

The Geographic Distribution of Deaths due to Alcohol-related Disease, Substance Poisoning, and Suicide Across Australia, 2017-2021

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The Difference is Research

Background

Deaths due to **alcohol-related disease**, **substance poisoning**, and **suicide**, commonly referred to as "*deaths of despair*", represent a critical public health issue.

International research has shown **geographic variation** in these causes of death within countries, with suicides accounting for a large proportion of these deaths.

Aims

To examine the **geographic distribution** of deaths due to **alcohol-related disease**, **substance poisoning** and **suicide** across Australia.

Methods

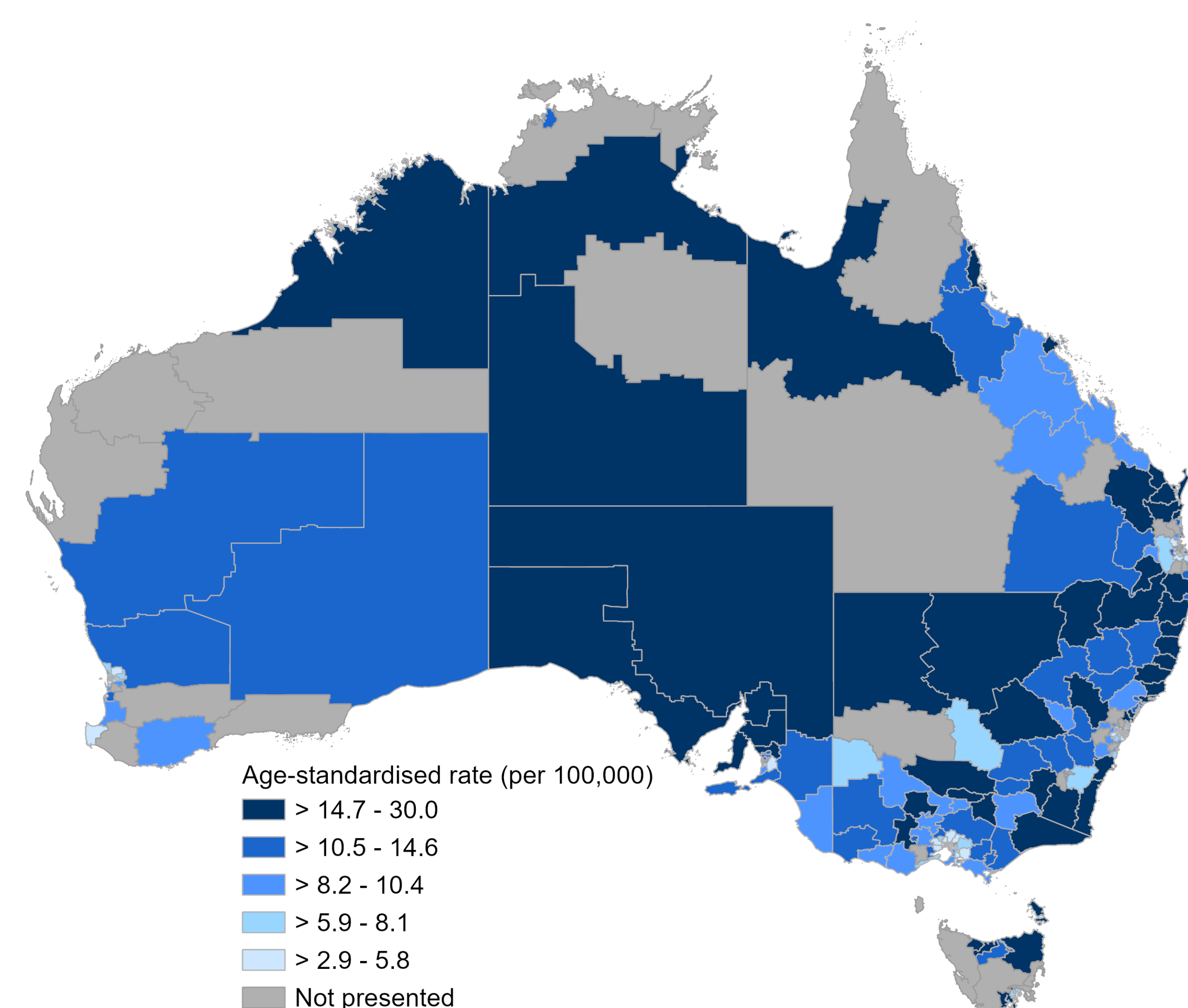
Data: Deaths in Australia between 2017 and 2021 (aged 15 years+) were examined by usual place of residence. Population and geographic boundary data were obtained from the Australian Bureau of Statistics.

Geography: 340 Statistical Area Level 3 (SA3) regions.

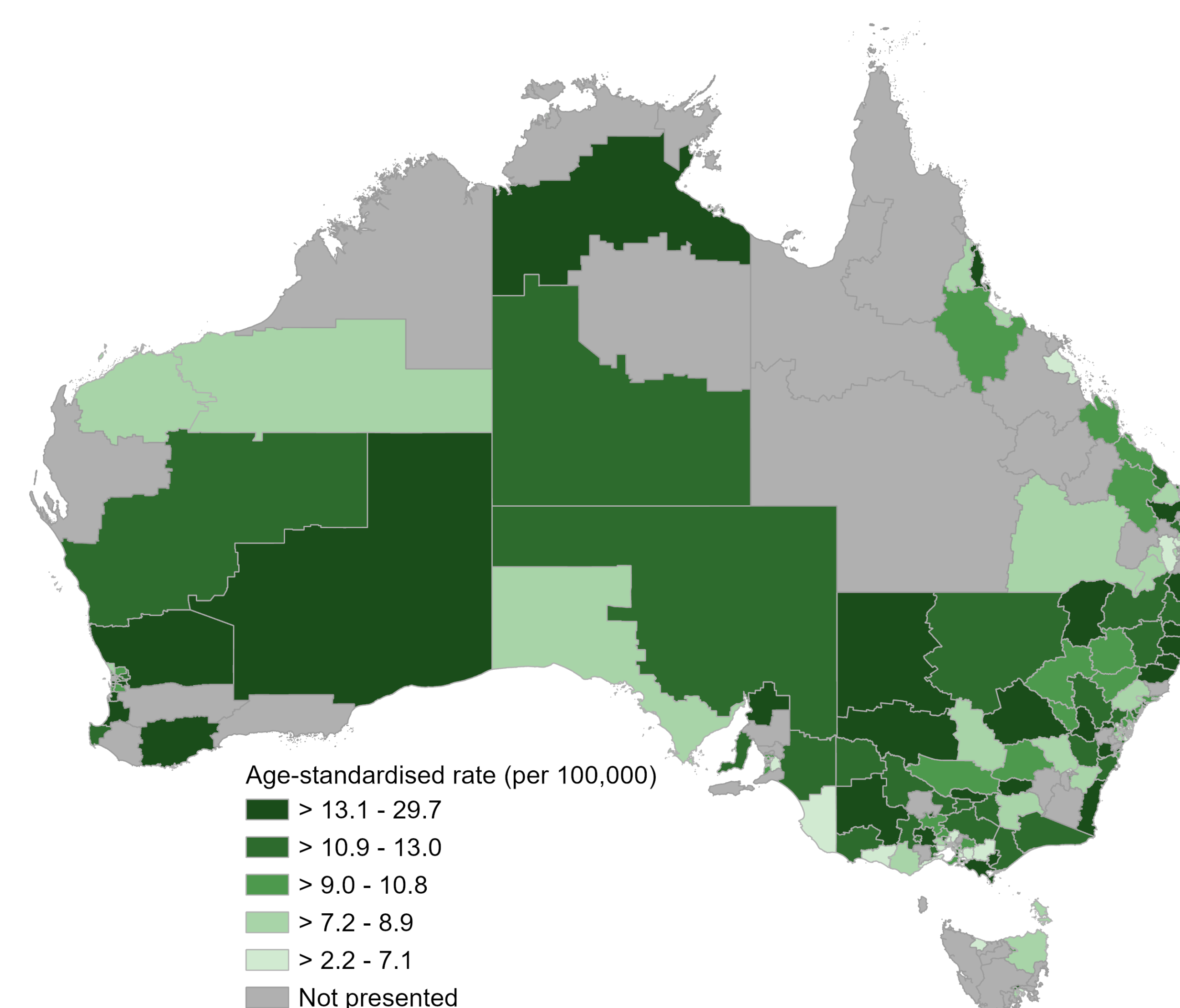
Analysis: Age-standardised death rates (ASR) by SA3 region, mapped by quintiles. ASRs based on fewer than 10 deaths are censored and appear as "Not presented".

Geographic Distribution by Cause of Death

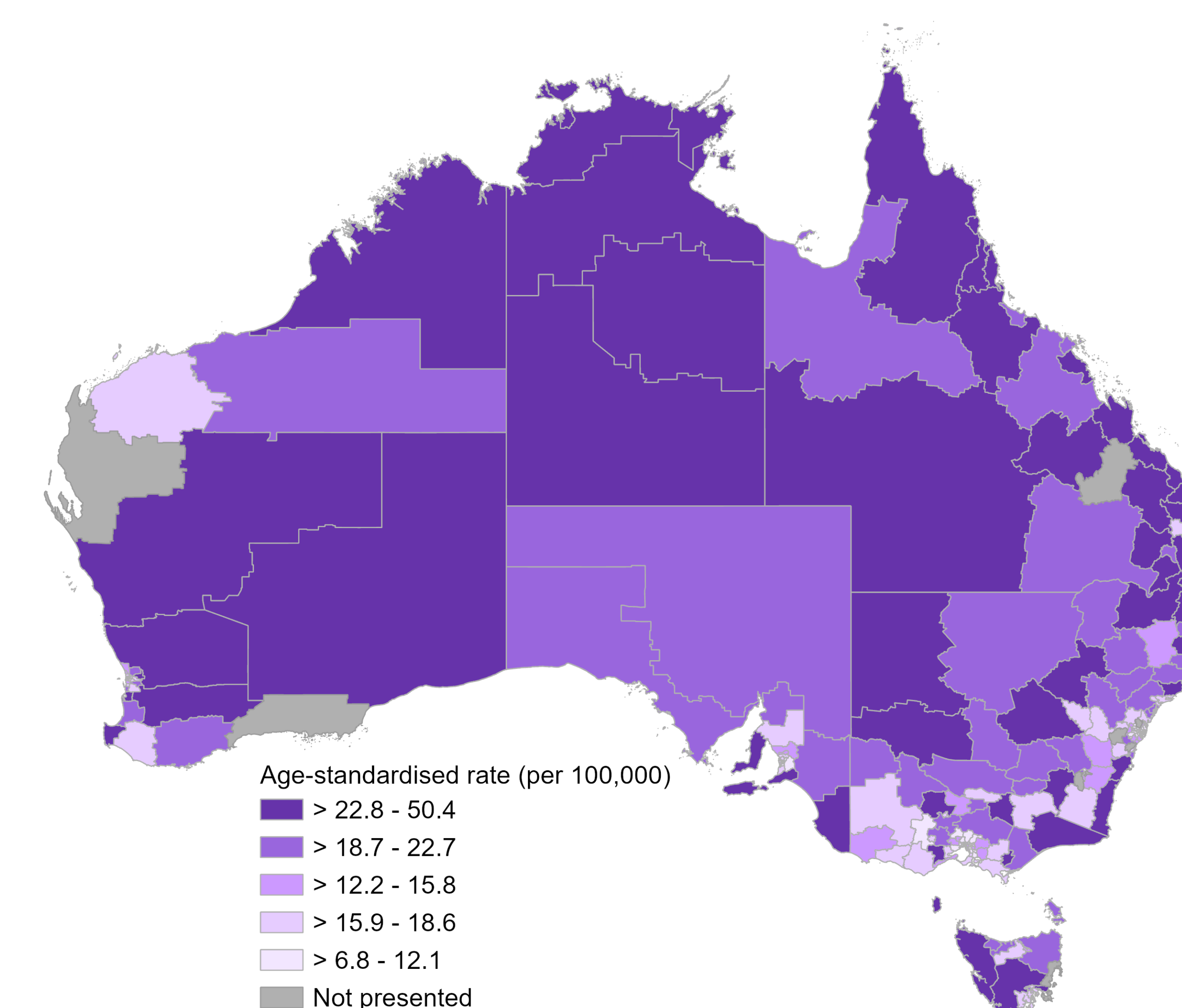
Alcohol-related Disease (n = 8,275)



Substance Poisoning (n = 9,360)



Suicide (n = 16,115)



Results

Between 2017-2021, there were **33,750 deaths** due to alcohol-related disease, substance poisoning, and suicide among people aged 15 years and older. Alcohol-related disease accounted for **24.5%** of these deaths, substance poisoning for **27.7%**, and suicide for **47.8%**.

Collectively, these deaths represent **4.1% of all deaths** among people aged 15 years and older in Australia, with an average of **18 deaths** per day across the study period.

Key Takeaways

Geographic patterns differ by cause of death. The three causes show distinct spatial distributions across Australia.

Variation occurs between and within states. Regional differences exist at multiple geographic levels.

Suicide represents the highest mortality burden, accounting for nearly half these deaths.

Acknowledgements

The authors wish to thank the Registries of Births, Deaths and Marriages, the Coroners and the National Coronial Information System for enabling COD URF data to be used for this publication.

Funding: National Health and Medical Research Council Ideas Grant; NDARC is funded by the Australian Government Department of Health, Disability and Ageing under the Drug and Alcohol Program.

NDARC and UNSW are located on the unceded territory of the Bedegal people.

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