# **RESEARCH & INNOVATION**



## **HEALTH CLIMATE DATA DIVE**

Bendigo Health's Datathon 2024: "Health Climate Data Dive" was held Saturday 23 & Sunday 24 November at La Trobe University. Building on the success of our previous datathons, this event had the most datasets yet, with 10 health/wellbeing data sets – linked by citizen SA2 location – to 8 environmental datasets. The Centre for Victorian Data Linkages (CVDL) linked the data that was secured in virtual machines accessible only to team data scientists.

Fifty eight participants formed 8 teams to look at various aspects of climate change and the impacts on health. Participants were from a diverse range of backgrounds and organisations including EPA, CSIRO, Universities, Local and State government, Player Piano Data Analytics, PHU's and Bendigo Health



The teams used robust query techniques to interrogate the linked data to find preliminary answers to research questions, including:

- How does Extreme Heat Factor (EHF) affect mental health episodes? Does it vary across diagnoses?
- Do people with autism experience higher levels of anxiety and depression during extreme weather events than their peers? How do metropolitan areas compare to rural and regional areas?
- Examine the 'at risk' characteristics of those presenting to ED/admitted to hospital during/post EHF episodes.
- Detailed complications (e.g. dehydration, heat stress, hypertensive disorders, and placental abruption) and their corresponding ICD/diagnosis codes associated with heatwaves among pregnant women in Victoria who visit the ED

during and after heatwave periods.

- How does EHF affect mental health episodes? Does it vary across diagnoses?
- Is there an incremental impact of each additional extreme heat factor day on heat-related hospitalisations in the State of Victoria?
- All ICD admissions and ED presentations Patterns of admissions of people on EHF days and PM2.5 days (bushfire & smoke) and are there regional variations?
- What is the association between hospital admissions and deaths on EHF days in Bendigo?

Each of the teams presented their findings in the last session of the weekend and outlined the next steps they can take for a deeper dive into their research question! Hopefully this is the start of an ongoing robust program of research that will enable a more climate conscious approach to healthcare in the future!

#### **WORLD AIDS DAY**

December 1 marked World AIDS Day, a time to remember lives lost, the stigma and discrimination still faced by many, and to reflect on the huge progress being made in medical care in the 43 years since the first clinical cases of AIDS were described. Rigorous research ever since means that people can now access treatment and live long healthy lives. The development of antiretroviral therapies and preventative treatments have also in-



formed the advancement of effective treatments for hepatitis C, leukemia, organ transportation and more. But we still can't cure HIV, and this remains a major target for research.

In 2023, nearly 40 million people globally were living with HIV, and 1.3 million new infections were reported. Knowing your HIV status can help keep you (and others) safe, and finding infection early enables treatment to start sooner. Pick up a free test kit for yourself or a friend from our confidential, judgement free Infectious Diseases team today.

### CONGRATULATIONS

Congratulations to Sarah Nadjidai on being awarded the Australasian Leukaemia & Lymphoma Group (ALLG) 2024 Anne Lenton Memorial Scholarship.

Sarah received the award for her project: "Visit to metropolitan clinical trial centres to better understand the start-up process and conduct of visit procedures relevant to ALLG lymphoma trials."

Sarah is a passionate Clinical Trial Research Nurse who works in the Cancer Clinical Trials

area and is thrilled to receive this scholarship which will help to support regional haematology research. Well done Sarah!



Dr Doug Lenton & Sarah Nadjidai

## **SEASONS GREETINGS**

The R&I team wish everyone a safe and happy festive season.

Our team will be taking a break and the office will be closed from Monday 23 December until Friday 3 January 2025

