Government of Western Australia
North Metropolitan Health Service
Public Health and Clinical Excellence

Frequently asked questions: Health and Wellbeing Profiles.

July 2025

Acknowledgement of Country and People

North Metropolitan Health Service respectfully acknowledges the Noongar people as the traditional owners and custodians of the land on which we work and pay respect to their Elders both past, present and emerging. North Metropolitan Health Service recognises, respects and values Aboriginal culture as we walk a new path together.

Thank you

This document was adapted from the South Metropolitan Health Service LGA Health and Wellbeing Profile - Frequently Asked Questions document (2025). We would also like to acknowledge the Epidemiology Directorate, WA Department of Health for their input into the development of this document.

Contents

Health and Wellbeing Profile methodology information

The Health and Wellbeing Profile 2011-2020 reports (profile) were prepared by the Epidemiology Directorate, WA Department of Health to support Local Governments (LG) with public health planning. Please refer to the profile headings: Introduction, Methods (Data sources) and Summary measures and their uses for definitions and information about the methodology and data sources used. Those sections of the profile may answer your questions in the first instance.

Frequently asked questions

This supplementary document provides additional information and answers to frequently asked questions (FAQs) regarding the profile data.

1. What is Bayesian modelling?

The Health and Wellbeing Profiles use Bayesian modelling to generate localised health data. The data presented are estimates derived from the Bayesian modelling processes, not raw data. Bayesian modelling is a statistical method that uses probabilities to address uncertainties in data. It combines information from various sources such as past information for the area, information from the neighbouring areas and even State trends to produce more accurate and reliable estimates of health outcomes. It is particularly useful for smaller LG with limited population data. For detailed technical information on Bayesian modelling methods, please refer to the Bayesian modelling method documents.

2. What are the benefits of Bayesian modelled data?

Bayesian modelled data fills data gaps and ensures all LG, including those with small populations and low disease counts, have reliable health data. Bayesian modelled data can assess trends over time, and produces smoothed estimates, making it easier to track health trends over time.

3. What is the Public Health Atlas?

The Public Health Atlas is an online tool that presents the unmodelled heath region data and Bayesian modelled data by health district and LG area. It includes key public health indicators such as prevalences of chronic disease and lifestyle risk factors and rates of hospitalisations and deaths due to common conditions.

4. Can LG access the Public Health Atlas?

Currently, only Health Service Providers have access to the Public Health Atlas. A publicly accessible shortened version of the Public Health Atlas, with limited indicators, is planned to be released by the end of 2025.

5. What data is available from the Public Health Atlas for LG?

Please see Table 1 on Page 8 for a list of indicators available from the Public Health Atlas. Further data are available from the Australia Bureau of Statistics (ABS) and Profile Id.

6. Is this the most current data available?

Yes. The data provided in the profile report is the most up to date available.

7. Why does the data only extend to 2020?

The data in the profiles only extends to 2020 because the initial phase of the Bayesian modelling project only used the data up to 2020.

8. Will new data be available in the future?

Future updates will include data up to 2024, which will be available in 2026.

9. What does Age Standardised Rate mean?

Crude rates, being calculated by dividing total counts by the total population for an area or group, cannot be directly compared each other due to different population age structures for that area or group. Age-standardised rates (ASR) are calculated by adjusting the crude rates to eliminate the effect of differences in population age structures when comparing crude rates for different time periods, different geographic areas and/or different population sub-groups. The ASRs are calculated using the 2001 Australian Standard Population as a common basis (common denominator) so the rates so calculated from different time periods, different geographic areas and/or different population sub-groups such as male and female groups can be directly compared. In another word, the ASR is a weighted mean of the age-specific rates where the weights are taken from the population distribution of a standard population. The ASR rates are expressed per 100,000 population. They are not an actual rate and cannot be expressed as a percentage. For example, an ASR of 10.2 for alcohol-attributable deaths means there are an estimated 10.2 alcohol-attributable deaths per 100,000 people. Please refer to Summary measures and their uses in the profile report for more information.

10. What does Estimated Resident Population mean?

Estimated Resident Population (ERP) is the official estimate of the Australian population and links people to their usual place of residence. The WA ERP is obtained from the ABS. More information about ERP is available at Australian Bureau of Statistics.

11. What does exceedance probability mean?

In the profile reports, comparisons of local estimates with WA State estimates are made by using exceedance probabilities (EPs), to identify whether the prevalence of a lifestyle risk factor, or a disease or disease / condition ASR for a LG is higher, lower, or similar when compared to the State prevalence/ASR. For a detailed definition of exceedance probability, refer to Bayesian modelling method documents.

12. What was the sample size for the Health and Wellbeing survey?

The WA Health and Wellbeing Surveillance System is the largest and longest running Western Australian population health survey that began in 2002. Approximately 1,000 Western Australians are randomly selected to participate in the survey on-line or via telephone each month. For more information, please refer to the profile heading Methods (Data sources)

and/or go to Health and Wellbeing Surveillance System.

13. What is my LG's sample size?

In the WA Health and Wellbeing Surveillance System, sample size varies annually. Some LG have a very small population, therefore the data are analysed by combining multiple years of data. Bayesian modelling has been conducted to provide more reliable estimates for small geographic areas with smaller populations. Please refer to Questions 1 and 2 for more information on Bayesian modelling methods.

14. Can we access data for smaller populations?

The Health and Wellbeing Surveillance System is designed to provide information at a population level. Data can be considered representative of the wider population but will not be representative of smaller groups such as Aboriginal and Torres Strait Islander people or people from culturally and linguistically diverse backgrounds.

Furthermore, sample sizes for smaller communities and populations are often too small to be analysed and presented separately. Please see Methods (Data sources) WA Health and Wellbeing Surveillance System in the profile report for more information.

15. Can data be searched by postcode?

Data cannot be searched by postcode. The data in the Public Health Atlas is available by the following geographical areas: LG, Health Districts and Health Regions. Populations at postcode level usually are too small for reliable health outcome measures to be derived.

16. Are differences identified between LG and the State statistically significant?

The data is presented as similar, higher, or lower than the State measure. Differences identified are statistically significant. Statistical significance is a statement about the likelihood of an estimate of health outcome measure for an area being different from the State measure NOT due to chance.

17. How do we determine our priorities and objectives from the data?

As per the **Section 45** of the **WA Public Health Act 2016**, a local public health plan must:

(a) identify the public health needs of the local government district
(b) include an examination of data relating to health status and health determinants in the local government district
(c) establish objectives and policy priorities for: (i) the promotion, improvement, and protection of public health in the local government district.

The data presented in the profile represents priority public health issues as set by the State. Data showing values that are less than or similar to the State does not necessarily mean they are not a priority. Identifying where values are not as well as the State, may nevertheless, provide a starting point to focus on, especially if resources are limited.

Highlighting the key priority areas; setting realistic goals and objectives based on the local profile data; aligning with the State Public Health Plan; and integrating evidence-based campaigns, programs and strategies are highly recommended.

When selecting key priorities, the following guiding principles should be considered:

- **Alignment** to existing strategic priorities within local and state government
- **Acceptance** and support from among a range of stakeholders including within a LG
- **Importance** of the issue regarding impact on individuals, families and wider population
- **Modifiability** by applying effective and evidence-based approaches and interventions
- **Opportunities** for obtaining program funding and resources
- **Measurability** using available data to determine health and social outcomes

(See: Injury Matters Local Government Guide – Ranking Priorities)

18. Can we compare our new data to data from previous profile reports?

No. The data in the new profile report cannot be directly compared to previous profile data. The new profiles are modelled estimates whereas the data in previous profiles are actual counts, rates, or prevalence.

19. Can we compare our profile report to other LG?

The modelled rates or prevalence provided in the LG profiles have been compared to the State values using EPs (see Q.11). Comparisons between LG are not appropriate due to the complex modelling process used (i.e. EPs have not been produced for LG comparisons). Further information can be found in the Bayesian modelling method documents.

20. How can LG request additional data?

LG can request tailored data through their Health Service Provider (HSP).

21. Is vaping data available?

The Epidemiology Directorate began collecting data on vaping in the Health and Wellbeing Surveillance System (see Q.10) in 2017. There is insufficient vaping data available at this stage to present and analyse at a LG level. LG will be notified when this data is available. National data along with state only vaping breakdowns are available from the ABS: Smoking and vaping or AIHW here: NDSHS 2022-23

22. Who can provide clinical interpretation of the notifiable infectious diseases data?

Metropolitan local governments can contact Boorloo (Perth) Public Health Unit on telephone: 1300 62 32 92 or email: bphu@health.wa.gov.au

Further information

For further information or assistance, north metropolitan LG can contact: NMHSHealthPromotion@health.wa.gov.au

Table 1. Data available from the Public Health Atlas

Data indicators in LG Health and Wellbeing Profiles	Additional data available on request from Health Service Provider
Population measures: - Aboriginality - Persons with annual income < $64,999 - Persons born overseas - Persons who are unemployed - Persons who do not speak English at home **Nutrition indicators:** - Eats recommended serves of fruit daily - Eats recommended serves of vegetables daily - Eats fast food at least weekly **Physical activity indicators:** - Spends more than recommended time in screen-based sedentary leisure activities. - Does more than recommended amount of physical activity per week **Physiological risk factors (overweight / obesity)** **Tobacco use (prevalence of current people who smoke) and tobacco attributable hospitalisation and deaths.** **Alcohol-related harm (prevalence of high-risk alcohol consumption / use):** - Drinks at high levels for long-term harm - Drinks at high levels for short-term harm **Alcohol-attributable hospitalisation and deaths** **Illicit drug-attributable hospitalisation and deaths** **Mental health and wellbeing indicators:** - Any mental health condition - Stress related problem - Anxiety - Depression - Psychological distress **Injury-related hospitalisation and deaths:** - Accidental falls - Transport accidents - Intentional self-harm - Assault & neglect - Accidental poisoning - Accidental drowning, submersion	**Notifiable infectious diseases:** - Sexually transmitted infections - Vaccine preventable disease - Enteric disease - Blood-borne disease - Vector-borne disease **Cancer incidence** **Potentially preventable hospitalisation data** - Acute conditions. - Chronic conditions (such as asthma). - Vaccine-preventable conditions (such as pneumonia and influenza). - Total of all potentially preventable hospitalisations **Heat-related hospitalisations and Emergency Department attendances**

This document can be made available in alternative formats on request.