 - The TB Coordinator and NUM are one position: workload issues
- **Infrastructure**
 - Currently housed in Prince William Wing, inadequate space for patient privacy / confidentiality, for registrar training or for efficient functioning.

CURRENT ISSUES AND CHALLENGES

- **Constraints on activity and models of care**
 - “Did not arrive” and/or late cancellations are common. It is rare for a clinic to run without a DNA
 - Do not do SMS messages as prompt to clinic but the clients are sent reminder letters prior to their appointments

- Waiting Lists: Longest waiting lists are for healthcare workers waiting for review; and migration screening reviews. These are more than a year behind
- The service has to prioritise – new TB cases or recent cases; and those in active treatment
- There is no population screening strategy – there is a need for it – due to staff and resources
- There is no surge capacity to cope with large contact screens. Recently the service had a school screening of 200; to cope, staff from other district health services were brought in to assist

- **Infrastructure**

- Space is limited
- Currently there is one good size doctor's room; a second very small one. On doctor clinic days, nurses need to use a tiny office or deal with patients in the room that houses nurse office and kitchenette. There is nowhere to accommodate the increase in doctor and nurse numbers we need

- **Staffing**

- NUM and TB Coordinator a single position. Due to workload and requirement to be a functional part of TB state program, there needs to be a separate Manager and TB Coordinator
- Succession planning for medical Director of Chest Clinic required. Need to build TB experience into doctors' role. Currently need a paid part time role to provide for handover and to learn from experienced staff
- Very subspecialised service; new staff usually need major training and time to acquire experience
- Outsourcing therapy – need to train up for basic TB knowledge; need more staff to provide services in the community – e.g. extra 0.8-1.0 FTE nurse can spend about 30% of time in the community and 70% on site in clinic

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Balancing basic issues of public health and patient care; providing adequate access, sufficient staffing, combined with advancing the TB program within the area

- **Infrastructure solutions**

- Physical location – requires appropriate ventilation for effective infection control including a negative pressure area, clinic service needs separate access and waiting area (e.g. immune-suppressed patient cannot be next to a patient with TB); ease of access to community; ease of access to other services (radiology, pathology etc.)
- Adequate clinical space – appropriate number and size of clinic rooms to house consultant and 1-2 registrars, nursing rooms for skin testing, directly observed therapies, interview rooms for use by nurses; offices etc. (ensuring structures which allow for privacy and appropriate ventilation (negatively ventilated))

- **Staffing solutions**

- Additional position as NUM or TB Coordinator as each has their own full-time job descriptions i.e. split the current role
- Proposed new part-time staff specialist to be supervised by the Director (succession planning and waiting list reduction).

CHILD, YOUTH AND FAMILY HEALTH SERVICES

SCOPE OF SERVICES

The Child, Youth and Family Health Service is a multidisciplinary service, which provides a mixture of clinics and home visiting services at SGH and in the community. The service provides assessment and care including paediatricians and paediatric registrars and a range of other medical specialists and registrars, child and family nurses and paediatric allied health in an ambulatory setting. Appropriate outpatient assessment and care can identify children and families requiring early intervention and intensive follow up.

The breadth of services include:

- Paediatric/newborn care
- Referred for step down follow-up in the community with nursing & allied health
- Developmental Services in Early Childhood 0-5 years
 - Referred from multiple sources for assessments and intensive treatment
 - School aged children more than 5 years of age (as above)
- Developmental Assessment Service (DAS):
 - Assessment and early intervention for children and young people and with a developmental delay/ disability
 - Ongoing assessment, review and care of adults of all ages with a developmental disability
 - The service has a strong intellectual disability and metro-regional focus (MRID network) and forms part of the NSW Health Service Framework
- Vulnerable groups (Bangladesh and Nepalese- CALD with poorer outcomes at age of commencing school)
- Sexual assault service – Adult – 24 hr service
- Domestic Violence service and screening- Adult
- Child and Family Counselling Service (Parenting Place).

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**
 - Neonates being discharged from SGH
 - Children with developmental concerns and their parents
 - Adults who have experienced sexual assault and domestic violence
 - Children and adults with intellectual disability
 - Demand for outpatient services remains high, due to:
 - Growth of new and emerging communities with higher burden of developmental vulnerabilities
 - Vulnerable families with existing drug and alcohol problems
 - Nature of intense follow-up for children with developmental challenges
 - Multiple avenues of referral from individual, PHN, community and health services
 - Services cover the St George and Sutherland catchments
 - The Developmental Assessment Service receives referrals from across the SESLHD area and from other parts of NSW, due to its unique service, expertise and reputation and the lack of similar service elsewhere
 - Child and young people in out of home care are a priority group, linked with Family and Community Services

- **Operational description**

- Outpatient assessment clinics are primarily at SGH, however there are additional services based in Kogarah Development Assessment Service and Rockdale Community Health Centre
- The Developmental Assessment Service is based at the old Post Office Building (owned by the SESLHD) in the Kogarah CBD, and provides a substantial proportion of its services on outreach basis, e.g. to pre-schools, schools and community venues
- Service is provided to Aboriginal clients at Menai, in line with existing services and culturally friendly location
- The Southern Sydney Sexual Assault Service provides support to men, women and young people over the age of 16, who have experienced a sexual assault. The service also provides a response to children aged 14-16 years old, who have experienced sexual assault by someone who is not a caregiver or relative. The service is based at SGH however provides outreach to Caringbah Community Health Centre
- The St George Domestic Violence Service provides counselling, case management, safety planning, group work and advocacy interventions to women and children affected by domestic and family violence
- The Child and Family Counselling Service (Parenting Place) is a prevention and early intervention counselling service for parents of children aged 0-5 years to the Sutherland and St George area
- Telemedicine is regularly used by the Developmental Assessment Service, for case conferences with school staff and for the provision of services to regional areas. Telemedicine consultations generate revenue for the service
- Hours of operation may vary, however the Care Services including community home visiting are between 8am to 4.30pm Monday to Friday. Sexual assault services are 24hrs 7 days and are linked to the ED

- **Technology**

- Specialised equipment for paediatric services was not identified in the consultation, however it was noted the need to explore telehealth services to reduce hours lost by clinicians in travel, conduct staff education and work with GP's

- **Models of care**

- Currently there is no centralised referral system for outpatient appointments. Referrals are triaged by clinicians and put on a waiting list
- Step down newborns are seen on ward and followed in the community often by the same clinician
- Clients are given a dedicated appointment time, follow-up is variable and data is not collected or analysed systematically
- A reminder SMS is provided via Red Call
- The model of care/service delivery model for Child and Family Services is under review following a service restructure and a desire to reorient service delivery towards the most vulnerable/priority groups within the community
- Paediatric allied health services provide assessment and intervention to children with developmental delay in a variety of service delivery models including 1:1 sessions, joint multidisciplinary sessions, and group therapy. Priority is provided to children under 5 years of age. School and Preschool visits are also offered and outreach generally centres on health promotional activities
- Development Assessment Service model includes:
 - 0-5 year olds – comprehensive medical and allied health assessment model
 - School aged children and young people – medical and multidisciplinary (including the school's therapy team) in school settings, generally in special school settings or mainstream schools with special classes.
 - Young people leaving school and identified as having lifelong disability will be transitioned with mainstream health services, while maintaining links with DAS

- Adults with intellectual disability and complex comorbidities with a focus on prevention of unnecessary hospital admissions and capacity building
 - Strong professional networks with SGH paediatricians and adult physicians, rehabilitation specialists and psychiatrists; allied health and nursing
 - A large proportion of activity for Child and Family Service is informed by the KPI for all women receiving a home visit within 2 weeks of giving birth
 - DAS referrals are often initiated by the family, or family via GP/ specialist. In the younger age group, the referral is often triggered by the early childhood teacher or allied health therapist. GP referral is preferred to ensure GP is involved with families and for Medicare revenue. School aged referrals are often led by the school, with school counsellor referral. Adult referrals can come from disability service sector (group home leaders, non-government organisations (NGO) providers), ED and hospitals and from GPs
- **Staffing**
 - Child and family
 - Nurses: 41.77 FTE
 - Child and Family Allied Health: OT 1.6 FTE, SP, 8.0 FTE Physio 1.5 FTE
 - Administration 2.0 FTE (1 in SGH and 1 in Rockdale Community Health Centre)
 - Developmental Assessment Service (Total 26.97 FTE):
 - Medical: 5.80 FTE Staff Specialists – Developmental Paediatrician, Community Paediatrician, Paediatric Neurologist, Paediatric Rehabilitation, Paediatric Gastroenterology, Paediatric Sleep, Adult Psychiatrist, Adult Physician, Adult Rehabilitation, Adult Neurologist, 8.65 FTE Registrar positions – paediatric, medical, rehabilitation and psychiatry
 - Allied Health: 8.34 FTE – mix of full and part time: Social Worker, Carer Advocate (SW), Psychologist, Occupational Therapist, Physiotherapist, Speech Therapist, Dietitian
 - Nursing: 1.00 FTE Clinical Nurse Consultant
 - Administration: 3.18 FTE
 - **Infrastructure**
 - Child & Family offices are located on second floor, Prince William Wing
 - DAS is based at the old pot building Kogarah and has 4 offices in James Laws House
 - Other clinics/services are held in Rockdale Community Health Centre.

CURRENT ISSUES AND CHALLENGES

- **Changing patient demographics**
 - There is a growing migrant population from a NESB.
 - There is unmet demand not fully explored however some cultural groups, e.g. Aboriginal people, some migrant groups
 - With new treatments and care modalities, people with intellectual or developmental disabilities are living longer
- **Constraints on activity**
 - Models of care
 - There is no centralised referral or booking system
 - There is a limited clinic space across the campus
 - Model of care/service delivery is under review

- Waiting list:
 - Currently most clinics/services have varying waiting lists, depending on specialty
 - Some allied health services have long waiting times, particularly speech pathology. There are currently 500 children on the speech pathology waiting list (for St George and Sutherland). Waiting time for initial assessment can be up to 15 months, and on average 16 weeks for children categorised as priority 1 (the benchmark for priority 1 is 12 weeks)
 - DAS waiting lists vary according to the clinic services: 3-6 months for new referrals for comprehensive diagnostic and assessment services for preschool children. Triage/clinical decision making drives the waiting times. For some clinics e.g. autism assessments, DAS provides triage, maintains contact and provides options while the client is waiting an appointment.
 - Affording private paediatricians and allied health therapists is a challenge in this location
- Other Constraints
 - Activity is constrained by a lack of human resources and space. Expansion of the Child and Family service is not highlighted as a priority, rather the reorienting services toward the most vulnerable groups
 - There are a large number of “Did not arrive” (DNA). A higher proportion is noted for patient not returning for sexual assault services
 - The paediatric physiotherapy department is in an office in the paediatric ward of SGH, which has made it difficult to integrate the paediatric physiotherapy service with paediatric OT and speech models of care
 - There is unmet demand for DAS due to the availability of such services in the state, growing population and increased survival rates (preterm babies and extended lifespans of people with disabilities)
 - Differentiating between mental health problems and developmental disability problems with challenging behaviours can be difficult; and increased interaction with Child and Adolescent Mental Health Services would be beneficial. Example given of 13 year old initially diagnosed by another service as having moderate intellectual disability and autism, expressing suicidality, responded to antipsychotic
 - Funding is a challenge for community based services: impact of NDIS still being worked through; growth of funding required for increased community based services; opportunities to generate revenue
 - NDIS: is clearer in school aged and adult population, but unclear in the 0-6 age years; responsibility for early intervention therapy (state – health or education; or NGOs). NGO funding for cost of attending meetings comes from family budget and potentially impacts on integrated care model

- **Possible new clinics/ services**

- Potential to implement a multidisciplinary screening and assessment clinic for the 0-2 year old infants/ toddlers and parents to identify developmental needs and initiate care before attending first appointment with paediatric allied health. Envisaged as 45 min intensive appointments
- Build up role of community paediatrician - link in with allied health and community health
- Any additional clinics would be subject to staffing and infrastructure requirements, e.g. redevelopment of Rockdale CHC, establishment of Integrated Health and Social Hubs.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- Maintaining strong relationships with Acute Services, Maternity Services, Paediatrics, Rehabilitation, Medicine and Psychiatry Departments
- Maintain and enhancing relationships with:
 - Sydney Children’s Hospitals Network (SCHN)
 - SESLHD Drug and Alcohol Service and Mental Health Service
 - Department of Family and Community Services
 - Department of Education
 - NGOs (multiple)

- **Service solutions**

- Centralise referral service with a single point of access for referral and booking appointments, and registration for appointments. Should result in an improved patient journey and greater patient and staff satisfaction
- Explore potential for multi-disciplinary clinics particularly for 0-2 year old group
- Integrate more closely with psychiatry-Mental Health Services particularly regarding challenging behaviours
- Models of care and service delivery to be reviewed in context of recent organisational restructure, and in the context of the implementation of NDIS and Early Childhood Early Intervention Approach (a subset of the NDIS for children under 7) for paediatric and allied health services
- With the restructure of Child, Youth and Family Services, there is opportunity for increased integration between child and family nurses and paediatrics

- **Infrastructure solutions**

- DAS requirements:
 - ground floor access with easy wheelchair access for clients with disability to cater for their physical, cognitive and emotional needs
 - Access to safe outside area (sensory garden) for distressed clients who are sensitive to light and sound inputs
 - Dedicated disability and off-street parking for clients and spaces for larger vehicles
 - Large corridors and doors for over-sized wheelchairs
 - 2 waiting areas (one for paediatrics and one for adults) with enough space to accommodate wheelchairs, specific to DAS and separate from the general waiting areas due to the nature of the clients attending
 - 2 x paediatric clinic rooms with 2 way mirror for viewing assessments and wheelchair access space (to accommodate approximately 8 people)
 - 2 x adult clinic rooms with wheelchair access and space (to accommodate approximately 8 people) – suitable for clients with challenging behaviours with two exits
 - Duress alarms in all clinical spaces
 - 1 x video conferencing / consultation room
 - 1 x large meeting room to accommodate approx. 30 people for unit based meetings, education-based training staff, carers and disability staff etc.
 - Disability toilet facilities and change area
 - Minimum of 30 workstations with a mixture of closed offices for manager/team leaders/ staff specialists and open plan areas for separate sub teams offices
 - 1 x therapy equipment storage space
- SMS reminder system, and telehealth services to support people at home to avoid attending in person
- Safe space for women to attend for assessment and follow-up in relation to domestic violence and sexual assault. Need to liaise with ED.
- The Sexual Assault Service requires a sterile treatment room for the collection of forensic evidence. (Note this is located with ED however it may not have been included in the ED consultation regarding space and location requirements)
- Office space and car parking space is required on campus
- Services to be community facing or provided in community

- **Staffing solutions**

- Recurrent budgetary constraints are likely to continue and current challenge is to reorient service provision to most vulnerable.

CLINICAL GENETICS

SCOPE OF SERVICES

The SGH Clinical Genetic Service is the referral base for the St George and Sutherland areas. Role delineation is level 5.

Genetic services were initiated at SGH in 1998 to address the growing need of the area's antenatal and paediatric patient population to access prenatal and paediatric genetic diagnosis and management consistent with world standards.

The service was staffed with one genetic counsellor position to specifically service paediatric and prenatal patients in the St George and Sutherland areas. This was augmented in 2005 and again in 2016, by the appointment of staff specialist in Clinical Genetics (now 0.5 FTE). Rapid advances have taken place in the field of healthcare genetics since the 1990s, resulting in an expanding range of genetic and genomic tests available for use by health professionals. Whole genome sequencing (WGS) and whole exome sequencing (WES) are transformative technologies, resulting in vast effects on diagnosis/ management, in all fields of medicine where, before, genetic testing was not considered. This has, and will cause, an escalation in genetic referral from all medical disciplines.

DESCRIPTION OF CURRENT SERVICE DELIVERY

SGH Clinical Genetics services include medical assessment, investigation and diagnosis, genetic counselling, management and monitoring of rare disorders, and the provision of individual and family support.

• Patient demographics

- Pre-natal, paediatric and adult patients; with estimate being 50% paediatric; 30% pre-natal and 20% adult. Adult numbers are growing
- Different cultures attending are representative of the population demographics

• Operational description

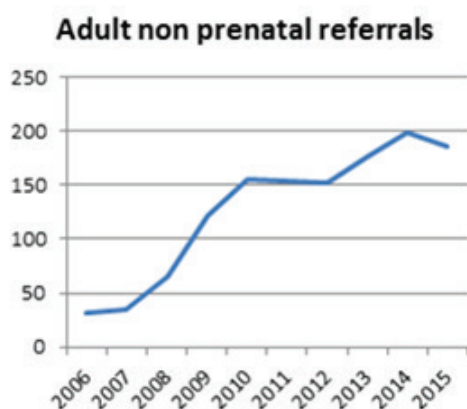
Service provided:

- Clinical Geneticist Clinics: Twice weekly double stream clinics (with Geneticists and Genetic Counsellor) with 3 to 6 patients per clinic. Referrals from other specialists. Patients seen include prenatal, paediatric and adult (diagnostic and predictive)
- Monthly Clinical Geneticist Clinics for patients of the Developmental Disability Service who are referred for a genetic assessment
- On call ward and telephone consultation 7 days a week to Obstetric/Paediatric and adult services at St George and Sutherland Hospitals. This includes neonatal and prenatal referrals that require urgent and complex consultation. Estimate 2 ward consultations per fortnight in special care nursery; and increasingly in adult wards
- Twice weekly clinics + on call supervision of Genetic Counsellor with discussion of intake, triage of urgent/ non-urgent referrals and full review of patients seen
- Genetic counselling support is required for the majority of Clinical Geneticists' clinic appointments including triage, intakes, compiling relevant test results and correspondence, result delivery, follow up clinics, facilitation of testing of at risk family members and data base management
- Genetic Counsellor clinics– 5 days per week, with up to 15 patients per week. Referrals from GPs and antenatal clinics. Patients seen include: urgent prenatal, paediatric and adult referrals. High risk pre-natal referrals are seen in less than 24hours; as are referrals of new born babies with initial assessment in ward, and follow-up consultation within days of birth
- The Genetic Counsellor Clinic schedule also includes a billable weekly double streamed clinics with clinical geneticist. There has been a significant increase in number and complexity of referrals over the last three years (see Graph 2)
- Initial appointment of 1-1.5 hour's duration, followed by 1 or 2 follow up appointments shortly after. There is also long term follow up with paediatric referrals

- Hours of operation: Monday-Friday 0830-1700, with 24/7 on-call
- Key relationships are with Maternity Services and Paediatrics. Review meetings and clinical meetings are held with the SCHN (Randwick) Clinical Genetics Service as part of a broader professional arrangement.

- **Activity**

- Trends non-admitted activity: 2016/2017 data was reduced due to 50% Clinical Geneticist vacancy for 12 months.
- Small percentage of patients don't show for appointments – estimated 5%
- Waiting lists: All referrals are triaged. Non-urgent adult reviews have waiting list of 12-18 months; non-urgent paediatric reviews have a 9-12 month waiting list
- Frequently patients are seen outside scheduled clinics as non-clinic outpatients in order to minimise the waiting period. These are urgent or semi-urgent outpatient referrals that cannot wait for a clinic space. Urgent referrals are seen within 24-48 hours (e.g. prenatal where foetus has malformation or abnormal result). Semi-urgent outpatient referrals are seen within 1 week e.g. new genetic diagnosis in newborn. Current extended waiting times has put an increasing load on patients (adult and children) being seen outside of clinic times
- KPIs proposed which the service does not meet e.g. All children under one year are to be seen within 3 months – this does not always occur
- Pathology spending per test is high.
- Majority of testing is sent overseas (American labs have experience and specialised labs for interpretation, which are not yet available in NSW)
- Use a state wide genetic database to report diagnosis, patient demographics and family history and manage the wait-list (not track activity)



Graph 1. Adult non-prenatal referrals 2006-2016



Graph 2. Genetic counsellor referrals 2013-2016

- **Staffing**

- Medical: 0.5 FTE Staff Specialist Clinical Geneticists (job shared across two 0.25 FTE part-time positions)
- Allied Health: 1.0 FTE Genetic Counsellor
- Administration: 0.9 FTE Administrative officer (job shared across 2 part-time positions 0.4 FTE and 0.5 FTE positions)

- **Infrastructure**

- Currently located adjacent to Women's and Children's Outpatients department in the Pritchard Building
- Two consultation rooms, with one of these being used as an office by Clinical Geneticists

- **Technology**

- Development from single gene testing to large panels of genes testing. Driven the need for overseas testing
- Testing whole genomes – St Vincent's' is being set up to do this.

CURRENT ISSUES AND CHALLENGES

- **Model of care**

- Advancements in genomic testing, and heightened public awareness of genetic testing has resulted in a substantial increase in complex referrals across paediatric, adult and prenatal services
- Developments over the past 10 years in genetic and genomic technologies are driving changes in international clinical practice
- NSW Health recognises changing needs in the genomic area – clinical genetics – and is hosting a number of committees during 2018-2019 to advise on and support the implementation of the recently released strategy
- There is rapidly emerging understanding of the genetic basis of many health conditions and the increasing ability to predictively identify inherited risk for many complex conditions, combined with the impact of such genetic conditions on individuals and families
- Determining individual, clinically relevant, patient testing for rare disorders requires literature reviews, contact with multiple services or research labs, in NSW, Australia or (usually) overseas, coordination of DNA sampling and consent forms, clarification of cost and clinical benefit, and often requires counselling and coordinating testing of additional family members
- Genomic testing has resulted in an exponential increase in the number of possible laboratory tests available and subsequently the number of diagnoses. In the past 15 years, the cost has drastically reduced, as has the capacity to generate results. Results from genetic testing are available now in days rather than many months
- With increasing provision of population genetic screening, through both public and private sector modalities, the demand for genetic counsellors to support individuals and families faced with decisions emanating from the results of the tests will inevitably increase
- There is a drive for more testing during pregnancy – seen in increasing referral numbers; whole genome exome testing will filter down to pre-natal and require extra work for genetic counsellors
- New understanding of the function of gene pathways is raising new treatment possibilities
- Transition from research to clinical care will bring obligations for patient recall and new workloads

- **Activity**

- Activity was reduced in 2016/17 due to 50% Clinical Geneticist vacancy for 12 months
- Currently, most that are referred are seen; though there are long waiting lists for non-urgent referrals (both paediatric and adult)
- There has been a significant increase in non-prenatal adult referrals (see graph 1 below). Note that although adults are seen, the service was not established nor is it funded to provide services to non-prenatal adults
- Increased referral from tertiary referral maternofetal centres (both private and public)
- Increased referrals to Genetic Counsellor (see graph 2 below)
- There are other areas that could be referred, to explore molecular diagnosis to help with decisions, and are not referred or accepted due to staffing capacity
- There is no population screening strategy due to staffing levels and resources

- **Staffing**

- With only one Genetic Counsellor employed, times of leave and illness are not adequately covered; urgent prenatal cases are not attended to and require consultation elsewhere, often at the Royal Hospital for Women, which is already an overstretched service
- There has not been an enhancement of genetic counsellor staff across St George and Sutherland areas since 1998
- The Australasian Society of Human Genetics (HGSA) guidelines for the Structure of Clinical Genetics Units in Australasia, state that adequate staffing for a population of 300,000 is one full time clinical geneticist, one full time genetic counsellor and one support staff member
- Staffing numbers per population are the poorest in Sydney metropolitan area
- A Business Case for Augmentation of Genetic Counselling Staff SGH Genetic Services has been prepared in November 2017

- **Technology**

- Until recently, the molecular genetic testing approach to the diagnosis of symptomatic individuals was carried out by testing one or a few genes at a time. The advent of new technologies, termed genomic testing, which includes whole exome sequencing (WES) and whole genome sequencing (WGS), has allowed genetic variation to be detected down to single nucleotide differences across the genome

- **Infrastructure**

- Consultation room used as office space.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Increased Genetic Counsellor time would result in increased double streamed clinics which will increase Medicare revenue, shorten waiting lists, and make more efficient use of staff specialist time
- Model of care will change with genetic counselling moving into other disciplines – the service can help other disciplines facilitate genetic testing and interpret tests (consultation-liaison role)

- **Infrastructure solutions**

- Location of service is required to be close to working and referral base of paediatrics and obstetrics, specifically special care nursery and antenatal care, to allow for optimal patient care
- Adequate consultation rooms and office space are required
- At present all genetic paper files are kept as satellite files within the department for up to 15 years when they are then archived and kept off site. A system of electronic record keeping is needed to reduce the need for ongoing storage and ease of access while maintaining security and integrity of genetic record in line with the NSW health recommendations regarding the keeping of genetic health records

- **Staffing solutions**

- Increased Clinical Geneticist FTE and Genetic Counsellor to address excessive waiting times
- Note that staffing per population rate is recommended by the Australasian Society of Human Genetics (HGSA) guidelines for the Structure of Clinical Genetics Units in Australasia.

COMMUNITY SERVICES - OLDER PEOPLE

SCOPE OF SERVICES

The Directorate of Primary, Integrated and Community Health is responsible for the provision of Commonwealth funded community services to adults in the St George area. These services include Aged Care Assessment (ACAT), ComPacks, TACP, CHSP and the CCSP.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- ACAT & CHSP: Most clients are aged 65 years and over (50+ for the Aboriginal population).
- ComPacks : is available for all adults, however most clients are the frail aged
- CCSP: Provides community based services to clients under 65 years (funding for CCSP will fully transition into the NDIS by June 2018)
- Key factors driving current demand:
 - Growing aged population
 - Increasing numbers of frail people with complex needs and multimorbidity living in the community
 - Increasing numbers of people with dementia and challenging behaviours , including younger adults with dementia living in the community

• Operational description

- All referrals for Commonwealth funded Aged Care services go through the My Aged Care system
 - ACAT services are provided within the hospital and the community setting and are triaged according to need and in accordance with Commonwealth KPI definitions. ACAT services are provided by CHCK for SGH inpatients and residents in the St George area. ACAT provides comprehensive Aged Care assessment to determine suitable care and service options for clients including approval for residential aged care home packages, respite and TACP
 - Regional Assessment Service (RAS): SESLHD RAS is based at POWH and provides services across the SES region. RAS assesses people in the community requiring home support services from the CHSP
 - ComPacks provides up to 6 weeks of packaged home care services to people on discharge from hospital services (no nursing or allied health) to facilitate a safe and timely discharge and to prevent re-admission to hospital
 - TACP provides time-limited, goal-oriented and therapy-focused packages of services to older people after a hospital stay for up to 12 weeks. Includes allied health, nursing and personal support to return home and avoid residential care. The CHCK TACP service is funded to operate 41 TACP places per day for clients in the Kogarah, Rockdale and Hurstville LGAs
 - CHSP: Provides community based services to older Australians over 65+ years (or over 50yrs for Aboriginal people)., Entry to CHSP requires a RAS assessment and services provided under CHSP may include community nursing, allied health, transport and a range of other and home support services . Community nursing services are provided through CHSP funding by STG community nursing. Allied health (OT, Podiatry and Dietetics), Dementia Day Care and respite CHSP services funded under the SESLHD CHSP agreement are currently provided by CHCK in the St George area
 - CCSP: Funding for this program is currently provided by Ageing Disability & Homecare and these funds will fully transition to the NDIS by June 2018
 - Home care Packages: require approval through an ACAT assessment, but Home Care Packages are currently not provided by SESLHD

- The Aged Care Community Services described above are provided Monday to Friday in business hours. No weekend services are provided, except at CHCK which provides respite on Saturdays
 - Access, Intake & Referrals for Commonwealth funded Aged Care services are received electronically via the My Aged Care system
 - Processing of referrals from My Aged Care is currently at multiple different locations i.e. ACAT has a Centralised Intake Service located at WMH, RAS intake based at POWH, Intake at NNARC for northern SESLHD community aged care services; STG ARC for St George community aged care services and Southcare also has intake for aged care services
- **Staffing**
 - CHSP Community Nursing (based at SGH and CHCK)
 - CHSP Allied health (based at CHCK)
 - ComPacks located at Southcare Community Health & provide to St George clients
 - ACAT & TACP for St George located at CHCK
- **Infrastructure**
 - ACAT provide assessments in hospital and in the community
 - TACP & ComPacks provide assessment in hospital and then packaged care in the community
 - Majority of CHSP & CCSP services are delivered in the community - except respite and Day Centres.

CURRENT ISSUES AND CHALLENGES

- Increasing numbers of complex, frail elderly and people with dementia living in the community requiring assessment and provision of community services, with capped numbers of services available
- There are limited dementia specific RACF places in St George and this creates difficulty in finding suitable accommodation options for those with dementia or challenging behaviours. The needs of younger adults with dementia and severe brain injury are currently not fully met by the disability sector
- System and process issues with My Aged Care may create difficulty in navigating the system and impacts on timely access to services. Potential impact of NDIS on provision of services by the SESLHD in the future
- Client eligibility determination for NDIS can be a lengthy process and may potentially cause delays to discharge and access to services
- Services for those under 65years who are not NDIS eligible will require ongoing service arrangements and may still present to Health in the absence of CCSP funding. Many people with chronic disease are not eligible for NDIS, e.g. chronic obstructive pulmonary disease (COPD) and some neurodegenerative diseases, and may result in poorer health leading to avoidable presentations and/or admissions
- Many people (possibly up to 50%) currently receiving CCSP services will not be eligible for NDIS services
 - Waiting list:
 - All ACAT referrals are prioritised in accordance with Commonwealth KPI definitions and lower priority clients in the community may wait longer (up to 36 days). In 2016/17, SESLHD ACAT had the highest number of referrals in NSW. The numbers of inpatient ACAT referrals have increased in the past year and this additional demand impacts on the activity of ACAT services
 - Unmet demand
 - Limited services are available for adults under 65 years with existing available packages

- **Technology**

- There is currently no centralised intake for SES Community services (except for ACAT)
- Other significant issues
 - Impact and consequences of NDIS is unknown for SESLHD residents and services provided by the SESLHD
 - Increasing frailty and complexity of people referred for services.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Continue the provision of ACAT, RAS, TACP, CHSP and ComPacks for St George residents
- Participate in a multidisciplinary approach in the Ambulatory Care Precinct
- SESLHD continue to work with the Ministry of Health and ADHC to improve services for people requiring NDIS-like services but who are currently ineligible

- **Infrastructure solutions**

- Consider a co-located dedicated space for all Child and Family and another for Aged care community services and outreach services in the Ambulatory Care Precinct at SGH
- Consider needs of the frail elderly and cognitively impaired in the access to and design of an Ambulatory Care Precinct
- Foster a “healthy neighbourhood” within the Ambulatory Care Precinct
- Consider a dedicated and purpose built intake service room somewhere in the SESLHD
- Consider transport solutions/access to transport to Precinct, particularly for frail elderly

- **Technology solutions**

- A centralised intake for District Aged Care and Child and Family Services was proposed in the Griffiths Cowper Access Intake and Referral report. One of these intakes could potentially be located in the SGH Ambulatory care precinct, with co-located offices, database, IT systems, etc.

- **Staffing solutions**

- Continue staffing resources for SGH and CHCK community services within funding parameters
- Consider SESLHD future funding opportunities for CHSP allied health community services (not currently funded).

CORPORATE SERVICES

SCOPE OF SERVICES

Corporate services supply a wide range of non-clinical services that support the effective operation of clinical services for the St George Hospital campus and community health centres in the St George area. Services include:

- Engineering
- Fire Safety
- Security

- Biomedical Engineering
- Facilities Management of Community Health Centres
- Patient Transport (for transport not provided by NEPT)
- Linen transport (contracted service)
- Receiving Dock and goods transport
- Waste Management
- Administrative Assistants
- SGH Support Services
- Wardspersons
- Porter (internal non-patient transport)
- Communications
- Lorikeet Child Care Centre
- Volunteer and Chaplaincy service
- Ground staff.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- Services are provided from a number of locations around the Campus:
 - A new Services Centre was built in conjunction with the recent redevelopment, and accommodates Maintenance, ISS (Contracted Cleaning), linen, receiving dock, waste, gases and food services delivery
 - The new Receiving Dock allows improved delivery of services (linen, food, medical supplies, etc.), storage of waste and flow of traffic, and has direct access to kitchens for food delivery
 - Waste management department has recently acquired 2 new compactors and is working on new pathways to minimise waste and its collection and storage, e.g. new recycling streams, reducing packaging
 - Linen (clean and dirty) is transported to and from the receiving dock
 - Engineering is located in the Services Centre, and includes engineers and a variety of tradesmen (carpenters, painters, electricians, signwriter, air conditioning mechanic). Engineering services provide maintenance, scheduled servicing and repairs across the campus
 - Two Fire Safety Officers are located in James Laws House and manage fire safety and fire safety staff education on campus
 - Security is based in a demountable on top of the Hydrotherapy Pool and the area has recently been refurbished with a new control room and new cameras for the ASB. There is also a separate base in ED. Services are provided 24 hours per day, 7 days per week
 - Patient transport provides transport for patients to attend appointments at Cancer Care and Renal Dialysis, 7am – 10 pm, 6 days per week. Currently has a wagon, minibus and ambulance parked on site
 - Biomedical Engineering provides maintenance of Biomedical equipment on campus, and is located behind the Services Centre, with easy dock access. A service is also provided to TSH, managed from SGH
 - Communications:
 - Switch and the current PABX system is based in the Prince William Wing. With the introduction of the new Wi-Fi VOIP system, PABX will no longer be required (however Switch will be maintained). The service at TSH is compatible and managed from SGH
 - Manage Disaster Management plan (Disaster room is located in ASB)

- Ground Staff provide the maintenance of external grounds (gardening, cleaning footpaths, garbage collection in outside areas, cigarette butt removal) on the SGH campus and Community Health Centres, and are currently located in a demountable on campus
 - The Porter transports medical records and some removals e.g. waste, furniture
 - Lorikeet Child Care Centre provides 59 child care places for employees and is located in a separate building on Chapel St. Waiting list, high demand for places. Currently temporary parking for drop off and pick up.
 - Volunteer and Chaplaincy Service will soon be provided in a refurbished space in a demountable on Belgrave Street, with prayer rooms and office space
- **Staffing**
 - Security: 21 FTE (9 extra for ASB)
 - Patient transport: 2 FTE (additional driver proposed)
 - Engineering
 - Porter 1FTE
 - Lorikeet Child Care Centre 17 FTE
 - Biomedical Engineering 9 FTE

CURRENT ISSUES AND CHALLENGES

- The older building stock on campus requires constant maintenance
- New and evolving technology requires new contracts to service and maintain equipment
- There are multiple vendors for systems across the campus, e.g. Building Management Systems in each building are not compatible – currently 3 different systems on campus, each with own contractors
- Parking for hospital vehicles on Campus is limited, and there would not be adequate parking available for any expansion in services that required hospital vehicles
- Parking access will be required for proposed services having to relocate to a new building. The current staff waitlist for parking is quite extensive
- Lorikeet Child Care Centre has temporary parking for drop-off and pick-up which may need to be reviewed if services increase
- The Lorikeet Child Care Centre building size will not cope with extra demand as the site is landlocked – it currently accommodates 56 children per day
- Traffic to the new receiving dock can sometimes interrupt supply, and delivery times should ideally be staggered to enable efficient flow
- New compactors for waste management will help storage of waste, however new pathways for waste minimisation will need to be introduced to meet increased demand into the future
- There is no multifaith spiritual centre currently on campus and current facilities for chaplains and volunteers are inadequate
- Recruitment of tradespeople is currently difficult due to wage structure resulting in limited available suitable applicants.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**
 - Work with HealthShare and OneLink to stagger delivery times through day and at weekend to allow improved flow of deliveries and better management of traffic to dock

- Continue to work on minimising waste across the campus
 - Review contractual arrangements for provision of contracted services to provide common vendors for equipment/services across the campus
 - Ensure adequate space for storage of increased supplies and equipment required for new building, e.g. bariatric equipment, medical supplies (dressings, infection control and other disposables, etc.)
 - Any new contracted services would have to factor in the increased activity/requirements from the new building, e.g. increased linen, waste, cleaning, servicing of equipment, etc.
 - Consider local minibus service, potentially in collaboration with local Council, to provide transport to offsite parking for staff and/or to station for staff/patients/visitors to alleviate parking issues in precinct
 - Link bridges to existing buildings will assist with future patient transfers and deliveries, this will reduce lift usage
 - The proposed privatisation of the Dialysis Service may impact on the patient transport service. If Dialysis Service moves offsite additional services (Drivers) will be required
 - Linen / Waste – ensure utility rooms are considered in the plans for any future build, similar to the ASB
- **Infrastructure solutions**
 - Review the need for extra security/security cameras for the new Ambulatory care centre
 - Review the adequacy of existing power plant for new building. A new substation will be required to cope with the additional electricity demand. Existing power supply has reached capacity
 - Ensure separate dedicated service lifts (appropriate width for transport of linen trolleys, etc.) are provided in new buildings
 - Ensure utility rooms are provided in new building (similar to ASB) for storage of dirty linen, waste etc.
 - Ensure space for cleaning equipment
 - Ensure access to green space on campus for patients and staff
 - Ensure sufficient parking is available for staff service vehicles
 - Ensure space for bicycle parking is included, adequately secure and close to showers for staff: currently 32 spaces are available on Kensington St. This is a Council requirement aligning with strategic direction for the city
 - Review technology at patient bedside (to be compatible with new technology in ASB)
 - Consider implications of new building on engineering services, e.g. electrical, fire systems, generators, air conditioning, medical gases, etc.
 - Ensure location of fire sprinklers in new building is compatible with local plant and equipment and service delivery; and appropriate systems for communications/plant rooms with high tech equipment (water system not suitable)
 - Consider the inclusion of a purpose built multifaith spiritual centre, with adequate office space for chaplains, and dedicated office space for volunteers on campus
 - If Switch/communications is moved to the new building, ensure appropriate staff facilities are provided for a 24 hour service (ensuite, kitchen) and emergency power and UPS backup provided in a secure zone with swipe card access, ideally located close to after-hours manager's office
 - Ground staff and equipment are in temporary housing and require permanent accommodation
 - Be mindful and sensitive when relocating offsite services i.e. A&OD. Look at separate entrance/exits for this client group to not impact on the neighbouring services
 - The Receiving Dock may need to increase to accommodate more vehicle parking for deliveries. Potentially this could be achieved by removing the 2 demountable buildings that are adjacent to the existing dock and expanding into this footprint. The 2 demountable buildings currently accommodate the Pelvic Floor Unit and the proposed relocation of the Chaplaincy Service

- **Staffing solutions**

- Ensure staffing levels are commensurate with increased activity and demand for services
 - Security – additional 4FTE
 - Wardpersons increased staffing levels from 50 to 65 to accommodate ASB requirements. Approximately 5 – 10 FTE to cover distances and proposed clinical requirements.
 - Engineering – current resources will not be able to service any future growth to the campus. Additional 5 FTE resources will be required.
 - Waste – additional 1 FTE
 - Linen – additional 1 FTE
 - Porter – additional 1 FTE
 - Cleaning – this information will need to be supplied by the cleaning contractor once services have been confirmed.

DERMATOLOGY

SCOPE OF SERVICES

The Dermatology Department provides a level 6 role delineation service for the diagnosis, treatment and medical management of people of all ages with skin problems. It is an academic department designed to see complicated tertiary referral cases and to teach dermatology to junior doctors and medical students. The department provides a state wide service for the treatment of adults with epidermolysis Bullosa (EB).

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**

- People of all ages are referred to the Dermatology department with severe skin problems, skin cancer and when skin disease may be a part of the patient's condition
- In addition to ageing population and population growth, a factor driving current demand is that private practice dermatology is all out of pocket expense for patients and the only public dermatology services in the SESLHD district are at POWH and at SGH

- **Operational description**

- Outpatient clinics include:
 - Adult outpatient – for patients with complicated conditions referred by other consultants at the hospital, often admitted to hospital and skin disease is part of problem
 - GP referral clinic for skin cancer, which needs access to good procedure rooms
 - Statewide clinic for patients with epidermolysis bullosa, which uses a specialty designed EB bathroom (funded by charity) and bed for infusions. This is a MDT arrangement in ambulatory care
 - UV Treatment Centre attached to outpatients with patients attending 3x week for 6-12 weeks
 - Paediatric dermatology clinic, with patients predominantly presenting with eczema. Mostly from Chinese background. Note that SCHN and POWH do not see people with eczema
 - Consultation service for hospital patients with skin problems – admitted patients and in ED department
 - Occasionally admit patients with severe skin problems - usually co-admit with other teams due to lack of on call coverage
 - Referral centre for blistering disease (EV, pemphigus), come for second opinions or referred by other dermatologists. IVIG infusions in ambulatory care (retugicug infusions)

- Role delineation: current Level 6
- Level of service: tertiary with state wide role for certain conditions
- Hours of operation: Business hours 4 days per week, with after hours on call. Limited by staffing e.g. when specialist is on leave, part-time VMO cover
- Key relationships are with Plastic Surgery, Short Stay ward (e.g. cellulitis), Infectious Diseases, Rheumatology (autoimmune), Respiratory, Palliative Care, Ophthalmology, Pain team, Sexual Health and Paediatrics
- **Activity**
 - Trends non-admitted activity: Activity has dropped in past 3 years due to staff specialist vacancy and access to space. This is expected to change with the commencement of a staff specialist in early 2018
- **Staffing**
 - Medical: Clinical academic (medical) 0.8 FTE with 100% on-call. Non accredited registrar 1 FTE. Clinic time from fellows provided by private practice
 - Nursing: EV Nurse 0.4 FTE funded by charity, will cease from July 2018
 - Administration: Personal Assistant to the Clinical Academic
- **Infrastructure**
 - Clinics were in Ambulatory Care but were moved into Outpatients, and now not enough nursing staff to run while outpatient clinics are on. Need access to nursing staff, so Ambulatory Care was preferred location.

CURRENT ISSUES AND CHALLENGES

- Constraints on activity: 50% reduction in staffing with vacant staff specialist during past 3 years, with further impact on supervision of junior staff
- Waiting list of over a year for adult Clinics; instructed GPs not to refer
- Clinics restricted to referrals from other specialist (more complicated skin problems) due to staffing and clinic space
- Paediatric clinic held once per month due to space availability. (Capacity for more patients)
- UV – nurses administer as prescribed by dermatologist. Was running satisfactorily in ambulatory care where there were more nurses, now moved into outpatients and not enough staff to run while outpatient clinics are on
- Ambulatory care and outpatients need to be easily accessible to public, due to number of patients in wheelchairs
- Transfer by ambulance from Sutherland Hospital if consult from dermatologist is need and then admitted as inpatient at SGH: private dermatologists adjacent to Sutherland won't provide service to hospital
- Infrastructure – access to clinic space and specific specialised equipment (see under proposed solutions).

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**
 - Podiatry with dermatology – e.g. assist with EB patients, leg ulcers, warts, painful callouses on feet, fungal infections (current podiatry service focus is on people with chronic disease (e.g. diabetes). Potential visiting podiatrist, could be billable but requires access to procedure room
 - Relocation with Ambulatory Care
 - Teledermatology --- if government could relieve current provision for live telemedicine would increase efficiency

- Review provision of paediatric clinics in Ambulatory Care
- Paediatrics blood tests to be available after 3pm
- Access to nursing staff; and with planned increase in staff specialist will allow additional clinics
- Estimated service demand suggests that a clinic is needed every day (M-F), provided more staff specialists hired & ideally a biologics dermatology nurse. E.g.: Liverpool Dermatology has 3 nurses

- **Infrastructure solutions**

- Procedure room for doing biopsies and excisions; with hydraulic chairs (fold in 3) rather than beds to allow access; or if an examination bed then needs space on each side to access. Procedure room could be shared with Plastic Surgery. Every clinic would use (current inefficiencies and disadvantage to patients as they have to return for procedures following examination)
- Dedicated telemedicine facility within Ambulatory Care/Outpatient facility – to reduce number of patients transferred from Sutherland Hospital for consults; enable outreach to other facilities (e.g. currently consult to Alice Springs and run indigenous clinics; consult to GPs including with GP in nursing home (funding limitation as treatment is only paid for if patient is with GP). Facility could be shared with other departments
- Blood collection close to Ambulatory Care Centre
- Photo Dynamic Therapy (PDT) - lamp that allows to treat skin cancers with a cream
- Capacity to photograph and better system for storing and making accessible patient images. Patients with melanoma and dysplastic moles, rashes which may change over time – photographic monitoring of skin. Melanoma Unit at RPA and RNS Hospitals have camera systems. At SGH there is no facility to upload and view photographs (public patients are asked to take own photos, but no upload capacity)
- More dermatoscopes (5) and woodslides (1)
- Hyfrecator needed to stop bleeding if patient has a bigger excision that might bleed (RPA and POWH have this)

- **Staffing solutions**

- Nursing position: 0.6 FTE for wound dressings could be combined with 0.4 FTE (EB Nurse)
- Access to nurses to assist with UV and procedures.

DIVERSITY HEALTH SERVICES

SCOPE OF SERVICES

The Diversity Health team at St George is responsible for driving the responsiveness to our CALD population, people with disabilities and other diverse/disadvantaged groups. This includes the implementation of relevant policies at the local level, quality improvement activities, community outreach programs and partnership initiatives, which are aimed at improving access, health literacy and health outcomes.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**

- SGH&CHS serve an increasingly multicultural and diverse population across all age groups
- The largest CALD population group is from China (Mandarin and Cantonese speaking)
- Emerging and growing populations in the St George area include people from Nepal, the Indian sub-continent and Mongolia, who are mostly younger adults

- There is a growing refugee population, particularly from Syria, Iraq, Iran and Egypt, who are living with experiences of trauma
- The main factors influencing demand are:
 - There are large numbers of aging people from CALD in the St George community, many of whom are living with multi-morbidities and who have trouble navigating the healthcare system and have poor health literacy
 - There is an increasing demand for interpreter services due to the increase in the NESB population
 - There is increasing demand for programs for specific language groups, e.g. Cantonese, Mandarin and Arabic
 - Poor health literacy across many migrant groups, particularly new migrant groups, who are also not aware of services available or how to access services
- **Operational description**
 - The team works closely with a range of stakeholders including patients, carers and families, local community members, clinical staff, Mental Health Services, the Multicultural Health Service, Aboriginal Liaison Service, Health Promotion Service, Interpreter Service, Equity Coordinator, TAFE, Cancer Council, and local NGOs
 - Some services work across both SGH and TSH, e.g. Aboriginal Liaison Officer, Mental Health Community Development Coordinator
 - Services are available Monday to Friday during business hours
- **Models of care**
 - producing educational material, including culturally-appropriate translated material, on a range of health topics
 - consulting patients, families, carers and staff to hear about their experiences
 - conducting research and implement practical projects such as auditing the use of interpreter services
 - running education and training programs for staff in diversity-friendly practices, improving hospital processes, communication skills, writing plain English and how to manage the translation process, e.g. the Teach Back Program, which ensures patients understand instructions on discharge
 - producing diversity friendly Wayfinding around the Campus
 - providing health education outreach for the community
- **Staffing**
 - Diversity and Aboriginal health 4.18 FTE in total across SGH and TSH and 0.6 FTE at CHCK
 - The majority of staff are part time and work across all cultural communities, i.e. not language specific programs
- **Infrastructure**
 - SGH Diversity Health offices are located in the Pritchard Wing (ground floor) and are part of the Social Work Department
 - Educational and key events are provided in locations around the community, at the SGH Education Centre on Belgrave Street, and at outdoor locations on the Campus
 - There has recently been a room allocated in the Tower Block for Aboriginal patients and their families/carers
 - The Interpreter Service is based at RPA, with a centralised booking system managed there. Offices for interpreters are currently provided in James Laws House and Prichard Wing.

CURRENT ISSUES AND CHALLENGES

- **Changing patient demographics**

- The increasing CALD population means the service is busier and managing with no increase in staff
- There are increasing numbers of people with poor health literacy that require education in navigating the system as well as education in self-management of health, prevention and screening programs, medicine management, etc.

- **Models of care**

- There are no new programs or services currently planned
- Screening in multicultural populations, e.g. for cancer prevention, has shown that many carers do not access prevention programs and this is a growing area that will increase demand for hospital services

- **Technology**

- Wi-Fi is not always reliable across the Campus
- There is no common access to shared drives on the SGH and TSH Campus, which limits ability to share information across the campuses

- **Infrastructure**

- There is limited storage space, e.g. for educational materials, pamphlets, and promotional materials etc.
- Co-location of workforce is essential for effective communication
- There is currently no multi-faith chapel space for use of patients, families or carers or quiet “reflective” space for staff
- There is limited access to outdoor space for key community or staff events on Campus
- Diversional therapy programs in Aged Care do not have room for their activities or storage of equipment
- Spaces for community educational programs are limited and costly
- Outdoor space on campus for key events is limited

- **Staffing**

- Potential for increasing services is limited due to staffing availability
- Current staffing levels with part-time staff inadequate to meet the increased demand from the growing diverse population.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Increasing health literacy programs, e.g. potential for educational sessions on medicine management (polypharmacy coaching), particularly for elderly people
- Increased interagency work including linking with GPs and PHN to keep people healthy in the community

- **Infrastructure solutions**

- Provision of a group education room(s) (shared) in a new Ambulatory Care building e.g. that better caters for health literacy programs, education programs, and specific language group programs. Would include a community noticeboard for information sharing
- Diversity Health offices should be co-located, closely linked to social work services

- Storage space for pamphlets, educational materials, promotional materials, etc.
 - Space (including storage) for diversional therapy activity in Aged Care
 - Access to designated outdoor space for key events
 - Retain Aboriginal room for patients, families and carers on campus
 - Create a multi-faith / reflective space on campus for patients, families, carers and staff, separate from clinical areas
- **Technology solutions**
 - Robust Wi-Fi in areas of the campus
 - Shared access to TSH/SGH sharre drives for those who work across both campuses to share information data and community resources
 - More dual handsets for intrepeter service
 - Video conferencing capability
- **Staffing solutions**
 - Increased FTE to meet the increasing demand for services in Diversity Health, including:
 - 1 x FTE Aboriginal Liaison Officer at each of TSH and SGH (currently 1 FTE across both sites) with a gender balance to support cultural sensitivity for men's and women's business
 - Increase Multicultural workers x 2 from 0.32 FTE each to 0.5 FTE each.

DRUG AND ALCOHOL SERVICES

SCOPE OF SERVICES

The Drug and Alcohol Service is funded to provide community based services to people in the St George area who misuse illicit and pharmaceutical drugs and/or alcohol.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**
 - The service caters to people aged over 16 years with the largest cohort of clients aged over 40 years and the biggest increases in the population aged 50 - 70 years
 - There is a high prevalence of drug and/or alcohol misuse in the community
 - The service has a high proportion of CALD clients reflecting the area's demographics
 - Proportionally more men (approximately 66%) attend the service than women (approximately 33%)
 - Many clients have comorbidities of drug and/or alcohol misuse and mental health issues
- **Operational description**
 - Case management, medical reviews, counselling and group sessions provided Monday – Friday 8am – 4.30pm
 - Methadone dosing is provided 365 days per year between 8am – 12md
 - Outreach counsellors also provide a limited service in the community
 - Management of the service is by the District Drug and Alcohol Service

- **Activity**
 - Clinic attendance has been steadily increasing
- **Models of care**
 - There is some integration between drug and alcohol and mental health services
 - Inpatient admitting rights are limited to Monday and Tuesday / Thursday
- **Staffing**
 - Nursing: Nurse Manager, Clinical Nurse Consultants, Clinical Nurse Specialists, Nurse Educators, RNs
 - Medical: Registrar, Specialist Medical Officers
 - Allied Health: Psychologists, Counsellors, Occupational Therapists, Social Workers
 - Support services staff: administrative/clerical staff, etc.
 - Staffing numbers are allocated to St George as 15.6FTE in Non-admitted services, 0.3FTE inpatient admissions, 2.2FTE Hospital Drug and Alcohol Consultation Liaison Services, 0.6FTE Chemical Use in Pregnancy Service
- **Infrastructure**
 - Drug and Alcohol Services are accommodated in the South Street building (shared with Immunology)
 - The layout of clinical spaces includes:
 - Ground Floor: 4 counselling rooms, 1 outpatients clinic, methadone consulting rooms and/or dosing room
 - First Floor: 2 counselling rooms.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**
 - It is expected as the population increases the demand for Drug and Alcohol Services will increase
 - The biggest increase has been in the population aged 50 - 70 years and this is expected to continue
 - There are challenges accessing some CALD groups e.g. 60% of pregnant mothers who misuse drug and/or alcohol are from a CALD background
 - There is a need to have greater involvement of client's family and their community
 - The impact of long acting preparations in the management of substance abuse is not known
- **Constraints on activity**
 - Avoidable admits / referrals:
 - Some ED presentations and/or admissions to hospital (e.g. falls, pain management, etc.) could be avoided with improved management of drug and/or alcohol misuse in the community
 - Clinic attendance
 - Some clients don't attend the Service as they don't want to be associated with drug and alcohol misuse whereas other clients need a safe and welcoming environment
 - Potential changes in care settings
 - Community pharmacy treatment is not free

- Unmet demand
 - Many ED presentations and/or admissions to hospital are associated with drug and/or alcohol misuse but are not referred to appropriate drug and alcohol services

- **Infrastructure**

- The existing building is structurally unsound; has a dysfunctional layout, safety, security and access issues; the waiting room is too small for the high number of clients seen and there is no separation for clients who need to bring their children; there is no space to hold outdoor activities

- **Staffing**

- Currently staffing is for a community health service but there is a need to consider acute patients requiring Drug and Alcohol Services. However, this would require diversion of funding from acute hospitals to Drug and Alcohol Services.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Continued close integration with Mental Health Services
- Admitting rights for Drug and Alcohol Services need to be extended to Friday and Saturday nights when most drug and/or alcohol associated injuries occur
- There needs to be improved integration of drug and alcohol services with acute care
- There is a need to change the locus of care from acute to community settings
- Consider the impact of long acting preparations in the management of substance abuse

- **Infrastructure solutions**

- Counselling and outpatient rooms are standard rooms with no specific requirements
- Non-clinical care rooms include multidisciplinary, clinical handover, telehealth and research rooms
- Methadone dosing needs to be accessible 365 days per year, requires space to securely store Schedule 8 drugs, capacity to separate staff from clients, access to pharmacy and ED.
- Dedicated drug and alcohol beds

- **Staffing solutions**

- Supporting inpatient services would require an increase in staff including 3 FTE Clinical Nurse Consultants, 0.5 FTE registrar, 1 FTE Clinical Nurse Educator

Relevant supporting documents

- SESLHD *Drug and Alcohol Clinical Services Plan 2017*.

EAR, NOSE AND THROAT SERVICES

SCOPE OF SERVICES

Ear, Nose and Throat (ENT) services provides inpatient and outpatient services for adults and children who suffer from ear, nose and throat disorders, salivary gland disorders, pharynx tonsil & adenoid problems and neck masses/inflammation.

The service is provided across both St George and Sutherland Hospitals although the information in this paper relates only to services provided at the St George campus.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**

- The patients treated by the service are both children and adults with approximately 50% of patients being older adults
- Main drivers of demand is the increasing and ageing population and the prevalence of some cancers
- Recognition of many patients having English as a second language

- **Operational description**

- Inpatient beds across ENT/Head and Neck ward, paediatrics, ICU 1/2 as well as consults on all inpatient units particularly ED
- ENT clinic – at present one small non-purpose built room that is logistically difficult
- ENT combined assessment weekly in Head and Neck Clinic in Cancer Care Centre
- Neonates are consulted on in hospital and operations older than 1 year of age. Many paediatric patients are seen in ED and if complex may be referred to Sydney Children's Hospital

- **Activity**

- Outpatient activity is being investigated to ensure an accurate count
- There are approximately 30 ED consultations per week and 15 ward consultations
- Inpatient separations have been variable over recent years, while the average NWAU (reflecting increasing cost and complexity of patients) and average length of stay has been relatively stable
- Most paediatric activity is related to a single issue whereas adults tend to present with comorbidities

- **Models of care**

- Referral from GPs or ED
- Appointment reminders are sent by SMS reminder
- Close collaboration with respiratory, ED, intensive care

- **Staffing**

- Medical: 8 VMOs, with 7 of these on a rotating on call roster, 2 registrars covering STG and TSH (one accredited and one non accredited), 1 intern (shared) at TSH and 1 intern at SGH
- Nursing staff
- Administration: no administration staff, at present bookings are made through ambulatory care.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- It is expected in the future there will be increasing numbers of patients with long term ENT conditions with or without co-morbidities
- Increasing rates of obesity will result in more patients having restricted air entry leading to more complex airway management
- Increased incidence of human papillomavirus (HPV)-mediated oropharyngeal cancer in younger patients
- Increasing paediatric demand

- **Constraints on activity and models of care**

- Waiting list: there is a 4-6 month wait for consultant clinics and 2-3 weeks for registrar clinics
- Avoidable admits: Clinicians consider there is opportunity for some known ENT and/or bariatric patients to avoid presenting to emergency, being admitted to hospital and/or reducing the length of stay if rapid access clinics were available
- Limited coordinated care: Improvements could be made through pre admission assessment of airway with Respiratory to improve inpatient admission and post-operative recovery
- Lack of comprehensive care: Multidisciplinary clinics (e.g. combined ENT and Respiratory clinic) could provide more comprehensive care
- Inappropriate referrals: there are some patients whose health could be managed by GPs rather than being referred to a specialist
- Improved cancer screening for NESB populations
- Improved oral health screening

- **Technology**

- Nationally and internationally hospitals are using technology to improve monitoring and screening patients (e.g. ScreenIT App¹⁸¹ assesses swallowing, nutrition and distress in head and neck cancer patients undergoing chemotherapy and/or radiotherapy improving the clinical management and providing an efficient and effective alternative to additional clinical appointments)

- **Infrastructure**

- The most significant infrastructure issue is ENT services are remote from Acute Services Building housing emergency, intensive care, operating rooms and the respiratory ward all requiring urgent access to ENT services for safe airway management
- There is also a lack of paediatric ENT equipment
- Need for audiology facility to undertake audiograms on inpatients and outpatients.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Establish 3-4 multidisciplinary clinics for the management of ENT/respiratory patients to streamline flow
- Consider other multidisciplinary clinics for complex patients (e.g. ENT, head and neck, swallow and respiratory clinic for proactive management and/or monitoring of patients at risk of aspirating)
- Conduct pre-operative assessments of patients with complex airways disease then develop a clinical management plan for their post-operative care
- Establish rapid access clinics for known patients rather than them presenting to emergency
- Provide timely access to clinics
- Support Health Pathways to reduce inappropriate referrals and improve patient care
- Establish a paediatric ENT clinic

- **Infrastructure solutions**

- 2 multi-function purpose rooms – one set up for ears and general review and one set up as large Airway MDT assessment area
- MDT area to be utilised for Airway Management and combined ENT/Respiratory clinics

¹⁸¹ URL: <https://metrosouth.health.qld.gov.au/innovationcentral/project/screenit-revolutionary-app-solution-for-head-and-neck-cancer-patients>. Accessed 29 September 2017

- Ensure close adjacency with the Acute Services Building (operating rooms and ED) to enable urgent access for respiratory services to respond to patients with acute airway obstruction
- Consider adopting new technologies to improve screening and monitoring of patients
- Ensure access to microscope and paediatric ENT equipment
- Provide an audiology facility.

ENDOCRINOLOGY AND DIABETES EDUCATION CENTRE

SCOPE OF SERVICES

The Department of Endocrinology and Diabetes (DoE) provides a level 6 role delineation service in a range of disorders including Diabetes (type 1 and type 2 diabetes, gestational diabetes (GDM)), osteoporosis and metabolic bone disorders, parathyroid & calcium disorders, hypertension due to adrenal disorders, infertility, Polycystic Ovarian Syndrome, thyroid disorders, menopause, lipid disorders, pituitary disorders, growth disorders, and tumours of an endocrine gland.

The Endocrinology Department provides medical undergraduate and postgraduate training. It is also a participant in translational research activities, with a clinical trials lab and staff collocated with the Department.

The Diabetes Education Centre (DEC) works closely and is collocated with the Endocrinology Department. The Centre provides outpatient services to educate and support people with diabetes, their families and/or carers, to enable them to manage their diabetes on a day-to-day basis and achieve the best possible health outcomes. Referrals are accepted for Type 1 diabetes, Type 2 diabetes mellitus requiring insulin treatment, (initiation and re-stabilisation), gestational diabetes and unstable type 2 diabetes mellitus.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Patients seen by both services are adults and paediatric patients transitioning to adult care. Paediatric patients are managed by Paediatricians, and older adults with diabetes are managed by Geriatricians
- The local population is growing, aging and becoming increasingly diverse, with recent increases in people from China and East Asia, who have a higher prevalence of diabetes and gestational diabetes
- The LGAs of the St George catchment have the highest prevalence of diabetes in SESLHD

• Operational description

- The majority of services are provided on an outpatient basis, with people managing their conditions in the community with the support of their primary health practitioner and Endocrinologists and the Diabetes Education Centre when required
- Clinics are held Monday to Friday within business hours
- Sources of referral include the ED, primary health providers, and other specialists/ departments on the SGH campus for consultation or management of an endocrine comorbidity
- Services provided by the Endocrinology department include:
 - Inpatients
 - Consultation service and/or conjoint care to other specialties and to the St George Private Hospital

- Outpatient services including:
 - * Endocrine clinic
 - * Diabetes clinic
 - * Transitional and Pregestational clinic
 - * Gestational Diabetes clinic
 - * Osteoporosis clinic
 - * Early discharge clinic for follow up of inpatients
- The Diabetes Education Centre provides:
 - a 5 day per week outpatient service, with 5 clinic rooms in use at all times
 - a consultant inpatient service

- **Activity**

- Inpatient admission for Diabetes and other Endocrinology patients are generally for short-term interventions for the seriously ill, and complex patients with devices such as subcutaneous insulin pumps. Activity has been rising steadily over recent years, with the increasing incidence of diabetes due to the rise in obesity and chronic disease, the cultural mix of the population and the aging of the population
- Outpatient activity demand has increased significantly due to:
 - Numbers of patients with gestational diabetes and post gestational diabetes increasing due to increased immigration of young women from China, India, Nepal and Bangladesh living in the SGH catchment. Gestational diabetes now forms the largest patient group for the DEC
 - The aging population is increasing demand for endocrinology services as people live longer with long term conditions
 - The complexity of patients is increasing, with more patients requiring specialised support and supervision and education, and this is expected to increase further
 - Management by primary care is not recommended at diagnosis or for ongoing care for Type 1 Diabetes

- **Models of care**

- The majority of patients are seen on an outpatient basis for assessment and follow up and referral back to GPs for long term management where appropriate
- Prevention and anticipatory care activity is managed by GPs and in the community
- Currently referrals are faxed to the service, and triaged for urgency
- Outpatients for both services are scheduled Monday to Friday in business hours. Endocrinology allows 1 hour for a new patient and 20 minutes for follow up appointments, and the DEC allows 1 hour for a new patient and 30 minutes for follow up
- To allow earlier discharge, a follow up clinic is provided post discharge
- Integrated care activity to better manage people in the community to avoid hospitalisation and complications includes:
 - SESLHD Integrated Diabetes Project, commenced in 2013 with a goal to achieve highly integrated and timely health care services for patients by coordinating diabetes care across the SESLHD
 - The Sugar Fix Project in conjunction with SES Medicare Local aims to improve access to care through the SGH Outpatients Clinic for patients with Type 2 Diabetes Mellitus
 - Effective diabetes management can reduce the need for renal dialysis

- Procedures are provided in the ACU (infusions, etc.) to avoid unnecessary admission
- All patients with GDM have a medical officer who can be contacted by DEC staff for advice
- The DEC holds diabetes case conferences to allow coordinated care for more complicated patients with diabetes to improve patient outcomes and reduce morbidity from complications, which will result in less hospitalisations
- Diabetes Educators educate and stabilise adult patients on CSII pumps
- **Staffing**
 - Staffing includes Endocrinologists, Diabetes educators, specialised nursing staff, dietetics staff, psychologist and administrative staff, with access to other allied health, surgical services (neurosurgery, vascular, orthopaedic, thyroid, bariatric), aged care and diagnostic services as required
- **Infrastructure**
 - Endocrinology Outpatient services, offices and clinical trials and the Diabetes Education Centre are collocated on Level 3 of the Pritchard Wing
 - Some endocrine clinics (GDM and transitional and young diabetes service) are held in the Prince William Wing
 - Consultation to inpatients throughout the hospital is provided by medical and DEC staff.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**
 - The increasing prevalence of overweight and obesity in the SESLHD population means incidence of diabetes and other comorbidities will rise, with implications for outpatient and inpatient services. Diabetes can lead to acute and chronic complications, including cardiovascular disease, visual loss, renal failure and amputations. It is well documented that good diabetic control reduces all diabetic complications, hospitalisation and mortality from diabetes
 - Patients are becoming increasingly complex, due to the aging population and more people living with multiple long term conditions
 - Currently there are 2 inpatient beds for persons with acute exacerbations of endocrine and metabolic disorders. This demand is anticipated to increase due to the increasing age and complexity of patients who are surviving longer
 - Ambulatory-based activity is expected to increase dramatically for diabetes, obesity, and other endocrine disorders and associated conditions e.g. osteoporosis. Taking into account the ageing of the population, the cultural mix in the SGH catchment and the predicted increases in chronic conditions, particularly diabetes, there is potential for a 30% increase in Endocrinology and DEC ambulatory activity by 2020
 - The prevalence of obesity is increasing. People living with obesity are at increased risk of Type 2 diabetes as well as other diseases including cardiovascular disease, respiratory failure, osteoarthritis, lymphoedema with ulcers and reproductive disorders in women
 - There is no model of care for the management of obesity and its complications at SGH, with an inequity of access to bariatric services state-wide. Currently only privately insured or self-funded individuals are able to access bariatric surgery for management of Type 2 diabetes
 - There will be an increasing need for purpose built bariatric rooms and suitable equipment for morbidly obese patients
 - Poorly controlled type 2 diabetes can result in greater complications and longer lengths of stay
 - There is unmet demand for ambulatory care podiatry for “at risk” patients in the community who do not have diabetes e.g. patients with peripheral vascular disease or mobility restricting foot deformity

- Most Type 2 Diabetes is managed in primary care, however increasingly specialised care is required for early detection and optimal management of complications of diabetes when severe events occur (i.e. an acute intercurrent event such as surgery, acute diabetes exacerbation or acute diabetes complication such as foot infection)
 - Type 1 diabetes accounts for approximately 10% of the total numbers but represents around 20% of caseload for diabetes. Management requires 24 hour access to medical support and multi-disciplinary management. 10% of adult patients type 1 patients are on insulin pump therapy
 - The need for surgery and admission for diabetic foot ulcers can be reduced with activity to prevent and provide early management of diabetic foot ulceration. Currently endocrinologists do not attend the high risk foot clinic
 - The prevalence of osteoporosis in Australia among those over 50 years was estimated to be 23% for women and 6% for men in 2011-12, however these figures are expected to increase as the population ages. The more debilitating and costly osteoporotic hip and spine fractures requiring admission more commonly occur in the aged
 - Responsibility for case identification and management of osteoporosis is decentralised and random. There is currently no fracture liaison service at SGH, however there are plans to establish this service in the next 12 months. With the aging population, increasing numbers of people will require identification and management of osteoporosis and osteoporotic fracture prevention and treatment
 - At present there is no coordinated management of thyroid disease at SGH. Patients with thyroid dysfunction are generally referred directly to the DoE, however patients with a thyroid mass can be referred to the DoE or the thyroid surgeons, thus leading to cross-referrals
 - Pregnant women with thyroid dysfunction are referred to the DoE regularly and these patients need to be seen urgently
 - People with debilitating mental health problems including schizophrenia and severe depression are at greater risk of obesity and obesity related complications such as diabetes as a result of their medication
 - Endocrinology and Cancer:
 - At present there is no coordinated management of older (i.e. non reproductive) women and men with cancer and endocrine disorders induced by hormone deprivation therapies
 - Thyroid nodules and thyroid cancer prevalence is increasing. There is also an increase in thyroid autoimmune disease. Thyroid cancer is now the seventh most common cancer in Australia
 - Breast Cancer is the commonest cancer in women who do not smoke. Survivors now routinely undertake hormone deprivation therapies that have a number of comorbidities including menopausal symptoms and osteoporosis
 - Similar secular trends are seen in elderly men with prostate cancer undertaking androgen deprivation
- **Constraints on activity**
 - Models of care
 - The clinical service demands on the Endocrinology Department have made it very difficult for medical staff to be involved in initiatives such as improved integrated care for diabetes patients in SESLHD with the PHN, which has been proven to save money, resources and reduce hospitalisations due to diabetic complications
 - Waiting Lists
 - Up to 4 months for clinics, due to staff capacity to meet increasing demand. Patients are triaged according to urgency
 - 6-9 months for adult patients referred to commence continuous insulin infusion pumps
 - Avoidable admits / referrals
 - There is potential to avoid ED presentation or admission with a crisis management clinic for assessment and management of patients in ambulatory care. This could also be used for follow up care to reduce length of stay. There is a potential for 3-5 patients per day, predominately from ED referral, ward or direct referral from GPs as an integrated care model to avoid ED presentation

- Increased access to diabetes clinics (requiring more staff and space) would allow early detection and management of complications to avoid presentation to the ED
- Unmet demand
 - Due to staffing and space restraints, the DEC can provide only limited support for Type 2 diabetics
 - The DoE and Diabetes Education Centre review up to 900 patients with gestational diabetes per year. There is no coordinated follow up of these patients which are well recognised to have high risks of developing diabetes in the future
- Potential for new clinics/ services
 - Crisis clinic, as discussed above (3-5 patients per day. Monday to Friday), to be located in Ambulatory Care
 - Post gestational diabetes (potential for 700-900 patients per year) for follow up and education
 - Multi-disciplinary clinics:
 - * Endocrinology and cancer (particularly thyroid, breast and prostate)
 - * Endocrinology and Geriatrics (with potential for consultation to GFS for nursing home patients to avoid admission or outpatient appointment)
 - Osteoporosis education and exercise group based at SGH, linked to the Fracture Liaison Service, which would require a space for classes and physiotherapy and admin support
 - Further education of GPs and practice nurses for maintenance of diabetes patients to prevent referral to hospital services
- Technology
 - Currently referrals are faxed, with no electronic referrals or database
 - No internet resource is available for patient and GP education, including criteria for referrals and referral form
 - No Skype technology is available e.g. for GP education/consultation
- Infrastructure
 - The DoE, the associated clinical trials activity (lab and staff) and the DEC work synergistically and function most efficiently and effectively as a dedicated collocated precinct
 - Access to space in Ambulatory care for procedures and crisis assessment and management is required
 - Currently services are dispersed across the campus between inpatient wards, Pritchard Wing and ambulatory care
- Staffing
 - The level of staffing of the DoE and DEC limits capacity for increasing integrated care or providing more clinics that assist in ED and admission avoidance.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

The majority of activity will continue to be undertaken in an Ambulatory environment, with DoE consultation and review clinics, DEC services and allied health activity, with acute diabetes exacerbation events managed under the care of DoE and DEC personnel providing inpatient consultations to campus hospitals as required.

• Service solutions

- Implementation of a rapid access crisis clinic for diabetes and endocrinology collocated within the ambulatory precinct, appropriately resourced and with clerical support, where deteriorating patients can be directly referred for review, thus reducing ED presentations and preventing deterioration and complications

- Consider development of new multidisciplinary services to meet increasing demand e.g. endocrinology and cancer, post gestational diabetes, geriatric diabetes
 - Improve integrated care with GP education of ongoing management of diabetes and access to direct referral to crisis management clinic
 - Address the NSW Health 'Leading Better Value Health Care' initiatives with an Obesity and Bariatric Management service and an Osteoporosis and Fracture Liaison service for the prevention of osteoporotic refracture in the next 12 months
 - Consider the implementation of HealthPathways in partnership with CESP HN for better coordinated care
- **Infrastructure solutions**
 - Continue the colocation of Department of Endocrinology, clinical trials lab and the Diabetes Education Centre as a dedicated precinct collocated in an Ambulatory Care Building, with flexible clinic design, access to a procedure room with bed, and technology enabled
 - Ensure key functional relationships with ED, the ACU, antenatal services, support services and allied health
 - Ensure clinic space is suitable for bariatric patients, with bariatric equipment available
 - Ensure clinic rooms are large enough to accommodate patients and family members and for multi-disciplinary management
 - Provide adequate storage for equipment and drugs on site
 - Provide adequate office space
 - Provide Clinical trials room and storage room
 - Registrar room with Library
 - Access to meeting room with AV system
 - Access to education space (groups, students and staff)
 - Provide adequate bariatric infrastructure (bariatric rooms and appropriate equipment) for the increasing number of bariatric inpatients
 - **Staffing solutions**
 - 1 FTE staff Specialist to meet increased demand for endocrinology services and improve integrated care
 - Any new clinics would require staffing commensurate with the level of activity, however new models of care may divert more activity to a non-inpatient setting.
 - Improved community based integrated management of diabetes will help prevent and reduce referral for specialist support and hospitalisation.

EYE CLINIC (SHORT ST)

SCOPE OF SERVICES

Kogarah Eye Clinic is a satellite eye clinic of Sydney/Sydney Eye Hospital (SSEH) located in Chapel St Kogarah, adjacent to SGH, serving the population of the St George area. This clinic offers the following sub-specialty appointments:

- General ophthalmology
- Cornea
- Oculo-plastics
- Glaucoma
- Cataract (IOL)
- Paediatrics (including State-wide Eyesight Preschool Vision screening program)

Patients requiring more specialised ophthalmology services are referred to SSEH.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Patients of all ages are seen, however the majority of patients are aged over 65
- Demand is driven by the growing and ageing population in the St George catchment area
- The increasingly multicultural population means there is a growing demand for interpreter services
- Patients are referred by SGH, ED, GPs and Optometrists

• Operational description

- Service provided:
 - Outpatient clinics: Medical, nursing and orthoptics clinics for assessment and treatment and surgical follow up
 - Consultancy services for SGH inpatients and ED (on campus/and or in clinic)
 - Medical on-call services (provided from SSEH)
- The Kogarah service is networked with the SSEH, with staff specialists covering both centres
- Sterilising and Pharmacy is provided by SGH
- Hours of operation OPD: Monday to Friday, 0800- 1700

• Activity

- Activity is increasing in line with population growth and ageing at the Kogarah clinic
- The fastest growing subspecialties (medical retina and uveitis) are specialised services not provided at SGH, and residents of St George travel to SSEH for management of these conditions

• Models of care

- Most patients are seen in an outpatient setting
- SGH inpatients of all ages are seen in the clinic for assessment unless unable to be transferred, and are then seen by the registrar on the ward or in ED

- Outpatients are given appointments and SMS appointment reminders are sent
- Only minor ophthalmological procedures are carried out at SGH, with surgical procedures performed at SSEH

- **Staffing**

- All staff are managed from SSEH
 - Nursing: 1 x FTE CNC2
 - Medical: 6 Staff Specialists, all fractional; 1 x FTE Registrar and on call service from SSEH
 - Allied Health: 1 x 0.6 FTE Orthoptist 1x FTE Admin
 - Leave cover is provided from SSEH

- **Infrastructure**

- Kogarah Eye Clinic is located in a purpose built demountable building off the SGH campus, in Chapel St Kogarah
- Currently includes 5 clinic rooms, one procedure room, laser room, hypervisual fields room (with OCT and A-Scan), disabled access patient toilet, admin area, waiting room and staff kitchen
- A Statewide Eyesight Preschooler Screening (StEPS) service is provided in the community, with funding provided by the Ministry of Health for tertiary review clinics at Kogarah Eye Clinic.

CURRENT ISSUES AND CHALLENGES

- With the ageing population, there will be a steady increase in demand for ophthalmology services, particularly those related to ageing, and many residents of St George will need to access these specialised services at SSEH, as they are not available at Kogarah Eye Clinic

- **Constraints on activity**

- Models of care
- Waiting list
 - Waiting lists are in line with state standards for ophthalmology services: wait for Cataract assessment is approximately 600 days (400 people)
 - DNAs: 60-80 month DNA or cancel (approx. 13%)
- Unmet demand
 - A growing number of St George residents will need to travel to SSEH for specialised services not available at Kogarah, (over 4,500 Ophthalmology and Orthoptics OOS were provided at SSEH for residents of St George LGAs in 2014/15)
 - There is no publically funded cataract surgery at SGH, so patients are assessed and followed up at Kogarah Eye clinic, but have their surgery at SSEH
- Potential for new clinics/ services
 - With the growth in demand for medical retina services and the lifetime need for treatment once diagnosed, there is potential (pending funding and availability of drugs required) to offer this service at Kogarah in the future, so that St George residents do not have to travel monthly to SSEH for injections. This would require appropriate clinic space and staffing
 - The Lions Club is currently raising money for a newer technology Laser for the service

- **Technology**

- Communication is poor between the clinic and the SGH campus (not on SGH network)
- Medical records are linked to SSEH network

- **Infrastructure**

- The demountable building on Chapel St used for the clinic has sufficient space, however the condition of the building is very poor and there is no isolation area for infectious diseases
- There is no allocated space for ophthalmology activity or storage for eye assessment equipment on SGH campus
- As the clinic is off campus, there is no access to code blue, and an ambulance needs to be called if there is an emergency, e.g. babies from NICU are seen in the clinic, and with no access to code blue are at potential risk if resuscitation required

- **Staffing**

- Some patients transferred to the clinic from ED or the ward are unwell, and require medical/nursing supervision, meaning nurses need to provide care while waiting for transfer back to ward.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Continue to provide general and some subspecialty eye clinics at SGH for residents of St George, with referral to SSEH for super specialty services and surgery
- Consider the establishment of a medical retina clinic in the future at SGH. This would require more clinic space and staffing to meet future demand and funding for appropriate drugs made available

- **Infrastructure solutions**

- Consolidating eye clinic services on campus in a new ambulatory care service would ensure care is provided in a purpose built environment and be safer and more efficient for patients and staff
- Requirements include clinic spaces, treatment rooms and assessment rooms (laser, OCT, A-Scan, etc.), including medical, nursing and orthoptist care
- Space to allow filing to be carried out and storage of medical records within the Front Reception area
- Linking clinics and staff to both SSEH and SGH networks
- No specific adjacencies are required, however the majority of patients are referred from ED

- **Staffing solutions**

- Staffing is currently adequate for the service provided, but any new services would require commensurate staffing levels.

GASTROENTEROLOGY / HEPATOBILIARY SERVICES

SCOPE OF SERVICES

Gastroenterology is the branch of medicine focussing on the digestive system and its disorders. Diseases affecting the gastrointestinal tract, which includes the organs from the mouth, along the alimentary canal to the anus, are the focus of this speciality. Hepatobiliary medicine (a subspecialty of gastroenterology) encompasses the study of the liver, pancreas and biliary tree. Gastroenterologists perform a number of diagnostic and therapeutic procedures including colonoscopy, endoscopy, endoscopic retrograde cholangiopancreatography (ERCP), endoscopic ultrasound, liver biopsies, etc.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Gastroenterology / hepatobiliary services are predominantly for adults
- Increased demand is in part driven by the growing and ageing population combined with an increase in the clinical acuity and complexity of some patients and patients are living longer
- Prevalence of some disorders can also increase the incidence of gastroenterology / hepatobiliary disorders (e.g. diabetes and liver disease)
- The service has a relatively high percentage of CALD patients, many non-English speaking

• Operational description

- Currently services are provided from a gastroenterology / hepatobiliary precinct providing patient-centric services and interdisciplinary care with fast-track access to services and flexible access to specialised equipment
- The motility service has a statewide catchment
- Existing clinics include:
 - SGH Day Surgery Unit – Endoscopy - Gastrointestinal
 - SGH Gastroenterology Clinic
 - SGH Inflammatory Bowel Disease Clinic
 - SGH Motility Clinic
 - SGH Swallow Clinic
 - SGH Hepatology Clinic
 - SGH Inflammatory Bowel Disease Support Clinic
 - SGH Chronic Liver Disease

• Recent activity

- Inpatient gastroenterology separations have been increasing with the overnight length of stay showing a gradual decrease. The proportional split of day only / overnight activity has seen a gradual increase in day only activity (approximately 20% of gastrointestinal separations)
- Outpatient data is becoming more robust however trend data is unreliable

• Models of care

- The gastroenterology / hepatobiliary service has an integrated model of care provided across three key areas:
 - Clinical services including inpatient beds, outpatient clinics, procedures, etc.
 - Research including microbiome, motility and immunotherapy
 - Education including point-of-care education
- The patient-centric focus of the service is evident through:
 - Hospital avoidance through early intervention where timely access to outpatients reduces the need for admission (e.g. for paracentesis for patients with chronic liver disease, frequent infusions for patients with inflammatory bowel disease, etc.)
 - Multidisciplinary patient management (e.g. patients being seen by specialists, nurses, speech pathologist, research assistant, etc.)

- Clinical pathways to match needs of patients: from SMS reminders for clinic appointments, to an understanding of individual patient’s clinical needs and their disease trajectory enabling quick response to deterioration and/or comprehensive follow up for patients who did not attend clinic
- The interdisciplinary nature of gastroenterology / hepatobiliary care is based on close collaboration with colorectal, oncology, hepatobiliary surgery, endocrine and a range of allied health services
- Nurse led Hepatology Clinic

- **Staffing**

- Gastroenterology / hepatobiliary services has a broad range of clinical disciplines:
 - Nursing: 5 RNs (2FTE, 3x 0.6) 1 Nurse Co-Director, 1 Clinical Nurse Specialist, 4 Clinical Nurse consultants, 2 RN’s
 - Medical: 8 Specialist Medical Officers: Staff Specialists (2FTE, 1x0.2), Clinical Academics (3x0.4) and 2 Visiting Medical Officers
 - Research: 2 Research Assistants
 - Support services staff: 4 administrative/clerical staff
 - Allied Health: Social Worker, Dietitian as well as working closely with Speech Pathologists, Psychologists, etc. as required
 - Interpreter service: given the relatively high percentage of non-English speaking patients the service regularly works with interpreters

- **Infrastructure**

- Outpatient clinic rooms for hepatology clinics and some staff offices are located on Level 1, Burt Neilson Wing and includes fibroscan and motility services
- Gastro specific clinics are held within OPD
- Procedures and/or infusions are conducted in the ACU in the Prince William Building
- Microbiome research offices are housed in Level 2, Pitney Building
- Gastroenterology / hepatobiliary inpatients are accommodated on 4 South ward.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- Ageing population, growing population and increasing numbers of residents with comorbidities who are living longer
- Changing disease prevalence will impact gastroenterology / hepatobiliary activity for example:
 - Increasing rate of diabetes and obesity increases the risk of liver disease
 - Liver cancer is one of the fastest growing cancers in the district
 - The incidence of inflammatory bowel disease is rapidly increasing
 - Increasing knowledge of the microbiome will improve understanding of disease progression, enabling health promotion, disease prevention, potentially preventable hospitalisations and earlier treatment for a range of disorders

¹⁸² Gastroenterology separations include Service Related Groups (SRGs): 15 – Gastroenterology and 16 - Diagnostic GI Endoscopy

- **Constraints on activity and models of care**

- Avoidable admits: some ED presentations and/or hospitalisations could be avoided if there was urgent access to outpatient procedure rooms (e.g. for urgent paracentesis, infusion, etc.)
- Potential changes in care settings: if a large procedure room (2-4 beds) was co-located with gastroenterology / hepatobiliary it would improve patient care, ensure access to specialised equipment and enhance staff education
- “Did not arrive” and/or late cancellations for non-admitted patients/ clients: currently patients who do not attend the ACU are not rigorously followed up, resulting in the potential for an unobserved deterioration in the patient’s condition
- Potential for new clinics and research trials: it is expected as translational research is embraced in the fields of microbiome and immunotherapy there will be increased demand for clinic rooms, clinical storage (e.g. stool samples from patients and donors), research laboratory, beds for clinical trials, etc.

- **Infrastructure**

- The most significant infrastructure issues is clinic and procedure rooms are not co-located and are separately managed limiting the ability to respond to patients requiring urgent interventions
- Space is a major issue, with insufficient clinic rooms for number of clinics and clinicians.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Continue existing clinics, ensuring sufficient capacity for increasing demand
- Investigate a rapid access clinic for patients requiring urgent paracentesis, infusion, etc.
- Ensure rigorous follow-up of all patients who “Did not arrive”
- Establish new biome clinic
- Embrace translational research in the fields of microbiome and immunotherapy

- **Infrastructure solutions**

- The existing gastroenterology / hepatobiliary department works well however could be improved if clinic and a 2-4 bedded procedure room was co-located
- Construct a gastroenterology / hepatobiliary precinct including clinic rooms, a procedure room, research laboratories, specimen collection and clinical storage (e.g. stool samples from patients and donors), research laboratory, 2-3 rooms for multidisciplinary clinical trials, staff offices
- Examples of good models - Liverpool Hospital and Royal Prince Alfred Hospital (dedicated procedure space within clinic, paracentesis space, nurses doing procedures)

- **Staffing solutions**

- Access to Allied Health e.g. Dietitians, speech pathologist
- Nurse-led clinics.

GENERAL PRACTICE

A meeting was held with local GPs to inform them of the planning process and content of the plan and to seek input from them regarding their views on GP involvement in service delivery, current gaps and issues with services, new models of care and recommended improvements for integrated care. Subsequently a survey was completed anonymously by another 20 GPs from the St George Division of General Practice.

CURRENT ISSUES AND CHALLENGES

- Outpatients is the major interface for GPs with the campus, however the group raised a number of concerns regarding access and communication with outpatient departments and the lack of a systematic referral, access or communication process. Overall they felt that outpatients was difficult to access and navigate and their default position was to often send the patients to ED. Issues discussed included:
 - The referral process was not consistent and information required not communicated to GPs, meaning investigations are sometimes repeated
 - Electronic referrals were not always available (i.e. require fax/letter)
 - There are long waiting lists for a number of specialties, with some clinics closed to new referrals
 - There was no way to find out what clinics were available and names of Drs to refer to (no register or directory on hospital website)
 - HealthPathways would require constant updating
 - There are gaps in available services e.g. orthopaedics
 - There is limited access to diagnostics for public patients from the community
 - Investigations were often unnecessarily repeated
 - Ongoing management was not always conveyed to GPs, especially post discharge
 - New services were poorly communicated.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- Need IT investment to provide a hospital website with a Directory of services available and Consultant list, with links to referral pathways and process and selection criteria
- Central referral portal, including telephone access for referral, with standard template that can be sent electronically and receipt acknowledged, including timeframe for appointment. Referral pathway should indicate additional information required
- Increased use of MyHealth record by hospital staff and encouragement of patient activation
- Hospital staff to ring GP when they require more information, e.g. family/home status, recent investigations, etc.
- Avoid repeated/unnecessary investigations (i.e. check with GP, SEALS, MyHealthRecord)
- Include GPs in case conferences for complicated patients
- Provide greater equity of access to diagnostics for outpatients referred by GPs who do not have the means to be seen privately
- Start the advanced care planning conversation at the hospital rather than with the GP for people with long term conditions
- Generally supportive of a model of rapid access/crisis clinics for long term conditions that require urgent review to prevent deterioration and potentially prevent hospitalisation, with clear referral and patient selection pathways
- The current GP hotline to ED was supported as a helpful initiative

- Address service gaps in publically available clinics as many patients cannot afford the gap to see Specialists privately and may in turn present to ED
- Ensure letters are sent back to GPs following appointments
- Supported the expansion of an Ambulatory Care clinic for short term intervention, e.g. infusions, allowing GP referrals
- Supported the model of regular joint GP/Specialist clinics, held in the community in a GP surgery hub, to provide easier access for patients to specialist services
- Supported the maintenance and expansion of community based services, e.g. GFS, wound care nursing, home based assessments and rehabilitation, etc.

OTHER ISSUES

- Generally GPs felt they had very little voice within the hospital system, and VMO champions for GPs were required so their voice may be heard
- Generally communication between the campus to GPs was poor
- Information available from the GP is often not passed on to ED or ward on admission, leading to delays in management and unnecessary duplication of information and testing
- Initiation of Advanced Care Planning should not be the GP's role
- GPs are willing to participate in education sessions
- RACF patients often have long lengths of stay and should be sent home more quickly with follow up support on discharge, with detailed instructions for nursing staff and GPs
- Day rehab and Outpatients needs a patient transport system due to difficulties with site access and parking for peoples with disabilities
- Difficulty of access to community nursing and allied health
- Discharge summaries do not always arrive prior to GP patient follow up (although this has improved with electronic discharge summaries) and are often inadequate. Require improved clinical handover of discharged patients
- There is no provision for GPs to make comments/complaints on patient treatment or management so that improvements or quality assurance can be maintained –“if you can't tell anyone, how do they know what went wrong?” Only access is via consumer portal.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- Advances in technology are required to link information and provide easy access and referral pathways for GPs and communication of relevant information across the health system
- Provide a GP Liaison Officer for better communication with GPs
- Provide regular information to GPs (via PHN or email or newsletters, etc.) on new services available and how to access them
- Improve discharge summaries governance (i.e. oversight from more senior personnel)
- Provide outreach program similar to Southcare SOS program, expanded QRP and community facing services and provide easy access and information on what services are available, client selection and referral process for these services
- Provide transport for outpatients/day rehab
- Improve availability of investigation results by copying result to GP, to avoid the need for GPs to follow up results (pathology, X-rays, etc.) on discharge from ED or inpatients

- Provide a portal for GPs to make comment/complaint or recommendations for patient management /of patient experience or their experience (lack of post discharge information, etc.) so that SGH can learn of issues and make improvement changes for improved quality of care
- Provide GP education sessions and include a regular walk about tour of the Campus so GPs are familiar with what is available and where, so they can inform their patients.

HIV / IMMUNOLOGY AND INFECTIOUS DISEASES

The Department of HIV, Immunology and Infectious Diseases is a unit of the Medicine Stream of SGH & CHS.

HIV outpatient services are known as “Waratah Clinic”. Services are located in South Street, Kogarah and premises are shared with the Drug and Alcohol Service.

SCOPE OF SERVICES

The department provides a mixture of HIV, immunology and infectious disease outpatient clinic appointments, drop in services and inpatient admitting and consultation services to the St George Hospital.

- HIV services operate a medical, counselling and nursing service seeing a high proportion of medically and socially complicated patients
- Immunology predominantly provides medical services with scope for greater nursing
- Infectious disease services operate outpatient clinic appointments and extensive consultation, antimicrobial stewardship, supervision of outpatient antibiotic infusion services in ambulatory care, and infection control consultation/leadership within SGH acute services
- Both Immunology and Infectious disease require close proximity to SGH.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Primarily adult services with an age range from adolescent to exceeding 80+ years of age
- Provide 24 hour, 7 day per week on call blood borne virus exposure advice to STG and TSH in concert with TSH colleagues (0.8FTE)
- Provide 24 hour, 7 day per week on call infectious disease and antimicrobial stewardship cover to STG and TSH in concert with TSH colleagues (0.8FTE)
- HIV inpatient management and consultation
- Increase in Chinese and Arabic speaking populations
- HIV services see approximately 80% male /20% female patients
- Immunology and ID see approximately 50% male /50% female patient split.
- Demand for outpatient services remains steady, due to multiple avenues of referral from individuals, PHNs/ GPs, and internal SGH health services outpatients and inpatients

• Operational description

- Waratah HIV Clinic appointments are one to one and conducted on site at the individual premises with some outreach by social worker or CNC/CNS A patient may see any or all of medical, nursing, social work (and dietitian or clinical neuropsychologist by arrangement)
- Networking occurs within different professional groups at the services, particularly with Sexual Health Services, primary care services, including the Emergency Department and the SEALS microbiology department

- Social Work counselling service
 - Dietician consult service
 - Hours of operation are primarily between 0800 - 1700 Monday to Friday
 - HIV services (Waratah clinic) has designated clinic times 0830-1300 Wed and 1430-1830h Thu, with some nursing, counselling or allied health services outside of these times,
 - The Infectious Disease/immunology clinic runs 1300-1700h on Tuesday using 7 rooms in the general outpatients clinic for 4+ JMO and 3 SMO staff. Up to 24 patients may be seen in a session, and receiving referrals from inpatients units/ follow-up as well as new referrals from STG, TSH
 - A small number of private immunology patients are seen upstairs at 2 South St, inadequately resourced
 - Community HIV liaison with HOT, ADAPTS, HALC, BGF, ACON as required
- **Models of care**
 - Currently there is no centralised referral system for Waratah/HIV outpatient appointments. Referrals are accepted by the administration staff or clinicians and put on a waiting list
 - Waratah HIV patients are given a dedicated appointment time, regular follow-up is booked and data is collected and submitted to the HARP Unit
 - The model of care/service delivery model has been reviewed approximately 7 years ago and co-location with the sexual health service was identified as a clear opportunity to enhance service delivery in both components of the department
 - A desire to expand the service to increase the opportunity for nurse-led HIV clinics supported by the medical teams has been identified. Attempts to do so have been limited by space and the availability of trained nursing staff within the specialities, which are viewed with higher levels of stigma
 - Physician training in HIV and STI clinical skills on-site, and support for attendance at, off-site HIV & STI training workshops
- **Staffing**
 - HIV nurses and doctors. Medical 1FTE ID/HIV and nurse 0.5 FTE CNS/HIV/ID
 - Immunology Doctors 1FTE
 - Infectious diseases Doctors 1FTE
- **Infrastructure**
 - Current buildings are sub-standard. A report is available which highlights the problems with the condition and patient areas of the service
 - The building is shared with the Drug and Alcohol Service
 - Waratah HIV clinic has 2 clinical rooms, small nurse and social work interview rooms, and a waiting room. One office upstairs is used by the director for private patient consultations but the space, staffing and access to this room precludes further clinical utilisation of this space
 - A need for co-location of the Sexual Health, HIV, Infectious Disease and Immunology components of the St George Service to facilitate and streamline delivery of patient care was identified in 2010 in an independent service review, confirmed and recommended once again in 2013 by the SGH clinical council. This need remains.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**
 - There is a growing migrant population from a NESB with specific reference to Chinese and Arabic speaking clients
- **Constraints of activity**
 - Model of care/service delivery has not been able to change due to the physical limitations as noted
 - There is inappropriate and very limited clinic space across the campus including accommodation in condemned buildings
 - Activity is constrained by a lack of human resources and space. Human resources is affected by the limited number of trained staff choosing to enter the speciality
 - Expansion and recognition of the services is a priority.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**
 - Maintaining strong relationships with the sexual health service, multicultural health services and acute services through consultations and education. Maintain and enhance relationships with: GPs and PHN, students/universities and NGOs and outreach services
- **Infrastructure solutions**
 - Services could be located in an ambulatory care centre. With adequate space and resources this would both achieve the enhancement and efficiency identified in two separate reviews of our services, with further synergy arising from closer work with Ambulatory Care/Hospital in the Home as we increasingly deal with outpatient infusion services to expedite earlier discharge home
 - Consider co-location with infection control service
 - Other infrastructure requirements to be addressed if the service moves location would include addressing privacy concerns (e.g. separate access +/- waiting room), provision of multipurpose education/meeting facilities, staff kitchen/food areas and separation of clinical and office areas (not present in current Short St clinic).

INFORMATION TECHNOLOGY

SCOPE OF SERVICES

The Health ICT Directorate is a shared service providing information and communications technology to two Local Health Districts (Illawarra Shoalhaven and South Eastern Sydney) and the Sydney Children's Hospital Network. The Directorate has a responsibility for: the delivery of a range of strategic and operational information systems services and initiatives; the strategic and technical design and planning of ICT infrastructures and security apparatus; and ensuring the delivery of integrated and effective client focused services. Our business is improving patient outcomes, improving patient experience, improving clinician effectiveness and improving the efficiency of our LHDs.

The overarching objective of Health ICT is to enable access to the right information at the right time from anywhere on any device.

The objective will be met with the achievement of the following:

- Establishing a single view of the patient record across all care providers
- Providing clinicians with access to patient information from anywhere in the District from any device
- To leverage the latest technological aspects to drive innovative approaches to the delivery of care.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Operational description

- The Health ICT service management framework consists of four major service categories:
 - Clinical Services (Electronic Medical Record (eMR), Guidance MS, Pharmacy stock control, Patient information management and integration (iPM PAS))
 - Corporate Services (Support for 260+ applications, Internet, Printing, remote access, mobile service, Managed Desktop, IP Telephony ...)
 - Technical Services (Networking, Integration, Backup, DB Management, Server Hosting, Citrix application hosting, Data Centre Management ...)
 - Professional Services (IT Project Management, Service Continuity)
- Hours of operation:
 - Standard Support Hours are between 07:30 and 17:30 (AEST or AEDST as applicable in the State of New South Wales) on business days
 - Support for services outside the Standard Support Hours will only be provided for Priority 1 Incidents as defined below

• Level of service

- It is the intent of Health ICT to enable its staff to appropriately prioritise their work requests according to established principles. These principles are based on the likelihood and extent of the impact that an adverse change would have on services:

Priority 1 (Critical) – Service outage with significant business impact, or impacting on patient care or outcomes

Priority 2 (High) – Impacting on the patient experience or patient journey (e.g. causing inconvenience to patients)

Priority 3 (Medium) – Impacting on the effectiveness or efficiency of multiple stakeholders

Priority 4 (Low) – Impacting on the effectiveness or efficiency of a limited number of stakeholders.

Incident Response and Resolution Time

	RESPONSE TIME	RESOLUTION TARGET	SLA
PRIORITY 1 (CRITICAL)	< 30 minutes	< 4 hours	95%
PRIORITY 2 (HIGH)	< 1 business hour	< 8 business hours	90%
PRIORITY 3 (MEDIUM)	< 4 business hours	< 16 business hours	85%
PRIORITY 4 (LOW)	< 8 business hours	< 24 business hours	85%

CURRENT ISSUES AND CHALLENGES

We recognise that healthcare provision is not bound by the walls of an individual building or organisation. Healthcare is increasingly provided outside of these walls and the information and communication technology must enable this model or new models of care.

As the world becomes increasingly populous the ability to work from anywhere, to access information and systems without physical barriers, and the ability to access information that is needed to support immediate decision making is imperative.

As it becomes possible to read, modify and delete information from almost anywhere it becomes even more imperative that the access to this information is controlled by strong authentication and identify management processes and systems. These will only be truly effective if they enable as well as restrict access to information and we plan and deploy them in such a way that they have negative impact on legitimate access requests.

We will need to plan effectively to understand the opportunities for linking activity measurement and monitoring devices to the overarching systems that will store and allow the analysis of the information gathered. Activities and events, wherever they are conducted in a patient's home, a GP's office, a nursing home or the traditional walls of the Hospital will form part of the patient's medical history. This information needs to be captured and stored in that patient's medical record.

There needs to be a change in focus from ownership and management of technology systems to enablement of the process of information collection, collation and distribution. Enabling the sharing of information between systems and processes that have a range of owners.

It is anticipated that the following will be "some of the features that we will need to take into consideration:

- Patients at home on health monitoring devices will be monitored remotely
- Monitoring equipment information will be available to access from anywhere at any time
- Interactions with primary, secondary and other care providers will be summarised and available to relevant clinicians whenever or wherever the information is required
- Care plans will be part of the medical record and will be available to any clinician who needs access, wherever they are
- Process flow bottlenecks will be identified and measurable so that inefficiencies can be managed
- Systems will be in place that will enable the collection, retrieval and analysis of data and process in a single, seamless environment.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

Health ICT is at the forefront of eHealth implementation, driving a reduction in reliance on paper-based systems and supporting enhanced delivery of patient care through the provision of contemporary systems. The ICT Strategy 2017 - 2022, <http://www.seslhd.health.nsw.gov.au/HealthPlans/documents/2017/ICTStrategy.pdf> reinforces the commitment to leveraging technology effectively and has been developed to guide the investment of resources over the next five years into initiatives that demonstrate value for patients, clinicians and front line care.

The key aspects of the strategy are as follows:

- Comprehensive Integration
- Access to information from anywhere
- Clinical governance
- Dynamic support models
- Reliable systems
- Intelligent infrastructure
- A patient portal
- Enhanced communication

The Strategy aligns with the key eHealth NSW focus area and assists in establishing a unified view of delivery towards our vision of "Working together to Improve the Health and Wellbeing of our Community".

KOGARAH COMMUNITY NURSING SERVICES

SCOPE OF SERVICES

Kogarah Community Nursing Services provide home based care but not personal care, e.g. medication administration, more acute focused post discharge care, infusions, injections, intravenous antibiotics, dressings and insulin.

The service sits with the QRP and ASET within Medicine 2 Division of SGH & CHS. The QRP and ASET consultation is reported within the Aged Care Services consultation, hence this report focuses on Kogarah Community Nursing.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**

- Whole of St George area
- Anyone not suitable to attend the ACU (person is immobile, infirm and can't physically attend the hospital to attend ambulatory care)
- Mostly aged care clients but will see all ages

- **Drivers of demand**

- Peak activity in the hospital will impact on Community Nursing
- More people living longer with multiple comorbidities requiring treatment for acute episodes of ill health

- **Operational description**

- The service operates 7 days per week
- General community nursing: daily medication, wound care and general nursing care
- Community continence service, which includes early facilitation of discharge for patients with catheters (linking with Urology Department and a separate CHSP continence and nursing from CHCK)
- One community CNC provides advice on wound management and chronic wound management, going into RACF and well as homes. This is not an established Wound Management position, however the CNC has experience and interest in wound management.

- **Activity**

- Not usually a waiting list
- At times of peak hospital activity there can be a waiting list

- **Models of care**

- All models of care are underpinned by strong networking and collegiality with wards and the ACU

- **Staffing**

- Nursing: CNCs (1 FTE Continence, 0.5 FTE Community), Clinical Nurse Educator (1FTE), RNs (20: 12.2FTE), HAC funded (3 FTE), NUM manages QRP, ASET and Kogarah Community Nursing
- Support services staff – CSO (0.5FTE)

- **Infrastructure**

- Kogarah Community Nursing and QRP– within the Integrated Care Centre above radiology
- ASET team based in the ED.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**
 - Patient acuity is increasing, with people living longer with multiple comorbidities
 - Discharging people from hospital sooner, so requiring more input from community nursing
 - Average age of patients is increasing
- **Constraints on activity and models of care**
 - Avoidable admits: With an expansion of hospital avoidance programs in the community, there is a potential to further reduce admissions, which will increase demand on community nursing
 - Potential changes in care settings: Increasing Early Discharge will also increase demand on community nursing
 - Direct admits: Referrals are predominantly from inpatient area
 - Unmet demand: Unknown, as currently referral pathways are from hospital
- **Potential for new clinics/ services**
 - Potential for designated Wound Care CNC position. Wound care is increasing and the complex care and advice currently is within a generalist CNC role due to interest and experience of this person
- **Technology**
 - None identified
 - See also Aged Care Services consultation report
- **Infrastructure**
 - Office space – (note that after hours GFS is also co-located with KCN)
 - Car parking of fleet cars (nil current)
 - There are no critical adjacencies
- **Staffing**
 - All new or expanded models of care are contingent on appropriate staffing.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**
 - A significant expansion of community based services to better care for people at home and avoid ED presentation and admission
- **Infrastructure solutions**
 - Office space
 - Parking for fleet vehicles
- **Staffing solutions**
 - Staffing would be commensurate with level of service delivered.

MEDICAL IMAGING

SCOPE OF SERVICES

St George Medical imaging Department is a level 6 tertiary referral service that provides medical imaging service to support patients accessing services at SGH. It provides a comprehensive range of diagnostic, consultative and interventional services from Monday to Friday from 8am – 8pm, with afterhours provided by satellite services.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**

- The department accepts all referrals from SGH and from other public and private providers
- There has been a significant increase in the clinical acuity and complexity of patients due to multiple comorbidities

- **Drivers of demand**

- The population ageing and growing with medical imaging playing a critical role in diagnosis and treatment planning of various clinical conditions for this population
- There have been substantial improvements to imaging technology that has driven efficiency in the department enabling it to remain within its current footprint
- The expansion of SGH both inpatients (new ASB with 128 beds) and outpatients will flow on to greater demand for medical imaging
- The private sector is currently a large provider of activity in NSW, particularly obstetrics ultrasound has increased substantially and GPs mostly refer to private facilities for magnetic resonance imaging (MRI) access

- **Operational description**

- The imaging technologies include general x-rays, fluoroscopy, computerised tomography, ultrasound, angiography / interventional, MRI and mammography exams (this includes mobile x-ray and ultrasound). Images and reports are stored on a RIS/PAC
- The Department is equipped with
 - Three CTs (2 in Medical Imaging and 1 in ED)
 - Five Ultrasound Rooms (7 ultrasound systems including Angiography & Screening Room)
 - Two interventional rooms (1 x Digital subtraction angiography and 1 x) digital screening system)
 - Five x- ray rooms (4 in Medical Imaging and 1 in ED)
 - One Mammogram room
 - One MRI (MRI shell under construction to house existing transferred unit for Stage 3)

- **Activity**

- The use of diagnostic imaging has increased with a CAGR of 1.6%, with MRI (4.4%) and CT (4.3%) showing the highest growth
- 72% of examinations are for inpatients, averaging 0.5 examinations for every inpatient separation
- The new CT in the ED has reduced the demand on the Medical Imaging Department. Another x-ray and ultrasound will be required in Emergency
- Most patients attend a single modality
- Complex intervention procedural activity has increased by 15.7% in 12 months

- **Models of care**

- Waiting list: The largest waiting list is for paediatric MRI (6 months). This is compounded by a lack of dedicated adult and paediatric MRI to efficiently flow patients. SGH being the only tertiary referral hospital with a single MRI unit (also accommodating TSH & CHCK inpatients) and limited extended operating hours
- Physical separation of interventional and diagnostic services for CT and Ultrasound allows for more efficient streaming of patients
- Redevelopment plans within tertiary referral ED Departments now include two General X-Ray rooms, one CT Scanner, two Ultrasound units and one MRI unit

- **Staffing**

- The department is staffed with radiologists, junior medical staff (registrars), radiographers, nursing, technical assistants, and administrative/clerical staff

- **Infrastructure**

- The medical imaging department is located in the Burt Neilson Wing. There are 3 separate distinct areas:
 - Area 1 contains: 5 ultrasound rooms, 1 mammography room and 4 x-ray rooms
 - Area 2 contains: 1 MRI, Angiography/Interventional room, 2 screening rooms
 - Area 3 contains: 2 CT scanners, plus 2 equipment rooms
- Satellite services are provided throughout the hospital, mainly ED

CURRENT ISSUES AND CHALLENGES

- **Changing patient demographics**

- Ageing population, growing population, growing chronic diseases, residents with multiple comorbidities and complex care requirements
- There are increasing number of obese and immobile patients who are difficult to image due to weight, inability to transfer onto the equipment and/or space limitations. A dedicated hoist is required to improve this situation
- MR Imaging of paediatric patients requiring sedation and general anaesthesia is resource intensive

- **Changing modality trends**

- Increasing number of minimally invasive procedures (i.e. diverting both planned and emergency activity from operating rooms to interventional radiology), increasing use of MRI and CT. MR imaging is preferred over CT (radiation) for paediatric safety. Due to restrict service hours, SGH MRI is unable to extend MRI Paediatric services despite a burgeoning demand
- Ultrasound is also being used more but the growth is not picked up in the data as the private sector do significant amounts of obstetrics ultrasound

- **Unmet Demand**

- There is extensive outpatient ultrasound service demand with 10/52 appointment wait time for obstetric examinations from privately referred outpatients and SGH Clinics. The service could expand to accommodate a further 1-2 Ultrasound Rooms to meet demand (revenue raising opportunity)
- The single ED Imaging general x-ray room is at capacity (averaging 102 examinations each day) and requires a second collocated imaging room. Patient overflows are inevitable with concomitant transfers to Radiology to alleviate delays (adverse ETP)
- Restricted inpatient MRI activity due to limited operating hours

- **Service Enhancements**

- Due to restricted MRI service hours and emphasis on inpatient activity (TSH and SGH), SGH is unable to offer extended Paediatric imaging service. There is no capacity to offer Prostate, Cardiac or Breast MRI imaging to its referrers with such services being referred to the private imaging sector (inpatient transfers)

- **Infrastructure**

- The medical imaging department is located on Level 0A Burt Neilson Wing with Satellite services provided throughout the hospital, mainly ED
- The current footprint of the Department is about 1,600 square metres and over 20 years old
- The physical location of the department is relatively remote from inpatients resulting in lengthy patient transfers, delays in transporting patients to and from the department, and inappropriate infrastructure i.e. lifts and corridors do not necessarily accommodate bed size. This will be more of an issue, particularly in the relation to the new Acute Services Building accommodating intensive care patients
- There is limited capacity to care for bariatric patients particularly in relation to lift and corridor size
- Way finding to medical imaging is poor resulting in tension, anxiety and frustration for outpatients

- **Staffing**

- Difficulties attracting a sonographers and retaining nursing staff
- Inability to recruit radiographer casual staff (nil backfilling of leave)
- Restricted radiographer multiskilling program to cover extensive range of diagnostic imaging services is a significant risk to service provision
- Radiology remains under Risk Management (ERMS No: 3579) following a shortfall in staff allocation (3.0FTE Radiographers, 2.4FTE Nurses & 1.2FTE Orderly) to ED Imaging in October 2014.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Infrastructure solutions**

- Ideally all Medical Imaging and Nuclear Medicine services would be co-located on one floor through one door but streamed into separate waiting rooms. This would improve efficiencies in time and staffing and an improved patient experience. Shared facilities e.g. utility room, toilets, Conference/MDT/Education rooms
- Consider dedicated adult and paediatric MRI to efficiently flow patients
- To carefully consider the placement of the MRI (magnet weighs six tons) in terms of floor loading and to enable MRI equipment to be replaced/maintained more efficiently i.e. access to the outside wall
- Current department footprint of 1,600 square metres requires future expansion to 1,980 square metres to accommodate increased service provision which includes the addition of one Ultrasound room, two MRI rooms and two Angiography rooms
- Ensure there are a sufficient number of patient holding, preparation and recovery spaces of adequate size to accommodate the needs of each modality
- Allow close physical location with the new ASB
- Staff only lifts and corridors
- More parking for patients.

MEDICINE 1 AND GENERAL MEDICINE OUTPATIENTS

SCOPE OF SERVICES

- Medicine 1 includes the specialties of Renal Medicine, Gastroenterology, Respiratory Medicine, Nuclear Medicine, Hepatology, Cardiology, Cardiac Catheter Laboratory, Cardiac Rehabilitation, Neurology, Respiratory Coordinated Care Program (RCCP)
- Medicine 2 includes General Medicine.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Main driver of current demand is the increasing growing and ageing population living longer with multiple comorbidities (for example those with long term conditions, multi-morbidities and/or obese)
- Recognition of many patients having English as a second language

• Operational description

- Outpatient clinics are held in a number of locations throughout the hospital, depending on Specialty
- Outreach services into the community are held for RCCP, Renal (at Mission Australia)
- Cardiac, Heart Failure and Respiratory rehabilitation groups are held in the Physiotherapy Outpatients gymnasium

• Activity

- Outpatient activity is limited by space, equipment and staffing
- Inpatient activity has been trending up over recent years, however average length of stay has decreased for all specialties

• Models of care

- Increasingly, patients are being managed in the outpatient or community setting
- General Medicine OPD clinics are all follow ups, numbers limited by clinic space and staff availability

• Staffing

- Nursing: Nurse Unit Manager, Clinical Nurse Specialists, Consultants, Nurse Educators, RN's, ENs, AINs
- Medical: Registrar and Resident Medical Officers, Specialist Medical Officers
- Allied Health: Physiotherapists, Dietitians, Occupational Therapists, Social Workers, Speech pathologists, Psychologists and specialty specific scientist, technicians, technical assistants and researchers
- Other: administrative/clerical staff, etc.
- Support services staff: housekeeping, hotel services admin, etc.

• Infrastructure

- General Medicine clinics are held in the Outpatients Department in the Prince William Wing
- ENT clinics are held on ward 3S
- Cardiology clinics are held in the Clinical Services Building
- Rehabilitation groups are held in the Physiotherapy department gymnasium.

CURRENT ISSUES AND CHALLENGES

• Constraints of activity and models of care

- Waiting list: Cardiology waiting list:
 - All Outpatient Cardiology clinics are full until March 2017
 - Outpatient TOE procedures 2 month waiting list
 - Outpatient coronary angiogram waiting list 6 weeks
 - Outpatient Pacemakers 2 months
 - Outpatient EP without GA requirement 6 months
 - Outpatient EP with GA requirements have waiting periods greater than 12 months (2 years if no change to anaesthetic outpatient sessions)
- Avoidable admits / referrals:
 - Could be prevented with more nurse led clinics and community based services
 - There are currently no HITH services available from SGH, although some suitable conditions can be managed by Community Services to prevent admission
 - There are insufficient MDT clinics resulting in some patients having an avoidable admission and/or a longer length of stay
 - Some patients are inappropriately referred to specialist clinics by GPs
- Unmet demand
 - There are currently no bariatric specific services, despite increasing numbers of obese patients accessing all SGH services
 - The perioperative service needs to provide a pre-op assessment clinic for high risk surgeries. Currently this is just for frailty, however there are other conditions e.g. diabetes that could be better managed pre-operatively
 - The Frailty clinic needs to expand to meet demand and prevent hospitalisation or deterioration

• Potential for new clinics/ services

- Potential for an increasing number of Cancer Survivor Clinics with long term sequelae of treatment, e.g. head and neck cancers who are long term survivors of Human papillomavirus (HPV) and all radical post CRT patients

• Technology

- There is a lack of technological solutions that could be used (e.g. remote monitoring of patients, medication management systems, streamlined triaging and referral systems, etc.)
- Technological solutions particularly those reliant on patients input (e.g. commencing videoconferencing session, documenting activity, etc.) requires consideration of patient's cognition, dexterity, etc.

• Infrastructure

- Insufficient clinic space and purpose built rooms for outpatients limits throughput
- Spaces available are often not fit for purpose, e.g. Dr's offices, which then reduces access to computers, etc. for others
- Services scattered throughout the hospital which is inefficient for staff and patients and difficult for wayfinding
- There is a lack of physical infrastructure (space and equipment) for bariatric patients/clients

- **Staffing**

- Any increase in clinics would be contingent on appropriate staffing levels.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Provide an Ambulatory Care Centre for colocation of general medicine clinics to provide efficiencies for staff and patients, allow MDT clinics and improved collaboration and integrated care between specialties
- Increase access by specialties to clinic space to potentially prevent admission, with MDT clinics, crisis clinics and an increased number of clinics overall to reduce waiting lists and patient deterioration
- Establish a bariatric service requiring an integrated MDT service with appropriate infrastructure (space and equipment)
- Increase nurse or allied health led clinics to allow earlier discharge and reduce length of stay
- Increase community outreach services
- Increased chronic disease management in the community, e.g. increasing numbers of cancer survivors need ongoing management at home
- All allied health clinics and offices collocated in Ambulatory Care Centre
- Implement HealthPathways to assist improving management of inappropriate GP referrals

- **Infrastructure solutions**

- Adjacencies:
 - An Ambulatory care centre would ideally be adjacent to the Acute Services Building (ASB) with interconnections to allow rapid response to PACE calls and ease of access to other services e.g. Pathology, Medical Imaging
 - Space for groups and classes with relevant equipment is required, e.g. for Cardiac, Heart Failure, and Respiratory rehabilitation. Could be a shared gym space
 - Cardiology would be in a discrete precinct, with clinics, examination (including for allied health) and procedure rooms and offices and education rooms co-located with Cardiac Cath Lab for staff and patient and service efficiencies
- Shared group rooms and meeting rooms for staff and patient education and teaching
- Ensure office space for community services
- Adequately equip community health services so chronic disease could be better managed in the community
- Ensure specialty clinics are purpose built for equipment needs
- Potential ICT solutions
 - Space for Telehealth for remote monitoring and advice/management, e.g. for remotely monitoring Pacemakers; for medical advice to community teams to avoid ED presentation
 - SMS normal results to avoid appointments
 - SMS reminders to avoid missed appointments
 - Central intake and booking for all outpatient referrals
 - Wireless technology and linked medical records
 - Systems that screen patient's function at home to determine need/triage for appointment, e.g. ScreenIT for UQ

- Cardiology non-invasive clinical services infrastructure clinician's requirements
 - Third Cath Lab would extend from ASB at the same level (level 3) and adjacent to the TOE/Procedure room
 - Transthoracic Echocardiography x 3 , Stress ECHO x 1, Trans-oesophageal ECHO/Procedure room x 1 with supporting infrastructure (e.g. reporting rooms, holding area, clinic rooms)
- Staffing solutions
 - Staffing would be commensurate with level of service delivered.

MENTAL HEALTH

SCOPE OF SERVICES

The St George Mental Health Service is a division of the SESLHD Mental Health Service Teams/Units include:

- Acute Care Team (extended hours)
- Adult Community Mental Health
- Rehabilitation Team
- Acute Inpatient Unit
- Child and Adolescent Mental Health Service
- The Older Persons Mental Health Service
- Psychiatric Emergency Care Centre

In addition, the South Eastern Sydney Recovery College is a partnership between the SESLHD Mental Health Service and Community Colleges.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Client demographics

- The Service spans all ages, from perinatal care through to older people's mental health
- The top 10 primary diagnoses for community clients (a focus of this IHSP) are schizophrenia; acute and transient psychotic disorders; schizoaffective disorder; reaction to severe stress, and adjustment disorders; bipolar affective disorder; mental/behavioural disorders due to substance abuse; suicidal Ideation; dementia; depression and anxiety disorders

• Operational description

Community mental health services are delivered in partnership with NGOs and the primary health sector to provide a balanced, comprehensive and effective system of mental health care

- Hours of operation are 0800-1700 Monday-Friday for most community teams, with the exception of the Acute Care Team which operates 0800 – 2230 (7 days)
- The Intake and Assessment Service (Triage Team) is the central point for all enquiries in the St George and Sutherland areas about mental health problems
- The Child and Adolescent Mental Health Service (CAMHS), serving 0-18 year olds, is comprised of multidisciplinary teams, offering a broad range of services, including family-based counselling. The focus is on prevention and health promotion services. CAMHS provides short-term to medium-term counselling, generally with a family focus. This includes individual, group and family interventions. There is an emphasis on working in partnership with families, schools and appropriate services in the community to create systems of safety. Home visits are available in some circumstances. Educational and therapeutic group programs are run throughout the year (Postnatal Depression, Confident Carers, Cooperative Kids, Meeting the Emotional Needs of your Child and Raising Confident Children)

Adult mental health services are comprised of multidisciplinary teams, providing a range of integrated services across community and inpatient services:

- The Acute Care Team (ACT) provides community-based mental health assessments and interventions for consumers with acute mental health problems. The role of the ACT is to provide crisis intervention and short-term follow up of consumers in an acute phase of mental illness or distress
- Adult Community Mental Health. Case management teams provide ongoing treatment and support for consumers. Services are provided to clients and their families affected by a variety of mental illnesses such as bipolar affective disorder, schizophrenia, recent onset of psychotic illness plus anxiety and mood disorders. Services offered by these teams include:
 - Case management
 - Counselling
 - Psychological interventions
 - Education about mental health and illnesses
 - Supervision with medication
 - Support services for consumers, their families and/or their carers
- Bilingual and bicultural services including counselling in Greek, Arabic, Cantonese and Macedonian. Interpreter services are available for other languages
- The Rehabilitation Team works with consumers to assist them to improve or develop their skills or life roles in the areas of daily living, social, education, training and work. The team helps consumers to access services in the community. In addition to working one-to-one with consumers, the Mental Health Rehabilitation Team also runs a wide range of courses and groups. The team provides community education and awareness raising activities about mental health
- Specialist Mental Health Services for Older People (SMHSOP) provide assessment and treatment for older people (65 years and over) with mental health problems. Treatment is provided in both hospital and the community. The team also offers consultation and support to other aged care services
- South Eastern Sydney Recovery College is a pioneering educational initiative in Australia which encourages learning and growth for better mental health. All courses are jointly developed and facilitated by a Peer Educator with lived experience of a mental health condition and a Clinical Educator

- **Models of care**

- The concepts of recovery-oriented practice and person-centred care are fundamental to the Mental Health Services' model of care. High value is placed on active consumer, carer and community participation at all levels of the service
- Consistent with state strategic directions and the approach supported by the NSW Mental Health Commission, it is envisaged that there will be an increasing availability of a range of community-based mental health services working closely with primary care and other government and non-government agencies – providing timely, evidence-based and comprehensive health care, and in particular, early and effective treatment for mental illness and for those physical problems associated with mental illness
- In recent times there have been numerous changes, largely guided by consumers, in the way contemporary mental health services are delivered:
 - the Recovery-Oriented Mental Health Service model, drawing on the lived experience of mental health consumers to inform environments and practices that support recovery
 - the Trauma- Informed Practice model, recognising that mental health service users are likely to have past experience as victims of violence and abuse and that their experiences of mental health services should contribute to, rather than inadvertently undermine, their capacity for recovery
 - the Strengths Model, in recognition of the significant resources and resilience factors that consumers bring to clinical collaboration
 - Equal access to safe, evidenced-based, high quality care for all health needs of people affected by mental illness is a current priority, with mental illness no longer being a barrier to receiving adequate or effective treatment for the physical problems that significantly impact on life expectancy and quality of life

- **Staffing within community services**

- Nursing: 23.79 FTE
- Medical: 25 FTE
- Allied Health: 49.58 FTE
- Corporate: 13.89 FTE
- Other, including Peer Support Workers: 3.72 FTE

- **Infrastructure**

- Child and Adolescent Services are based at Hurstville in a house at Woniora Road, Hurstville and currently have 8 clinic/therapy rooms
- Adult Community Services are based in leased premises in Kensington Street and currently have 12 clinic/therapy rooms
- Specialist Mental Health Services for Older People (SMHSOP) community services are located in Chapel Street, in a demountable building, and currently have 4 clinic/therapy rooms
- The South Eastern Sydney Recovery College (and Keeping Body in Mind) is located in leased premises
- PECC has been accommodated in the new ED building
- The adult Acute Inpatient Unit and the SMHSOP inpatient unit is located on the hospital campus with entry via South Street.

CURRENT ISSUES AND CHALLENGES

- **Infrastructure**

- Leased premises accommodating the adult community mental health teams
- Demountable building accommodating the SMHSOP community teams, on the opposite side of the campus to the SMHSOP inpatient unit; limiting the potential for integration between the levels of care
- Woniora Road, Hurstville. These premises need have some major maintenance issues addressed and the building is at capacity in accommodating the staff of CAMHS. It is also some distance from all other inpatient and Community Mental Health Services.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Increasing community provision of services. There is significant potential for growth in community/ambulatory activity, in response to state strategic directions and contemporary models of care, along with prevalence of mental illness in the community
- Opportunities to link with, and develop new service models between adult Mental Health Service and physical health providers, Drug and Alcohol Services, Sexual Health, Oral Health
- Step care model: define role in step care model and who key partners are eg GPs
- Growing peer support network; consistent with Mental Health Strategy and Government response
- Addressing stigma, which often underlies the difficulties in people with mental illness accessing proper care

- **Infrastructure solutions**

- CAMHS & Youth Mental Health located in ambulatory care centre
- Youth and adult Mental Health Services located in ambulatory care centre, preferably co-located with D&A Service, Sexual Health, and access to Oral Health
- Older adults – SMHSOP community services linked to older people’s inpatient building eg build one or more levels above the inpatient services, with a service elevator, to facilitate integrated staffing models across both. The inpatient unit was designed to allow for additional floors to be added
- Recovery College and Keeping Body in Mind requires larger meeting rooms, education rooms and access to kitchenette, ADL kitchen and a gym
- Adult inpatient unit: allow room for expansion and redesign in the master planning process eg between the private hospital and the unit. Refurbish and redesign the room configuration to allow more circulation space and more therapeutic space within the current unit, in keeping with contemporary inpatient care.

MULTICULTURAL HEALTH STAKEHOLDERS ADVISORY COMMITTEE

- The committee members include a range of NGOs, Local Council and SESLHD staff
- The focus of the discussion was to gain an understanding of priorities for serving the culturally and linguistically diverse communities; and comments in relation to the integrated health services plan
- Committee members had been provided with a copy of the draft Executive Summary of the St George Integrated Health Services Plan and focus questions prior to the consultation.

WHAT IS WORKING WELL?

- In general it was agreed that the SGH and Community Health Services had a good understanding of the CALD populations
- Cultural understanding of many staff
- Hospital/Health service is viewed positively within the community; trusted
- New Emergency Department is better
- Antenatal clinics and child and family health around the community
- Positive about realigning care towards the community.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**
 - There is unmet demand not fully explored
 - Need to ensure that hard to reach communities are included
 - Characteristics of the aging CALD populations within the area
- Interpreter use is an ongoing concern, along with risk when using children/family members
- GPs with community languages highly sought after, however access is seemingly more difficult
- After hours GP service - momentum has dropped, needs promotion
- Demand for outpatient services remains high
- Diminished focus on community development and outreach services

- Technology - for education purposes, including multimedia in language

- **Infrastructure**

- Wayfinding on campus, and availability in language
- Having culturally sensitive facilities that cater for larger numbers of family members.

HOW CAN WE WORK BETTER TO KEEP PEOPLE WELL IN THE COMMUNITY, SHIFT THE BALANCE TOWARDS AMBULATORY (E.G. OUTPATIENTS) AND COMMUNITY CARE AND TO AVOID THE NEED FOR ED PRESENTATIONS?

- Agreed that a multipurpose ambulatory centre is appropriate, and co-location of clinics
- Increase in language descriptions about how to use services
- Increase care and system development that factors in/includes disability services, aging and refugees with history of trauma
- Increase information meetings in community centres and with community groups, in environments where people are comfortable
- Navigational staff – i.e. to help people navigate the health care system. Person to person communication is very important
- Focus on supporting community members to stay at home with appropriate services
- Consider changes to models of care and service pathways, including changes to birthing suite to include assessment suite
- Increase bilingual staff
- Improved website, as a key source of information for family members and preferably with translated information available
- Audio and video communication to complement written material
- Use of community radio and SBS, attending community events - for health literacy
- Directory of bilingual General Practitioners.

ARE THERE PARTICULAR ISSUES YOU WOULD LIKE TO SEE ADDRESSED IN OUR PLANNING FOR:

- Subacute services (including rehabilitation, aged care and palliative care)
 - Palliative care information for families
 - Stigma regarding palliative care – reluctance to access rehabilitation co-located with palliative care
 - Review language used such as ‘palliative care’ or ‘rehabilitation’, and consider more descriptive terminology, as the concepts/services may not be familiar in country of origin
 - Reliance on family
- Birthing suites
 - Admission area, with waiting rooms able to accommodate large family groups
 - Co-location of birthing suite to operating theatres, NICU
- High volume short stay surgery
 - Opportunity for community education – video and audio in community languages while waiting.

- Diagnostic imaging (ultrasounds, x-rays, etc.)
 - Modesty
- Ambulatory (e.g. outpatients) and community health services
 - Women's health clinics
 - Regular clinics in community health centres/community centres
 - Community health services being more available and accessible, with bilingual staff where possible
 - Existing supported playgroups in community, run by community organisations, are opportunity for health information by early childhood nurses, women's health nurses and other staff
 - More outward facing staff.

FURTHER RECOMMENDATIONS

- Using information in system – e.g. Interpreter needed, retain the information and not repeat, and use for more effective communication such as sending appointment information in the language preferably double sided with English one side and translated language
- Large waiting rooms for families, accessible day and night
- Information booth to have person available (NB no one present today and this is common); electronic boards are not user friendly particularly when people are stressed/unwell
- Wayfinding, translation of signage points in 5 major community languages preferably in live screen that can be updated and in-person staff/volunteers to provide directions
- Development of a communication strategy to improve implementation process.

NEEDLE AND SYRINGE PROGRAM

SCOPE OF SERVICES

- Kirketon Road Centre (KRC), located in Kings Cross, provides a comprehensive range of health services including outreach services. KRC primarily targets 'at risk' young people, sex workers, and people who inject drugs
- KRC has operational responsibility for the delivery of Needle and Syringe distribution across the entire geographical area of SESLHD
- Currently, KRC provides a limited secondary needle and syringe program to the St George area. A primary service is required to provide a more comprehensive service, including brief intervention and referral to services for people who inject drugs, in addition to equipment and sharps disposal i.e. a Needle and Syringe Program
- Reduction of needle re-use by 25% is currently a service measure set by the NSW Ministry of Health as part of the implementation of the e NSW HIV, Hepatitis C and Hepatitis B strategies. Access to clean needles and harm reduction advice and information is the key strategy by which this will be achieved.

DESCRIPTION OF CURRENT SERVICE DELIVERY

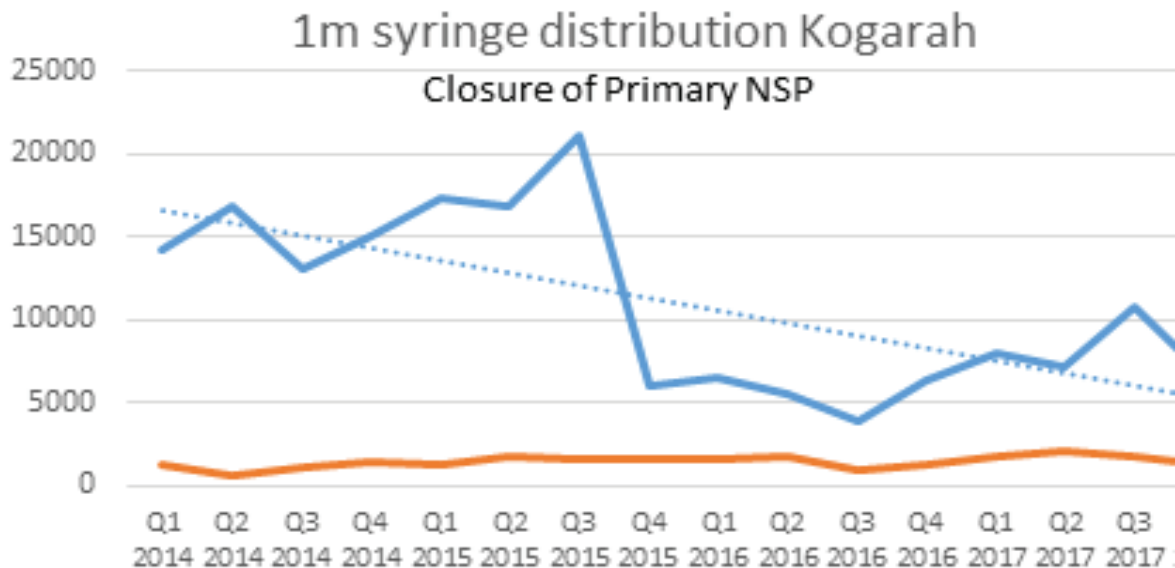
- **Patient demographics**
 - People who inject drugs, all ages and genders
 - There are two main cohorts of clients: i) illicit drug users and ii) performance and image enhancing drug users (an increasing cohort)
 - The equipment needs of each cohort are different

- **Operational description**

- Service provided: a limited secondary service is currently provided via an automatic dispensing machine and an internal dispensing chute from within the D&A service
- Demand for injecting equipment in the local area is not currently being met, since the changes to the service and removal of staffing more than 3 years ago

- **Activity**

- Dispensing of 1 ml syringes from the St George Drug & Alcohol Service are significantly lower when compared to the amount prior to the change in service delivery model
- Data from other NSP outlets in the St George and Sutherland regions do not show a corresponding increase in distribution as in the period following the change to the service delivery model at St George Drug & Alcohol Service, Kogarah
- There is no current non-admitted activity data, due to the service not being provided



- **Staff**

- Nil.

CURRENT ISSUES AND CHALLENGES

- Reduction in access within the St George area to a Needle and Syringe Program
- Limited engagement with a marginalised population
- Decreased capacity for referral to mainstream D&A services
- Decreased capacity to encourage and support Hepatitis C treatment
- Access to general health care
- Impact on community with non-safe disposal of needles, and the amenity of environment when safe disposal is unavailable
- There is an approximated 20% receptive sharing rate in this population, NNEDC 2017 data SESLHD NSP service which results in a higher risk of contracting blood borne viruses.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- The NSW Government is committed to reducing the sharing of injecting equipment among people who inject drugs by 25% by 2020
- The Needle and Syringe Program (NSP) is an evidence based public health program that aims to prevent the transmission of blood borne viruses such as HIV and Hepatitis C amongst People who Inject Drugs (PWID)
- **Service solutions**
 - KRC proposes access to a staffed site, as a primary needle and syringe program site, to engage users into the service with opportunity to provide information, client education, and a gateway into the health sector which are currently unavailable to residents of the St George catchment
 - The NSP would also provide a range of injecting equipment in a variety of different settings including from a designated room, automatic vending machines, internal dispensing chutes, sharps disposal bins, safe sex equipment (condoms and lube), accept needle returns, and engage in needle clean-up
 - A supported service model is the proposed model of care; NSP is a community related activity
 - Potential hours of operation 0900-1700 Monday-Friday
- **Infrastructure solutions**
 - Primary needle and syringe program site operating from a room; easy to find and has a discrete community face, because of the highly stigmatised nature of injecting drug use, i.e. allowing clients to enter and leave in a discrete way without needing to ask for directions and providing a level of confidentiality and anonymity
 - A room sized to accommodate a member of staff, one to two clients, storage cupboard for equipment, equipment dispensing machine, sharps disposal
 - Ideal physical adjacencies would be D&A Services, Sexual Health and the department of HIV Immunology and Infectious Diseases
 - Community related activity --- doesn't require sinks, equipment sterilisation
- **Infrastructure solutions**
 - Network access is the primary ICT solution requirement
- **Staffing solutions**
 - 1FTE Health Education Officer(HEO)/Projects Officer 1FTE appointment would be necessary
 - The HEO would be resourced and managed from KRC.

NEUROLOGY SERVICES

SCOPE OF SERVICES

Neurology services provide a clinical and diagnostic service for assessment and management of both inpatient and outpatients with disorders of brain, nerve and muscle.

Disorders include cerebrovascular disease (stroke), epilepsy, headache (including migraine), motor neurone disease, multiple sclerosis, neuromuscular, vestibular (dizziness), etc.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- The patients treated by the service are adults with approximately 50% of patients being 65 years or older; average age 75 and above for vascular brain related issues
- Young cohort of patients with multiple sclerosis
- Main drivers of demand is the increasing and ageing population

• Operational description

- Outpatient clinics are located in the Prince William Wing and include
 - SGH Chronic Migraine Botox Procedure Clinic
 - SGH Neurology Clinic
 - SGH Neurology Consultation Clinic
 - SGH Neurology Nerve Conduction Study Clinic
 - SGH Neurology Stroke Clinic
 - SGH Neurology EEG Clinic
 - SGH Neurology Clinic - Speech Pathology
- Neurophysiology services include electroencephalogram (EEG), electromyography (EMG), vestibular function testing, etc.
- Inpatient beds on Ward 6 South 31 beds (shared with neurosurgery) reducing to 25 beds (once neurosurgery beds are relocated to the Acute Services Building). Of the 25 remaining beds eight (8) are designated stroke beds with full telemetry and additional four (4) beds capable of roaming telemetry
- Thrombolysis service (endovascular clot retrieval) is a networked hub and spoke service provided by POWH with patients returned to SGH within 24 hours
- Large teaching role with University of New South Wales (UNSW); strong ties to Clinical School

• Activity

- Outpatient activity is a known undercount as clinics were closed to new referrals in October 2016 due to low staffing, lack of space and excessive waiting list resulting in an inability to follow-up inpatients although some of these outpatients are being seen in specialists rooms
- Inpatient separations have been gradually trending upwards over recent years, while the average PEM (reflecting increasing cost and complexity of patients) and average length of stay has been trending down
- Most older adults' inpatient activity is related to a cerebrovascular disease whereas younger adults tend to present with seizures or headache

• Models of care

- Referral from GPs, inpatient or ED
- Appointment reminders are sent by letter with a follow-up SMS reminder
- Most discharged neurology inpatients are followed up in neurology outpatients, in the Prince William wing or in the consultants rooms
- Close collaboration with inpatients including intensive care
- Consultants and registrars don't share clinic room – running patient appointments simultaneously
- Educating GP's about appropriate referral of patients

- Neurodegenerative disorders are managed as follows
 - Alzheimer's disease referred to aged care services
 - motor neurone disease referred to CHCK
 - The neurology service does look after a range of neurodegenerative disorders and some are referred on to Aged care and CHCK but many are not
- Key clinical relationships with neurosurgery and intensive care

- **Staffing**

- Medical: 8 neurologists (including 6 staff specialists and 2 visiting medical officers) 2 Advanced trainees and 1 basic physician trainee (registrars) and 3 resident medical officers. Affiliations with UNSW including professorial and conjoint appointments
- Nursing: Nurse Unit Manager, Stroke CNC, Clinical Nurse Specialists, Consultants, Nurse Educators, RN's
- Allied Health: Physiotherapists, Dieticians, Occupational Therapists, Social Workers and specialty specific scientist, technicians and researchers
- Other: technical assistants, administrative/clerical staff, - 2 full time Neurophysiology technicians, 4 secretarial staff.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- It is expected in the future there will be there will be increasing numbers of patients with neurology disorders with or without co-morbidities
- Managing patient's expectations in relation to the long term management of stable patients does not require ongoing follow-up

- **Constraints on activity and models of care**

- Waiting list: Neurology clinics are currently at capacity with a waiting list of 4-6 months
- Clinic closure: Neurology clinics have been closed for new referrals since October 2016
- Potential changes in care settings: Clinicians expressed an interest in developing a 'Flying Squad' type model of care for some neurology patients, subject to staffing
- "Did not arrive": the rate of did not arrive outpatients is variable and has improved since introducing SMS reminders
- Unmet demand: It is considered with the clinic closure there is significant unmet demand and when it reopens its books it is expected the clinic will be overwhelmed with up to 10 new patients and 30 follow-up per month
- Inappropriate referrals: there are some patients whose health could be managed by GPs rather than being referred to a specialist
- Clinics often running late in outpatients area – inadequate rooms
- Most of complex patients are seen in consultants' rooms (1.5 hour appointment) due to access to clinic space for the length of time required
- Potential for new clinics: currently there is no clinic for patients with multiple sclerosis and vestibular disorders and/or multidisciplinary clinic for neuromuscular or first seizure epilepsy clinics

- **Infrastructure**

- The three most significant infrastructure issues for neurology are a lack of inpatient beds, a physically separated service and a lack of appropriate clinic rooms and office space (5 offices for 8 neurologists; no registrar office space)
- No specific requirements for co-location with other departments.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

• Service solutions

- Reopen books on neurology clinics
- Investigate the implications of establishing a 'Flying Squad' type service
- Establish new multi-disciplinary clinics for patients with multiple sclerosis and vestibular disorders
- Potential for young stroke clinic, acute (TIA) clinic, first seizure clinics and epilepsy clinics separately; Acute Dizzy Clinic (one per fortnight building within a year to one per week); Chronic Dizzy Clinic (reduce inpatient admissions)
- More access to outpatients would help follow up inpatients and allow for new patients to be seen in the consultant's rooms
- Continue educating GP's about appropriate referrals and consider adopting Health Pathways to support this education process

• Infrastructure solutions

- Construct a neurology precinct including clinics, neurophysiology equipment and offices, ideally in close proximity to the wards given the heavy service requirement
- Note preference is for inpatients to be transported to neurology for neurophysiology testing in an insulated room due to potential for electrical interference in wards
- Non-critical adjacencies with neurosurgery and ICU
- Neurophysiology equipment: need space for equipment within department; expensive equipment; operated by consultants; insulation required for room housing certain equipment e.g. EEG and EMG to protect from equipment generating electric currents e.g. switchboard, mobile phones
- Desk space for staff (could be shared)

• Staffing solutions

- Additional staff required to establish a 'Flying Squad' type service.

NSW HEALTH PATHOLOGY - ST GEORGE LABORATORY

SCOPE OF SERVICES

- The St George Pathology Laboratory provides Role Delineation Level Six pathology services to St George Health Service and other facilities in SESLHD as part of the state-wide laboratory network of NSW Health Pathology
- Clinical Consultations for all specialities are available using a mix of on-site and on-call arrangements 24 hours / 7 days per week, including public holidays
- The laboratory receives pathology specimens 24 hours/ 7days per week
- Tests are performed mainly at St George, some samples are referred to laboratories at Randwick, Sutherland and other laboratories within NSW Health Pathology, transported by a NSW Health Pathology courier network
- On site testing includes Biochemistry, Haematology, Blood Bank, Microbiology, Anatomical Pathology, Cytology and Mortuary services
- NSW Health Pathology supports education and research and, in collaboration with South Eastern Sydney Local Health District, provides analytical support for clinical trials undertaken by pharmaceutical companies, diagnostic companies, government departments and other organisations as well as clinicians and others undertaking research within the LHD and affiliated universities.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Pathology Collection Services

- Pathology collections for inpatients of St George Hospital and Calvary Health Care, outpatients as well as a home collection service within the St George and Sutherland Shires is co-ordinated from the Pathology Collections Service located on the ground floor of the Clinical Services Building
- Inpatient ward collections are performed twice daily Monday – Friday, commencing at 0600 until 1200 with an afternoon round performed between 1:00pm and 3:00pm. Weekend and public holiday ward collection rounds are performed between 0600 and 1100 only
- The outpatient collection rooms are open 0730-1645 Monday – Friday and 0830 to 1200 Saturdays for the local and wider population. This service is offered to patients attending clinics within the hospital including oncology, haematology, endocrinology, liver and renal clinics prior to attending clinics or following their visit
- The home collection service is offered to patients who may be less mobile or being cared for at home and may need tests to be performed prior to attending their clinic or receiving their treatment. This service is expanding especially with an ageing population. Home collection is offered Monday – Friday commencing at 7:30am but is dependent on the demand for collections and distances travelled between appointments

• Diagnostic Testing Services

- High throughput testing in Biochemistry and Haematology (including morphology and coagulation) comprises the greatest volume of work by specimen numbers with results delivered within an hour from receipt for most episodes
- Specialised coagulation testing is offered for the diagnosis and clinical management of specific blood disorders including those related to clotting factor deficiencies
- The Blood Bank service is responsible for the provision of blood and blood products to patients requiring replacement transfusions and other therapies. The St George Hospital is a trauma centre and the Blood Bank is an essential service in emergency, life threatening situations
- As well as performing the expected diagnostic tests using culture and molecular methods, the Microbiology service is integral to maintaining and enhancing the Antimicrobial Stewardship and Infection Control programs of St George, Sutherland and Calvary Hospitals. Virology and Serology testing is performed at Randwick for economies of scale and a lack of available laboratory space at Kogarah
- The Anatomical Pathology Service provides a comprehensive diagnostic service to St George Hospital, Breast Screen Southern Sydney, Sutherland and Calvary Hospitals. This includes an 'on demand' frozen section service at St George Hospital and Sutherland Hospital. Anatomical Pathologists attend multiple multi-disciplinary meetings that contribute to the ongoing patient management within SESLHD. It is an important source of material for the NSW Tissue Biobank
- The Bone Marrow Transplant Service is a collaboration between the SESLHD and the St George Pathology laboratory (NSW HP). This service is integral to the Oncology services provided to patients within the area
- Sutherland Centre for Immunology is a central service for SESLHD which specialises in a wide range of immunology testing for samples referred from all sites and ISLHD
- The genetic testing service at Randwick offers a wide range of tests with a short turnaround due to new technologies available. Specimens from St George Hospital are sent to the Randwick Laboratory

• Point of Care Testing (PoCT) and Near Patient Testing

- PoCT devices provide on-site testing in Clinical Departments such as Outpatients, ED, ICU for blood gases, lactate, haemoglobin, troponin, electrolytes and coagulation. These devices do not replace routine laboratory services but serve as a means to obtain results if rapid intervention may be required. These devices are supported and managed by NSW Health Pathology staff in collaboration with the staff from the specific clinical departments to ensure the necessary quality control of testing
- Near Patient Testing (NPT) was successfully introduced in June 2017 for rapid diagnosis of the influenza (Flu A & B) and respiratory syncytial virus (RSV). This service is provided 24 hours/ 7 days per week typically during winter. During its debut it was successful in the diagnosis and treatment of affected patients and improving patient flow for those who presented to ED. This service is an example of future services which with collaboration between the hospital and pathology could, enhance patient care and outcomes

- **Operational description**

- The laboratory at St George Hospital on levels 3 and 4 in the Clinical Services Building was opened 30 years ago. Workloads have increased by the impact of complexity of tests, volume of samples and the clinical need for rapid reporting. The responses to these demands have been met by extending laboratory hours, acquisition of new technologies and additional staff. The allocated space has not increased
- Pathology at St George Hospital operates to provide services locally and within SESLHD. It operates within the administrative framework of NSW Health Pathology as do all NSW public hospital laboratories, which has generated savings to NSW Health over the last 5 years of more than \$100 million. While there is now a single administration, NSW Health Pathology laboratories respond to local needs through regular meetings with Local Health District executives, and traditional clinical interactions developed over time

- **Models of care**

- Pathology at St George Hospital delivers services locally as well as participating in networks between closely located laboratories and also uses hub-and-spoke models to ensure clinical services have appropriate and timely access to newer pathology technology to support quality patient care
- Service delivery adapts to the introduction of new technologies reducing the turnaround time for results, improve testing accuracy and provide economical solutions to clinical needs. This is a perpetual process

- **Staffing**

- The Operations Manager for NSW Health Pathology, St George the Southern SESLHD Sector, who is responsible for service delivery to the Southern SESLHD Sector according to SLAs. Policy in service delivery is set and adapted to local needs via local liaison, business case submissions to NSW Health Pathology and changes to Service Level Agreements
- A Local Pathology Director has a role to facilitate these services and act as a point of contact for each SESLHD facility. This role is subsumed within the duties of one of the Clinical Directors
- Five Clinical Directors are the heads of each major laboratory streams (Anatomical Pathology, Chemical Pathology, Haematology, Microbiology and Immunology)
- Additional pathologists are available for consultation for each specialty either on site or at the NSW Health Pathology Randwick laboratory at Prince of Wales Hospital
- Each specialty stream has highly qualified and experienced hospital scientists and well as technical officers who are responsible for the day to day running of the laboratory
- A Nursing Unit Manager is responsible for the collection service and who is supported by RNs and Technical Assistants who perform the phlebotomy.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- The gradual increase in ambulatory and community based care to prevent or shorten hospital admission means an increase in the demand for ambulatory services and specialist outpatient clinics. This will add to the continual increase in pathology testing above that due to population increase alone
- Current laboratory facilities and demand
- The current laboratory consists of a series of small sectioned rooms distributed over two floors of the Clinical Services Building. The fragmented layout hinders efficient workflow and staff communication
- The high throughput testing area and blood bank expands over two levels creating inefficiencies for staff as samples are receipted on level three requiring redistribution to level four. These testing areas should be ideally located on one level
- Over 85% of pathology test orders processed at the St George laboratory originate from St George Clinical Services. In 2016/17 financial year, approximately 40% of all tests ordered were sourced from inpatients, approx. 27% from outpatients, 22% from ED and approx. 13% from ICU. This activity does not include the tests performed on PoCT devices located in ED, Critical care and outpatient areas

- Demand for pathology is increasing and is consistent with the recent stage one and stage two developments of SGH. The increased activity for total tests ordered and processed at the St George Pathology Laboratory from July to October 2017 is 6.3% when compared to the same period in 2016.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

• Service solutions

- The collections service in its current format provides a valuable service to inpatients and outpatients as well as patients in the home. The service would can be greatly enhanced by its inclusion as part of an in the Ambulatory Care Precinct. which would allow a single point of access for outpatients
- This would allow:
 - Improved single point access for the patients as the current location of the service is disconnected from other areas within the hospital and access is difficult for patients who are less ambulatory. would improve the patient journey as a whole
 - Proximity to other services would be lin keeping with the aims of the Ambulatory and Outpatient Services enabling:
 - * Greater collaboration between the clinical areas
 - * A centralised information management and technology system to promote information sharing between clinicians and GPs
 - * Efficiencies in administrative processes

• Infrastructure solutions

- An ambulatory care precinct which includes outpatient clinics, pathology collection etc. will provide better integrated and more efficient care for patients
- Collection services would need to maintain close functional links with the laboratory, this which can be achieved by an integrated pneumatic tube system
- Additional collection bays will allow for the expected increases in demand to be met
- The increase in collections and testing activity requires adequate space for the unpacking and receipt of samples as well as packing of any samples required to be referred off-site
- Adequate provision for space to accommodate any pre-analytical technologies which will enable the samples to be receipted and processed without human intervention
- A centrally located wet and dry storage areas and reagent storage would also be required. Sufficient storage of ward collection trolleys and related consumables is required. This storage area will need access to data points and charging facilities for future data capabilities included in trolleys
- An opportunity to relocate some laboratory functions to the adjacent, vacating 3 North or 4 North wards in the Ward Block would create a consolidated single level laboratory. This would and optimize sample exchange between pathology departments, improve laboratory workflow and result in improved turnaround times. However, it is unclear if this opportunity is available at all or on a temporary or permanent basis. The future viability and utility of the Clinical Services Building is unknown. This building is now one of the oldest structures on the SGH site

• Staffing solutions

- Current staffing is adequate however, staffing is highly dependent on the range of testing as well as the increase in demand
- New technologies will enable the increased workflow to be more streamlined with less human intervention.

NUCLEAR MEDICINE

SCOPE OF SERVICES

St George Nuclear Medicine Department is a level 6 tertiary referral service. It provides a comprehensive range of diagnostic and therapeutic Nuclear Medicine procedures to SGH 24 hours per day. Services are provided Monday to Friday from 0800 – 1800pm, with afterhours on call service provided for urgent cases in general nuclear medicine.

Nuclear Medicine and Positron Emission Tomography (PET) uses radioactive material administered internally for diagnostic molecular imaging and treatment of diseases in all aspects of clinical medicine particularly in oncology, cardiology, geriatric medicine, gastroenterology, endocrinology, neurology, rheumatology, orthopaedics, pulmonary medicine, renal medicine, urology and others.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- The department accepts all referrals from SGH and from other public and private providers
- There is increasing complexity of patients including people with mobility issues e.g. very old/frail obese people. Imaging of paediatric patients requiring sedation and general anaesthesia is becoming more resource intensive
- Most referrals are for outpatients, accounting for 62% of nuclear medicine camera studies (both SPECT/CT and gamma camera studies) and 93% of PET studies

• Drivers of demand

- PET imaging and targeted radionuclide therapy are the most rapidly growing areas
- Oncology is currently a major source of referrals which will increase with the growing and ageing population combined with earlier detection of cancers and widening indications for molecular imaging
- Nuclear Medicine is heavily technology driven and there will continue to be rapid technological evolution including further advancement in hybrid imaging (PET/MRI)

• Operational description

- The nuclear imaging technologies include PET, SPECT/CT, bone mineral density, computerised tomography coronary angioplasty, in-vivo and stress laboratory
- Specifically, the Department is equipped with:
 - Three SPECT/CT scanners
 - One Gamma camera
 - One PET scanner
 - One CT Coronary Angiography (CTCA)
 - One Bone Mineral Density (BMD) scanner
 - One stress laboratory
 - Four uptake rooms
 - Two hot laboratories
 - One radiopharmacy
 - one cardiac stress lab
 - One In-vivo laboratory
 - One counting room
 - One therapy room

- **Activity**
 - The use of PET has increased dramatically from 124 in February to 150 in September
 - Nuclear medicine camera activity has increased by 10.6% per year but the rate of growth has slowed in more recent years
- **Models of care**
 - Predominantly a booked service for ambulant patients
- **Staffing**
 - The Department has a MDT of specialist medical consultants, registrars and junior medical officer, technologists, medical physicists, a radiopharmaceutical scientist, specialist nurses, porter and administrative staff
- **Infrastructure location and configuration**
 - The nuclear medicine department is located in the Clinical Services Building
 - The current footprint is over 20 years old and is about 1,000 square metres, however many new services have also been introduced over that time including polypeptide receptor radionuclide therapy, cardiovascular CT angiography and a NET Consultation Service. In addition a new PET Unit open in February 2017
 - There is limited capacity to investigate bariatric patients due to equipment limitations.

CURRENT ISSUES AND CHALLENGES

- **Changing patient demographics**
 - The department is seeing a higher percent of bariatric patients and immobile patients who are difficult to image due to weight, inability to transfer onto the equipment or space limitations
 - There are increasing numbers of patients with co-morbidities and complex medical conditions
- **Changing modality trends**
 - Increasing use of targeted radionuclide technologies for treatment of specific cancers i.e. prostate and breast cancer
 - Increasing use of PET scanners with corresponding decrease in SPECT/CT
- **Infrastructure**
 - Lack of procedure rooms for targeted radionuclide therapies
 - Utilisation of the single PET scanner is high and operationally is over half full. Current infrastructure inadequate to increase the number of PET scanners
 - Rapid technological advances require the acquisition, replacement and upgrading of equipment, which requires appropriate infrastructure
 - There is limited capacity to care for bariatric patients, a dedicated hoist may improve this situation
 - Most the existing camera rooms are smaller than ideal as they were designed before the introduction of SPECT/CT.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Infrastructure solutions**
 - Ideally Imaging Departments- both medical imaging and nuclear medicine would be located in close proximity to one another. This would allow more efficiencies in time and staffing and an improved patient experience

- Gamma Camera Rooms: 2 rooms of 50sqm each with accompanying control rooms, Cardiovascular CT Room: 1 room of 50sqm with accompanying control room, Bone Densitometry Rooms: 2 rooms of 20sqm each, Radiopharmacy: 1 room of 100sqm, Exercise Laboratory: 1 room of 50sqm, Therapy Area: 1 room of 60sqm, Examination Rooms: 3 rooms of 12sqm each, PET Facility: 2 PET cameras with 8 uptake rooms and control rooms with space of 500sqm
- Future service and equipment implementation requires significant consideration of the siting of this equipment, floor loading, radiation shielding, dedicated supply and discharge of gases, HVAC, and power
- Staff only lifts and corridors
- More parking for patients
- **Staffing solutions**
 - Recruiting of staff to highly specialised positions in nuclear medicine can be difficult and succession planning is required.

ORAL HEALTH SERVICES

SCOPE OF SERVICES

SESLHD manages three public oral health community clinics in the SGH catchment. These include:

- Hurstville Dental Clinic - 4 chairs (adults)
- Hurstville School Dental Clinic - 2 chairs (children only)
- Rockdale Child Dental Clinic - 2 chairs (children only)

People eligible to access public oral health services include:

- All children
- Adults meeting the eligibility criteria as mandated by *Eligibility of Persons for Public Oral Health care in NSW Policy Directive 2016_050*

The dental clinics in Hurstville and Rockdale operate Monday to Friday, 8am-4.30pm.

There are a range of referral pathways with the majority being accepted through a centralised intake system. Activity is recorded in the Information System for Oral Health (ISOH) which will be replaced by a fully electronic dental record Titanium Solutions in September 2017.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- The main drivers of public oral health activity are population growth, ageing population and funding arrangements (e.g. changes in Commonwealth agreements and schemes¹⁸³). Combined this has resulted in an overall increase in activity over the past five years
- All clients are triaged according to the Priority Oral Health Program and Waiting List Management policy. Most are placed on waiting lists with recommended benchmark waiting times. When demand for services is high and available funding is low (e.g. reduced National Partnership Agreement funding in 2017/18), the service struggles to meet these benchmark waiting times. The St George area is a high demand area and this results in inequity in access as these clients will wait longer for their treatment compared to residents living in northern SESLHD
- Routinely SMS appointment confirmations are sent to assist with optimisation of clinic activity. Approximately 5% of scheduled appointments still fail to attend.

¹⁸³ The National Partnership Agreement to treat more adult public dental patients provides additional funding until March 2019. The Child Dental Benefits Schedule means that children eligible for Family Tax Benefit A are able to access dental care in either public or private facilities. This has resulted in less demand for public services but also presents public oral health services with a revenue-raising stream

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- It is expected the ageing and growing population will continue increase the demand for oral health services into the future

- **Constraints on activity**

- Inequitable access: Eligible adults in the St George catchment appear to have poorer access to oral health services (compared to residents of northern SESLHD)
- Unmet demand: It is likely there is significant unmet demand for oral health services in some pockets of the catchment however, the quantum of this demand is difficult to determine
- School based clinics: Two of the three clinics in the SGH catchment are collocated with a public school. School based dental clinics are not an effective means of providing services to children and adolescents (NSW Oral Health Capital Strategy 2011-2021), in addition they are not available to treat adults

- **Staffing**

- Oral health therapists working in facilities dedicated for children are restricted in their scope of practice to treating children and have limited opportunity to build professional relationships with dental officers. The service is also restricted in providing a family orientated service
- Oral Health Fee for Service Scheme (OHFFSS): SESLHD oral health services currently relies heavily on the OHFFSS (where eligible patients are issued with a voucher to receive care from a registered private dental provider). This service delivery model is more costly than in-house service provision and therefore not ideal for the future

- **Infrastructure**

- Lack of adult dental facilities: There is only one clinic in the SGH catchment providing oral health services to adults
- Oral health facilities spread across three different locations contributes to inefficient service delivery and utilisation of staff
- Ageing infrastructure with poor layout impedes best practice (e.g. lack of an on-site orthopantomogram (OPG), reliance on benchtop sterilisers, etc.)

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service Solutions**

- Prioritise the consolidation and transition of school clinics into larger multidisciplinary dental clinics to maximise service efficiencies and economies of scale
- Implement hub and spoke model with the aim of increasing the overall in-house dental chair capacity and reducing the reliance on the OHFFSS
- Utilise the Mobile Dental Clinic (van) for priority populations such as residential aged care clients who may be unable to access mainstream services

- **Infrastructure solutions**

- Relocate services at Hurstville Dental Clinic and the Hurstville and Rockdale School Dental Clinics to the proposed SGH ambulatory care precinct to create an oral health hub clinic with 10 chairs (an increase in capacity from 8) for adults and children with the capacity to grow specialist skill sets, improve economies of scale and staff security, provide opportunities for student placements and onsite access to sterilising and radiology services

- **Staffing solutions**

- A co-located service will support professional collegiality, staffing efficiencies and enable the expansion of the scope of practice of oral health therapists
- Additional staffing FTE required to deliver the new service will be offset against reduced reliance on the OHFFSS.

PAEDIATRIC SERVICE

SCOPE OF SERVICES

The Paediatric Department provides assessment and care for paediatric patients and their families requiring early intervention and follow-up in outpatient assessment clinics, who are referred by the hospital and community practitioners. Paediatric services provides a mixture of paediatric specialist and sub specialist clinics. The department manages a 22 bed paediatric inpatient ward [+ 12 bed Neonatal Care Nursery].

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**

- Up to 17 years and families from the St George and Sutherland areas
- In 2012, there were 84,000 children and young people <14 years old in St George and Sutherland areas (17.6% of the total population)

- **Current Outpatient clinics include**

- General paediatric (10 sessions per week, Wednesday-Friday in Pritchard wing) run by Staff Paediatrician
- Subspecialty paediatric: Endocrinology, Gastroenterology, Allergy, Neurology, (3 sessions per week)
- Chronic Disease Management (6 sessions per week, Monday – Friday) run by Advanced Trainee supervised by Staff Paediatrician
- Multi-disciplinary clinics: Feeding Difficulties, Eating disorders, Substance use in pregnancy (3 sessions per week]
- Allied Health: Speech / physio / OT / nutrition + dietetics
- Short-stay area (currently operate a 'virtual short stay area' located on the children's ward)

- **Drivers of demand**

- Growth of new and emerging communities with higher burden of developmental vulnerabilities
- Nature of intense follow-up for children with developmental challenges
- Multiple avenues of referral from individual, PHN, community and health services
- The St George area population is highly diverse - approximately 50% of patients in our local areas are from a CALD background [e.g.: China, Nepal, Bangladesh, Middle Eastern]
- Rockdale is one of the most socio-economically disadvantaged pockets in SESLHD
- Until recently we were unable to identify social disadvantage / indigenous basis for prioritising outpatient clinic referrals. Through our recently developed outpatient clinic online-referral-form, we now have the capacity to identify this at point of referral, enabling prioritisation for specialist review for this vulnerable population

- **Models of care**

- Referrals come from various sources for outpatient appointments including TSH, FACS, GPs and Kogarah Diagnostic services
- Referrals are triaged by clinicians/paediatricians and placed on a waiting list
- Patients are given a dedicated appointment time
- Initial consultations are for 1 hour and follow-up for 30 minutes. Note that this can be longer than many adult services, often due to complexity
- Follow-up attendance is good. A reminder SMS is provided when possible, however this is dependant on administration staff capacity
- Vulnerable groups, particularly those with reduced understanding and resources are identified for additional encouragement to attend appointments
- The model of care/service delivery model has been under review to understand efficiency of the service delivery
- There are gaps in service for some specialties
- Admitting rights to the Children's Hospital Network: Currently all paediatricians have admission rights. Any change to this may result in reduced timely access to clinical results

- **Staffing**

- Paediatricians - 3.0FTE general paediatrics for on call roster and weekday on site clinical support [3:5] + chronic disease outpatient clinics
- Subspecialty paediatricians
 - 0.6 Paediatric Endocrinology [Clinical Academic+ 0.4FTE Staff specialist]
 - 0.1 Paediatric Neurology
 - Outreach SCHN Paediatric Gastroenterology
- Paediatric Ward Nursing
 - 1.0FTE NUM
 - 0.42 CNE
 - 2.48 CNS
 - 20.0 FTE RNs
- Administration
 - 1.6FTE L3 Outpatient clinics
 - 1.0FTE L4 Paediatric and Divisional Admin officer
- Allied health
 - 1.0 FTE Paediatric Physiotherapist
 - 1.0FTE Diabetes Educator
 - 1.0 FTE Paediatric Social Work [+ additional capacity as needed for division of W&CH]
 - 1.0 FTE Paediatric Dietician
 - 0.4 FTE Speech Pathology

- **Infrastructure**

- The OPD is located on 2nd floor, Prince William Wing
- Little Dragon satellite clinic (in paediatric ward)

- **Research and education focus**

- All paediatricians are engaged with universities, provide ongoing medical and multidisciplinary educational support. All are currently principal investigators on varied research projects.

CURRENT ISSUES AND CHALLENGES

- Changing patient demographics and presentations with a more recent increase in eating disorders
- Two broad streams for patients being:
 - Low volume/medium high intensity
 - High volume/low intensity
- Service activity data
 - Current service level data does not reflect the current activity
- Population profile with outpatients based care means that the demand will continue to increase. Additional demographic challenges include:
 - There is a growing population from a NESB
 - The rising levels of obesity and other comorbidities is increasing demand for services
 - There is unmet demand from some cultural groups, e.g. Aboriginal people, some CALD groups
 - CALD community service provision adjustments: need to be bespoke for each community
- **Constraints on activity and models of care**
 - Demand & referral process
 - Currently most clinics are at capacity and have extended waiting lists for 6 to 12 months, with partially known levels of unmet demand
 - Community based information particularly for GPs is limited: quality information would improve health pathways
 - Some referrals could be more appropriately managed by GPs and do not need specialist intervention. Enhanced and streamlined support to GPs may improve timely care in the community
- **Models of care**
 - Nurse led clinics i.e. nurse practitioner to lead allergy testing would vastly improve waiting times. Food challenges would still (likely) require day stay inpatient admission
- **Possible new clinics/ services**
 - Potential to implement increased paediatric multidisciplinary clinics and nurse led clinics supported by the paediatrician and or advanced trainee
 - Any additional clinics would be subject to staffing and infrastructure requirements
- **Staffing**
 - Activity is constrained by a lack of human resources
 - Staffing and staff-mix from allied health departments, which are already stretched, to ensure authentic multidisciplinary care
 - Providing dedicated + adequate staffing for Ambulatory Care Service – 5 days per week

- **Infrastructure**

- Physical space is limited for clinics, office space, meeting and education rooms
- Currently clinics are scattered across two sites within SGH
- Many clinic rooms are not fit for purpose
- There is a lack of appropriate clinic space across the campus with regards to family counselling and support for children with high levels of physical and behaviours
- Embryonic online platform needs further expansion and resourcing

- **Trends which might impact in the future**

- Increase in neuro-developmental disability and chronic disease from genetics / prematurity and previously life-limiting conditions (SMA, cystic fibrosis, cancer)
- Opportunities to collaborate on cutting-edge translational research (St George paediatrics a leading partner in the Sydney Partnership for Health Education and Enterprise (SPHERE) research group, amongst other opportunities to access Medical Future Fund research funding).

SUMMARY OF PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Explore potential for increased multi-disciplinary clinics and nurse led clinics for greater collaboration between clinical disciplines
- Review of the models of care and consideration of 7 day service delivery with out of hour's capability
- Online GP referral system
- ED rapid bypass
- Hospital in the home
- General paediatric clinic – to 5 days per week (1st Floor PICS)
- Subspecialty paediatric – to 5 days per week; convert endocrinology, allergy, feeding difficulties, eating disorders and Substance use in Pregnancy clinics to MDT
- Nurse practitioner clinics (subject to funding) supervised by staff paediatrician
 - Acute Review Clinic (2 hours per weekday x5)
 - HITH (2 hours per weekday x 5)
 - Short-stay - a dedicated short-stay area.
- Future clinics to meet unmet critical clinical need
 - Obesity clinics – both preventative and for case management
 - Neuro-disability – one stop multidisciplinary clinic [neurologist + physio + other clinician]
 - Allergy – expansion of food challenges to meet best practice standard / improve QOL.
- Research-driven patient / client needs assessment to guide partnership design of future services

- **Model of Care**

- Developing a Paediatric Integrated Care service [including ambulatory care] staffed by a Nurse Practitioner with advanced treatment capabilities. Nurse practitioner advanced practice will include:
 - Working semi-autonomously with minimal supervision for reviewing patients from GPs / CHNs
 - Perform procedures, including: cannulation, blood collection, catheterisation, dressings - which are currently performed on children's ward

- Liaising with subspecialty teams / GPs / CHNs for acute and chronic disease management
- Telephone follow ups to ensure patient safety after discharge [e.g. for febrile kids]
- Education and Teaching for hospital and community based staff
- ED ‘fast tracking’ to specialist review and management
 - Movement of patients out of ED into short stay for prolonged observation
 - With capacity to be transitioned to full admission if this becomes necessary
 - Assist in improving ETP for admitted and non-admitted patients
- Develop a shared-care model with local GPs within the Primary Health Care Network
 - GP hotline established since 2013, currently underutilised
 - Development of an online referral form for GPs to:
 - * Improve quality of referral information to enable prioritisation
 - * Identify social disadvantage through online referrals to permit prioritisation
 - * Permit later E-mail dialogue and communication between hospital staff and PHN
 - ‘ED bypass’ of GP referred patients will reduce inappropriate presentations to the ED

- **Infrastructure solutions**

- Developing a best practice paediatric space that is welcoming for patients and families that is away from an adult area. Potential to have a dedicated area of older children/adolescents. (Peterborough, South Auckland, Campbelltown and Royal North Shore Hospital examples noted)
- Ambulatory care precinct to create a ‘front door’ for ambulatory care services, which may include paediatric outpatient clinics, same day medical services (e.g. minor procedures, and/or infusions), medical imaging services, pathology collection, etc. to provide better integrated and more efficient care for patients
- Clinic rooms would be a combination of multi- purpose rooms which could be shared by different paediatric specialties
- Consideration should be given to the location of the precinct to allow:
 - close interconnections to the Acute Services Building to ensure rapid access
 - nearby access to diagnostics, collection centres for Pathology

- **Technology solutions**

- Potential ICT solutions include technology to improve service provision and efficiency such as a self-registration system, SMS reminder system, online booking system and telehealth services to support people at home to avoid attending in person
- Video conferencing facilities for patient assessment and for staff education

- **Staffing solutions**

- A centralised Paediatric Care Precinct would create efficiencies for staffing and allow greater collaboration between specialties and disciplines
- Paediatric staff specialist - 5 days per week with oversight of outpatients / ambulatory care [with cover for annual + study leave ...10 weeks/year]. Separate paediatrician with oversight for on call + inpatient care + clinical support + teaching weekdays and with separate leave cover
- Advanced Trainee Registrar 1.0FTE – 5 days per week
- Nurse Practitioner 1.5 [or 2 FTE] – 5 days per week.

DETAILED OUTLINE OF POTENTIAL FUTURE OUTPATIENT CLINIC SERVICE DEVELOPMENT

Paediatric services have identified 3 stages for proposed clinic development over the next 5-10 years

- **1st stage objectives: Ensure efficient, excellent care for children who are already accessing our services with**

- a streamlined capacity to see high-volume, low- or medium-complexity urgent cases (e.g.: admission avoidance and/or early discharge with conditions such as asthma, gastroenteritis, cellulitis, prematurity)
- integrated care of low-volume, high-complexity patients who would otherwise require admission or accumulate health complications requiring future prolonged admissions (e.g.: feeding problems, diabetes, anorexia, allergy, neuro-developmental risk or disability)

- **1st stage implementation: Improved + co-located service facility**

- Amalgamation of the paediatric clinics into a single location adjacent to Paediatric Ward / SCN with proximity to ED [vacated by current PDU in early 2018]
- Capacity for up to 6 clinic rooms each weekday [for allied health staff / community health nurses (CHNs)] – rather than currently only twice per week
- Located with proximity to resuscitation areas of ED / birthing suite / operating theatres –priority
 - Establishing a new ambulatory paediatric ‘model of care’ service
 - ED bypass for GP referred patients which promotes shared care and strengthens the clinical partnership
 - ED ‘Admission avoidance’- by offering next day outpatient specialist review
 - HITH - previous overnight admissions for IV antibiotics / dressings / NG feeding / diabetes + seizure management ... can now be cared for by daily outpatient review [this enables the child to sleep in their own bed at night + return for next day review to monitor patient recovery from illness / safety]
 - Reducing length of stay for admitted patients through ‘Ambulatory care follow up’
- Enhanced staffing
 - Dedicated paediatrician on for the day, available to supervise co-located registrar clinics as well as co-located allied health staff [MDT clinics possible 5 days/week]
 - Advanced trainee registrar 5 days per week
 - Nurse Practitioner with advanced practice capabilities, under paediatrician supervision (1.5- 2 FTEO – 5 days per week)
 - Admin staff co-location to provide relief cover and improve clinic management

- **2nd Stage Objectives**

- Ensure SGH sits seamlessly within an integrated network of healthcare for all children in our community – with strong links to primary, secondary, tertiary health services as well as the education, child protection, disability and NGO sectors. Links will require expanded and effective use of technology (teleconference, video-conferencing, eMR, data sharing, online referrals and education packages) as well as relationships, co-designed services, and accountabilities. This will directly address strategic priorities including an “increase in children reaching their developmental milestones at 18 months and 2 years” (SESLHD Strategy 2018 – 2021 – draft for discussion)

- **2nd stage implementation**

- Move into the vacated Birthing suite which has larger consultation rooms [which can accept strollers and multiple staff, including interpreters and medical students]
- Central reception desk which is large
- Additional adjacent office spaces

- Day assessment area and short stay unit could be accommodated within this area
- Enhanced opportunity to co-locate multidisciplinary clinics and education
- Nurse practitioner model of care established and functioning well
- Up-skilling of GPs to engage in a shared-care model for chronic disease
- Video conferencing with GPs, CHNs, education and disability sectors [from as frequently as once per week through to on-demand]
- Tele-consultation for children
- Video-based teaching modules for knowledge and skills
- **3rd stage objectives**
 - To move into fit-for-purpose facilities in the new outpatient building, establishing SGH as a leader in locally-delivered, highly integrated, efficient and excellent paediatric care for our community.
 - Co-location with allied health / community health ambulatory care / Early childhood Health Centres (EHC) if agreeable to other stakeholders
- **Additional Paediatric Outpatient service planning**
 - Maintenance (and expansion as required by data-driven health service needs analysis) of existing specialist, sub-specialist and multidisciplinary clinics
 - Some capacity for funded outpatient social work to assist prioritisation of children at risk or socially vulnerable and to link them in with community based supports, inter-agency liaison, advocacy, counselling + assist with service engagement [=reduce loss to follow up]
 - Working with migrant groups and GPs servicing these communities
 - Better integration with primary health, disability and education sectors.

PAIN MANAGEMENT SERVICE

SCOPE OF SERVICES

- The Pain Management Service is an integrated inpatient acute service and outpatient chronic pain service
- The Pain Management Service aims to provide comprehensive, evidence-based strategies for the management of all types of pain
- All inpatients who have complex acute pain issues and all inpatients commenced on patient-controlled analgesia (PCA), epidural infusions, ketamine infusions and regional infusions are referred to the acute Pain Management Service
- All outpatient chronic pain patients are referred by a GP or medical specialist
- The Service is in the Division of Surgery, Perioperative anaesthetics and Trauma.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**
 - People attending the service are 16 years and above with any type of chronic pain (children are seen by the Children's Hospital Network). The average age is 40-55

- Patient background reflects population demographic. Significant number of people from Chinese background (e.g. a private Chinese speaking pain specialist (proceduralist) refer to the service
 - Catchment extends from St George and Sutherland areas with some clients travelling from Northern Illawarra
 - Prevalence of chronic pain in the community has been estimated at 20%
 - The majority of chronic pain sites relate to the spine – back and neck pain – and headache
 - Other patients with underlying disease e.g. neurodegenerative disease, connective tissue diseases, complex regional pain syndrome (CRPS) etc. or after major trauma
 - 3 main factors driving current demand are population growth, underlying aetiology and multi-morbidity
- **Operational description**
 - Service provided include inpatient referrals, outpatient clinics and chronic pain group programs
 - Group programs include:
 - ‘Activate’ an intensive pain management program running 0900-1630 Monday – Friday for 3 weeks
 - ‘Energise’ a moderate intensity pain management program 2 days per week (Monday and Wednesday) for 4 weeks
 - ‘Rejuvenate” an over 65’s pain management program running 0900-1230 Tuesday and Thursday for 4 weeks
 - Pain management program for Chinese speakers held 1 day per week, 0930 – 1230 for 8 weeks
 - Weekly exercise class 1 hour / week followed by psychologist-led Mindfulness class 1 hour / week
 - Review/follow-up for all pain management programs are held in ½ day group session at 1, 3, 6 and 12 monthly intervals following the Activate and Energise programs
 - Chronic pain information session for all referred outpatients– 2 hours once per month
- **Activity**
 - In any year the service has referrals for approximately 5,000 inpatients and 800 outpatients
 - The chronic pain outpatient service sees approximately 8 new clients per week with approximately double attending for follow-up
- **Models of care**
 - Prospective clients are referred to service by GP or medical specialist
 - Prospective clients complete an initial ePPOC (electronic Persistent Pain Outcomes Collaboration) questionnaire (either online [approximately 60%] or paper-based) to establish a baseline for measuring outcomes
 - They then attend an initial 3 ½ hour consultation (1 hr consultant, 1 hour physiotherapist and 1 hour psychologist with an additional ½ feedback to the client)
 - clients may be referred to one of the group programs where the focus is on active self-management
 - Waiting list is not significant due to management processes e.g. ePPOC, outreach to GPs (GP education, fliers and information)
 - There is a role for procedural pain management although not the principal focus of the Service – the changing models of care are towards groups and self-management
 - SMS messaging is used for appointment reminders
 - Good relationship with Drug and Alcohol Service and trauma service (regular meetings, case discussions, education)
 - Interpreter service is used for some clients – can take 2 months to get interpreter

- **Staffing**

- 3 consultants in total (2x0.5 Staff Specialists, 0.2 HMO) covering 3 days/week
- 3.47 FTE Allied Health staff – 1.84 FTE clinical psychologists and 1.63 physiotherapists; 2.42 FTE Nurses for acute pain and 1FTE Nurse for chronic pain management
- 1 FTE anaesthetic registrar
- Other: administrative/clerical staff 0.63 FTE administrative assistant

- **Infrastructure**

- Physical location of the outpatient service and staff offices is in demountables in Banksia Building.
- The building includes:
 - Patient waiting room for 10 -12 patients
 - 5 treatment rooms
 - 1 large meeting room (approx. 90sqm) to accommodate all day programs for approximately 8- 15 people including space for chairs, exercise mats and gymnasium, with adjacent space for client lockers, kitchen, toilets, etc.
 - Office accommodation for approximately 12 staff
 - One meeting room which is also used for groups concurrently running (seats 8-10 people and confidential patient discussions)

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- Population growth and ageing, increasing prevalence of multi-morbidity, etc., people living longer with more serious conditions. Expected to increase demand
- There are challenges accessing and treating some CALD groups (e.g. ACI is promoting expansion of programs to Arabic and Greek speakers) as well as interpreter services for regular, consecutive appointments
- Currently long waiting list to see allied health staff for individual appointments

- **Constraints on activity**

- Management of people with chronic pain living in RACF.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Provide group program for Arabic speakers then expand to Greek
- Closer collaboration with Rehabilitation, other Allied Health services (e.g. occupational therapy and social work) and psychiatrists
- Transitional clinic by Nurse Practitioner/senior nurse to monitor people following discharge – may help future problems with medication and self-management
- Access to additional Allied Health e.g. Occupational Therapist
- Expand guidance for GPs to provide pain management for people in RACF(expanded telehealth)
- Expand outreach and education to GPs

- **Infrastructure solutions**

- Consider potential for telehealth
- Need to have purpose built space for Pain Department
- Need to have sufficient spaces to conduct existing programs with programs running concurrently
- Need to have continued access to extra spaces for confidential discussions with clients and also patient discussions

- **Staffing solutions**

- Seeking accreditation and funding for a fellow / trainee in pain management and psychiatrist
- Need for more allied health staff, extra clinical psychologist and physiotherapist.

PALLIATIVE CARE

SCOPE OF SERVICES

SGH Palliative Care service is part of a networked Level 6 service with CHCK and provides a combined Consultative medical and nursing service with Sutherland Hospital (TSH), which caters to the local catchment population of the southern half of SESLHD.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**

- 60% of patients are malignant and 40% non-malignant
- The most complex patients are oncology/haematology and Peritonectomy patients
- Aged care patients tend to not need as much medical palliative care, however need significant psychosocial input from palliative care nurses
- It is noted that not all patients type changed to Palliative Care are managed by the Palliative Care service

- **Operational description**

- An inpatient consultative service, with patients transferred to CHCK for multi-disciplinary inpatient specialist palliative care and other appropriate facilities
- 2 outpatient clinics at SGH and 1 at TSH
- All Outreach/Community services to the southern half of SESLHD are provided from CHCK

- **Models of care**

- The current model of care is a Consultative service, with patients spread around the hospital who are assessed and managed on their ward
- All referrals are triaged and not all patients will receive medical consultation but all are seen within 24 hours of referral
- The Oncology ward has more patients needing medical reviews than other specialties

- Complex non-malignant patients reaching end of life are assessed by the Palliative Care service, and referred at discharge to the Community Palliative Care team for ongoing support if they have complex needs; otherwise, to the care of the treating specialist team e.g. Respiratory or Heart Failure services, and/or GP, often in RACFs – where follow up and referral at the appropriate time is difficult to achieve
 - A Motor Neurone Disease Outpatient clinic and specialised social work, nursing and medical care is provided from CHCK
 - There is no allied health support available specifically for the palliative care service at SGH, however palliative care nursing staff liaise closely with ward allied health staff
 - Not all palliative care patients are transferred to CHCK due to patient preference or medical instability
 - The networked service provides outreach to the community (from CHCK) and has a close relationship with GFS at SGH and TSH
 - A limited number of in home care packages funded by the Ministry of Health for in home care in the last 48 hours of life are available (with services provided from CHCK)
 - CHCK have closed some palliative care beds in recent years, with funding directed to more community based care
- **Staffing**
 - Nursing: CNC 1.5, CNS 2.4, CNE 1.0 funded by SGH (n.b. 1 x CNC at TSH and 1 CNC at SGH provided from CHCK)
 - Medical: 1.4 FTE Staff Specialists who rotate between hospitals and 1 FTE Registrar. (n.b. No registrar at TSH or Calvary Community Service)
 - Allied Health: currently provided by ward based allied health staff
 - Other: No administrative or data support provided at SGH
- **Infrastructure**
 - There are no designated inpatient palliative care beds at SGH, patients are consulted on their ward and are spread around the hospital
 - 32 inpatient palliative care beds provided at CHCK
 - Outpatients clinics at SGH are held in the Cancer Care Centre
 - No palliative care community health is provided from SGH (based at CHCK)
 - Office space at SGH: 2 offices (1x Medical, 1x nursing with 5 work spaces) in Cancer Care Centre, with insufficient computers and desk space.

CURRENT ISSUES AND CHALLENGES

- **Demographics**
 - Apart from the predicted growth in activity from the growing and ageing population, there are increasing numbers of people surviving longer with cancers and chronic diseases that require longer term palliative care services
- **Constraints on activity**
 - The combined service between SGH and TSH is constrained by a lack of medical, nursing and allied health staff. TSH do not provide funding for any staff. Medical staff service all 3 hospitals. There are currently 40-60 patients on the list at SGH on any given day
 - The lack of dedicated social work support at SGH and TSH is an issue, however nursing staff liaise closely with social workers on the ward

- Patients often remain at SGH for longer due to people waiting for nursing home placement that do not require specialist palliative care unit medical care at CHCK
- Although there has been a move to increased activity in the community, there is insufficient funding for community outreach services to meet demand. A particular gap is in overnight support for palliative care patients at home
- With more community based care, some admissions could be avoided. The rate of people dying at home is directly related to the amount of in home nursing care that is available
- Palliative care in nursing homes requires greater support. There are no dedicated palliative care beds in any local nursing homes
- There is also a lack of Respite beds, and the length of time for the My Aged Care process results in major delays to discharge at SGH, TSH and CHCK, resulting in bed block
- More advance care planning needs to be implemented, to avoid inappropriate acute hospital admissions
- Funding for new models of care is often time limited and not recurrent, so effective care models cannot continue
- Gaps in services include:
 - Overnight community based care
 - Outreach to nursing homes
 - Allied health, particularly social work support
 - Regular medical input for home based care is required – insufficient staff
 - Sufficient advanced care planning activity across the campus
 - No medical clinic currently at CHCK due to too few medical staff

- **Infrastructure**

- Some patients could be transferred to a nursing home for care if palliative care was available in the nursing home, but this is poorly resourced, with no capacity to respond rapidly
- There is potential for possibly 5 designated palliative care beds at SGH, but this would require extra staffing
- There is definite potential for “step-down” maintenance beds, at least 20 at SGH and 10 at CHCK
- Outpatient clinics are better located at Cancer Care, as cancer patients form the bulk of appointments, with non-cancer patients being managed by GPs and other subspecialty services such as Heart and Respiratory Failure and Renal Supportive care, who refer back to Specialist Palliative Care if and when this is required

- **Staffing**

- More medical staff are required to meet the demand from the 3 hospitals and the community and to manage more non-cancer patients
- A dedicated Social Worker for palliative care is required at SGH, e.g. for transition to Nursing Homes
- TSH requires a CNE,CNC and CNS as part of networked service
- Greater support for nursing/medical outreach to nursing homes. CHCK currently provides two Nurse Practitioners.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Not all people wish to die at home, however increasing community based services would reduce the need for a large increase in palliative care beds and a reduced length of stay in these beds
- More home care packages available from NSW Health

- Social work support at SGH to reduce load on nursing staff and for better liaison services for patients
 - Ensure that funding for new models of care is recurrent and not time limited
 - Improved advance care planning
 - Good models of care include PEACH at SWSLHD, which provides palliative care at home in the last days of life, including evening RN visits and overnight tele support (in collaboration with Silver Chain nursing service), and MacMillan Trust in UK, a cancer trust for in-home palliative care nursing
- **Infrastructure solutions**
 - Providing maintenance beds (20-30) to reduce load on CHCK beds and improve access to palliative care beds for those in need. This could be run by geriatricians, with beds used flexibly between aged care, palliative care and others as required. Potentially sited adjacent to Aged Care
 - Providing palliative care beds for the cohort of patients at SGH who are not suitable for transfer to specialist palliative care at CHCK, e.g. too medically unwell or for short term symptom management, close to or within Oncology wards
 - Ideally Clinics to remain at Cancer Care rather than in an Ambulatory Care precinct due to most people seen in clinics are cancer care
 - Potential for public/private partnership for designated palliative care beds in nursing homes (see Braeside model)
 - **Staffing solutions**
 - Increased funding for staff (medical, nursing and allied health) if extra beds provided and to meet future demand
 - Social work support at SGH
 - Nurse practitioner for RACF support, based at CHCK, to liaise with SGH and TSH teams, according to current integrated service working practice
 - It is noted that there are 2 major palliative care services located in the same LHD. This means that all funding is split between POWH and CHCK/SGH/TSH services and is inequitable funding. Additionally, POWH is networked with Sacred Heart/St Vincent's which as a separate LHD gets the same amount of funding opportunities as the whole of SESLHD, effectively double the funding of the southern half of SESLHD.

PERITONECTOMY

SCOPE OF SERVICES

Surgery to remove cancer from the peritoneal cavity is known as peritonectomy or cytoreductive surgery (meaning removing the cancer cells). In SGH the peritonectomy procedure normally incorporates heated intraperitoneal chemotherapy (HIPEC), at time of surgery, with or without early post-operative peritoneal chemotherapy (EPIC).¹⁸⁴

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**
 - The catchment for the peritonectomy service (referrals and procedures) is predominantly from NSW and ACT
 - Current documented indications include: pseudomyxoma peritonei (PMP) (including appendix adenocarcinoma), peritoneal mesothelioma and peritoneal carcinomatosis of colorectal origin. Emerging clinical indications include ovarian cancer and colorectal cancer
 - Patients referred to the service undergo a multidisciplinary assessment and selection, which is critical to ensure this high risk procedure is reserved for patients with the greatest chance of long term survival

¹⁸⁴ Highlands Health Consulting, 2015, NSW Peritonectomy Services Planning: Report prepared for NSW Ministry for Health - Final Report

- **Operational description**

- The SGH peritonectomy service has been in operation for more than 20 years and is one of the largest in the world and has a significant teaching and research role
- It is a Statewide quaternary service, treating rare cancers
- Cancer Institute NSW notes 'There is consistent international evidence showing that specialist centres are associated with lower post-operative mortality and better longer-term survival after complex procedures for rarer cancers'¹⁸⁵
- The service includes strong links with other Australian and international peritonectomy services, NSW Cancer Institute, universities and pharmacological development
- There is a comprehensive research program (cell science, animal, clinical trials, new drug development)
- Peritonectomy clinic and research base is in the UNSW Building

- **Activity**

- Although this is a low volume service, both the number of referrals and procedures have been steadily increasing
- Patient care is multidisciplinary, resource intensive and high cost with lifelong follow-up post-operatively

- **Models of care**

- Selection criteria¹⁸⁶ (including exclusion) for disease groups is critical (see diagram below)



¹⁸⁵ URL: <https://www.cancerinstitute.org.au/>

¹⁸⁶ Highlands Health Consulting, 2015, NSW Peritonectomy Services Planning: Report prepared for NSW Ministry for Health - Final Report

- Care pathway is based on an Enhanced Multidisciplinary Team (EMDT) a multidisciplinary team, plus external representation
 - The EMDT reviews referrals, assesses patient suitability and records decisions
 - Detailed information is provided to the patient¹⁸⁷
 - Joint two weekly meeting with RPA to discuss referrals and assess suitability
 - Patients attend outpatient clinic early post operatively and continued monitoring for recurrence. Can see 50 patients in a morning clinic, of those 5-6 new patients
- **Staffing**
 - Medical: highly trained surgeons, specially trained oncologists, anaesthetists, intensivists, etc. (5-6).
 - Nursing staff with varied clinical expertise (3 FTE)
 - Allied Health: stomal therapists, physiotherapists, Dietitians, social worker, etc.
 - Research: researchers and research assistants.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**
 - It has been estimated future demand for peritonectomy will continue to increase¹⁸⁸. This increase will also be reflected in the resource intensive assessment process and follow-up procedures (e.g. stomal closure)
 - It is likely the rate of peritonectomies for ovarian and colorectal cancers will increase as selection criteria and clinical protocols are developed
 - Colon cancer and peritoneal mesothelioma can achieve 5 year survival.
- **Changes to clinical networking arrangements**
 - The establishment of a second public peritonectomy service at Royal Prince Alfred Hospital is expected to assist, responding to some of the future demand
- **Constraints on activity and models of care**
 - Waiting list: with the commencement of a peritonectomy service at Royal Prince Alfred Hospital the number of overdue patients on the wait list has been reduced
 - Inappropriate referrals: in the past referrals from GPs were accepted whereas a proposed referral pathway recommended referral from medical specialists
 - Potential for new services: there is potential for treatment by intraoperative radiation therapy (IORT)
 - Potential for improved service: currently there is a lack of State-wide joint EMDT, acceptance criteria, protocols, training opportunities, etc.
- **Infrastructure**
 - Lack of access to operating rooms and intensive care beds
 - Bezzina House does not provide sufficient and appropriate accommodation for patients (and their carer) undergoing outpatient treatment at SGH (Patients stay in Sydney for a couple of weeks post operatively before going home for clinic follow-up)
 - Patients attend outpatient clinics in multiple locations
- **Staffing**
 - There is a high dependency on one senior surgeon.

¹⁸⁷ SESLHD, Peritonectomy & Intraperitoneal Chemotherapy: A Guide for patients and their carers. URL: https://www.seslhd.health.nsw.gov.au/SGH/patients_and_visitors/documents/PeritonectomyandIntraperitonealChemotherapy.pdf

¹⁸⁸ Highlands Health Consulting, 2015, NSW Peritonectomy Services Planning: Report prepared for NSW Ministry for Health - Final Report

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

• Service solutions

- Continue fostering opportunities to develop a complementary peritonectomy service with Royal Prince Alfred Hospital
- Adopt the proposed referral pathway from medical specialists only
- Develop Statewide of joint EMDT, acceptance criteria, protocols, training opportunities, etc.
- Investigate the potential effectiveness and impact of IORT

• Infrastructure solutions

- Consider opportunities to increase theatre time and intensive care beds
- Consider opportunities in master planning for Bezzina House
- Consolidate outpatient clinics in the proposed Ambulatory Care Precinct and move Peritonectomy Unit into the new building: accommodate 5 medical consultants, 5 fellows/registrars; researchers; data manager, 3 nurses, a dietitian, a social worker and 5 administrative staff
- Opportunity to move the basic science laboratory into the new building; may be able to lease space from the hospital through drug development company

• Staffing solutions

- Continue fostering national and international training opportunities to broaden skill set of specialists.

PHARMACY

SCOPE OF SERVICES

St George Hospital Pharmacy Department provides a wide range of clinical and distributive services, a cytotoxic compounding service, as well as extensive clinical trials support for patients at St George Hospital.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Pharmacy services are provided to patients of all ages, however the majority of patients are older people and those with chronic diseases. There is a growing cohort of patients from NESB, often requiring interpreter services. About 165,000 SESLHD residents (over 20%) were born overseas in a non-English speaking country. Nearly 70% of these SESLHD residents live in the St George area¹⁸⁹
- The majority of patients are referred by SGH medical practitioners, with a small number from GPs for specialised medication

• Operational description

- Services are provided to inpatient wards, outpatients, the Emergency Department and Chronic Disease Management groups e.g. medication education for cardiac rehabilitation and Fall Prevention Stepping On programs
- A satellite service is provided in Cancer Care. The unit is responsible for the review and coordination of all chemotherapy and supportive care to Haematology and Oncology Day Centre (HODC) and inpatient wards
- Role delineation: Level 6

¹⁸⁹ Directorate of Planning and Population Health SESLHD. "SESLHD Strategy 2012-2017." Strategy Report, 2012. <http://www.seslhd.health.nsw.gov.au/HealthPlans/documents/SESLHDStrategy2012-2017final-Diagram25MAY12.pdf>

- Hours of operation:
 - Inpatients: 0800 - 1730pm Monday to Friday and 0900 – 1630 Saturday
 - Outpatients 1000- 1700 Monday - Friday

- **Models of care**

- SGH Pharmacy aims to maximise its contributions to the clinical outcomes of patients through effective integration of clinical pharmacy practice with distributive service
- Clinical pharmacy services are provided to designated inpatient wards. Services include pharmaceutical review, drug information, medication history taking, patient counselling, provision of medication list and compliance aids
- These services are overseen/conducted by clinical specialist pharmacists (oncology, haematology, antimicrobial, renal, mental health, women & children, drug information, clinical trials) with the support of junior rotational pharmacists
- Procurement and distributive services are provided to all inpatient wards and outpatient clinics by pharmacy support staff (pharmacy technician, stores person)
- 24 hour on call access to pharmacy service is available
- Pharmacy Outpatient Department provides dispensing service for PBS high cost prescriptions including repeats, as well as approved non PBS drugs
- SGH Pharmacy endeavours to effectively use technology to improve the provision of care. For example, the introduction of eMEDs and MyHealth Record will allow staff to access patient medication history more easily and accurately to prevent drug interactions, etc.

- **Staffing**

- Staff: 47 FTE, inclusive of cancer care staff, including:
 - Pharmacists (including interns)
 - Pharmacy Technicians
 - Admin staff (Secretary, Invoice clerk)
 - Health Services Manager (Data Manager)
 - Store Staff
 - Purchasing officer
 - Pharmacy Porter

- **Infrastructure**

- The Pharmacy Department is located on the Ground floor of the Tower Block, with Outpatients Pharmacy separated across the corridor. A satellite service is provided in Cancer Care.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- Demand is increasing due to the ageing of the population, the increase in chronic disease, e.g. Renal, Mental Health, HIV, Hepatitis and Rheumatology, and the high cost of drugs
- The increasing number of NESB patients has increased the need for interpreter services, in particular for the use of high risk medications in outpatients

- **Constraints on activity**

- Models of care
 - The eMEDs implementation and consequent changes to pharmacy workflow will have a significant impact on pharmacy workload¹⁹⁰. eMEDS will drive a change in the expectation and role of clinical pharmacy workforce. For example, the eMEDs process for medication history reconciliation calls for significant clinical pharmacy input
 - Potential changes in Public NSW Hospital Pharmaceutical Reforms would significantly change the funding model and model of care in NSW hospital pharmacies e.g. pharmacy department will be able to dispense PBS medications on discharge and process PBS reimbursement claims. Staffing level would need to be reviewed
 - Retail pharmacy within the St George Hospital campus may be considered if NSW government continues to opt out of the Public Hospital Pharmaceutical Reforms

- **Unmet demand**

- For inpatients, meeting Standard 4 requirements for pharmaceutical review and medical reconciliations is difficult due to staffing levels

- **Potential for new services**

- There is potential to introduce a community liaison Pharmacy position (no funding currently available) for post discharge home visits to ensure medication compliance and minimise errors
- More patient education programs on pharmacy, as part of a multidisciplinary team, particularly for chronic diseases. Currently no funding available or staff time

- **Technology**

- Consider use of robotic dispensing system and pharmaceutical shelving solution for outpatient pharmacy
- There is no electronic queueing system for outpatient prescriptions
- There are no telehealth facilities

- **Infrastructure**

- The increasing number of different medications required means storage space is critical and at capacity
- The recent change of location for the Department has reduced available space and is not purpose built, resulting in inefficiencies for staff, and the introduction of eMeds resulted in the need for more bench space and storage space for additional computer workstations and mobile workstations
- The waiting area for Inpatient and Outpatient Pharmacies is very limited

- **Staffing**

- Staffing is currently at capacity and will need to increase to meet future growth in demand or introduce new models of care. Current staffing levels limit the number of outpatient and community services that can be provided.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- New models of care to prevent admission e.g. community liaison and outreach pharmacist working in a multidisciplinary team to provide follow up for patients at high risk of medication misadventure post-discharge

¹⁹⁰ KPMG. Pharmacy eHealth Workforce Initiatives Project. NSW Ministry of Health, 2015. URL: <http://www.health.nsw.gov.au/workforce/alliedhealth/Documents/pharmacy-eHealth-workforce-initiative.pdf>

- Implementing Post Discharge Hospital initiated Medication Review for patients at risk of medication misadventure¹⁹¹
- Cancer Outreach Pharmacist working in a multidisciplinary team to provide home based chemotherapy
- **Infrastructure solutions**
 - For the future, the critical physical adjacencies include ready access to the Tower Block and ASB for inpatient services
 - Provide a purpose built space for the Pharmacy department, with a purpose built outpatient Pharmacy satellite service in the ambulatory care centre
 - The satellite service outpatient pharmacy (within the ambulatory care centre) needs to be in a central location, with ready access to the cashiers office for patients to make co-payments, with a comfortable waiting area provided for patients
 - If a satellite outpatient Pharmacy is implemented, the current space vacated should be incorporated into the existing Pharmacy Department to meet increasing demand for inpatient Pharmacy activity, and refurbished as a purpose built Pharmacy department
 - Ensure adequate storage for drugs
 - Consultation rooms or private space close to outpatient pharmacy for counselling
 - Maintain satellite Pharmacy in Cancer care
 - Provide access to workstations for Pharmacy staff on wards
- **Technology solutions**
 - Robotic dispensing system for outpatient pharmacy
 - Implement an electronic queuing system for outpatient dispensing
 - Potential for telehealth activity e.g. for post discharge follow up, patient education
- **Staffing solutions**
 - Staffing will need to increase commensurate with the increasing demand for services and new models of care.

REHABILITATION

SCOPE OF SERVICES

St George Inpatient Rehabilitation Unit is a Level 6 specialised tertiary referral rehabilitation service that provides rehabilitation support to adult patients accessing the tertiary services of SGH as well as local rehabilitation services to patients within the local region. The rehab service also accepts patients from other referral facilities including POW/RPA and community settings as required for patients that live within the catchment area.

DESCRIPTION OF CURRENT SERVICE DELIVERY

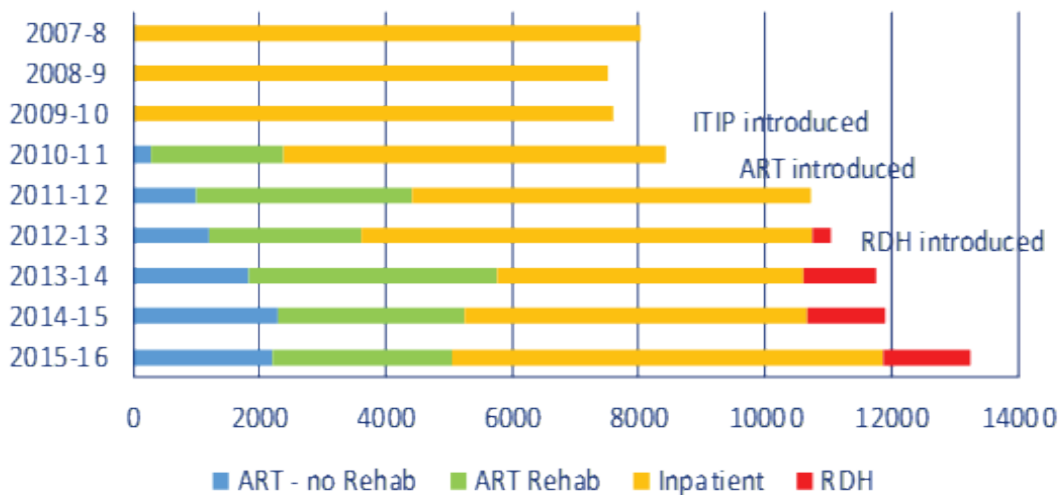
- **Patient demographics**
 - The Unit accepts adults of all ages assessed as suitable for rehabilitation and accepted by a rehabilitation consultant
 - Patients include those that have suffered trauma, are complex in presentation, need dialysis, had an amputation or a neurological syndrome (e.g. Stroke or spinal impairment) or tracheostomy that has resulted in a decline in their functional status or conditioning

¹⁹¹ Implementing and evaluating a parallel post-discharge Home Medicines Review (HMR) model <http://6cpa.com.au/wp-content/uploads/Implementing-and-Evaluating-a-Parallel-Post-discharge-Home-Medicines-Review-HMR-Model-Full-Final-Report.pdf>

- Currently approx. 50% are stroke patients
- There has been a significant increase in the clinical acuity and complexity of patients that are now accepted into the rehabilitation ward due to multiple comorbidities and increasing demand

• **Drivers of demand**

- the growing and ageing population, with associated comorbidities of ageing
- the increasing numbers of people with acquired brain injury that are seen via the SGH trauma service
- the increasing numbers of adults living with long term disability that require ongoing treatment and management, e.g. Botox management for cerebral palsy



• **Operational description**

- There are 22 inpatient rehabilitation beds at SGH, accessed via a referral to the Rehabilitation Service and acceptance by a rehabilitation consultant. A rehabilitation referral may be made by medical and nursing staff
- Where appropriate, therapy is commenced by the Acute Rehabilitation Team (ART) which provides a 10 bed equivalent in-reach MDT
- Multidisciplinary Rehabilitation outpatient Day Only services are provided 5 days per week in Rose Cottage in a refurbished facility
- Amputee outpatients are seen on the ward as Day Only patients
- Ongoing Allied Health rehabilitation services are provided in outpatient clinics in Prince William Wing
- There is a significant lack of community health services

• **Clinical networking**

- Liverpool Brain Injury Unit, a state wide service for patients with severe Traumatic Brain Injury
- CHCK for older patients with orthopaedic conditions (e.g. Fractured NOF) or Aged Care rehabilitation
- Sutherland Hospital Killara Unit for patients requiring aggressive dementia management

• **Activity**

- Day Only activity has been increasing steadily since inception in 2014, and this will continue to grow faster than overnight activity, however overnight activity will continue to grow
- OPD activity will continue to increase due to more people living longer requiring life-time rehabilitation , e.g. adolescents transitioning to adulthood, acquired brain injury

- **Models of care**

- Patients referred to inpatient rehabilitation are assessed within 24 hours
- Patients referred for rehabilitation must demonstrate the cognitive capacity and motivation to participate in a rehabilitation program, and have prospects for functional gain within a reasonable timeframe, with an expectation that they will return home or to an appropriate level of supported accommodation or care
- Where appropriate, patients requiring Rehab on acute wards are seen by the ART team prior to discharge or transfer to the rehabilitation ward as soon as a bed becomes available
- Multidisciplinary rehabilitation takes place on the ward, which includes a dedicated treatment/Gym area
- Since 2014, where appropriate, patients are discharged to a Day Only service for 6 weeks multidisciplinary management at Rose Cottage. This has allowed greater throughput of activity and reduced length of stay on the ward
- Patients requiring aged care rehab or orthopaedic rehab are transferred to CHCK
- Traumatic brain injury patients are transferred to Liverpool Brain Injury Unit when a bed becomes available

- **Staffing**

- Nursing: Nurse Unit Manager, Clinical Nurse Specialists, Nurse Educators, RN's, ENs, AINs
- Medical: 2.2 FTE Staff Specialists, 2.0 FTE Registrars and 1.0 FTE Resident Medical Officer
- Allied Health: Physiotherapists, Dietitians, Occupational Therapists, Social Workers Speech Pathologists, Podiatry, Allied Health Assistants
- Visiting staff: Orthotist, Prosthetists, Pedorthotist

- **Infrastructure**

- The Rehabilitation ward is located on 6 West, adjacent to Neurology
- ART services are provided throughout the hospital
- Rose Cottage is in a separate stand-alone building on Campus, near Chapel St
- Specialist and ongoing allied health rehabilitation outpatient clinics are held in the rehabilitation clinics in the Prince William Wing, Belgrave St

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- In the future there will be fewer stroke patients due to improved medical management and the establishment of a stroke service at TSH
- There are increasing numbers of patients with co-morbidities and complex medical conditions surviving longer requiring rehabilitation (e.g. oncology and haematology, renal, young people/transitional patients)
- There are increasing numbers of people presenting with moderate to severe acquired brain injury, not meeting the admission criteria for the Liverpool Brain Injury Unit
- The service is seeing a higher percent of bariatric patients

- **Constraints on activity and models of care**

- Waiting list: Currently rehabilitation services (Rehabilitation ward, ART team and Rose Cottage) are at capacity. This results in delays managing early rehabilitation on acute wards, transfers to the rehabilitation ward and early discharge to the Day Rehabilitation program
- "Did not arrive" and/or late cancellations for non-admitted patients/ clients account for approximately 5-10% of all activity however this tends to be associated with unexpected exacerbation of co-morbidities

- Unmet demand
 - There is an increasing cohort of people requiring brain injury management that are not suitable or prepared to wait for Liverpool Brain Injury Unit and are discharged into the community. These patients (clinicians estimate approximately 500) have a significant acquired brain injury that is classified as mild to moderate. Their ideal patient journey would include post-acute care but they are currently falling through the cracks
 - There is a lack of community health services for public patients requiring rehabilitation.
- **Possible new clinics/ services**
 - The capacity for increased Day Hospital activity is limited by lack of infrastructure, resulting in patients staying longer on the ward as an inpatient than would otherwise be necessary
 - There is capacity for a District wide constrained Brain Injury Unit to meet the gap in management of mild to moderate acquired brain injury, with rehabilitation available and further suitable community services
 - There is increasing need for intensive post discharge services, e.g. adult cerebral palsy. The effect/impact of the NDIS is as yet unknown
 - Opportunities for new multidisciplinary group programs is limited due to limited space
- **Infrastructure**
 - Currently rehabilitation services are spread throughout the campus in disparate locations (6 West, Rose Cottage and Prince William Wing)
 - Day Hospital activity is limited by space available (amputees are seen on the ward as Day only)
 - There is limited capacity to care for bariatric patients and the ward is not set up for a bariatric room that requires bigger space and better lifting equipment
- **Staffing**
 - Lack a Clinical Nurse Consultant
 - Since 2008 there has only been an increase of 0.2FTE Staff Specialists to manage the significantly increased workload and more disabled patient cohort that is now accepted for rehabilitation.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Demand solutions**
 - Improving the patient journey – providing the right care in the right setting
 - Increase ART to meet the demand for rehabilitation on acute wards and reduce length of stay
 - Increasing capacity for Day Only rehabilitation services to reduce length of stay allowing higher throughput on subacute ward, and fewer outliers on acute wards
 - Establishing a Brain Injury Unit for post-acute mild to moderate acquired brain injury patients as a SESLHD wide service, with community support services post-discharge. This would require further dedicated staffing.
 - Continuing to refer severe acquired brain injury patients to Liverpool Brain Injury Unit
 - Improving access to outpatient services for patient with long term rehabilitation needs
 - Considering partnerships to provide intensive post-admission care through a step-down unit providing services to the increasing number of clients requiring life-time care
 - Considering in-house rehabilitation for older people rather than referral to CHCK
- **Infrastructure solutions**
 - Ideally all Rehabilitation services would be located together on one floor, i.e. collocated sub-acute beds and ambulatory services, with dedicated rehabilitation facilities (Gym, equipment, storage, etc.) and dedicated allied health on site. This would allow more efficiencies in time and staffing and an improved patient experience

- Increase the number of inpatient rehabilitation beds – suggested to 40 beds - to accommodate future demand
 - Increased access to hydrotherapy pool, which would need to be adjacent or within easy undercover access
 - Allow close physical location with Neurology beds
 - There is capacity for a District wide constrained Brain Injury Unit – suggested 10 beds -to meet the gap in management of mild to moderate acquired brain injury, with rehabilitation available and further suitable community services
 - Bariatric bed capacity with a purpose built bariatric room
- **Staffing solutions**
 - Staffing would need to be commensurate with increased activity
 - Increasing the number of staff on ART team to meet the demand for rehabilitation on acute wards and reduce length of stay
 - A CNC is required as part of the wider rehab team
 - Due to the increasing demand and more complex patients now accepted by Rehabilitation, further Specialist medical support is required.

RENAL MEDICINE

SCOPE OF SERVICES

The Department of Renal Medicine is an academic department, its role delineated at Level 6 and is a multidisciplinary service providing care to adults with kidney disease and hypertension and medical disorders of pregnancy.

The service caters for patients during all phases of their illness including acute renal failure, progressive diseases involving the kidney (including diabetes mellitus, autoimmune vasculitis such as systemic lupus erythematosus and other forms of glomerulonephritis, myeloma) and providing renal replacement therapy with haemodialysis, peritoneal dialysis and transplantation. The Renal Department includes a Nutrition Service and has also integrated a palliative care chronic disease model of care to benefit end stage renal disease patients (covering inpatients, outpatients and home care).

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**
 - Adult patients, with an average age of 65 years, ranging from 20-85+ years
 - In 2016, 200 (8%) of the 2,544 pregnant women who gave birth at SGH were identified as having hypertensive disorder of pregnancy, gestational proteinuria, renal disease or at a higher risk of developing hypertension this pregnancy due to previous hypertension in pregnancy. 164 of these were seen by the Renal Obstetric Medicine group
 - Most patients with chronic kidney disease are over 60 years of age
 - Co-morbidities include diabetes (50%), smoking (48%), Coronary Artery Disease (29-46%), chronic lung disease, CVD, Peripheral vascular disease
 - The proportion of St George patients on home dialysis is higher than the Australian average (36% compared to 29%)
 - After attending the Pre-dialysis clinic, approximately a quarter (26%) opt to have a home therapy
 - A total of 211 kidney transplant recipients and 53 living kidney donors were under the care of SGH nephrologists during 2016. Transplant activity remains constant and the number of chronic transplant patients continues to grow, now over 200

- **Operational description**

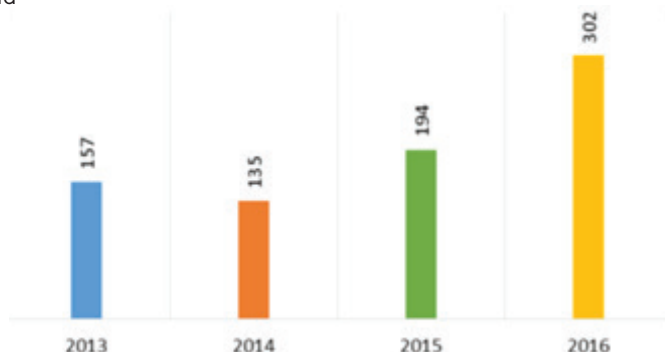
- An outpatient service with 5 consultation rooms operates 5 days per week, providing 6,400 occasions of service a year. The Renal Department has the busiest medical outpatient clinics in the hospital, and this demand is likely to grow
- Outpatient services include:
 - A home dialysis education and training programme for both peritoneal and haemodialysis
 - A 34 chair haemodialysis service providing high level care haemodialysis and home haemodialysis training
 - Additional night chairs were opened to assist with activity spikes following winter, increasing the number of chairs from 8 to 16 between at the end of 2016
 - A satellite dialysis unit at the Sutherland Hospital
 - General nephrology and specialist outpatient clinics are held, and include transplant assessment and follow-up, Renal Options Clinic (formerly Pre-Dialysis), Renal Obstetrics, Vascular Access and Renal Supportive Care.
 - Day only admissions for Renal Biopsy and Iron Infusion
 - Up to 27 patients with chronic kidney disease are followed up through an iConnect CKD Virtual Consultation clinic. The aim is to continue to grow this component of care

- **Activity**

- Total activity for haemodialysis increased by 2% across the two sites (SGH and TSH) in 2016 with a total of 28,038 sessions performed (in-centre and satellite treatments)
- On average in 2016, 129 patients were dialysed each month. 16,983 OOS for peritoneal dialysis delivered at home in 2015/16
- Statewide, dialysis numbers are starting to plateau/drop. Chronic Kidney Disease (CKD) management is delaying patients getting onto dialysis and the renal support program is treating people who are not getting into dialysis
- The Pre-dialysis program works extremely well, capturing the vast majority of patients who commence dialysis, providing education and allowing the department to plan its dialysis resources accordingly. Over 81% of people received this education prior to starting dialysis and 89% started their planned dialysis modality
- Renal Supportive Care Outpatient clinic occasions of service increased in 2016 (445 compared to 345 in 2015). Per month there were 250 phone consultations, 27 home visits, an average of 28 dialysis consults and 83 inpatient consultations. There were an average of 5.9 new inpatient referrals per month in 2016 (similar to 2015)
- Referrals come from Illawarra (long waiting lists and legacy of previous AHS) and Bankstown area because specialty clinics may not be available
- Four private practices absorb some of the demand

- **Models of care**

- Most patients are referred from GPs in the St George and Sutherland area (61%). However, just over a quarter of referrals are for patients following a hospital admission (28%) and a further 9% from other specialists, with only a small number of inter unit/hospital transfers. Approximately one in eight patients do not arrive to appointments. SMS reminders are sent



Total number of new referrals to SGH Renal Department

(Source: Department of Renal Medicine Annual Report 2016)

- **Staffing**

- Medical: Consultants 7.6 FTE including 0.4 Clinical Academic; 2 Fellows (1.2FTE)
- Nursing: 4 FTE CNCs
- Allied Health: 2 FTE Dietitians, 1 FTE Social Worker.

CURRENT ISSUES AND CHALLENGES

- **Changing patient demographics**

- Increasing numbers of people in the population with diabetes and hypertension
- Ageing population
- Increasing numbers of new referrals.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Medical emergency review – general morning clinic – anyone who came to ED and is not mandated for admission, seen next morning by advanced trainee in Ambulatory Care Centre (At present patients are being admitted or staying overnight). Patients could include people with hypertension, uncomplicated infection who need surveillance but not necessarily 24 hour medical/nursing care
- Nurse led CKD/hypertension clinics have potential - model to explore such as the gastroenterology model
- All MDT
- Videoconferencing (doesn't currently happen) and engaging virtual clinic rooms
- Improved relationships with Urology – coexistence of urological with renal conditions
- Good outpatient pharmacy
- Continue to grow the iConnect CKD Virtual Consultation clinic as a component of care

- **Infrastructure solutions**

- Include Renal Department in Ambulatory Care Centre
- Needs a designated space for Renal due to number and nature of clinics and the administrative staff knowing patients/ billings
- Treatment room required for antibiotics and iron infusion (ambulatory care); treatments growing with chronic disease and pregnancy
- Suggest access to additional 2-3 clinic rooms
- At least 2 of the rooms to accommodate Family meetings – occurring more with integrated care models and with outpatients developing advanced care plans
- Research profile is part of the department's functions. Requires offices for research staff and clinical trials (e.g. 2 office desks with shared space treatment rooms)
- Meeting room and provision for education space
- Office space for staff, preferably in proximity to Renal Department (currently insufficient for numbers, and scattered)
- Example – Westmead Hospital has 6-7 clinic rooms, 2 procedure rooms in Ambulatory Care.

RESEARCH AND EDUCATION

SCOPE OF SERVICES

SGH&CHS is an eminent provider of clinical educational activities for medical, nursing and allied health students at undergraduate and post graduate levels and is a principle teaching hospital of the UNSW for medicine.

Research is conducted across the campus in a number of disciplines, from basic science to translational research. Research at SGH&CHS is supported by the St George and Sutherland Medical Research Foundation in addition to conventional sources of research funding such as NHMRC.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Education

- Undergraduate medical education is provided by clinical academics and conjoint (hospital-employed) academics from the UNSW at the St George and Sutherland Clinical School, located in the Clinical Teaching Unit (demountables) on Campus and in many clinical settings within the hospital
- Postgraduate education occurs in the Clinical Skills Centre on Kensington Street, including for skills and simulation teaching. This centre also caters for students / trainees from outside the SGH campus
- Nursing and allied health education is provided from a number of different universities
- Education rooms are also available in the Research and Education Building on South St
- The Medical Library, located on the 1st Floor of the Research & Education Building, provides an Information service for Clinicians, Researchers and Support staff at St George Hospital, with on campus access to over 6,000 Journals and 20,000 Text Books to their customers
- Negligible point of care teaching space is currently available on the wards

• Research

- Research is undertaken in a number of locations around the campus, principally by individual disciplines in clinical labs, e.g. cancer care, cardiology
- The third floor of the Research and Education Centre has purpose built Research Laboratories, e.g. for Cancer, Haematology and Immunology
- The Centre for Research in Nursing is located on the first floor of the Research and Education Centre and provides support to PhD and Masters' students and nursing staff working on research projects. Collaborative research is undertaken, including large multi-disciplinary international projects. Research undertaken is largely translational, as well as in information technology, including the development of Apps, e.g. for organ donation
- The Clinical Skills Centre currently has two simulation rooms, three seminar rooms, a lecture room and a breakout area. It also supports an Animal House on the ground floor for large animals, managed by the UNSW and used for post graduate surgical training, etc.
- An accredited animal facility is housed in a separate demountable on campus
- A new Microbiome Research Centre (MRC) is currently in planning, with a space to be refurbished on the second floor of the Research and Education Centre with fundraising from the Medical Research Foundation. A Professor of Medicine and associated research team has been appointed at SGH. The MRC will incorporate all levels of research, from cellular research to clinical follow up research. In line with UNSW Strategy, the major focus, which includes a high proportion of research currently undertaken at SGH, will be on:
 - Maternal/foetal health
 - Cancer
 - Critical care
 - Infection, immunity and inflammation
 - Mental health/Neuroscience

- SGH is an active member of the Sydney Partnership for Health, Education, Research and Enterprise (SPHERE) to enable collaborative research
 - Other collaborations include various interstate and international partnerships, e.g. Westmead Hospital/ University of Sydney; Walter & Eliza Hall Institute of Medical Research, Melbourne; several institutions in China including Zhejiang University, Hangzhou, PLA General Hospital 301 and Medical School, Beijing, and Xijing Hospital of Digestive Diseases, Fourth Military Medical University, Xi'an; Chinese University of Hong Kong; National University of Taiwan, Taipei, Taiwan; nursing research partnership with the University of Wollongong
- **Staffing**
 - 12 Clinical Academics (combined research and teaching, and education-focused)
 - Research-only academic staff
 - Nursing Research Director (funded by UoW)
 - Senior Research Fellow (Nursing)
 - 1 x FTE RN Researcher (a 1 year rotating position).

CURRENT ISSUES AND CHALLENGES

- There is little coordination between medical, nursing and allied health education or research or sharing of resources or information
- Access to point of care teaching space is extremely limited and typically occurs in corridors and patient rooms
- Research activity is siloed around the campus, with little opportunity for collaboration or multi-disciplinary research
- Funding for medical research is increasingly centred on collaborative multicentre research and less on individual research projects
- Access to UNSW information is not easily accessible online from SGH campus (due to firewalls, etc.) and medical researchers and educators need instant access to information
- Nursing research staff are not affiliated with a university, and thus do not have access to university resources, e.g. research databases and software, and there is no funding available to purchase software licences
- Most research is about outpatients, not inpatients, but there is little dedicated space or opportunity for access to potential outpatient research subjects
- Quarantined time is often not available or adequate for clinicians for research and/or education
- If the site of the Clinical Skills Centre is required for redevelopment, an alternative site will be required
- As translational research is embraced in the fields of microbiome and immunotherapy there will be increased demand for clinic rooms, clinical storage (e.g. stool samples from patients and donors), research laboratory, beds for clinical trials, etc.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**
 - Increasingly the focus of much of the campus research will be on early intervention, prevention and health promotion from a research base, education and training through to clinically sound decision making
 - Embrace translational research in the fields of microbiome and immunotherapy
 - Demonstrate a commitment to research and education on campus for the long term
 - Commit to allocated time for teaching and research

- Colocation of research to a hub and spoke model from the MRC to create linkages to all research done on campus
 - Improve and promote collaboration, (interdisciplinary and inter specialty) to provide opportunities for multi-disciplinary research
- **Infrastructure solutions**
 - Ensure a Clinical Skills Centre is provided on campus. This should be co-located with undergraduate education (Clinical School) with shared resources. This could be part of a new building , i.e. does not need to be a discrete building
 - Ensure MRC space is created in the proposed Ambulatory Care Centre (including research laboratories, clinical storage (e.g. stool samples from patients and donors), beds for multidisciplinary clinical trials, staff offices, etc.) to provide opportunities for collaborative research, improve communication and sharing of information and knowledge, and prevent duplication
 - Ensure animal housing is maintained on campus for research and education (managed by UNSW) and noting the need to upgrade the building including creating a germ-free facility
 - There is potential for a state of the art experimental animal housing facility to be built as part of the hospital redevelopment, managed and recurrently funded by the UNSW
 - Consider a floor for clinical trials for all Departments, to allow sharing of resources and information, data, technology, etc.
 - Ensure quarantined space is provided for nursing research to maintain identity, while fostering links to collaborative research and shared research resources
 - Provide space in an Ambulatory Care centre for research, e.g. for recruitment and assessment of outpatients, co-located with clinics
- **Technology solutions**
 - Integrated UNSW and SGH systems for better access to information
 - Education and research spaces adequately equipped with WiFi, audio-visual communications etc
 - Access onsite to research software for all researchers of all disciplines
 - Provide a SESLHD website with links to researchers and their skills to allow sharing of knowledge
- **Staffing solutions**
 - Ensure quarantined time is provided for clinicians to provide education and undertake research
 - Provide a bank of research nurses who can work across different clinical trials to make better use of available resources.

RESPIRATORY SERVICES

SCOPE OF SERVICES

Respiratory services include diagnosis and treatment of patients, providing a range of sub-specialty services to care for patients with complex pulmonary conditions including COPD, asthma, tuberculosis, sleep disorders, etc. Services include inpatients, outpatient clinics, community-based care, bronchoscopy, lung laboratory, sleep studies, chest clinic and a Research Centre.

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- While most patients are 50 years or older, many with long term conditions, some services are also provided to younger adults (e.g. asthma clinics, sleep studies down to aged 10). There are links with the Developmental Assessment Service for children and young people with complex respiratory conditions
- Main drivers of demand is the increasing and ageing population living longer with comorbidities (for example those with COPD, cardiac disease and/or diabetes mellitus)
- Recognition of many patients having English as a second language

• Operational description

- Respiratory services are spread around the Campus including some off-site:
 - Respiratory and Sleep Outpatient Clinics (plus a Lung Laboratory) located on ground level of Prince William Wing
 - Sleep Laboratory (6 bedrooms) located between Prince William and Burt Nielsen Wings
 - Chest (TB) Clinic located on lower ground of Prince William Wing
 - Research Centre located off campus (4 Hogben Street Kogarah 500 metres from the Hospital)
 - RCCP housed in the Ward Block
 - 30 beds on Ward 5 South soon and to be relocated to the Acute Services Building (being down sized to 28 beds)
- In addition bronchoscopies are performed in endoscopy suites in the theatre complex

• Activity

- Outpatient activity is limited by space and staffing
- 11 general Respiratory Clinics are held per week; similar number with Sleep Clinic
- Inpatient separations have been trending up over recent years along with the average NWAU (reflecting increasing cost and complexity of patients), however average length of stay has decreased

• Models of care

- Current models of care for outpatient and community-based services include:
 - Referral from GPs, inpatient or ED
 - Appointment reminders are sent by letter with a follow-up reminder
 - Close collaboration with ENT, ED, intensive care
 - There is also close collaboration with CHCK for the management of patients with motor neurone disease requiring BiPAP, with patients attending clinics at St George
- The RCCP is a hospital-based community program initiated by St George and now emulated by many other hospitals that provides home visits to patients who are unwell from a respiratory condition. This specialised hospital-based community program is also designed to assist people with advanced lung disease to live optimally well in their homes and prevents many hospital admissions as well as decreasing hospital length of stays

• Staffing

- Medical: 3.6 FTE consultants (low compared to other similar hospitals), 4 registrars, 3 resident medical officers
- Nursing: multiple ward nurses, 2 outpatient nurses plus 8 RCCP nurses
- Administration: 6 administration staff.

CURRENT ISSUES AND CHALLENGES

• Patient demographics

- It is expected in the future there will be increasing numbers of patients with long term respiratory conditions including respiratory failure requiring BiPAP
- Increasing rates of obesity will result in more respiratory & heart complications and aggravate existing lung and sleep-disordered breathing disorders

• Constraints on activity and models of care

- Waiting list: Currently respiratory services are at capacity with lengthy waits for patients requiring sleep studies (e.g. respiratory failure sleep studies), lung function testing, sleep, RCCP visits and/or respiratory clinic appointments
- Avoidable admits: Clinicians believe that a rapid access respiratory clinic for known patients would reduce unnecessary delays, expensive investigations and optimise management whilst bypassing the ED and potentially avoiding hospitalisations/reducing length of stays, a model used at the Cancer Centre at the Children's Hospital at Westmead (where known patients can be seen rapidly in the clinic and assessed as to the need for further tests/admission)
- Lack of comprehensive care: Multidisciplinary clinics (e.g. combined Respiratory and ENT clinic, combined Respiratory Failure and Neurology clinic) provide more comprehensive care, streamline management and are already functioning in a fledgling capacity which should be enhanced
- Bronchoscopy procedures are already at maximum resulting in long delays particularly for cancer diagnosis which can impact on prognosis. More operating time in endoscopy suites is urgently required
- Tracheostomy and long term ventilation patients are increasing rapidly, particularly being a trauma centre and servicing a population beyond the local population; these admissions are usually extremely long and costly and require a facility for long term ventilation care/beds
- A large cohort of people with motor-neuron disease attend SGH and associated CHCK. Closer co-operation would reduce delays in assessing respiratory failure in these patients but more resources are needed
- Inappropriate referrals: specialist rapid access respiratory clinic would offer more support for local GPs and avoid unnecessary ED presentations and admissions

• Technology

- The Federal Government is aware that the health system in its current form is unsustainable and has encouraged telehealth clinics. The Respiratory Department has such a clinic again in fledgling form and this has enabled patients to access specialist care remotely, saving time and resources. It has also been used as an adjunct for the home respiratory services already in practice. https://www.adma.org.au/.doc./158-one_in_four_lives_white_paper_v7.html

• Infrastructure

- scattered across the Campus and off-site in six different locations
- remote from Acute Services Building housing emergency, intensive care, operating rooms and the respiratory ward all requiring urgent access to respiratory services.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

• Service solutions

- Establish a comprehensive long-term ventilation care pathway including multidisciplinary clinics combining ENT/respiratory/ICU/neurology specialties, dedicated inpatient areas, and adequate staff resources similar to the multidisciplinary lung cancer clinics which streamline flow, optimise care and reduce unnecessary appointments. This would enhance the current fledgling ENT/Respiratory multidisciplinary clinics and the Respiratory Failure/Neurology clinics

- Enhance telemedicine clinics to enable patients to access specialist care remotely, saving time and resources, whilst also enhancing the home respiratory services already in practice
 - Working towards holding a(1) Severe Asthma Clinic and (2) combined CHCK/SGHs motor neurone disease clinic to optimise management in 2 growing cohorts of patients
 - Establish rapid access clinics for known respiratory patients to improve care, continuity, reduce costs of unnecessary investigations and reduce ED presentations
 - Provide timely access to clinics, sleep and lung function laboratories
 - Enhance the bronchoscopy facilities and resources to quicken diagnosis and reduce bed block
- **Infrastructure solutions**
 - Consolidate respiratory services into a single unit improving utilisation of space
 - Ensure close adjacency with the Acute Services Building to enable urgent access for respiratory services to respond to patients with respiratory failure and vulnerable airways
 - Sleep laboratory to be co-located with respiratory ward and clinics which would enhance each other's services and expertise
 - Room sizes to accommodate multidisciplinary clinics
 - Consider adopting new technologies to improve screening and monitoring of patients remotely.

RHEUMATOLOGY

SCOPE OF SERVICES

The Rheumatology Department provides a level 6 role delineation service for the diagnosis, treatment and medical management of adult patients (18 years+) with any rheumatic pain or dysfunction of the musculoskeletal system. This may include clinical problems in joints, soft tissues, connective tissue disorders, vasculitis and autoimmune diseases. A clinical trials Laboratory is collocated in the Rheumatology Department. Services are provided to both inpatients and outpatients.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**
 - The majority of patients are in the older age groups, many of whom have other comorbidities, e.g. renal failure, pulmonary hypertension, diabetes
 - There is a significant NESB cohort of patients
 - The majority of patients are from the SGH catchment area, however a significant proportion of patients are admitted from the Sutherland Shire (approximately 11%) and other LGAs (approximately 17%)
 - Drivers of demand:
 - Improvements in treatment mean that demand for access to treatment (i.e. new patients) has increased in recent years, however need for follow up has decreased
 - An ageing population increasingly living with chronic disease with associated rheumatological disease
 - Lack of adherence to treatment e.g. for gout
 - Approximately 75% of referrals are from GPs, with other specialists providing 25% of referrals

- **Operational description**

- The service is largely an outpatient service, with clinics held in the Rheumatology Department doctors' offices on the lower ground floor of the Prince William Wing, with administration supplied by Rheumatology admin staff
- Clinics are held daily Monday to Friday, with 11 clinics in total per week
- New patient appointments are one hour duration and follow up appointments 30 minutes
- Inpatient beds will now be provided on the seventh floor of the new acute services building (shared with haematology). There are usually 6 inpatients at any time, however this may flex up to 10
- A large clinical trials area is currently located within the Rheumatology Department, and is an integral part of the service
- Clinical networking occurs with other specialties at SGH, particularly with renal, diabetes, endocrine, respiratory and oncology
- Outpatient clinics are provided Monday to Friday in working hours, at various times, with 11 clinics held per week in total
- Multidisciplinary clinics are held with respiratory for patients with interstitial lung disease and for pulmonary hypertension (a virtual clinic)

- **Activity**

- Current non-admitted activity
 - In 2015/16 there were 2,878 Outpatient occasions of service
 - Activity is stable due to staffing restraints
- Current and recent inpatient activity
 - Inpatient activity is largely overnight. Activity has been relatively stable over the last 5 years, however length of stay has been trending down, to 4.2 days in 2015/16, largely due to improved treatment options

- **Models of care**

- Rheumatology has changed significantly in recent years with the development of targeted biologic drug therapies, and clinical trials to evaluate their optimal role in treatment protocols. This means the service is now largely outpatient based, with less need for admission, and inpatients generally requiring a shorter length of stay
- The introduction of the GMAU has meant that many acute low back pain patients previously admitted under Rheumatology are now managed in the GMAU
- Outpatients are triaged according to urgency and seen by Staff Specialists and/or Rheumatology registrar
- Virtual MDT clinics are currently held to discuss cases, which reduces the need for multiple patient outpatient attendance
- Specialist operated Ultrasound allows real time viewing of inflamed joints, etc. and reduces the need for patient to attend Medical Imaging services and faster diagnosis and management

- **Staffing**

- Medical: 2.4 FTE Staff Specialists, 1 FTE Registrar
- Nursing: No dedicated nursing staff
- Allied Health: Physiotherapist and Occupational Therapist as part of Rheumatology MDT, with access to other ward based allied health staff as required
- Research Assistant x 1 FTE
- Dedicated rheumatology admin staff x 2 FTE

- **Infrastructure**

- Outpatient services are delivered from the Rheumatology department, lower ground floor of the Prince William Wing, from Doctors' Offices
- Inpatient beds will move to the seventh floor of the new Acute Services Building, shared with haematology.

CURRENT ISSUES AND CHALLENGES

The patient demographic is unlikely to change, however population aging and increasing levels of comorbidities will increase demand and the need for long term management, e.g. managing gout in long term renal patients.

- **Constraints on activity and models of care**

- Waiting list: Clinics are currently at capacity due to staffing constraints, not clinic room availability
 - Urgent patients receive an Outpatient appointment within a week of receipt of referral
 - Non-urgent new patients are seen within one month
 - Routine appointments wait up to 3 months
 - There are few Did Not Arrive (DNA) appointments
- Potential changes in care settings: As drug therapies continue to improve, there is potential to continue to reduce admission and length of stay and manage more patients in an outpatient or ambulatory care setting
- Unmet demand: The lack of orthopaedic clinics at SGH means that no MDT clinic with rheumatology is available

- **Potential for new clinics/ services**

- A nurse practitioner (1 FTE) as part of the Rheumatology service would help alleviate the waiting list for routine follow up and potentially reduce admissions, e.g. for noncompliance of gout medication. More interdisciplinary clinics would also be possible, and potentially allow after hours clinics to be provided. These services could be provided within existing clinic space and via telehealth

- **Technology**

- Currently SMS reminders are not used for outpatient appointments (technology not available to department). However there are few DNA
- Medical records are stored within the department for ease of access

- **Infrastructure**

- As most patients are older and/or have physical limitations with mobility, it is important that clinic rooms are easily accessible
- Clinic rooms are also used as teaching rooms, so sufficient space is required for point of care teaching
- Clinical Trials are an important part of the Rheumatology service, and appropriate space will be required for the Laboratory, research assistant, storage, interview room, etc.

- **Staffing**

- Lack of a dedicated rheumatology nurse practitioner

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

• Service solutions

- Initiate a nurse practitioner model to improve access for rheumatology patients by better managing demand for routine follow up, providing greater input to interdisciplinary clinics, providing care coordination where required, providing nurse education on wards and to help prevent avoidable admissions
- Investigate potential for staffing of after-hours outpatient clinics to meet demand and patient preference
- Continue existing inpatient service for patients requiring acute inpatient management

• Infrastructure solutions

- Clinic rooms suitable for student supervision/teaching
- Ensure space is included for clinical trials lab, staff, interview room and storage
- Ensure appropriate office space (including space for administration staff)

• Technology solutions

- SMS appointment reminders
- Telehealth for some routine follow up
- Virtual MDT clinics
- Electronic medical record (eMR) to alleviate medical record storage space and access

• Staffing solutions

- Implementation of 1 FTE nurse practitioner.

SEXUAL HEALTH SERVICES

The Sexual Health Service is located in the Short Street Centre on the SGH & CHS Hospital Campus. The service is a department of the Directorate of Planning, Population Health and Equity.

SCOPE OF SERVICES

The Sexual Health Service:

- Provides a mixture of outpatient appointments; drop in services for triage ; and consultation services to the SGH
- Operates a medical, nursing and counselling service (limited by space and staffing).

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Adult services, with occasional access by adolescents, with an age range of 18-80+ years of age. The majority of clients are between 20-39 years of age
- Increase in Chinese and Arabic speaking populations accessing the service
- Approximately 75% male/25% female patients
- There are high levels of stigma

- **Operational description**

- Multiple avenues of referral from individuals, PHNs/GPs, and internal SGH services (outpatients and inpatients)
- A large proportion of screening activity is also informed by the KPI from the NSW STI screening targets
- Outpatient style assessment clinics with one to one appointments are conducted on site at the Sexual Health service premises
- Hours of operation are primarily between 8.00 am to 5.00pm during week days, with Tuesday clinics operating until 8pm
- Networking occurs between the Sexual Health Service and SGH & CHS HIV/Immunology Department
- Outreach services to Sutherland Hospital and specialised services for at-risk groups such as sex workers and youth are provided subject to staffing

- **Technology**

- Specialised equipment for point of care and rapid laboratory testing
- Use of data systems is limited, awaiting the implementation of CHOC

- **Models of care**

- Currently there is no centralised referral system for outpatient appointments. Referrals are triaged by clinicians
- It was clearly noted that bookings should not be via central booking due to risk of clients not following through and not wanting to disclose any details on the phone
- Clients are given a dedicated appointment time, follow-up is variable
- A reminder SMS is provided for sexual health clients which was noted as improving attendance
- 10% approximately do not attend booked appointments across all services
- The model of care/service delivery model has been reviewed approximately 7 years ago
- The service uses a data collection system, Sexual Health Operating Environment (SHOE), as used by the Sydney Sexual Health Centre

- **Staffing**

- Sexual Health nurses (2.8FTE) and Staff Specialists (1.9 FTE)

- **Infrastructure**

- Important for location to be accessible for specimen pick up as there are 3 pick-ups per day. Off site may reduce timely testing, increase courier costs and reduce accessibility for patients.
- Currently patients are seen in staff offices.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- There is a growing migrant population from a NESB with specific reference to Chinese and Arabic speaking clients.

- **Constraints on current models of care**

- Model of care/service delivery is limited due to the physical limitations as noted.

- Unmet demand: Unmet demand is not fully explored, though it is likely that young people, Aboriginal, and marginalised groups could be underserved based on growing population of these groups and what is known of trends elsewhere
- **Possible new clinics/ services**
 - Any additional clinics would be subject to staffing and infrastructure requirements
- **Physical space**
 - There is very limited clinic space
- **Staffing**
 - Human resources are affected by the limited number of trained staff choosing to enter the speciality, particularly sexual health (due to restriction in the training scheme).

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- Maintaining strong relationships with the SGH & CHS HIV/Immunology and Infectious Diseases department and acute services through consultations and education
- Co-location of the Short Street Sexual Health Service with the HIV/Immunology and Infectious Diseases department is recommended, as various staff liaise heavily and are shared across the services. Close physical proximity would enhance service and staffing efficiencies for both services
- Maintain relationship within the Directorate of Planning, Population Health and Equity
- Maintain and enhance relationships with:
 - GPs and PHN
 - Students/universities
 - NGO's and outreach services
- Models of care and service delivery to be reviewed. Continue to maintain the strong collegial relationship that benefits patients and staff
- **Infrastructure solutions**
 - Services could be located in an ambulatory care centre. However, if co-location with the HIV/Immunology and Infectious Diseases service is to occur, solutions would be required that support anonymity of patients attending due to the negative perceptions and stigma, particularly for Sexual Health and HIV services i.e. separate reception or waiting areas; and off-street access where possible
 - Outpatient option set up was not seen as positive for patient access or engagement
 - Location on hospital campus, as there are specimen collections 3 times per day
 - Separate multipurpose meeting education facilities and staff kitchen/food areas
- **Staffing solutions**
 - Increase in nursing staff is an absolute requirement into the future which would enable a less-doctor heavy consultation model to be embraced
 - The service requires at least 2.0 senior medical staff to provide safe, effective medical cover (compliant with accreditation) for this everyday outpatient service (weekdays).

SURGICAL SERVICES

SCOPE OF SERVICES

Surgical services at SGH encompass a broad range of surgical interventions both emergency and planned with services delivered to both inpatients and outpatients.

It is noted the construction of the Acute Services Building included some operating rooms, post-anaesthetic care unit, Sterilising Services Department and some additional surgical beds. This will address some of the shortfall in infrastructure needs particularly for trauma, emergency surgery and complex planned surgery (e.g. cardiothoracic, peritonectomy, etc.)

The focus of the proposed redevelopment is on addressing the remaining demand for surgical infrastructure including:

- Dedicated HVSSS including operating rooms, pre- and post-anaesthetic care and inpatient beds for planned surgery such as:
 - Planned Day Only surgery
 - Extended Day Only surgery – length of stay less than 72 hours
 - Short Stay Surgery – length of stay up to 72 hours
- Outpatient surgical services (e.g. Ortho Fracture clinic, etc.)

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**
 - Surgical services are for adults and children
 - The growing population has increased demand
 - There has been an increase in the clinical acuity and complexity of some patients
- **Operational description**
 - When the ASB operating rooms are commissioned in 2017/18 the majority of surgical procedures will be moved into the new operating rooms as the construction of the ASB did not include funding to refurbish the 8 older operating rooms in the Clinical Services Building
 - Currently the operating rooms for emergency and planned surgery are combined with only limited capacity to separate complex planned surgery from surgery suited to HVSSS resulting in some planned surgery being cancelled and some patients having their HVSSS in other facilities
 - Elective surgical lists are Monday to Friday
 - Discharge occurs from the perioperative unit or an inpatient unit
 - Outpatient clinics
 - Preadmission clinics for planned surgery have more than 9,000 occasions of service and are conducted by a combination of phone (50% consults) and face to face consultations (50% consults)
 - Patients are followed up by the Specialist, GP or Registrar as clinically appropriate
 - Urology Clinics: 2 clinics/week
 - ENT Clinics: 3 clinics/week
 - Anorectal and continence clinics 5 days a week in Pelvic Floor Unit (Urology, Colorectal and Urogynaecology input)

- **Activity**

- Inpatient surgical activity has been increasing with day only / short stay surgery growing at a faster rate than multiple night separations
- SGH has a stable trauma load however has seen an increasing complexity for some interventions
- Outpatient data is becoming more robust but trend data is unreliable and the activity does not include that provided in clinician's private rooms

- **Models of care**

- The District and SGH aims to manage patients in accordance with the Predictable Surgery Program including
 - Developing clinical pathways (e.g. for older people requiring surgery)
 - Review and rationalisation of surgical services
 - Rollout out of Enhanced Recovery After Surgery (ERAS)
 - Networked waitlist model where more than 600 patients had inter-hospital transfers to reduce their length of time on the waitlist

- **Staffing**

- Nursing: Nurse Unit Manager, Clinical Nurse Specialists, Consultants, Nurse Educators, RN's, ENs. An ERAS Clinical Nurse Consultant commencing soon
- Medical: Registrar and Resident Medical Officers, Specialist Medical Officers
- Allied Health: as required Physiotherapists, Dietitians, Occupational Therapists, Social Workers, etc.
- Support services staff – administrative/clerical staff, housekeeping, hotel services admin, etc.

- **Infrastructure**

- The current infrastructure is aged, dysfunctional and needs to be replaced
- Physical location of service delivery
 - The new Acute Service Building houses 8 operating rooms and one procedure room, post-anaesthetic care unit, Sterilising Services Department and some additional surgical beds
 - The older 8 operating rooms housed in the Clinical Services Building were not funded for refurbishment, and currently have 4 still in use and 4 decommissioned. This is despite the projected demand warranting all these rooms be available and fit for purpose
 - Outpatient clinics (including preadmission) are scattered across the campus including in the Burt Neilson Wing, Prince William Building, Clinical Services Building , Treatment room on 3S ward, THE demountable Pelvic Floor Unit, Stomal therapy office and ACU and specialists often utilise their rooms off campus to review patients.

CURRENT ISSUES AND CHALLENGES

- **Patient demographics**

- Ageing population, growing population and increasing numbers of residents with comorbidities

- **Driver of demand**

- Models that screen for suspected cancer in those with appendicitis allow early detection and less invasive treatment options
- Pharmaceutical treatments for Hepatitis B and C will reduce need for some surgery
- Some comorbid patients have complex care requirements impacting on surgical demand
- Treatment options for the morbidly obese which include gastric bypassing

- **Surgical techniques**

- The trend towards minimally invasive surgeries and faster recovery times mean that procedures previously performed in operating rooms are shifting to other settings such as day surgery or procedure rooms. However, implementation of NSW Health's High Volume Short Stay Surgical Model Toolkit (GL2012_001) is difficult due to a lack of dedicated operating / procedure rooms
- HVSSS is an increasing component of surgical practice in many specialities. These patient benefit from being treated separately in the admission and discharge process to maximise efficiency
- Conversely, emergency and complex planned surgery continue to require significantly more resources (staff, theatre time, intensive care and longer length of stay)

- **Constraints on activity**

- Waiting list:
 - Despite the networked waitlist model some surgical / procedural lists have lengthy waits
 - ENT clinic waiting list closed due to the large number of inappropriate GP referrals.
 - Endoscopy - 1400 on the waiting list
- Unmet demand
 - Historically surgical outpatient clinics have been defunded resulting in patients being seen in private rooms, insufficient multidisciplinary clinics instead patients need to see individual specialists, no fracture clinic, etc.
 - There is a lack of some Registrar led outpatient clinics (e.g. orthopaedics) with potential to delay discharge
 - A lack of clinics for follow-up of trauma patients requires them to attend private providers resulting in a loss of Motor Accidents Authority (MAA) funding to the District
 - Expansion of the National Bowel Screening Program is likely to result in a significant increase demand for colonoscopy services into the future
 - Increasing demand for gastric bypass has surgical implications but requires significant pre- and post-operatively work up predominantly as an outpatient but for some inpatient episode of care is required

- **Possible new clinics / services**

- Potential to expand HITH so patients are referred to post-acute care services in the community e.g. patients discharged with drains in-situ
- Rapid access clinic for post-operative patients being managed by HITH type services
- Establish a fracture clinic
- Establishment of a multidisciplinary Optimisation Clinic
 - When added to the waiting list they are assessed by phone or attend an initial review
 - Patients with risk factors are referred to their GP to optimise their health prior to surgery. This model supports better outcomes, reduced rates of complications and length of stay. Target groups include the frail, aged and those with chronic diseases and multiple comorbidities
 - More complex patients are managed by the multidisciplinary Optimisation Clinic
- Expand Nurse Practitioner led pre and post-acute care clinics
- Implementation of HealthPathways will reduce inappropriate referrals from GPS
- Investigate on site GP clinic
- Provide Vascular Doppler service (currently provided by St George Private Hospital)

- **Infrastructure constraints**

- The existing infrastructure does not support current models of care (streaming short stay patients, separating planned and emergency surgery, etc.) and will not be able to meet future demand
- The 8 operating rooms housed in the Clinical Services Building need refurbishment so that are fit for purpose to meet projected demand
- Potential for poor functional relationships with sterilising services and medical imaging with no onsite Vascular Doppler service
- Pre-admission clinics do not have ready access to pathology blood taking
- Insufficient and scattered ambulatory care clinics including a significant number of patient reviews undertaken in the specialist rooms
- Lack of on-call accommodation
- Bezzina House, providing accommodation for post-discharge and/or rural patients and their family or carers, is at capacity and it is considered a hospital providing quaternary surgery requires sufficient on-site accommodation
- Insufficient research and laboratory space limits potential to develop a health and education research precinct with industry collaboration
- Need for appropriate office accommodation close to clinical services

- **Staffing**

- Difficulty meeting College accreditation guidelines including Registrar led clinics, education requirements, etc.
- Difficulties attracting a sonographer for the Vascular Doppler service.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Establishing a HVSSS Unit to deliver to improve service efficiency and access to elective planned surgery and procedures
- Developing clinical pathways that support the patient journey through pre-admission, admission, preparation for the procedure/surgery, treatment, recovery and discharge
- Extending the range of procedures that are suitable for the short stay environment as models of care and medical technologies make early mobilisation and early discharge not only possible but preferable
- Undertaking early screening of patients (Optimisation) on the waiting list for pre admission work up
- Expanding ambulatory care clinics that support pre and post-acute care
- Potentially redirecting patients from private rooms to outpatients (e.g. urology)
- Improving integration of services with primary health care e.g. HealthPathways

- **Infrastructure solutions**

- Develop a new HVSSS unit in close proximity to the Acute Services Building operating theatre suite with good access to medical imaging (x-ray and ultrasound) and sterilising services
- HVSSS unit to include operating rooms, post-anaesthetic care unit and inpatient beds dedicated to HVSSS with a collocated pre-admission clinics, admission office and adequate storage areas for clean and dirty trays as well as equipment, goods and supplies
- All these rooms need to be Operating rooms [implying 55 square metres]. A Procedure Room (35 square metres) would be inadequate for the level of technology used in the typical HVSSS specialities such as Upper GI, Urology, ENT etc.

- The existing Sterilising Services needs close adjacencies to HVSSS operating rooms, birthing suites, and some ambulatory care services (e.g. procedure rooms, for respiratory, renal, gynaecology, dental, etc.). Without this close proximity consideration would need to be given to the transport and storage of sterile and used trays
- Provide purpose built space for multi-disciplinary pre-admission clinics including ready access to pathology blood taking
- Provide clinics for pre and post-acute care
- Refurbish the 8 operating rooms housed in the Clinical Services Building so they are fit for purpose to meet projected demand
- Consider shared office space between clinic / treatment rooms to foster training and education opportunities
- Consider the possibility of establishing an on-site GP clinic
- Establish a Vascular Doppler service
- **Staffing solutions**
 - Meet College accreditation guidelines including Registrar led clinics
 - Nursing staff rotation between the HVSSS unit and Acute Service Building operating theatre suite to support training and job satisfaction.

SURGICAL SPECIALITY NURSING SERVICES

SCOPE OF SERVICES

Specialist nursing services include:

- Nutritional Support, which provides nursing care for patients requiring Parenteral Nutrition and long term Enteral feeding, such as feeding tubes, IV feeding and PICC lines
- Stomal Therapy, which provides nursing care for patients with either a permanent or temporary stoma, such as a colostomy, ileostomy or urostomy. Also cover fistula management and wounds/drains with high drainage that require bagging
- Enhanced Recovery after Surgery (ERAS), which provides education and support to adult elective surgical patients pre-op, during their hospital stay and as out-patients.

DESCRIPTION OF CURRENT SERVICE DELIVERY

● Patient demographics

- Nutritional Support and Stomal Therapy services support people of all ages, from paediatrics to geriatrics, although many children are also supported by the Sydney Children's Hospital Network
- ERAS is a new service that currently sees adult elective colorectal patients, although this will expand to include upper GI patients undergoing gastrectomy (excluding gastric sleeve) and oesophagectomy, urology patients undergoing TURP or nephrectomy and vascular patients undergoing endovascular abdominal aortic aneurysm repair and femoropopliteal bypass
- Nutritional support patients are from the SGH catchment and Sutherland Shire and a small number of out of area patients
- Stomal Therapy services serve patients who access services at SGH, and thus have approximately 40% of out of area patients, e.g. for Peritonectomy surgery, specialised Colo-rectal surgery, rural patients accessing other specialised services

- ERAS serves all patients that access services at SGH that meet pathway criteria
- Referral:
 - Patients can self-refer to Nutritional Support and Stomal Therapy services, or may be referred from ED or medical specialists
 - All patients suitable for ERAS are either identified on EMR by ERAS staff or referred by pre-admission staff
- **Operational description**
 1. Nutritional support
 - Services are provided to:
 - Inpatients for education of home enteral nutrition or management of problems with existing enteral nutrition. Most patients are educated before discharge to self-manage their care at home
 - ED Fast Track for crisis management
 - Outpatients in clinics e.g. cancer head and neck clinic
 - Ambulatory Care Unit (adults only)
 - Home visits (St George area only) for bedbound or RACF patients
 - Most episodes of care are unplanned, with some booked admissions
 - Services are provided Monday to Friday in business hours
 2. Stomal Therapy
 - Services are provided to:
 - Inpatients for education and counselling of patient/family/carer of management of new stoma prior to discharge, or care for problems with existing stomas/fistula
 - ACU, or ED if no ACU bed available for crisis management
 - Outpatients are seen for pre-op counselling/education, post-op routine follow up, ongoing education as required
 - Some phone consultation is done for troubleshooting
 3. ERAS
 - Services are provided in pre-admission for education and anticipatory care to identify referrals required to other services, e.g. social work, Dietetics, Geriatrics, etc.
 - Patients are reviewed as inpatients on ward
 - Follow up phone calls are made on discharge
 - Outpatient follow up occurs prior to the patient's surgical outpatient appointment
 - Services are provided Monday to Friday
- **Activity**
 - Current non-admitted activity
 - Activity has been stable over the past 2 years for nutritional support and stomal therapy
 - ERAS is a new service and currently sees 3-4 patients /week, however this activity is projected to grow quickly as new pathways commence

- **Models of care**

- Nutritional support and stomal therapy provide pre-op and inpatient education for home management by the patient or carer where possible, immediate post-operative care and education and follow-up assessment and counselling following patient discharge, with crisis management when necessary. Patients are seen in ambulatory care to avoid admission or ED presentation
- ERAS principles include to optimise the patients' surgical journey, decrease their LOS, and minimise complications and readmissions

- **Staffing**

- Stomal Therapy: 2.5 FTE nursing
- Nutritional Support: 2 FTE nursing
- ERAS: 1FTE CNC and 1 FTE RN (nb RN has TIIC funding)
- Each service works closely with multidisciplinary teams (cancer, surgery, paediatrics, allied health, etc.)

- **Infrastructure location and configuration**

- Nutritional Support: adults are seen in the ACU, children are seen in clinics. Some patients are also seen in ED and cancer care as required
- Stomal Therapy: outpatients are seen in office space on 3South, or in ED, ACU, PAC or wards as required
- ERAS: patients are seen in the pre-admission clinic, on wards 2E and 3E, and outpatients are seen in office near 2E, however this is not fitted with a bed, so patients are seen elsewhere if bed required.

CURRENT ISSUES AND CHALLENGES

- **Drivers of demand**

- The growing and aging population, with people living longer with chronic disease
- Younger people with earlier detection of cancers and for Peritonectomy surgery
- Children with disabilities who are transitioning to adult services. These adolescents are usually disabled and often wheelchair bound, and will need greater support and specialised management, access and clinic space
- Increasing cancer survival rates
- Increasingly patients are seen in ambulatory settings, e.g. with PICs for IV antibiotics, which will increase demand for nutritional services

- **Constraints on activity and Models of care**

- Waiting list: Patients for all services are triaged for urgency and there is no waiting list, although some patients may not be seen on the same day
- Avoidable admits / referrals: Telehealth/Skype could avoid out of area patients presenting for stomal therapy management and some crisis management
- Potential changes in care settings: currently some Peritonectomy and colorectal patients who have multiple surgeries and require hydration are managed as inpatients. There is potential for them to be seen in the ambulatory care unit or seen in the community to reduce length of stay or avoid admission and for crisis management
- There are minimal "Did not arrive" and/or late cancellations for non-admitted patients/ clients for all services

- **Potential for new clinics/ services**

- Access to a crisis bed in ambulatory care would avoid some ED presentations, with direct referral to nursing staff
- Potential for pre-op iron infusions for identified ERAS patients to enhance recovery
- Potential for pre-habilitation (in collaboration with other services) for ERAS patients

- **Technology**

- Currently photos are emailed to stomal therapy for advice. Skype/telehealth would improve real time imaging and improve outcomes, with more potential to avoid presentation to outpatients or ED
- ERAS requires access to ERIC for ICU patients
- ERAS pathway will be on EMR2

- **Infrastructure**

- Disabled access and space for wheelchair patients is required, particularly young disabled patients in large chairs who can be treated in their chairs
- Fit for purpose clinic space:
 - The office on 3S used for stomal therapy outpatients does not have a sink, does not have ready access to a toilet for education purposes (a ward toilet is used) and is not fit for purpose
 - The office space used for ERAS outpatients does not have a bed
- Access to a crisis bed in ACU.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

The early detection and treatment of cancers and longer survival rates and the growing and ageing population, as well as the increase in the number of transitional patients coming from the SCHN, will continue to increase demand in the future.

- **Service solutions**

- Continue to provide existing Nutritional Support and Stomal Therapy nursing services
- Expansion of ERAS services to more surgical services
- Provide crisis management in the ambulatory care centre for acute management of patients to prevent ED presentation or deterioration

- **Infrastructure solutions**

- Provide access to crisis bed in Ambulatory care centre for acute management of patients
- Provide access to procedure room
- Provide clinic space, including sink, and access to private toilet nearby for stomal therapy clinic, preferably adjacent to 3South surgical ward to support inpatients as well, or as part of ambulatory care centre
- Provide access to a clinic space with bed and space for dressing supplies in the ambulatory care centre for ERAS outpatients
- Ensure clinic space is suitable for large wheelchair access and is large enough for MDT clinics and to include family members/carers
- Secure storage space for stock in clinic space in ambulatory care setting which is not accessible to others
- Provide a separate waiting area suitable for paediatrics
- Provide access to a group room for family counselling, MDT conferences, etc.
- Provide access to education room/group room for patient and staff education, patient support groups
- Provide hotdesk/office space with access to computers

- **Technology solutions**

- Skype for troubleshooting, telehealth for rural patients

- **Staffing solutions**

- Staffing will be required to manage recovery of patients in ACU following procedures
- Recurrent funding will be required for ERAS RN
- Admin support for outpatient bookings.

TRAUMA SERVICE

SCOPE OF SERVICES

SGH is one of 7 designated major trauma services in NSW, and provides the Level 1 Trauma Centre for SESLHD, and the wider catchment including the Illawarra/Shoalhaven and Murrumbidgee Local Health Districts. The Trauma Service provides the full spectrum of care for major and moderately injured patients, from retrieval through to rehabilitation and discharge.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Patient demographics**

- The largest cohort of patients are young males, as a result of motor vehicle or motorcycle accidents, falls and other risk taking behaviours
- Approximately one third of patients are older people with blunt chest trauma
- Approximately one third of patients are from outside of the St George area, with a significant number from the Sutherland Shire, and from the wider catchment area of the retrieval service

- **Operational description**

- As a Level 1 Trauma Service, SGH provides all clinical specialties including Trauma Rehabilitation services. Patients who have sustained serious, life-threatening injuries generally also require intensive care, operative and extensive recovery and rehabilitation care (Injury Severity Score greater than 12)
- A trauma outpatient clinic is provided for review of patients and ongoing management on discharge
- The SGH Trauma Hotline is a 24 hour consultancy service developed to expedite the transfer of trauma patients to SGH Trauma Service. The hotline service provides advice and acceptance of care for major trauma patients within the SESLHD and its referral network
- The Trauma Service works closely with the intensive care unit and coordinates care of trauma patients with other specialties within the hospital, prior to referral to other specialties, e.g. neurosurgery, or discharge
- The service operates 24 hours per day, 7 days per week

- **Activity**

- Since trauma monitoring commenced at SGH in 1992 there has been a 149% increase in trauma presentations. These are patients who have filled trauma call criteria and required a hospital wide response. Presentations have been relatively stable over the last 3 years
- Trauma outpatient activity: 104 occasions of service in 2016/17

- **Models of care**

- In addition to being a major trauma service, SGH is the first hospital in Australia to implement a dedicated admitting trauma team which reduced mortality, and one of the first to incorporate a Trauma Case Management Program which increases efficiency, reduces length of stay, and minimises complications among admitted patients
- Patients are assessed for life threatening (primary) trauma, and later reassessed for other (tertiary) injuries/problems

- A Chest Injury Protocol (CHIP) for the treatment of blunt chest trauma in the elderly has been developed for early multidisciplinary management by the trauma team, pain management, orthogeriatrics and physiotherapy to reduce the incidence of pneumonia and debility post injury, reduce the need for ICU or high dependency unit and prevent nursing home placement. This has resulted in some increased activity due to transferral to SGH for this condition
- Multidisciplinary team management is coordinated by the Trauma Service
- **Staffing**
 - Medical: Director 1FTE, Trauma Staff Specialists x2 FTE, Registrar x 1 FTE
 - Nursing: Trauma Case Manager CNC x1 FTE, CNS x 4 FTE, Trauma Case Managers x 3 FTE
 - Allied Health: No dedicated Trauma allied health
 - Administrative/clerical staff: 1 FTE
- **Infrastructure**
 - Trauma Services do not have designated beds, however patients are mostly located on 3S, with some on 3W with multi-orthopaedic issues, and 2-4 patients in both ICU and ICU2 at any time
 - The Trauma Outpatient clinic is located in the Director's Office in the Research and Education building.

CURRENT ISSUES AND CHALLENGES

- The cohort of patients is unlikely to change, however complexity is increasing
- **Constraints on activity and models of care**
 - Waiting list:
 - Patients that meet the admission criteria are always accepted
 - Patients requiring outpatient review are seen 2 weeks post discharge
 - Potential changes in care settings/new clinics
 - There is opportunity to implement a new model of care, to include a dedicated physiotherapist, occupational therapist and social worker to manage inpatients and to have an active role in an outpatient trauma clinic. This would provide more person centred care and better continuity of care for the patient. There is potential for the Neurosurgery registrar to also attend. This could be funded largely through MAA, WorkCover and private patient sources and would replace the existing Trauma Clinic
 - Unmet demand
 - There is potential to increase the number of review patients in the Trauma Clinic to prevent and manage ongoing health and wellbeing issues
 - There is no case management clinic
- **Infrastructure**
 - There are no designated Trauma beds or dedicated allied health staff
 - Outpatient clinics are held in the Director's Office, which is not fit for purpose and does not allow room for students or MDT assessment and remote from the main hospital campus
- **Staffing**
 - The lack of dedicated allied health staff restricts MDT activity and continuity of ongoing care, as well as loss of specialist knowledge, experience and education.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

• Service solutions

- Provide designated trauma beds to avoid outlier care. Confirm ideal adjacencies
- Provide a multidisciplinary Trauma clinic, including medical, nursing (case management) and allied health input, with potential for education of registrars and students. This should be located in the new Ambulatory Care centre, with sufficient space for MDT assessment

• Infrastructure solutions

- Provide a treatment area within outpatient area for minor procedures (excisions, debridement, etc.) and review in ambulatory care as an admission avoidance model
- Ensure point of care education spaces
- Ensure sufficient space for MDT clinics

• Staffing solutions

- Provide dedicated allied health staff for acute and ongoing management of trauma patients for improved coordination of care, patient journey and outcomes.

UROGynaecology Unit, including the Pelvic Floor, Bladder and Anorectal Physiology Laboratory

SCOPE OF SERVICES

The Department of Urogynaecology provides:

- Extensive expertise in complex continence and prolapse surgery
- Urogynaecology Clinics – for women with urinary incontinence, uterovaginal prolapse, bladder pain and voiding dysfunction
- Pessary clinics (Nurse-led)
- Dedicated pelvic floor Physiotherapist for tertiary service
- Cystometry and Video Urodynamics
- Outpatient cystoscopic botox injection under local anaesthetic (provided within the Pelvic Floor Unit)
- Colorectal service for people with faecal incontinence and disorders of defaecation
- Multidisciplinary clinics and surgery with Urology
- Multidisciplinary clinics and surgery with Colorectal Surgeon Service
- OASIS (Obstetric Anal Sphincter Injury) Clinics for women sustaining birth injuries.

The Nursing Continence Service provides nursing assessment and management of a range of bladder and bowel conditions such as: incontinence – bladder and bowel; urinary retention; constipation; prolapse; urinary tract infections (in the presence of other urogynaecological disorders); interstitial cystitis (Painful Bladder Syndrome); bed-wetting (in children above age 6) and catheter management (Urethral catheters, Suprapubic catheters).

DESCRIPTION OF CURRENT SERVICE DELIVERY

• Patient demographics

- Urogynaecological service sees females of all ages
- Continence service sees men and women of all ages

- Anorectal service sees men and women of all ages
- A large proportion of patients are from outside the SGH catchment (the catchment includes southern NSW and ACT), for access to specialised public services not readily available elsewhere, e.g. gynaecological related urinary and faecal incontinence services, complications from previous surgery, and for review of vaginal mesh patients
- Demand is increasing due to:
 - Growing and aging population that is living longer at home, requiring continence services
 - Increasing demand for specialised urogynaecological services, e.g. vaginal mesh patients from across NSW. SGH is one of 5 centres in NSW and is seeing approximately 30-40 patients per year, and this number is likely to increase up to 100. These patients require assessment, investigations, multiple surgeries and extensive follow up over 2-3 years
 - Many OASIS patients are referred from out of SESLHD catchment for its specialised service not available elsewhere
- **Operational description**
 - This is a supra-specialist services providing care to inpatients and outpatients
 - Most surgical activity is planned
 - Rapid access for all services is available to prevent ED presentation
 - Outpatient referrals are triaged (by highly trained clerical staff) for urgency, with urgent referrals seen within 7 days or same day if required
 - Hours of operation of clinics are Monday to Friday in business hours
 - Urgent patients outside these hours are seen in ED
 - There is a 3 month waiting list for clinics
 - Referrals are sourced from GPs and other specialists, and the Continence service accepts self-referrals
 - Education: The service provides a training centre for:
 - Trainees in the subspecialty of Urogynaecology and Colorectal surgery
 - Registrars
 - Continence nurse advisors
 - Phase 3 medical students, with point of care educational activities
 - Independent Learning Program students from UNSW doing Research Projects
 - OASIS Workshops for gynaecologists and midwives
 - Research activity:
 - A wide range of clinical research projects are conducted in the Pelvic Floor Unit, including RCTs (currently the role of low grade infection in women with Refractory Overactive Bladder); outcome measures used to determine the severity of incontinence; long term outcomes of a variety of urogynaecological conditions; trials of new pharmaceutical agents for the treatment of urge incontinence; investigating ways to optimise current treatments; studying the costs of incontinence from a variety of perspectives; and work closely with local colorectal surgeon to study the outcome of a Perineal Tear Clinic to predict which factors are associated with negative long term outcomes for women
- **Activity**
 - Current non-admitted activity has remained steady over the past two years
 - Current and recent inpatient activity: as a specialised service, there are low numbers of separations, and given this level of activity, trends are difficult to discern

- **Models of care**

- Patients are seen in both the inpatient and outpatient setting
- Cystometry for urodynamics and bladder scans are performed in the Pelvic Floor and Bladder Unit. These include patients referred from the Urology service
- Outpatient appointments: Average 1 hour for new patients, 20 minutes for follow up
- As a means to reduce waiting times for patients, nursing staff triage and assess and treat outpatients where appropriate, with referral to medical management as required
- Care that is anticipatory and predictive in a non-admitted setting:
 - Continence service sees radical prostatectomy patients pre-admission to provide exercise advice to improve post-op outcomes
 - Anorectal physiology service provides care that is anticipatory and predictive to provide better post-op outcomes
- OASIS service sees women within 6 weeks of injury as an integrated MDT service, with follow up by Obstetrics
- A new outpatient service has been established for botox injections to the bladder, currently seeing 1 patient per week, however this is likely to increase as the service develops
- The establishment of SGH as a vaginal mesh centre in the last 2 months will increase demand for this service

- **Staffing**

- Nursing: ontinence Service: 2 FTE CNC and 1.2 CNS, olorectal service: 1 FTE CNC and .2 RN
- Medical: 1.9 FTE Urogynae Consultants, 1 VMO; 1 Fellow, 1 FTE Registrar; .5 FTE Colorectal
- Allied Health: 1 FTE Physiotherapist
- Clerical: Specialist clerical staff 2.2 FTE

- **Infrastructure**

- Outpatient clinics are delivered in doctor's offices, Prince William Wing Outpatients Department and in the Pelvic Floor and Bladder Unit, a demountable building on campus
- The outpatient clinic has
 - 1 dedicated procedure room and 2 other procedure rooms are shared with offices
 - consultation rooms
 - special bathroom for uroflow studies
 - office space
 - numerous pieces of specialised equipment and a significant quantity of stores for catheters, vaginal rings, etc.
- Research laboratory is housed in the Pitney Building
- Inpatients are located on the Gynaecology ward on 1 West.

CURRENT ISSUES AND CHALLENGES

- **Changing patient demographics**

- People of all ages are seen, however the aging population will increase the need for continence services. About 25% of people over 65 years of age develop bladder control problems, and prolapse occurs increasingly with age

- There is a growing population accessing services for female genital mutilation from a range of backgrounds and with some requiring interpreter services
 - The class action against vaginal mesh inserts mean more women are being reviewed for this problem
 - There is limited access to urogynaecological services in rural and regional areas, meaning many out of area patients will continue to access their services and follow up at SGH
- **Constraints on activity and models of care**
 - Waiting list:
 - Outpatient clinics generally have a 3 month waiting list unless triaged as urgent
 - Currently space limits capacity, with clinics and offices in a shared space
 - Avoidable admits / referrals: Crisis access is available for all services in business hours to prevent ED presentation
 - Potential changes in care settings
 - The new clinic for Botox injections to the bladder held in the PFU could be better served in a high volume short stay environment (non- anaesthetic)
 - The colorectal clinic space is not fit for purpose and does not have access in the room to sluice, sterilising equipment and ensuite toilet and sink
 - Currently there is no ability to manage disabled people with continence or stoma issues in the PFU due to lack of wheelchair access. Wheelchair patients are currently seen in the ACU
 - “Did not arrive” and/or late cancellations for non-admitted patients/ clients: A small number of patients cancel or DNA. Patient appointment letters are sent for medical clinics and uroflow
- **Potential for new clinics/ services**
 - There is currently no planned changes to the model of care for the Continence service
 - There is potential for a multidisciplinary clinic for urogynaecology, urology and colorectal assessment and treatment
- **Technology**
 - Referrals are accepted by email
 - There is currently no SMS reminder service
 - There is no access to skype or telehealth
- **Infrastructure**
 - Some procedure rooms used for internal imaging are also shared office spaces and therefore not fit for purpose
 - Outpatient throughput is limited by lack of space
 - The Pelvic Floor and Bladder Unit is in a demountable building and remote from other services, creating inefficiencies in staff time, difficulty with wayfinding for patients, and has limited disabled access.
 - There is a lack of special bathrooms for uroflow studies and the equipment required for these studies
 - The sterilising unit for trans-anal ultrasounds does not have a fume hood
 - In all these spaces there is a lack of privacy, lack of ready access toilets for patients undergoing specific procedures, lack of dirty utility facilities, etc.
- **Staffing**
 - Highly specialised staff are required, including clerical staff who are trained to triage urgent referrals and are an integral part of the team.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

• Service solutions

- Collocate Urogynaecology, Urology and Colorectal outpatient services in a dedicated precinct to allow multidisciplinary, integrated care, and sharing of resources e.g. uroflow
- Continue current model of care for nursing continence and colorectal services in purpose built facilities to improve patient amenity and infection control and meet increased demand
- Continue existing integrated services e.g. OASIS for anorectal obstetric cases
- Investigate MDT clinic with Urology

• Infrastructure solutions

- Outpatient services should be provided in fit for purpose clinic spaces, large enough to allow MDT clinics. Consideration of privacy must be given
- Clinic rooms require an ensuite bathroom (could be shared between 2 rooms) for infection control, ease of access, privacy and efficiency
- Two ensuites need to be large enough to accommodate uroflow equipment and/or for wheelchair access
- Three procedure rooms which provide patient privacy, are of sufficient size to accommodate equipment with each having a dedicated ensuite
 - Dedicated colorectal service clinic room with ensuite toilet, sluice, deep sink and sterilising equipment
 - Dedicated procedure room to accommodate Botox injection clinic, cystoscopy, etc. with space for specialised equipment
- Dedicated acoustically suitable room for electromagnetic chair (procedure is very noisy)
- Dedicated storage space for equipment and stores e.g. 3D Ultrasound
- Hot desk space for nursing staff
- Office space for medical staff
- Access to meeting rooms
- Access to education space (staff and patient)
- Ideal physical adjacencies include urology and colorectal services, preferably with good access (prams, wheelchairs) and on ground floor with easy wayfinding
- Adequate waiting room area suitable for mothers and children

• Technology solutions

- SMS messaging appointment reminders
- access to eMR2
- telehealth for remote patient follow up

• Staffing solutions

- Ensure specially trained clerical staff are maintained as part of the unit to allow effective triaging of urgent patients.

WOMEN'S AND CHILDREN'S HEALTH

SCOPE OF SERVICES

SGH provides a Role Delineation Level 5 Maternity service, Level 6 Gynaecology service, Level 4 Neonatal service, Level 5 Paediatric Medicine and Level 4 Surgery for Children service.

Inpatient facilities include:

- Maternity unit - 26 inpatient beds, 6 birthing rooms and 1 assessment room
- Birth Centre (short distance from the maternity unit) - 2 birthing rooms for low risk women
- Paediatric unit - 22 inpatient beds
- Special care nursery - 12 cots
- Gynaecology Ward- 10 inpatient beds (co-located ward with extended day only inpatients).

A range of outpatient clinics are provided on the SGH campus, including:

- Antenatal clinics
- Early Pregnancy Assessment Clinic
- Day Assessment Unit
- Antenatal Assessment Unit
- SSWinG Clinic (weight intervention clinic)
- Breastfeeding/Lactation Information and Support Service (BLISS)
- Young Mothers Clinic
- Risk Associated Pregnancy Clinics
- Foetal medicine clinics
- Perinatal mental health clinics
- Gynaecology clinics
- Hysteroscopy clinics
- Colposcopy clinics
- Menopause clinics
- Renal clinics
- Genetics clinics
- Paediatric clinics
- Gynaecology clinics.

The clinics operate Monday to Saturday in different locations on the SGH campus including the Prichard Wing, on wards 1 South (Maternity), 1 West (Gynaecology), 1 East (Paediatrics), in the Genetics Department, in the Birth Centre and in the community.

Procedures are performed in the Prichard Wing (colposcopies) and Pelvic Floor Unit (urodynamics). Options for maternity patients including care through a GP Shared Care Service, community based antenatal care and early discharge to community based maternity care are provided where clinically appropriate.

DESCRIPTION OF CURRENT SERVICE DELIVERY

- **Drivers of demand**
 - Growing population

- More complex patients presenting with multiple co-morbidities. The maternity service has seen an increase in women with gestational diabetes, high body mass index and hypertension. These women require more intensive monitoring and care, longer length of stay and do not meet the criteria for midwifery support post discharge
- Inflows from other Districts associated with patient choice, particularly Bankstown and Canterbury, and from the Sutherland Shire
- Inflows from all high risk patients from Sutherland Hospital, for high level services at SGH
- Demand for locally available specialty services linked with reduced access to services at tertiary facilities e.g. paediatric eating disorders
- Tertiary services are pushing back Paediatric care to local services
- Growth in post-natal returns from specialist hospitals.

CURRENT ISSUES AND CHALLENGES

• Patient demographics

- It is expected the growing and ageing population, more complex patients, inflows from other areas and demand for locally available specialty services will increase the demand for enhanced women's and children's services into the future

• Constraints on activity

- Unmet demand:
 - Birthing facilities in the maternity unit are unable to operate at full capacity due to the configuration of rooms
 - The Birth Centre is not collocated with the main birthing facilities and/or maternity unit so can only accept low risk labour and birthing, resulting in underutilisation due low numbers meeting the criteria for low risk birthing
 - The birthing suites are also used as Assessment Rooms, which hampers flow
 - This poor configuration results in an average of 10 women per month being diverted to other hospitals to receive care, including to The Sutherland Hospital, The Canterbury Hospital, Royal Prince Alfred Hospital and The Royal Hospital for Women (RHW)
- Waiting List:
 - Antenatal clinic: 4-6 week waiting list for the first antenatal clinic appointment. This is an issue for women joining the waiting list after 8 weeks gestation in relation to missed opportunities for early identification of complications
 - Paediatrics waiting for MRI: 12 month wait list for those under 8 years (requires sedation)
 - Genetics: 6 months waitlist
 - Gynaecology: 6 month waitlist for procedures and uro gynaecology

• Infrastructure:

- Birthing rooms currently do not include water immersion facilities so are unable to meet patient expectations
- There are no public toilet facilities in the Birthing Unit; this provides difficulties for women who are in labour waiting for assessment to access appropriate toilet facilities
- There is no waiting area in the Birthing Unit for women who are awaiting assessment
- There is no waiting area for families or support people in the Birthing Unit
- There is no bereavement room or room to place babies that have been delivered still-born or have died at birth
- The Birthing Unit has insufficient storage space for equipment, consumables and medical files
- There is a lack of procedure rooms and ultrasound facilities in ambulatory care

- **Staffing**

- Only 2 FTE midwives supporting post-natal home visits.
- 11% GP Shared Care rate at SGH is low resulting in increased demand for hospital based services (note. RHW have a 45% rate). GPs must be on the accredited list to provide this service. There is a lack of facilities and resources on campus to train and upskill GPs.

PROPOSED STRATEGIC INITIATIVES AND RECOMMENDATIONS

- **Service solutions**

- Provide an integrated networked range of services within and across Local Health Districts to meet the choices and needs of women and their newborns
- Establish systems to enable women and their newborns to move seamlessly between maternity and neonatal services when the care they require is not available locally
- Improve the continuity of care across acute, ambulatory, community and primary health care continuum within an interdisciplinary framework
- Support normal birthing (including provision of water immersion facilities in labour and birthing), consistent with NSW Policy Directive PD2010_045 Towards Normal Birth
- Improve GP Shared care rate with improved resources to upskill GPs for accreditation

- **Infrastructure solutions**

- Co-locate all Women's Health and Obstetrics outpatient services in the ambulatory care precinct, including flexible consult rooms, dedicated procedure rooms and ultrasound facilities (in two rooms)
- Relocate Birthing Services to 2W (former ICU space, Level 2 Tower Block) where footprint allows colocation of Delivery Suite and Birth Centre and an additional assessment room. The ICU level will also provide enhanced space for antenatal support services and specialty clinician offices
- Provide birthing suites with water immersion facilities in the acute care precinct
- Establish a paediatric service hub through collocation of paediatric inpatient and outpatient service, including a dedicated paediatric lumbar puncture room (this will require the relocation of the patient Discharge Unit elsewhere)

- **Staffing solutions**

- More midwifery workforce to support Risk Associated Pregnancy (RAP) women
- More midwifery support for post-natal discharge - would like to increase to 3FTE to provide visits for high risk postnatal patients that fall outside of the MSP criteria
- Resources to support GP training for Shared care model of antenatal care.

APPENDIX 3: PROJECTION METHODOLOGIES

The inpatient projections are based on separation data that is coded to an Enhanced Service Related Group (ESRG) or Service Related Group (SRG). ESRG's and SRG's provide more reliable data than measuring demand and utilisation based on treating clinician and/or patient ward which have been found to overestimate these factors (e.g. Counting based on clinician or by ward can result in counting the same patient twice or more within the same admission, when care is provided across several different clinicians and/or wards)

It is important to note when examining projections that the accuracy of the projections is impacted by a range of factors including the accuracy of the NSW Department Planning and Environment of population projections, clinical coding and type changing.

SUBACUTE INPATIENT PROJECTION METHODOLOGY

The HealthAPP is a MoH mandatory service and capital planning tool. It provides acute, subacute and ED projections.

The subacute projection methodology uses historical trends of hospitalisation and projected population growth and structure to project future hospital admission rates and length of stay by age group, sex, LGA of residence and clinical specialty. It uses the state-wide admission rates and applies various assumptions (e.g. public/private mix, proportion of urgent versus non urgent activity, hospital of treatment) to develop the base case projections. The HealthAPP is a medium to long term projection tool. That is, it is concerned with changes that are likely to occur within five to 20 years, although the accuracy of the projections diminishes the further out the horizon. However, it is not the purpose of the projections to be definitive about the future, it is a tool that helps guide planning decisions. The Ministry of Health projections tools are based on the Australian Refined Diagnosis Related Group version 7 and version 5.0 of ESRGs and SRGs

ST GEORGE HOSPITAL REHABILITATION

This scenario involved revising the trends to account for activity that is undertaken on the rehabilitation ward but is coded as an acute episode, and the under projection of day only activity.

The steps involved in this scenario:

1. Mapped the separations on the rehabilitation ward that had an episode of care type =1 to an ESRG
2. Applied that number to the total number of separations by ESRG to ascertain the current proportion. Paediatric age group excluded
3. Applied the proportion to the acute projections (HealthAPP) to ascertain the projected number. Paediatric age group excluded
4. Applied the separations to the overnight rehabilitation projections (excluding ESRG 844 Brain Dysfunction) proportionally. The proportions are based on the HealthAPP proportions for each projected year
5. To account for the bed days that were not counted in the projections (i.e. episodes coded as acute with substantial bed days on the rehabilitation ward that are not type changed and episodes coded as acute then subsequently type changed). The average length of stay of the rehabilitation ward (averaged previous 3 years) was applied (23.7 days) to the overall overnight rehabilitation projections
6. ESRG 902 rehabilitation other overnight was also adjusted to take into account that 97% of separations and 95% bed days is coded as GEM (based on analysis of FlowInfo for the previous 5 year by service category). Most of the activity was removed from this ESRG with a small proportion remaining
7. To better reflect the day only activity and overnight proportions. 9.6% of projected overnight separations were moved to day only and were removed proportionally – based on the HealthAPP overnight proportions and then added to the day only projections proportionally

8. Based on the number of separations moved to day only, the associated bed days were then removed from the overnight bed days
9. The day only rehabilitation projections are based on assumptions that the unit will operate 5 days per week x 48 weeks per year at 170% occupancy.

Source: FlowInfo V16.1, HealthAPP, HIE

Exclusions: ED only, paediatric age group, renal dialysis, chemotherapy, unqualified neonate, psychiatric SRGs (for proportions in step 2 and step 3), ESRG 844 brain dysfunction (this is included in the Acquired Brain Injury Unit see below)

ACQUIRED BRAIN INJURY UNIT

This scenario streams patients that are currently occupying acute beds (and have very long lengths of stay) to a dedicated acquired brain injury unit. Specifically, it includes acute patients with an ICD 10 code of acquired brain injury with 50% of those patients previously discharged home/or left medical advice to be streamed into the acquired brain injury unit for rehabilitation. This unit is for mild to moderate cases with the most severe continued being transferred to Liverpool Hospital Brain Injury Unit. It is planned that this service will be a district wide service as SGH is a Level 1 trauma service for the District.

The steps involved in the scenario:

1. Separations with ICD-10-AM code of acquired brain injury (see below for codes) were mapped to an ESRG. Most of the separations mapped to ESRGs 461 Head Injuries and 462 Craniotomy
2. Selected those episodes where mode of separation was coded as discharged home or against medical advice for ESRGs 461 Head Injuries and 462 Craniotomy
3. Applied that number to the total ESRG (461 Head Injuries and 462 Craniotomy from FlowInfo) to ascertain the proportion of acquired brain injury within the ESRG, paediatric age group excluded
4. Applied the current proportion to the acute HealthAPP projections (461 Head Injuries and 462 Craniotomy) to ascertain the number of projected acquired brain injury separations, paediatric excluded in the projections
5. Assumed that 50% of the projected number would be suitable for streaming into the acquired brain injury unit (advised from clinicians)
6. Applied a length of stay of 30 days (advised from clinicians)
7. Added in the base case projection for ESRG 844 brain dysfunction (this resulted in a slight length of stay variation in the results)
8. This exercise was completed for SGH and then the other District Hospitals.

This scenario will also reduce the acute length of stay and therefore reduce the demand on acute services. It is projected that this service will reduce the demand on acute inpatient services by 8-9 beds by 2026. It should be noted that the planning for stage 2 – the acute services building was based on previous version of the aIM2010 and planning/data that was available in 2012/13.

Source: FlowInfo V16.1, HealthAPP, HIE, AIHW (Acquired Brain Injury codes)

Exclusions: ED only, paediatric age group from HealthAPP projections

Acquired Brain Injury Codes sourced from AIHW paper on Acquired Brain Injuries

ICD	ICD Description
S06.1	Traumatic cerebral oedema
S06.2	Diffuse brain injury
S06.20	Diffuse cerebral and cerebellar brain injury, unspecified
S06.21	Diffuse cerebral contusions
S06.22	Diffuse cerebellar contusions
S06.23	Multiple intracerebral and cerebellar haematomas
S06.28	Other diffuse cerebral and cerebellar injury
S06.3	Focal brain injury
S06.30	Focal cerebral and cerebellar injury, unspecified
S06.31	Focal cerebral contusion
S06.32	Focal cerebellar contusion
S06.33	Focal cerebral haematoma
S06.34	Focal cerebellar haematoma
S06.38	Other focal cerebral and cerebellar injury
S06.4	Epidural haemorrhage
S06.5	Traumatic subdural haemorrhage
S06.6	Traumatic subarachnoid haemorrhage
S06.8	Other intracranial injuries
S06.9	Intracranial injury, unspecified
S02.0	Fracture of vault of skull
S02.1	Fracture of base of skull
S02.8	Fractures of other skull and facial bones
S02.7	Multiple fractures involving skull and facial bones
S06.0	Concussive injury

SUBACUTE AGED CARE: GERIATRIC EVALUATION MANAGEMENT

This scenario involved adjusting the base case projections to reflect a more reasonable projected average length of stay for GEM patients. The GEM projections are sourced from ESRG 902 rehabilitation other overnight.

The steps involved in this scenario:

1. ESRG 902 rehabilitation – other overnight was adjusted to take into account that a small proportion of this ESRG is treated under general rehabilitation (3% separations, 5% bed days). The projected activity was removed from the ESRG
2. The projected average length of stay was adjusted from 18.7 days in the base case to 7.6 days in the scenario
3. The behaviour management unit projections were then removed from the total GEM projections as this data is a subset of GEM activity. See below for behaviour management unit projection methodology.

SUBACUTE AGED CARE: MAINTENANCE CARE

This scenario involved adjusting the base case projections to reflect that fact that most of maintenance care activity occurs in the aged care ward but some activity does occur outside aged care.

The steps involved in this scenario:

1. The ward stay of maintenance activity was extracted for the previous 3 years. The data showed that on average 72% of separations and 80% bed days occur on the aged care ward with the rest distributed across other acute beds in the hospital
2. The proportions (both separations and bed days) were applied base case maintenance projections
3. The remaining maintenance activity, that is, the other maintenance care activity occurring outside the aged care ward (3 beds in 2026) is spread across the acute beds with no trend evident. This activity will be absorbed in the new acute services building.

Geriatric evaluation management and maintenance care are presented combined as this is the mixture of patients that is seen in the aged care wards.

Source: FlowInfo V16.1, HealthAPP, HIE

Inclusions: 902 rehabilitation other overnight (adjusted) and service category=GEM (historical), maintenance care

Exclusions: ED only

SUBACUTE AGED CARE: BEHAVIOUR MANAGEMENT UNIT

The scenario as developed to cater for the increasing cohort of older people living with dementia that have behavioural issues. These are patients that have medical issues and therefore are not suitable for management under mental health.

The scenario is based on the assumption provided by clinicians that there are currently on average 5 separations per month or 60 per year admitted to the aged care wards that would be appropriate for admission into the unit.

The steps involved in the scenario:

1. The consultations with clinicians indicated that there are on average 5 dementia separations per month that would be appropriate for admission into the unit
2. Applied that number (5) to the ESRG 902 rehabilitation – other overnight to the historical data (used to previous 3 years and averaged it) to ascertain the proportions. Selecting ESRG 902 902 rehabilitation – other overnight where service category=7 (GEM)
3. Applied the proportion to the projected ESRG 902 rehabilitation - other overnight to ascertain the projected number. The small of percentage of separations in this ESRG that treated in rehabilitation are excluded (3% separations, 5% of bed days) when calculating the proportions
4. Applied a length of stay of 27 days to the separations.

Source: FlowInfo V16.1, HealthAPP, HIE

Inclusions: 902 rehabilitation other overnight (adjusted), service category=GEM (historical)

Exclusions: ED only

PALLIATIVE CARE

The projections were adjusted as the current data supersedes the base case projections. Improvements in the recording of palliative care data have been evident from 2015/16 data onwards.

The steps involved in the scenario:

1. The compound annual growth rate was calculated for the base case projections for each overnight ESRGs for the period 2014/15 to 2021, 2021 to 2026 and 2026 to 2031. Day only was excluded due to small numbers
2. The growth rate was then applied to each projected year from 2016/17 onwards by ESRG.

Note: There are only two years of complete palliative care data which makes it difficult to produce long range projections.

Source: FlowInfo V16.1, HealthAPP, HIE

Exclusions: ED only, day only separations due to small numbers.

CALVARY HEALTH CARE KOGARAH

The base case projections were used for the CHCK projections. For the scenario projections however, the St George catchment population (Hurstville, Kogarah and Rockdale LGAs) was selected and public patients only.

Source: FlowInfo V16.1, HealthAPP

Inclusions: Hurstville, Kogarah, Rockdale LGAs (residence) and public patients only, rehabilitation and palliative care

HIGH VOLUME SHORT STAY PROJECTION METHODOLOGY

The MoH's High Volume Short Stay Surgical Model Toolkit (NSW Health, 2012, GL2012_001: High Volume Short Stay Surgical Model Toolkit) specifies

- Diagnosis Related Groups considered suitable for HVSSS and
- Methodology for calculating dedicated HVSSS beds and operating rooms.

The steps involved in the identifying HVSSS activity:

1. Analysis of 2015/16 planned surgical data using FlowInfo v16.1
2. Separated day only and overnight activity as well as HVSSS DRGs and non-HVSSS DRGs
3. A proportional split of overnight activity determined HVSSS DRGs versus non-HVSSS DRGs
4. MoH's HealthAPP was used to project future planned surgical demand, using a proportional split of overnight HVSSS activity
5. Quantified the bed and operating room requirements using the methodology documented in the MoH's HVSSS Model Toolkit.

SCENARIOS

Planned surgical activity at SGH has been constrained by a lack of operating rooms and it was considered some patients requiring HVSSS were impelled to have their procedures in private facilities. Analysis demonstrated SGH has proportionally more emergency activity than its peer hospitals (41 and 34% respectively). To enable more equitable access to planned surgery at SGH the following scenarios were developed.

The steps involved in the scenario:

1. The rate of private health insurance (ASR per 100 population) was determined for Hurstville, Kogarah and Rockdale, then other metropolitan LGA's with a similar rates were identified (Ashfield, Parramatta, Penrith).
2. The percentage of HVSSS separations occurring in private hospitals was compared for each of the above LGAs. This found 73% of St George residents attended private hospitals for HVSSS separations versus 62% for LGA's with comparable private health insurance coverage.
3. Therefore the scenario partially reversed flows of Hurstville, Kogarah and Rockdale residents from private hospitals to SGH (11% - the difference in activity) to take account of the obvious constrained HVSSS activity.
4. To further manage planned surgical activity in a timely manner the District has instigated inter-hospital transfers. The transfers from SGH were reversed.

Source: FlowInfo V16.1, HealthAPP, Reference: NSW Health, 2012, High Volume Short Stay Surgical Model Toolkit (Document Number GL2012_001), URL: http://www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2012_001.pdf
Inclusions: planned surgical activity

BIRTHING SUITES PROJECTION METHODOLOGY

A rate was calculated per 1,000 population for females aged between 16-44 years for the previous 7 years using ward level activity (via the HIE) and the Estimated Resident Population. Rates were plotted and a forwards linear projection calculated. The resulting gradient was then used to calculate the incremental growth for the projected years. The projected rate was then applied to the projected population for the year of interest to obtain the number of stays per 1,000 population. The Residents from the Hurstville, Kogarah and Rockdale LGAs are the defined catchment for calculating the rates.

To calculate birthing suite requirements, the average throughput is calculated by dividing the session length (i.e. hours available) by the average time spent in a birthing room. The projected activity is then divided by the throughput and days available in a year and then applying an occupancy rate. The planning assumptions are that the birthing suites are utilised 16 hours a day 336 days a year. An 80% occupancy rate has been applied.

Source: HIE, SESLHD Strategy and Planning Unit (methodology), Australian Bureau of Statistics (Estimated Resident Population), NSW Department of Planning and Environment, 2016 Edition (Population Projections)
Exclusions: ED only

NON ADMITTED PATIENTS PROJECTION METHODOLOGY

1. Baseline data used 2016/17 sourced from both OrBiT and EDWARD
2. Cross-checked completeness of data sets, differentiated setting type (i.e. outpatient clinic versus community health centre / home based care), etc.
3. Mapped IHPA Series 2 Clinics to inpatient SRGs (HealthAPP)
4. Applied the SRGs growth rate to current occasions of service by setting type and modality (face-to face individual, face-to-face group, all other occasions of service)
5. For Mental Health, a 3.4% growth rate was applied (growth rate based on previous 10 years of inpatient mental health activity) to the face-to-face current occasions of service where service venue type=2 (hospital based, ambulatory setting) and =13 (community health settings). HealthAPP inpatient growth rate was not used as this is not appropriate for determining the growth for inpatient mental health.

ASSUMPTIONS:

- Current models of care and patient flows remain largely unchanged
- Duration of occasions of service based on Victorian Health functional benchmarks and advice from clinicians
- Room availability assumed 7 hours per day for 240 days per year at 80% occupancy to provide sufficient time for any room set-up, cleaning between patients, etc.
- Clinic / therapy rooms include clinic rooms, therapy rooms, consult rooms, treatment rooms, multidisciplinary rooms, therapy rooms, etc. for use for face to face occasions of service / activity i.e. where the patient is physically present
- All activity not involving face-to-face interaction occurs from staff members work station (as opposed to a clinic, consult or treatment room)
- Service event projections were based on rate of service events to occasions of service by IPHA Clinic Type in 2016/17
- NWAU projections were based on average NWAU per service event by IPHA Clinic Type in 2016/17.

Scenarios were developed based on numerous clinical consultations, discussions with the SGH & CHS Clinical Council with additional advice and/or clarification sought from the Planning Advisory Group. In total more than 70 scenarios were considered with the majority aiming to shift the balance of care and broadly grouped into the following:

- Acute to non-admitted e.g.
 - Preventing ED presentations
 - Non admitted to GPs.

SCENARIO DEVELOPMENT FOR NON-ADMITTED ACTIVITY

SCENARIO	CLINIC	DISCUSSION	METHOD
Flow reversal	10.04 Dental	Relocate Hurstville Dental Clinic and the Hurstville and Rockdale School Dental Clinics	ISOH data
Adjust av duration	20.03 Pain Management	Clinicians advice: group programs are all day programs	adjust average duration / OOS
Rapid access	20.07 General Surgery	Clinicians advice: Rapid access clinic for post-operative patients being managed by HITH type services	= PPH separations in surgery
Enhanced services	20.07 General Surgery	Clinicians advice: Expand Nurse Practitioner led pre and post-acute care clinics SAPU analysis: assume 25% of patients seen more than once by Surgeons seen by nurse practitioner, frees up Surgeons to see an additional patients	= Nurse Practitioners OOS x 25%
Enhanced services (Rapid/crisis access)	20.09 Geriatrics	Clinicians advice - a day hospital type service to provide outpatient crisis clinics as well as more geriatric outpatient assessment and management clinics to avoid hospitalisation SAPU analysis: assumed 50% increase on that current NAP activity	= F2F OOS x 50%
Flow reversal	20.10 Haematology	Clinicians advice: non cancer haematology remain in ACU	Move from excluded data
New clinic	20.11 Paediatric Medicine	Clinician advice: Obesity clinics – both preventative and for case management SAPU analysis: assumed very low numbers of new pts	= 1 OOS x 48 weeks
New clinic	20.11 Paediatric Medicine	Clinician advice: Neuro-disability – one stop multidisciplinary clinic [neurologist + physio + other clinician] SAPU analysis: assumed very low numbers of new pts	= 1 OOS x 48 weeks
New clinic	20.11 Paediatric Medicine	Clinician advice: Allergy – expansion of food challenges to meet best practice standard / improve QOL SAPU analysis: assumed very low numbers of new pts	= 2 OOS x 48 weeks
Rapid access	20.11 Paediatric Medicine	Clinician's advice: a streamlined capacity to see urgent cases (e.g.: admission avoidance for asthma, gastroenteritis , cellulitis, prematurity) SAPU analysis assumed 25% of separations treated with 2 OOS	= (select separations x 25%) x 2 OOS
Enhanced services	20.11 Paediatric Medicine	Clinician advice: HITH clinic – overnight admissions (for IV antibiotics, dressings, NG feeding, etc.) cared for by daily OPD review SAPU analysis: assumed 25% of 1 month - 15 years pts staying overnight separations treated with 3 OOS	= (select separations x 25%) x 3 OOS

SCENARIO	CLINIC	DISCUSSION	METHOD
New Clinics	20.15 Neurology	4 new fortnightly clinics (MS, dizzy, neuromuscular, 1st seizure / epilepsy)	= ((OOS pa / 240 days / 2 sessions per day) x 24 weeks) x 4 clinics
Enhanced services	20.15 Neurology	Clinicians advice (neuro) Reopen books on neurology clinics, closed Oct 2016, currently don't see new referrals (approx. 10 / month) SAPU analysis: used 2015/16 neurology data	= 2015/16 OOS - 2016/17 OOS
Enhanced services	20.15 Neurology	Clinicians advice: Investigate establishing a neuro 'Flying Squad' type service SAPU analysis: considered reduction in OPD offset by increase in Community Health, i.e. no change in total OOS	No impact
New clinics	20.16 Neurosurgery	Clinicians did not support benchmark with POWH (1.98 OOS per IP s separations) PAG thought pre-op ok but not f/u Reviewed neurosurgery IP activity (2015/16) by payment status, assumed public pts (673 pts) would have approx.. 2 f/u OPD OOS	= public separations x 2 OOS
Rapid/crisis access	20.18 ENT	clinicians advice: need to slot in 3 additional pts per week	= 3 OOS x 48 weeks
New Clinics	20.18 ENT	1-2 new fortnightly clinics (MDT for pts at risk of aspiration and complex respiratory / dysphagia)	= ((Gen Med OOS pa / 240 days / 2 sessions per day) x 24 weeks) x 1 or 2 clinics
New Clinic	20.18 ENT	Clinicians advice establish paediatric ENT clinic	= 1 clinic / fort
Rapid/crisis access	20.19 Respiratory	Clinicians advice need to slot in 3 additional pts per week	= 3 OOS x 48 weeks
New Clinics	20.19 Respiratory	1-2 new fortnightly clinics (MDT for pts at risk of aspiration and complex respiratory / dysphagia)	= ((Gen Med OOS pa / 240 days / 2 sessions per day) x 24 weeks) x 1 or 2 clinics
Base case	20.19 Respiratory	Clinicians advice missing data for TB Clinic	Added data
Enhanced services	20.22 Cardiology (cmtly health)	Clinicians advice (cardiology) Increase community outreach services for Heart Failure	= F2F OOS x 10%
Enhanced services	20.22 Cardiology (OPD)	Clinicians advice: Potential for HITH to manage some cardiology conditions SAPU analysis: considered HITH in cardiology for other metro LHDS, applied % to SGH 2cardiology separations	= Select cardiology separations x 2.5%
New clinics	20.22 Cardiology (OPD)	Clinicians advice: Potential for new chest pain clinic SAPU analysis: assumed 25% IPU separations require f/u	= Chest pain separations x 25%

SCENARIO	CLINIC	DISCUSSION	METHOD
New clinics	20.29 Orthopaedics	Clinicians did not support benchmark with POWH PAG thought pre-op ok but not f/u SAPU analysis: Reviewed orthopaedic IP activity by payment status, assumed public pts would have approx. 2 f/u OPD OOS	= public separations x 2 OOS
Unmet demand	20.30 Rheumatology	Clinicians advice: Initiate a nurse practitioner model to improve access for rheumatology patients by better managing demand for routine follow up SAPU analysis: assume 25% of patients seen more than once by Rheumatologist seen by nurse practitioner, frees up Rheumatologist to see and new patients	= new patients + (f/u pts x 2 OOS for f/u)
New clinic	20.30 Rheumatology	Clinicians advice: Initiate a nurse practitioner model to improve access for rheumatology patients (e.g. as drug therapies continue to improve manage more patients in OPD setting) SAPU analysis: assumed on 50% of inpatients managed in OPD with 4 OOS per year	= separations x 4 OOS
Unmet demand	20.33 Dermatology	Clinician advice: currently have 1 specialist vacancy resulting in unmet demand and pts forced to see private providers. Indicated a need for 5 clinics per week - SAPU analysis: additional activity = 2016/17 activity x 2	= 2016/17 OOS x 2
Rapid access	20.34 Endocrinology	Clinician advice: Crisis clinic (3-5 patients per day. Monday to Friday)	= 4 pts x 5 days x 48 weeks
Enhanced services	20.34 Endocrinology	Clinician advice: Post gestational diabetes (potential for 700-900 patients per year) for follow up and education SAPU analysis: 2016/17 NAP activity x 4 OOS per patient; assumed f/u would be for 800 pts x 2 OOS	= 800 pts x 2 OOS
New clinic	20.34 Endocrinology 40.46 Endocrinology	Clinicians advice: Establish a bariatric service requiring an integrated MDT service In 2011 Business Case for establishing a Bariatric Clinic in SESLHD identified need for a weekly MDT bariatric clinic	= 20 pts /week (i.e. an additional weekly clinic for both 20.34 Endocrinology and 40.46 Endocrinology)
Flow reversal	20.47 Rehabilitation	Clinicians considering in-house rehabilitation for older people rather than referral to CHCK	= CHCK Rehab OOS
New clinics	40.09 Physiotherapy	Fracture clinic, clinicians did not support benchmark with POWH Reviewed orthopaedic IP activity by payment status, assumed public pts would have approx. 3.4 f/u OPD OOS with physio	= public separations x 3.4 OOS

SCENARIO	CLINIC	DISCUSSION	METHOD
New clinics	40.09 Physiotherapy	Clinicians advice: Provision of advanced practitioner allied health - back pain SAPU analysis: estimated 1-2 patients per week requiring assessment by advanced practice AH	= 1.5 x 48 weeks
New clinics	40.12 Rehabilitation	Clinicians advice: New seating clinics SAPU analysis: Considered POWH Seating clinic activity assumed most activity related to SCI patients	= 350 OOS
Flow reversal	40.12 Rehabilitation	Clinicians considering in-house rehabilitation for older people rather than referral to CHCK.	= CHCK Rehab OOS
Enhanced services	40.13 Wound Management	Clinicians advice: expand HITH e.g. pts with drains in-situ PAG agreed: focus on PPH allowing 3 OOS per separation and the duration per OOS reviewed	= select PPH separations x 3 OOS
Adjust av duration	40.13 Wound Management	PAG advice wound management clinics include complex care	adjust average duration / OOS
New clinic	40.13 Wound Management	Clinician advice: Provide a trauma treatment area within OPD for minor procedures	For capital planning
Enhanced service	40.18 Speech Pathology- OPD	Clinicians advice Paediatric SP waitlist > 12 months for initial assessment and then limited service available due to staff availability	increase by 25%
Base case	40.21 Cardiac Rehabilitation	Clinician review: Cardiac Rehab currently mapped to Community Health but, needs to be included to proposed building Moved all Cardiac Rehab to OPD	moved OOS from community health to OPD
Base case	40.21 Cardiac Rehabilitation	Clinician review: cardiac rehab under-reporting by 50%	= 2016/17 OOS x 50%
New Clinic	40.28 Midwifery and maternity - Community Health	Clinicians advice: Potential to implement a rapid screening and assessment clinic for vulnerable infants/toddlers and parents SAPU analysis: estimated 11% of children developmentally vulnerable on 2+ domains (AEDC), assume 25% attend rapid access clinic	= 11% pop x 25%
Enhanced service	40.28 Midwifery and maternity - Community Health	Clinicians advice Staffing: Only 2 FTE midwives supporting post-natal home visits.	For capital planning phase - staffing issue
Enhanced service	40.28 Midwifery and maternity - OPD	Clinicians advice there is a lack of procedure rooms and ultrasound facilities in ambulatory care.	For capital planning
Base case	40.30 Alcohol and Other Drugs	SAPU review: D&A currently mapped to Community Health but, needs to be included to proposed building Moved all D&A activity (excluding OTP aggregate methadone) to OPD	- moved OOS from community health to OPD

SCENARIO	CLINIC	DISCUSSION	METHOD
Enhanced service	40.35 Palliative care	Clinicians advice increase social work support to reduce load on nursing staff SAPU analysis: Substitutes nursing for social work clinics	No change
Enhanced services	40.36 Geriatric Evaluation and Management	Clinicians advice: significant expansion of community based services, including GFS for people at home and avoid ED presentation and admission SAPU analysis: reviewed existing NAP activity, assumed increase of 300%	= F2F OOS (GFS) x 300%
Base case	40.38 Infectious diseases	Clinicians advice missing data for TB Clinic	Added data
New clinic	40.41 Gastroenterology	Clinicians advice: Establish new biome clinic, estimated future requirement up to 3 rooms	= 1.5 rooms x 3917 OOS
New clinic	40.41 Gastroenterology	Clinicians advice: Investigate a rapid access clinic for patients requiring urgent paracentesis, infusion, etc. SAPU analysis: reviewed ACU mthly rpt, assumed 1 additional intervention / day	= 240 OOS
Enhanced service	40.58 Hospital avoidance programs	Clinicians advice: increasing community based services would reduce the need for a large increase in palliative care beds. During consultation clinicians noted community Pall Care provided by CHCK SAPU advice: as clinics provided by CHCK no impact on SGH projections	No change
Enhanced services	40.59 Post Acute Care	clinicians advice: A significant expansion of community based services, including QRP SAPU analysis: reviewed existing NAP activity, assumed 50% increase	= F2F OOS (QRP) x 50%
Base case	40.60 Pulmonary Rehabilitation	- Clinician review: Pulmonary Rehab currently mapped to community Health but, needs to be included to proposed building - Moved all Pulmonary Rehab to OPD	- moved OOS from Community Health to OPD
Base case	40.60 Pulmonary Rehabilitation	- Clinician review: think pulmonary rehab under-reporting by 50%, plus aliasing issues meaning not much data is coming into the dashboard	= 2016/17 OOS x 2
Care that is anticipatory & predictive in a non-admitted setting	All	Clinicians considered between 10 - 30% of existing activity. PAG supported 20%	Additional 20% increase for ALL clinics
Enhanced services	All	HealthPathways raised in several consultations sought advice from MoH, ACI, PICH - no known impact on NAP activity discussed with PAG agreed likely to be minimal impact	No impact

SCENARIO	CLINIC	DISCUSSION	METHOD
Enhanced services	All 20.## clinics	Rapid/crisis access - ED diversion: ED data (8am - 5pm, Mon - Fri, Triage 4 & 5, non-admitted, non Ambulance arrival, etc.) + frequent flyers (> 3 ED presentations pa (excluding psych))	HIE
Enhanced services	Numerous clinics	Clinician (multiple) advice: MDT clinics - Ensure sufficient space for MDT clinics	For capital planning
Enhanced services	Numerous clinics	Clinicians (multiple) advice: Provide a variety of multidisciplinary clinic PAG decision: increase in MDT offset by decrease in single speciality oos therefore minimal impact	No change

Source: OrBIT, HIE, HealthAPP, clinician's advice, Victorian Health space requirement benchmarks

Exclusions: Non admitted activity provided in separate settings e.g. cancer care centre, operating theatre / procedure rooms, medical imaging, emergency, etc.

SUPPORT SERVICES PROJECTION METHODOLOGY

MEDICAL IMAGING

The projections are provided by each medical imaging modality, as specified below.

- General x-ray
- MRI
- CT
- Mammography
- Ultrasound
- Angiography
- Fluoroscopy.

A rate was calculated per 1,000 population for each modality using previous 7 years of activity for outpatients and inpatients and the Estimated Resident Population. Rates were plotted and a forwards linear projection calculated. The resulting gradient was then used to calculate the incremental growth for the projected years. The projected rate was then applied to the projected population for the year of interest to obtain the exams per 1,000 population. The Residents from the Hurstville, Kogarah and Rockdale LGAs are the defined catchment for calculating the rates. Separate trends were also calculated for the complex interventional examinations that occur in many modalities i.e. CT, ultrasound, MRI as the average procedure times are far greater.

To calculate medical imaging requirements, average daily throughput was calculated by dividing the hours available by the average procedure time. The projected activity is then divided by the throughput by the days available in a year. An occupancy rate of 85% is also applied. The current operating hours are assumed to continue into the future. The average procedure times were provided by the medical imaging.

Source: Radiology Information System, September 2017, SGH, Strategy and Planning Unit (methodology)

Exclusions: mobile exams

NUCLEAR MEDICINE

PET services began operating in February 2017 and utilisation has increased substantially over the period. As such time series forecasting is not possible. A number of different options were investigated (cancer incidence, MBS growth rate, using a comparable service such POWH PET growth rate). It was concluded that the POWH PET growth would be reasonable to use as the population size is comparable (when considering the flows at POWH) and services both paediatric and adults. In addition, the POW PET data showed strong trends and no random variation. To obtain a full 12 months of data regression analysis was done and then the POW PET growth rate of 7.5% was applied.

For nuclear medicine cameras (both SPECT/CT and gamma camera), a rate was calculated per 1,000 population by modality for inpatients and outpatients using previous 5 years of activity and the Estimated Resident Population. Rates were plotted and a forwards linear projection calculated. The resulting gradient was then used to calculate the incremental growth for the projected years. The projected rate was then applied to the projected population for the year of interest to obtain the studies/examinations per 1,000 population. The Residents from the Hurstville, Kogarah and Rockdale LGAs are the defined catchment for calculating the rates.

To calculate nuclear medicine camera requirements (both SPECT/CT and gamma camera), the average daily throughput was calculated by dividing the hours available by the average procedure time. The projected activity is then divided by the throughput by the days available in a year. An occupancy rate of 85% is also applied. The current operating hours are assumed to continue into the future. The average procedure times were provided by the nuclear medicine department. The additional room requirements i.e. uptake rooms, radiopharmacy, therapy rooms etc. are not projected on (i.e. based on data) but are based on clinician advice and are required for any expansion of nuclear medicine. It anticipated that the additional rooms will be addressed in the capital planning phase, however the requirements are noted in section 5.3 scenario projections.

Source: Nuclear Medicine department, October 2017, Strategy and Planning Unit (methodology)

APPENDIX 4: HEALTH SERVICES PLAN DEVELOPMENT PROCESS

HEALTH SERVICES PLANNING

The Health Services Plan documents the vision and outlines the full complement of health and support services and other requirements for the proposed redevelopment to ensure health services align with changing patterns of community need and expectations and contemporary and emerging models of care, and that the most effective use of available and future resources is made.

Development of the Health Service Plan involved literature searches of other high performing health systems and contemporary evidence based models of care, consultation with staff and other key stakeholders, data extraction and analysis and investigation of pertinent information to inform the:

- Demand and supply of current and future health and support services
- Scenario modelling to identify:
 - Anticipated system/service improvements via new models of care such as diversion of inpatients to non-admitted settings
 - Changes to patient flows (e.g. future plans of CHCK, other public hospitals such as Sutherland and private hospitals)
 - Unmet demand and how this could be reduced
 - Role of other service providers (e.g. GPs)
- Quantifying the impact of scenarios on future bed and space requirements.

The Health Services Plan can then be used to inform capital planning.

SCOPE OF THIS PLAN

A range of services delivered by or in partnership with the SGH & CHS have been considered to inform this Plan's service priorities and recommendations to meet the needs of the community until 2031. These include:

- Outpatient and Ambulatory Care services and care provided in the community
- Planned short stay surgery
- Subacute care services
- Midwifery
- Diagnostic imaging
- Kogarah health and education super precinct
- Other services identified by the Executive Steering Committee.

The Plan aligns with and references strategic plans (refer to Appendix 6 Government Priorities and Appendix 7: SESLHD's Strategic Framework) and a range of other plans including Business Cases for the redevelopments of SGH ED and the Acute Services Building.

Some important partners to inform the Plan include:

- Sutherland Hospital
- Calvary Health Care Kogarah
- Other public hospitals
- St George Private Hospital and other relevant private hospitals
- Central and Eastern Sydney Primary Health Network
- Other health and aged care providers

- Research and education providers
- Georges River and Rockdale Councils
- Other government and non-government agencies
- Businesses
- Patients, health consumers, carers and family and local communities.

Analysis of current health and care activity will include:

- Residents of the St George area¹⁹² (refer to map, Section 2.2: Our community and their health) cared for by the SGH and other public and private hospitals
- Residents from beyond the St George area cared for by SGH & CHS
- The continuum of care from population and primary health care, outpatient and/or community health / home based services through to inpatient services.

The timeframe for the Plan is 2026 with a view to 2031.

GOVERNANCE FRAMEWORK FOR THE PLAN

The governance framework, approved by the Executive Steering Committee, was designed to:

- Define a set of principles to guide the Health Services Plan
- Deliver a consistent and robust approach to generate quality planning outcomes
- Enable decision making throughout the project
- Establish a transparent authority framework to manage planning
- Ensure strong and genuine clinical and non-clinical engagement
- Provide opportunities for community partners, community members and consumers to be engaged, informed and participate in the redevelopment of the campus
- Complement roles of partners and other hospitals and facilities in the area and
- Support the realisation of the vision of the Academic Health Science Alliance
- Support the realisation of the vision of the SESLHD Research Plan 2016 – 2021 and the St George and Sutherland Medical Research Foundation.

ROLES AND RESPONSIBILITIES

- The Executive Sponsor for this Plan is Leisa Rathborne, General Manager, SGH & CHS
- An Executive Steering Committee was established to provide strategic advice to the development of the Plan, on opportunities and gaps to inform the clinical services planning within a health system context
- A Planning Advisory Committee reporting to the Executive Steering Committee is responsible for overseeing the Plan, driving the development of the models of care, scenario modelling and change management.

SESLHD's Strategy and Planning Unit, reporting to the Director of Planning, Population Health and Equity, supported the development of this Plan, including:

- Drafting a Background Paper
- Undertaking literature reviews, data analysis, scenario modelling
- Conducting consultation
- Drafting the Plan
- Submitting the Plan for endorsement.

The Integrated Health Services Plan has been based on broad consultation and prepared by SESLHD's Strategy and Planning Unit, reporting to the Director Planning, Population Health and Equity and the General Manager, SGH.

¹⁹² The St George area in this document includes the LGAs of Georges River (an amalgamation of the former Kogarah and Hurstville LGAs) and the former Rockdale LGA (now amalgamated with Botany LGA to form the LGA of Bayside).

GOVERNANCE

EXECUTIVE STEERING COMMITTEE FOR ST GEORGE HOSPITAL'S INTEGRATED HEALTH SERVICES PLAN

Leisa Rathborne	General Manager, SGH & CHS, Chair
Alison Sneddon	Senior Health Service Planner (Secretariat)
Gerry Marr	LHD Chief Executive
Greg Stewart	Director, Primary, Integrated and Community Health
Jacinta George	Principal Planning and Policy Officer, Service and Capital Planning, NSW Ministry of Health
Jan Dennis	Consumer/Community Representative
Jane Graham	Acting Chief Executive, Calvary Health Care Kogarah/Director of Nursing
Janet Bell	Allied Health representative, SGH
Jim Mackie	Executive Director, Medical Services
Julie Dixon	Director, Planning, Population Health and Equity
Michael Grimm	University of NSW
Michael Jordan	Consumer/Community Representative
Michael Moore	Central and Eastern Sydney Primary Health Network
Peter Smerdley	Clinical Council representative, SGH
Rod Lynch	Consumer/Community Representative
Tony O'Sullivan	University of NSW – Clinical School

PLANNING ADVISORY GROUP FOR ST GEORGE HOSPITAL'S INTEGRATED HEALTH SERVICES PLAN

Leisa Rathborne	General Manager, SGH & CHS, Chair
Alison Sneddon	LHD Senior Health Service Planner, Alternate Chair
Allan Ajami	Redevelopment Manager, SGH
Amany Zekry	Co-Chair, SGH & CHS Clinical Council
Amy Sykes	Nursing / Midwifery representative
Andrew Ng	Medical representative
Carla Tuffy	Communications representative
Danielle Knoke	Allied Health representative
Evelyn Chandler	Mental Health Service representative
John Estell	Medical representative
John Thomas	Medical Imaging representative
Julia Maclean	Allied Health representative
Justine Harris	Director, Clinical Services Medical
Kerry Barnett	LHD Health Service Planner, Secretariat
Lauren Sturgess	Deputy Director, Nursing & Clinical Services
Lisa Woodland	Priority Populations representative
Peter Brown	Consumer and Community representative
Peter Wu	Alternate representative, SGH & CHS Clinical Council
Rebecca Tyson	Service Line Manager
Sarah Massey	Nursing / Midwifery representative
Tim Croft	Manager, Aboriginal Health Unit
Tony Jackson	Deputy Director, Primary, Integrated and Community Health
Vicki Manning	Director, Nursing & Clinical Services

CONSULTATION LIST

ST GEORGE HOSPITAL CONSULTATION

Aged Care	Maternity Services
Allied Health	Nephrology
Ambulatory Care and Outpatients Departments	Neurology
Anaesthetics	Nuclear Medicine
BreastScreenNSW	Nursing Research
Cancer and Blood Disorders	Operating theatres
Cardiology	Oral Health
Chest clinic	Pain Management
Community Health (women, children & family, DV & sexual assault)	Palliative Care
Community Health – older adults	Paediatrics
Continence	Pelvic Floor unit
Corporate Services	Peritonectomy
Dermatology	Pharmacy
Diabetes Education	Rehabilitation
Diversity Health	Renal
Drug and Alcohol Service	Research and Education
Endocrinology	Respiratory
Engineering	Rheumatology
ENT	Sexual Health
Eye Clinic (Short Street)	Sterilising Services
Enhanced Recovery After Surgery Service	Stomal Therapy
Gastroenterology / Hepatobiliary/Motility Service	Surgical Services
Genetics	TB/Chest clinic
HIV/Immunology	Trauma
Kogarah Community Nursing	Urogynaecology
Medical Imaging	

OTHER SESLHD ENTITIES CONSULTATION

Sutherland Hospital
Mental Health Service
Calvary Health Care Kogarah
Directorate of Primary, Integrated and Community Health
Directorate of Planning, Population Health and Equity
Information Management Services

EXTERNAL CONSULTATION

Community Members
Health Consumers NSW
Health Infrastructure
NSW Ministry of Health
NGOs
NSW Health Pathology
Central and Eastern Sydney Primary Health Network

**CONSULTATIONS AND/OR COMMENTS HAVE BEEN RECEIVED FROM
MANY INDIVIDUALS TO DATE INCLUDING:**

Alexandra Read	Derek Glenn	John Thomas	Mark Shepherd	Rosa Criniti
Alison Finney	Dominic Ross	Johneen Tierney	Martha Andrade H.	Ryan Shannon
Alison McInerney	Efy Demertzis	Jon Straker	Martin Kennedy	Samantha Knight-Gifford
Alison Sneddon	Emad El-Omar	Josephine Lusk	Mary Langcake	Samantha Martin
Allan Ajami	Emma Davies	Josh Cohen	Matthew Webb	Sarah Massey
Allan Sturgess	Eric Lau	Julia Capper	Meng Chen	Sharon Jory
Amanda Cook	Evelyn Chandler	Julia Maclean	Meredith Birch	Sharyn Wilkins
Amanda Henry	Felicity Forby	Julia Martinovich	Michael Chapman	Shelley Castree-Croad
Amany Zekry	Fiona Beattie	Julie Dixon	Michael Farrell	Shir-Jing Ho
Amy Sykes	Fiona Beaupeurt	Julie Fagan	Michael Grimm	Stan Krainovic
Anastasia Anastasiou	Flora Karanfilovski	Justine Harris	Michael Jordan	Steph O'Dea
Andrea Burns	Frank Zivkovic	Kate Moore	Michael Moore	Stephen Krilis
Andrew Bridgeman	Gary Gahan	Kath Helling	Michael Reyes	Stephanie North
Andrew Ng	George Mangos	Katherine Clinch	Michelle Jubelin	Steven Bowden
Aneesha Gill	Gerry Marr	Katherine Helling	Natasha Turner	Sue Lee
Anica Vasic	Glen Paull	Katherine Holdsworth	Nevine Te West	Sue Sellars
Anni Ryan	Glendi McNab	Kathy Fu	Nicholas Rich	Sundra Ramanathan
Anthony (Tony) O'Sullivan	Gokulan Paven	Katrina Hurley	Nick Lintzeris	Susan Sellars
Ben Kwan	Grant Pickard	Kenneth Chan	Nick Skleparis	Suzi Wilds
Ben Warrington	Greg Stewart	Kerry Barnett	Nicola Bergant	Suzie Davis
Beng Hock Chong	Gunu Naker	Kimberley Booth	Nicole Borg	Sylvia Vrazalica
Bob Fonseca	Hayley Lonnon	Kirstin Lock	Nicole Ryan	Terry Diamond
Calvin Chan	Hazel Goldberg	Klaus Stelter	Noreen Murray	Tim Croft Jangari
Carlie Stephens	Helen Dawson	Kristine Tobin	Paige Lock	Tony Jackson
Caroline Belfonti	Helen Giles	Lauren Sturgess	Patricia Morris	Tony O'Sullivan
Caroline Pieri	Helen Logounov	Lee Spier	Patrick Butler	Tracy Kelly
Cath Whitehouse	Ian Cook	Leisa Rathborne	Patrick Dunn	Trent Millar
Cathy Brand	Indira Datta	Ling Zhang	Patty Loucas	Vicki Manning
Charlotte Bryant	Irena Martinich	Lisa Cohen	Peter (Fredrick) Cox	Vicki Patton
Cherree Wright	Jacinta George	Lisa Woodland	Peter Brown	Vicki Weedon
Chris Hay	Jan Dennis	Liz Lobb	Peter Pang	Vivian Challita-Ajaka
Claire Phelan	Jan Maree Davis	Lorena Mathews	Peter Rolh	Wayne Cooper
Damien Kendrick	Jane Graham	Louise Allport	Peter Smerdely	Wendy Chaseling
Daniel Shaw	Jane Son	Luci Dall'Armi	Peter Wu	Wendy Cotter
Daniela Levido	Janet Bell	Lynelle Bartram	Phillip Read	Wendy Keating
Daniela Quijano	Janet Newton	Mandy Muir	Rachel Pons	Wendy Machin
Danielle Knoke	Janice Reid	Margaret Broadbent	Rani Sachdev	Wendy Stone
Dannielle Kolos	Jessica Worton	Maria Jessing	Rebecca Tyson	Wendy Uptin
David Bellamy	Jim Mackie	Marie Fourneris	Richard Morris	Winter Kung
David Morris	Jo-Ann Cryer	Marina Rhodes	Ritin Fernandez	Xavier Badoux
David Pearce	Jocelyn Hickson	Mark Brown	Robert Leitner	Youstina Saleeb
Dedee Murrell	John Chu	Mark Sader	Robyn Schubert	Yu Dai
	John Estell		Rod Lynch	



NSW Aboriginal Health

Impact Statement



Aboriginal Health Impact Statement

St George Integrated Health Services

Title of the initiative:	St George Integrated Health Services Plan
Organisation/Department/Centre:	South Eastern Sydney Local Health District
Contact name and title:	Julie Dixon, Director of Planning, Population Health & Equity Leisa Rathborne, General Manager, St George Hospital & Health Services
Contact phone number:	J Dixon (02) 9540 8118 L Rathborne (02) 9113 2859
Date completed:	14 March 2018

Once approval has been received from your Organisation please provide a copy of the finalised Aboriginal Health Impact Statement to the Centre for Aboriginal Health by email: CAH@moh.health.nsw.gov.au

Summary

Provide a 200-300 word summary that demonstrates how the Aboriginal Health Impact Statement has been considered. This summary is required in addition to a more detailed response to the three components below

SESLHD knows if we do not fundamentally change the way we do business, we will continue on an unsustainable path of increasing demand for hospital services, hospital beds, community services, with more expenditure delivering inequitable health.

The District's *Journey to Excellence* outlines an ambitious stage of transformation - working to empower communities to optimise their health and wellbeing.

While the District's *Equity Strategy* notes although the health of residents as a whole compares favourably with other parts of NSW, when we dig beneath the surface there are substantial differences in access to services and health outcomes for different groups including Aboriginal and/or Torres Strait Islander people.

The *St George Integrated Health Services Plan* (IHSP) further articulates these plans - outlining the transformation we aspire to in the delivery of health care to the population we serve. It is based on a vision to provide a seamless, integrated approach to fully address the physical, emotional and social wellbeing of the community and allow the implementation of innovative models of care to reduce the demand on services.

For Aboriginal people, the IHSP builds on the many years of ongoing dialogue between the Aboriginal staff at the St George Hospital, staff from the District Aboriginal Health Unit, the local Aboriginal community and consumers referred to health services, and the St George Hospital. The Diversity Health Unit has collaboratively prepared the 'St George / Sutherland Hospital and Health Services Aboriginal Health Action Plan' for 2014/16 and 2017/2019. The IHSP provides an opportunity to continue to address issues enhancing the capacity of the hospital and improving the health of its resident Aboriginal communities.

This Aboriginal Health Impact Statement summarises some of the key issues in IHSP relating to Aboriginal people.

1. The health context for Aboriginal people

The Aboriginal population in the St George area in 2016 was 1,541 people, which represents 0.6% of the total St George area population, a significantly smaller percentage than Aboriginal people in all NSW who represent 2.9% of the NSW total population. However, based on national data analysis, it is likely the number of Aboriginal people in the area is an underestimate.

Similar to Aboriginal population across NSW, Aboriginal people in the St George area have a significantly shorter life expectancy than non-Aboriginal people:

- Children account for 26% of the total Aboriginal population as opposed to 16% of the non-Aboriginal population
- The proportion of Aboriginal people aged 65 years or older is less than half that of non-Aboriginal people
- While the non-Aboriginal population is rapidly ageing, Aboriginal people are facing increasing growth in younger age groups, due to higher rates of fertility and mortality

The higher rates of mortality and shorter life expectancy are due to a range of factors including

- higher prevalence of risk factors (e.g. smoking, overweight and obesity)
- higher prevalence of some long term conditions and multiple morbidities (e.g. renal, cardiovascular, diabetes, respiratory and injury), and
- social determinants of health (e.g. connectedness to family, culture, identity, country and land, access to early childhood services, participation in education / training and employment, etc)

Given higher prevalence of some risk factors, long term conditions and rates of mortality for Aboriginal people it would be expected they would have higher utilisation of health services than non-Aboriginal people.

Note: in recent years the recording of Aboriginality in health service data has improved however it is acknowledged the data is not necessarily complete therefore remains a significant factor for improving equitable outcomes for Aboriginal people.

For people accessing St George Hospital services Aboriginal people accounted for

- 0.6% of all outpatient occasions of service
- 1.8% of community health occasions of service and
- 0.7 of all inpatient separations.

Across SESLHD Aboriginal people had higher rates of admission for some potentially avoidable hospitalisations . Admission rates for conditions, including diseases of the circulator, endocrine and respiratory system, in SESLHD are similar to the rates in NSW and Australia, except for Mental Health disorders where rates can be two times higher within SESLHD when compared to NSW and Australia (Source: R Schwanz (2018) *Final Burden of chronic disease among Aboriginal people in SESLHD*).

Of all Aboriginal people admitted to St George Hospital 67% were residents of SESLHD, 13% lived in other metropolitan LHDs, 11% were from ISLHD with the remaining people being residents of rural LHDs. Although only a small number Aboriginal people were admitted from rural LHDs they had a longer average length of stay and higher average Public Equivalent Model (reflecting more costly and/or complex care) than Aboriginal residents from metropolitan LHDs.

For more information refer to

- Technical Paper - Section 2.1 Demographic trends in our population; Section 4 Activity
- Integrated Health Services Plan, Section 4.1.3 Reducing inequity in priority populations
- NSW Combined Admitted Patient Epidemiology Data and ABS population estimates (SAPHaRI). Centre for Epidemiology and Evidence, NSW Ministry of Health
- SESLHD, 2017, *Journey to Excellence 2018 - 2021*
- SESLHD, 2015, *Equity Strategy*
- *NSW Aboriginal Health Plan 2013 – 2023* (PD 2012_066).

2. The potential impact of the policy, program or strategy on Aboriginal people including approaches to mitigate any potential undesired effects

The Plan supports the continuation of a range of existing Aboriginal Health services and programs serving the St George community including:

- an Aboriginal Hospital Liaison Officer for St George and Sutherland Hospitals
- Southern Sector 48 Hour Follow Up - 'Just calling to have a yarn' for post discharge support
- Bulbuwil 'Healthy Living' - An Aboriginal Healthy Lifestyle Support Program
- Narrangy-Booris - Aboriginal Early Childhood and Midwifery service
- an Aboriginal Health Education Officer - Chronic Care Services
- Quit for New Life smoking cessation program in the Aboriginal Maternal and Infant Health Services and Child and Family Health.

For the future the Plan proposes

- exploring options for co-commissioning between the SESLHD and CESPHE in a range of areas including Aboriginal health
- that all care and physical environments should be culturally appropriate.

The Plan recommends specific actions in the detailed capital planning process could include:

- Continue ongoing involvement of the Aboriginal community and/or Aboriginal Health Unit in planning committees
- Improve signage throughout the buildings on the Campus acknowledging the traditional owners of the land
- Display Aboriginal flag
- Invest in a plaque at the Hospital's entrance acknowledging the traditional owners
- Install, where possible posters and/or art depicting Aboriginal culture or Aboriginal specific information to assist Aboriginal patients feel welcome and have an appropriate length of stay for any treatment received.
- Display Aboriginal artwork and cultural artefacts or interactive display
- Access to designated outdoor space for key events
- Retain Aboriginal room for patients, families and carers on campus
- Consideration of pre and/or post care accommodation for rural patients and accommodation for their family.

3. Engagement with Aboriginal people

At the commencement of the health service planning process for the St George Integrated Health Services Plan (IHSP) discussions were held with SESLHD's Manager Aboriginal Health Unit to identify key issues for Aboriginal people in relation to the Plan.

Following this early discussion the Manager was invited to be a member of the Planning Advisory Group tasked with advising the development of the Plan including:

- consultation, the development of the models of care and scenario modelling
- informing the Group about contentious matters and/or risks and make suggestions for risk management
- endorsing the Plan prior to submission to the Executive Steering Committee

Since this time the Manager has been an active member of the Planning Advisory Group and separate

consultations were held with him, the Deputy Manager of SESLHD Aboriginal Health Unit and the Aboriginal Health Liaison Officer (St George/Sutherland) to ensure the interests of Aboriginal people were addressed in the planning process.

If funding for a capital redevelopment is provided it is intended ongoing advice will be sought throughout the capital planning process from the Manager and building design with representatives of the local Aboriginal community.

It should be noted that there has been ongoing dialogue between the Aboriginal Health Unit and the St George Hospital for many years. This culminated in the development of the 'St George / Sutherland Hospital and Health Services Aboriginal Health Action Plan 2014/16 and updated 2017-2019 to enhance the capacity of the hospitals to improve the health of their resident Aboriginal communities. The current planning for the IHSP provides an opportunity to continue to address issues raised in the Action Plan.

Approved by: *TIM CROFT* Date: *13/3/2018*
Title/position: *MANAGER ABORIGINAL HEALTH UNIT*
Organisation/Department/Centre: *''*
Contact phone number: *9540 8257* *0411 711 012*
Signature: *[Handwritten Signature]*

By signing this document you agree that the initiative satisfactorily meets the three key components of the Aboriginal Health Impact Statement.

Note: Must be approved by the relevant Executive Director or Director of the local health district, pill organisation or Centre within the NSW Ministry of Health

APPENDIX 6: GOVERNMENT PRIORITIES

There are a range of State and Commonwealth priorities which will also guide the development of the Health Services Plan

NSW “MAKING IT HAPPEN” STATE PRIORITIES



NSW is determined to keep delivering for the people of NSW, which is why 30 reforms have been identified... to grow the economy, deliver infrastructure, and improve health, education and other services across NSW”¹⁹³.

Some priority actions include:

- Building infrastructure for contemporary models of care to improve patient experience
- Improving emergency and surgical care
- Protecting our children
- Reducing youth homelessness
- Tackling childhood obesity
- Improving government services.

NATIONAL CLINICAL CARE STANDARDS¹⁹⁴

Part of the work by the Australian Commission on Safety and Quality in Health Care is to lead and coordinate national improvements in safety and quality in health care across Australia including developing clinical care standards to ensure these are appropriate, reduce variation and improve clinical outcomes and the patient experience.

In 2011 they published ten nationally consistent and uniform standards for application across a wide variety of health care services, designed to assist health service organisations to deliver safe and high quality care. The second edition of the NSQHS was released in November 2017. Assessment to the second edition will commence from January 2019.

¹⁹³ NSW Govt. State Priorities <https://www.nsw.gov.au/premiers-priorities>

¹⁹⁴ Australian Commission on Safety and Quality. National Clinical Care Standards <http://www.safetyandquality.gov.au/our-work/clinical-care-standards/>

OTHER COMMONWEALTH AND STATE KEY PRIORITIES

- A national framework for recovery-oriented mental health services¹⁹⁵
- Contributing Lives, Thriving Communities - Review of Mental Health Programmes and Services¹⁹⁶
- A new blueprint for mental health services¹⁹⁷
- Whole of Health Program¹⁹⁸
- National Primary Health Care Strategic Framework¹⁹⁹
- Reducing Unwarranted Clinical Variation²⁰⁰
- NSW Integrated Care Strategy²⁰¹
- Public Specialist Outpatient Services²⁰²
- The NSW Aboriginal Health Plan 2013-2023²⁰³
- NSW Health Professionals Workforce Plan 2012 – 2022²⁰⁴
- NSW Health Policy and Implementation Plan for Healthy Culturally Diverse Communities 2012-2016 (updated plan in development)²⁰⁵
- NSW Refugee Health Plan 2011-2016²⁰⁶
- The NSW Strategic Plan for Children and Young People²⁰⁷
- Living Well: A Strategic Plan for Mental Health in NSW 2014-2024 ²⁰⁸
- NSW Health Framework for Women's Health 2013²⁰⁹
- eHealth NSW Strategy for NSW Health 2016-2026²¹⁰
- NSW State Plan: Toward 2021²¹¹
- State Infrastructure Strategy 2021-2032²¹²

¹⁹⁵ <http://www.health.gov.au/internet/publications/publishing.nsf/Content/mental-pubs-n-recovgde-toc>

¹⁹⁶ <http://www.mentalhealthcommission.gov.au/our-reports/contributing-lives,-thriving-communities-review-of-mental-health-programmes-and-services.aspx>

¹⁹⁷ <http://www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2015-ley151126.htm>

¹⁹⁸ <http://www.health.nsw.gov.au/wohp/Pages/default.aspx>

¹⁹⁹ <http://www.health.gov.au/internet/main/publishing.nsf/content/nphc-strategic-framework>

²⁰⁰ <http://www.eih.health.nsw.gov.au/initiatives/reducing-unwarranted-clinical-variation-taskforce>

²⁰¹ <http://www.health.nsw.gov.au/integratedcare/pages/default.aspx>

²⁰² <http://www.eih.health.nsw.gov.au/initiatives/specialist-outpatient-services-improvement-project>

²⁰³ <http://www.health.nsw.gov.au/aboriginal/Documents/aboriginal-health-plan-2013-2023.pdf>

²⁰⁴ <http://www.health.nsw.gov.au/workforce/hpwp/Publications/health-professionals-workforce-plan.pdf>

²⁰⁵ http://www0.health.nsw.gov.au/policies/pd/2012/pdf/PD2012_020.pdf

²⁰⁶ http://www0.health.nsw.gov.au/policies/pd/2011/pdf/PD2011_014.pdf

²⁰⁷ <https://aifs.gov.au/cfca/2016/05/03/report-acyp-nsw-consultations-children-and-young-people>

²⁰⁸ <http://nswmentalhealthcommission.com.au/our-work/strategic-plan>

²⁰⁹ <http://www.health.nsw.gov.au/women/Publications/womens-health-framework-2013.pdf>

²¹⁰ <http://www.health.nsw.gov.au/ehealth/documents/ehealth-strategy-for-nsw-health-2016-2026.pdf>

²¹¹ <http://www.health.nsw.gov.au/statehealthplan/Pages/NSW-state-health-plan-towards-2021.aspx>

²¹² http://www.infrastructure.nsw.gov.au/pdfs/SIS_Report_Complete_Print.pdf

APPENDIX 7: SESLHD'S STRATEGIC PLANNING FRAMEWORK



South Eastern Sydney Local Health District is on a reinvigorated path to building higher performing and cutting edge health services.

This direction is guided by *SESLHD's Roadmap to Excellence* and *Journey to Excellence Strategy 2018-2021*²¹³ as well as several other key strategic planning documents²¹⁴ :

²¹³ Available at URL: http://seslhnweb/Journey_To_Excellence/#

²¹⁴ The SESLHD Plans listed below can be accessed at URL: <http://www.seslhd.health.nsw.gov.au/HealthPlans/default.asp>

SESLHD Roadmap to Excellence. As the Journey to Excellence strategy continues to drive the efforts of the District, five key programs of work have emerged:

- Integrated Care
- Service Realignment
- Building Capacity and Capability
- Organisational Change
- Saving Money Safely.

These are set in the context of a strong focus on equity and community engagement.

Health Care Services Plan 2012-2017 details how the District's services will deliver high quality health care to those in need and prevention and wellness programs to local communities.

Asset Strategic Plan 2012 – 2017 provides the long term approach for managing the District's land, buildings, infrastructure, plant and equipment to support implementation of health care priorities and initiatives outlined in the Health Care Services Plan 2012-2017.

A companion document *Our Community, Our Services: a Snapshot* providing an overview of trends in population health status and risks and patient access, utilisation and experiences of District services.

The *SESLHD Integrated Care Strategy*, with 3 key priority areas:

- Engage with People and Communities
- Health Intelligence Systems
- Innovative Models.

Effective and enduring community partnerships are crucial for SESLHD to achieve an effective and sustainable health system for the future. We should not and cannot design and deliver our health services without them. The *SESLHD Community Partnerships Strategy* outlines the District's commitment and approach to achieving a better public health system in partnership with our communities.



The *SESLHD Equity Strategy* creates a vision for and impetus to refocus our work to better address inequities, and identifies 3 strategic directions:

- Transform our health service to systematically improve equity
- Invest to provide more care in the community and more prevention and wellness programs
- Refocus our work to better address the social determinants of health and wellbeing.



The *2014-2016 SESLHD Implementation Plan for Healthy Culturally Diverse Communities* describes a vision for an equitable health system where cultural and linguistic diversity is at the heart of service planning, service delivery and policy development. It outlines priority actions, specific objectives, stakeholders and partnerships, and indicators to measure our success.



Other relevant Plans include:

- SESLHD Research Strategy 2017-2021
- SESLHD Drug and Alcohol Clinical Services Plan
- SESLHD ICT Strategy
- St George Hospital's Development Control Plan 2011 ("Masterplan")
- Calvary Strategic Plan 2016 - 2020.²¹⁵

²¹⁵ URL: <https://www.calvarycare.org.au/about/strategy/>

APPENDIX 8: MINISTRY OF HEALTH LETTER OF APPROVAL



Health

Mr Tobi Wilson
Chief Executive
South Eastern Sydney Local Health District

Our ref H18/98860

By email: SESLHD-Mail@health.nsw.gov.au

Dear Mr Wilson

St George Hospital Integrated Health Service Plan

Thank you for providing a copy of the St George Hospital Integrated Health Service Plan 2018 for review.

The directions and the future capacity requirements detailed in the Clinical Services Plan are supported as the basis for planning with the exception of the number of theatres and beds provided for High Volume Short Stay Surgical Services.

The Ministry believes that inclusion of six HVSS theatres and a total of 40 overnight and day beds in the project will support projected HVSS activity to 2031. This is one less theatre and 14 less beds than indicated in the district's planning for the HVSS service in 2031.

The activity projections submitted by the district in support of the Clinical Services Plan are for the purpose of informing planning for the capital development only. Recurrent budget allocations and activity purchased from a district in a particular year remain determined by the annual Service Agreement negotiation process, and are subject to both the purchasing model considerations and State Government budget parameters in that year.

The importance of planning an infrastructure project that can be afforded within the district's resources has been reinforced at a number of senior executive fora recently. The development of the Financial Impact Statement as part of the Final Business Case for the project will provide the assurance about the affordability of the proposed project.

I thank the district for working with the Ministry to address the issues that arose during review of the Clinical Services Plan. The district's collaborative and positive approach to addressing identified issues has been evident in this process.

The district and Health Infrastructure will be requested to work together to review the Investment Decision (preliminary) business case when the timeframe for delivery of the project within NSW Health's capital limits has been finalised. I will advise Health Infrastructure of the Ministry's support for the plan as the basis of planning for the redevelopment. Should you require any further information regarding this matter, please contact me on 9391 9492.

Yours sincerely

Vince McTaggart
A/Executive Director
Health System Planning and Investment Branch

c.c. Ms C Cox, A/Chief Executive, Health Infrastructure

29/04/2019.

NSW Ministry of Health
ABN 92 697 899 630

73 Miller St North Sydney NSW 2060
Locked Mail Bag 961 North Sydney NSW 2059
Tel. (02) 9391 9000 Fax. (02) 9391 9101
Website www.health.nsw.gov.au



Health
South Eastern Sydney
Local Health District