



Health
South Eastern Sydney
Local Health District

Public Health Unit

Research Report, 2020-2021

South Eastern Sydney Local Health District

November 2021

1 Foreword

The Public Health Unit is responsible for monitoring, preventing and otherwise minimising public health risks in the community. These risks might be infectious diseases acquired from other people, from animate vectors, such as mosquitoes, or from sources in the built environment, legionellosis being a good example. Other risks might be caused by exposure to toxic chemicals, whether present in tobacco smoke, or a result of contamination of the air, soil or water by industrial processes.

To undertake this work, the Public Health Unit comprises a multidisciplinary professional team of registered nurses and surveillance officers, medical personnel, environmental health officers and epidemiologists, supported by able administrative staff. Staff work closely within the District with population health staff and clinicians in all hospitals and in the community, with Health Protection NSW and with other agencies to respond to and minimize public health risks.



All teams are committed to fitting research where possible around their core activities and have been successful in using opportunities for operational research. In 2020-2021, all teams were almost completely committed to the public health response to novel coronavirus. Despite this, teams continued to work on previous projects and research papers; and because of it, they were enthusiastic about documenting evidence and analyses of the new disease and its public health impact.

This *Research Report* showcases research published or accepted for publication or presentation over the last year, and also summarises some new projects – in infectious diseases and cancer epidemiology and causation, environmental health risks and regulation including tobacco control, and the impact of COVID-19 on our workforce – and we hope this work will have an impact on future public health.

2 Scientific publications

Chan BS, Kiss A, McIntosh N, **Sheppeard V**, Dawson AH. E-cigarette or vaping product use associated lung injury in an adolescent. *Med Journal of Australia* 2021; 215 (7).

<https://doi.org/10.5694/mja2.51244>

Merritt T, Dalton C, Kakar S, **Ferson M**, Stanley P, Gilmour R. Influenza outbreaks in aged care facilities in NSW in 2017 – impact and lessons for surveillance. *Communicable Diseases Intelligence* 2021; 45. Online. <https://doi.org/10.33321/cdi.2021.45.22>

Capon A, Ousta D, Ferson M, Ingleton A and **Sheppeard V**. A multiple site community outbreak of COVID-19 in Sydney, Australia. *Australian and New Zealand Journal of Public Health*, 45: 129-132. <https://doi.org/10.1111/1753-6405.13081>

Capon A, Houston J, Rockett R, **Sheppeard V, Chaverot S**, Arnott A, **Parashko T and Ferson M**. Risk factors leading to COVID-19 cases in a Sydney restaurant. *Australian and New Zealand Journal of Public Health*, 45: 512-516. <https://doi.org/10.1111/1753-6405.13135>

Capon A, Sheppeard V, Gonzalez N, Draper J, **Zhu A, Browne M, Sullivan E, Mihajlovic M**, Rockett R, **Ferson MJ**. Bondi and beyond. Lessons from three waves of COVID-19 from 2020. *Public Health Res Pract*. 2021;31(2):e3132112. <https://doi.org/10.17061/phrp3132112>

Marsh C, Tobin S, Gilmour R, **Sheppeard V**, Andrews R. Drivers of a summer influenza epidemic in New South Wales, Australia; 2018-2019. *Medical Journal of Australia*, 4 Oct. <https://doi.org/10.5694/mja2.51266>

Arat A, Moore H, Goldfeld S, Ostberg V, **Sheppeard V**, Gidding H. Childhood vaccination coverage in Australia; an equity perspective. *BMC Public Health*. 2021; 21:1337. <https://doi.org/10.1186/s12889-021-11345-z>

Vujovich-Dunn C, Skinner R, Brotherton J, Wand H, Sisnowski J, Lorch R, Veitch, M, **Sheppeard V**. et al. (2021) School-level variation in coverage of co-administered dTpa and HPV dose 1 in three Australian states. *Vaccines*. 2021, 9, 1202. <https://doi.org/10.3390/vaccines9101202>

Oakley, T, Marr I, Townell N, Heney C, Jackson W, **Evans M**, Hall B, Allen C, Chaw K, Ferguson J. Pacific Regional Infectious Disease Association (PRIDA): capacity-building for microbiology and infectious disease across the Pacific. *Microbiology Australia* 42(4) 182-186. <https://doi.org/10.1071/MA21051>

Stewart BW. Enhanced communication of IARC Monograph findings to better achieve public health outcomes. *Carcinogenesis*. 2021; 42: 159-168. <https://doi.org/10.1093/carcin/bgaa129>

Accepted for Publication

Ferson MJ, Flanigan SA, Cains TJ. Lead poisoning outbreak from consumption of contaminated ayurvedic medication. *Medical Journal of Australia* (in press)

Flanigan SA, Cains TJ, McIndoe L, Ferson MJ. An audit assessing regulatory compliance of businesses that perform colonic lavage. *Public Health Research and Practice* (in press)

Stewart BW, Sitas F and Currow D. From validation to implementation: progressing smoking cessation among people with cancer and beyond via relevant authorities. *Cancer Epidemiol.* 2021 (in press)



Risk factors leading to COVID-19 cases in a Sydney restaurant. Dinner sittings identifying case locations

3 Presentations at conferences

Nolan E, McGuire R, Hair M, Ennis S, **Sheppard V**. Using the Perinatal Data Collection to Improve Maternal Vaccination. PHAA Immunisation Conference June 2021.

Allen, A, Papa, T, McIndoe, L, Sheppard, V. Offering COVID-19 vaccine to Aboriginal Communities in South Eastern Sydney. PHAA Immunisation Conference June 2021.

Stewart BW. Cancer prevention perspectives beyond reduced carcinogen exposure. International Agency for Research on Cancer – World Cancer Report. Updates webinar: Challenges and Opportunities for Primary Cancer Prevention on 16 Nov 2021.

4 Books, chapters, published reports

Stewart BW, Broderick C, Dickensens C, Gupta D, Hearnshaw G, Hanlon J, *et al*. Smoking Cessation Working Group. Smoking Cessation in Cancer Patients: Embedding Smoking Cessation Care in Australian Oncology Health Services. Clinical Oncology Society of Australia. 2021; Sydney.

5 Research in progress

Kiss A, Huang B, Cains TJ, McIndoe L, Houston J, Ferson MJ. Who sells tobacco to minors in Sydney, Australia? (in final draft)

Under the Public Health (Tobacco) Act it is illegal to sell tobacco products to people under the age of 18. The NSW Sales to Minors program randomly selects retail outlets with recruited minors to test if they sell tobacco. Tobacco retailers who sell to minors as part of the compliance check are prosecuted. Data from prosecutions for selling tobacco to minors is available for the past five years and this research will provide information on the demographics of those sellers including age, gender, ethnicity, type of retail outlet and should assist with targeting the programs into the future.

Capon A, Gonzalez N, and Sheppard V. The suitability and usability of a tool to assess contact status from COVID-19 exposures in the workplace. (submitted to journal)

SES PHU have developed a SARS-CoV-2 exposure assessment tool that can quickly determine the initial exposure status of employees to a SARS-CoV-2 positive employee. The tool's adoption has empowered workplace managers and improves capacity of public health units to prevent further transmission of SARS-CoV-2 in workplaces.

Mcindoe L, Papa T, Robb S, Dives M, Louizi S, Davies C, Vujovich-Dunn, Sheppard V: Determinants of inequity in uptake of the adolescent school-based vaccination program in SESLHD.

This research project aims to better understand disparities in uptake of vaccination at high schools and identify the determinants of immunisation inequality in SESLHD. The findings of this study will be used to strengthen the implementation of the program and address the gaps in access to vaccination and its benefits.

Parashko T, Smith S, Sheppard V: Needs and Assets Assessment for mothers living with Hepatitis B in South Eastern Sydney Local Health District.

This research project aims at to undertake a needs and assets assessment for mothers living with HBV in SESLHD to inform future priorities with this population

Kaldor J, Rebuli N, **Chaverot S, Sheppard V:** Vaccine status and SARS-CoV-2 infection in case contacts: Proposal for analysis of South Eastern Sydney PHU surveillance data.

The aims of this project are (1) to compare the proportion of cases and contacts with a vaccination against relevant data and modelling to detect potential heterogeneities in vaccination and associated transmission. (2) To investigate using the available case linking data for comparing transmission rates between vaccinated and unvaccinated individuals.

Chaverot S, Dowdell L, Zekry A, Sheppard V: Using Historic Notifications to Find Prevalent Hepatitis C Infections among SESLHD Residents and Increase Hepatitis C Treatment Uptake.

The aim of this project is to increase hepatitis C treatment uptake in SESLHD residents diagnosed with hepatitis C. A pilot study was conducted for cases living in the St George area in 2021 to estimate the costs and benefits of extending this approach to other areas

Stewart BW. Investigation of cancer causation in the community living on the Bellarine Peninsula.

An assessment is being made of the likelihood that exposure to pesticides accounts for at least some individual cancer cases among residents of the Bellarine Peninsula (Victoria). Some residents believe

that exposure to pesticides applied in the region when it was primarily used for agriculture has occurred by dint of residues in soil. The pesticides in question primarily include the organochlorine compounds dieldrin and DDT. Epidemiological study of certain occupationally-exposed people, namely pesticide applicators, suggests causation by these agents of non-Hodgkin lymphoma, but the data are not definitive. Cancer attributable to pesticides in soil has not been described in research conducted thus far.

Pop up COVID-19 vaccination clinic held at La Perouse Aboriginal Community health centre



SESLHD Public Health @SESPublicHealth - 18 Oct

POP UP VACCINATION SITE THIS WEEK | If you're over 12 years of age, you can receive your Pfizer vax at our walk-in clinic at the Randwick Hospital Campus this week (Barker St entrance). Open 9am – 3pm. No booking or medicare card needed. Please bring a form of ID.

COVID-19 VACCINATION

Walk-in Pfizer COVID-19 Vaccination Clinic

For anyone 12 years and over

Prince of Wales Hospital /
Royal Hospital for Women
Barker Street Entrance, RANDWICK

Monday 18 to Friday 22 October
9am - 3pm

OPEN THIS WEEK!

FREE | NO BOOKING OR MEDICARE NEEDED

NSW GOVERNMENT

