Relevant persons: Melanie, Peter, Matt, David, James, Katrina

**Resume, research exp, and publications as evidence: multi-discp**

1. Melanie

A/Prof Davern is a public health and urban planning academic and Vice Chancellor’s Senior Research Fellow at RMIT University with extensive experience in developing and analysing large scale administrative health survey data including geocoded Victorian Population Health Survey data with supported ethical clearance from the Victorian Department of Health. As Co-Lead of a program of research investigating Health, Place & Society with Professor Hannah Badland, A/Prof Davern has also produced spatial measures of the built and natural environments linked to existing health data sets including the Australian Early Development Census and Longitudinal Study of Australian Children held by the Australian Institute of Family Studies.

Google scholar page: <https://scholar.google.com.au/citations?user=nSpMsR4AAAAJ&hl=en>

1. David

Waiting for reply

**Existing publications or studies with linked health data, preferably with spatial analysis at SA1 or CD level in NSW**

1. Peter

The data and cohort scope (same in the study) of the CCQ case study is dataset that include details of all QLD women who have been screened for breast cancer for the period from Jan 1 2015 to June 30 2021, irrespective of whether they have a breast cancer diagnosis or not. As for data items to be used for linkage, the dataset will not be linked to any other datasets. The detailed data items to be required include:

* Unique person ID number (specific to this project)
* Age at Breast Screen episode (whole years)
* Month and year of Breast Screen episode
* Age at death (if relevant, in whole years)
* Indigenous status
* Non-English-speaking background (Yes/No)
* Episode number
* Screening outcome
* Assessment outcome (where applicable)
* Surgical Histopathology data (Invasive cancer/DCIS/Other/Nodes sampledinvolved/Sentinel Node Biopsy) for the “DominantnLesion”
* Primary treatment data (type of surgery, other treatments, location of surgical unit, evidence of metastases)
* SA3 of residence at time of screening episode

They will not be requiring any identifying patient information, and patients will only be identified by a unique project ID number. In addition, BreastScreen Queensland will also provide SA2-specific participation rate estimates that have been adjusted for known issues relating to the geographical data.

1. James (Prof. James Wood from UNSW)

He uses only SA2 level data from NSW health. He suggested that we would probably need to make a strong argument for why health data at an SA1 level is a reliable measure (i.e. that outcomes are sufficiently proximal that population movements don’t confound this). I guess the argument for urban heat would be that there are building level effects but your outcomes (e.g., heat deaths) are going to be really sparse at that level.

1. Katrina (Katrina Blazek from UNSW)

I did not find any spatial-related studies from her profile: <https://scholar.google.com.au/citations?hl=en&user=fENWMEAAAAAJ&view_op=list_works&sortby=pubdate>. Will check again later.

1. Matt (Matt Beaty)

Does not use SA1 linked health data.

**Privacy issues**

1. SURE will be used to secure data transactions (i.e., uploads, and downloads is not allowed).
2. Research investigators Flavia and Hao will take the *Introductory and Advanced Analysis of Linked Health Data summer school* subjects for professional development, in order to better work with linked health data. Details on the units, including the contact dates are available at https://www.uwa.edu.au/schools/population-global-health/Seasonal-School).

**Relevant interests**

1. NCRIS has provided funding to ARDC who has allocated some of these funds to the project. AURIN and PHRN have also allocated some of their NCRIS cash funds to the project. One major goal of this project is to demonstrate how the two NCRIS facilities (AURIN and PHRN) could work together and get linked SA1 level health data, which would be difficult to obtain otherwise, for generating health indicators at a fine spatial granularity as its main added value.
2. The added value of this project contributes to better understanding of effects caused by heatwaves, which are Australia's deadliest natural hazard and the occurrence and severity of is predicted to increase through climate change, including effects such as extreme heat in densely built urban areas with low vegetation through the urban heat island effect in Australian cities and towns.
   1. It aligns with the federal government’s goal to reduce green-house emissions by 43% by 2030.
   2. It’s important to understand the importance of heatwaves regarding environmental population health considering all aspects that might play a role, so they can address better with their policies.