

# All-cause deaths and deaths due to top four conditions among people from culturally and linguistically diverse backgrounds, Western Australia, 2007 - 2016

# Summary

In Western Australia (WA), in the decade between 2007 and 2016,

- Rates of all-cause deaths were 4% to 16% lower among those born overseas compared to the Australian-born population.
- Rates of deaths due to the four most common causes (ischaemic heart disease (IHD), dementia, cardiovascular disease (CVD) and lung cancer) were similar or lower among those born overseas compared to the Australian-born population, with the exception of lung cancer-related deaths which were highest in those born in main English-speaking countries.
- However, analysis by country of birth (COB) region found that selected regions experienced higher rates
  of all-cause deaths and deaths due to selected conditions. Specifically, compared with their Australianborn counterparts,
  - Males born in Other Oceania and Antarctica experienced significantly higher rates of all-cause deaths.
  - Males born in Other Oceania and Antarctica and Southern and Eastern Europe had significantly higher rates of IHD-related deaths.
  - Males born in UK/Ireland, Other North-West Europe and Southern and Eastern Europe and females born in UK/Ireland experienced significantly higher rates of lung cancer-related deaths.

# Background

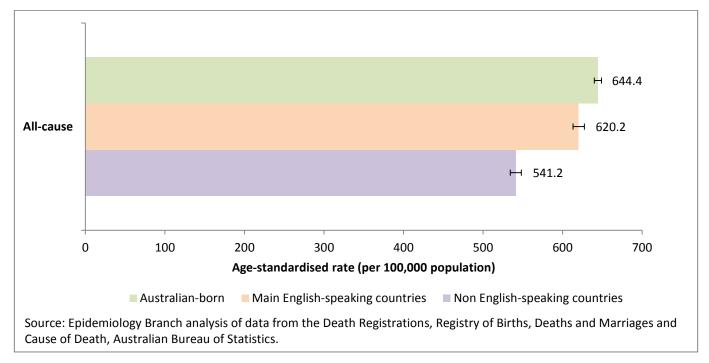
Western Australia is culturally diverse with nearly one third (32.2%) of residents born overseas and with around 18% of residents speaking a language other than English at home (OMI 2017). Generally, people from culturally and linguistically diverse (CALD) backgrounds experienced lower rates of all-cause deaths compared to those born in Australia although there were higher rates among selected COB regions (ABS 2017; Endo et al 2011). Despite this 'healthy migrant effect', past research in Australia has found poorer health outcomes for selected diseases and conditions among selected CALD population groups. For example, people born in the Philippines had the highest mortality rate due to cerebrovascular disease (42 per 100,000 population), while having the third lowest mortality rate due to chronic obstructive pulmonary disorder (COPD) (4.8 per 100,000) (AIHW 2018).

### Aims

This paper aims to describe the rates of all-cause deaths and deaths due to the top four most common conditions (including IHD, dementia, CVD and lung cancer) among people from CALD backgrounds in WA and whether the rates differed by broad COB groups, COB regions, gender and year. These four causes of death were the most common causes in the WA population as a whole. Details on the definitions of deaths due to all causes and the four selected conditions, CALD, broad COB groups and COB regions are provided in the overview, aims and methods paper for this series of CALD information papers (Koh et al. 2019).

### All-cause deaths and deaths due to selected conditions by broad COB group

Compared with Australian-born people, those born in main English-speaking countries and those born in non-English-speaking countries had rates that were 3.8% and 16.0% lower, respectively, for all-cause deaths (Figure 1). Within each broad COB group, male rates were significantly higher than female rates.



# Figure 1. Rates and 95% confidence intervals of all-cause deaths by broad COB group, WA, 2007-2016

Compared with Australian-born people, those born in main English-speaking countries experienced higher rates of lung cancer-related deaths (Figure 2).

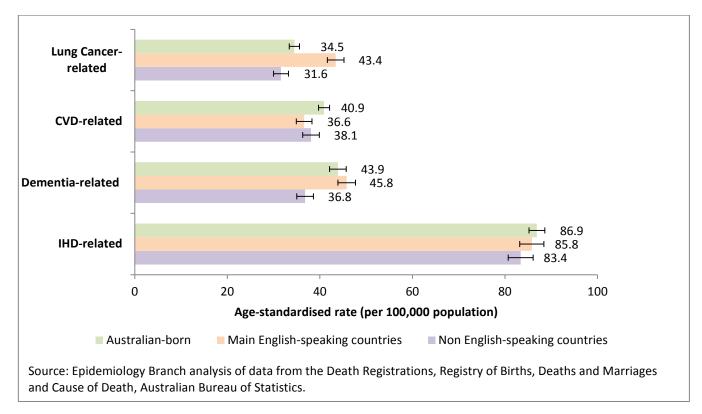


Figure 2. Rates and 95% confidence intervals of deaths due to selected conditions by broad COB group, WA, 2007-2016

### All-cause deaths by broad COB group and year

Among all COB groups, rates of all-cause deaths showed some fluctuation between 2007 and 2016. Rates increased between 2007 and 2010, decreased between 2010 and 2013, increased again from 2013 to 2015 and then decreased after 2015 (Figure 3).

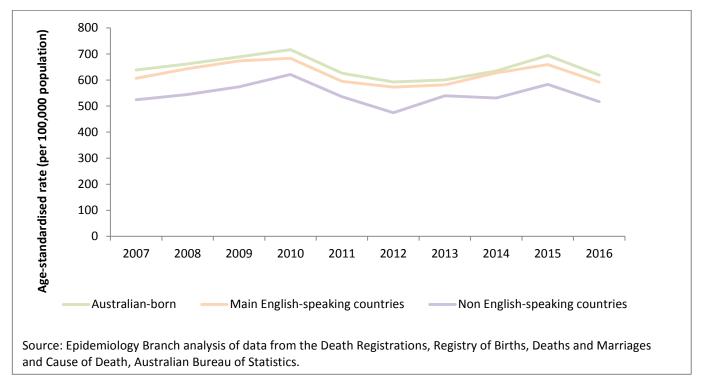


Figure 3. Rates of all-cause deaths by broad COB group and year, WA, 2007-2016

### All-cause deaths by COB region and gender

Compared with their Australian-born counterparts, males born in Other Oceania and Antarctica experienced significantly higher rates of all-cause deaths whereas those born in other regions had similar or lower rates (Figure 4). With the exception of those born in North Africa and the Middle East, death rates for males were significantly higher than for females.

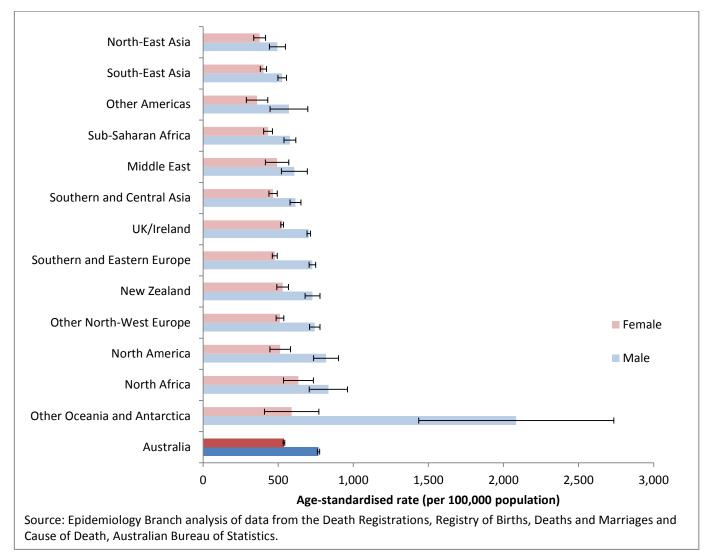


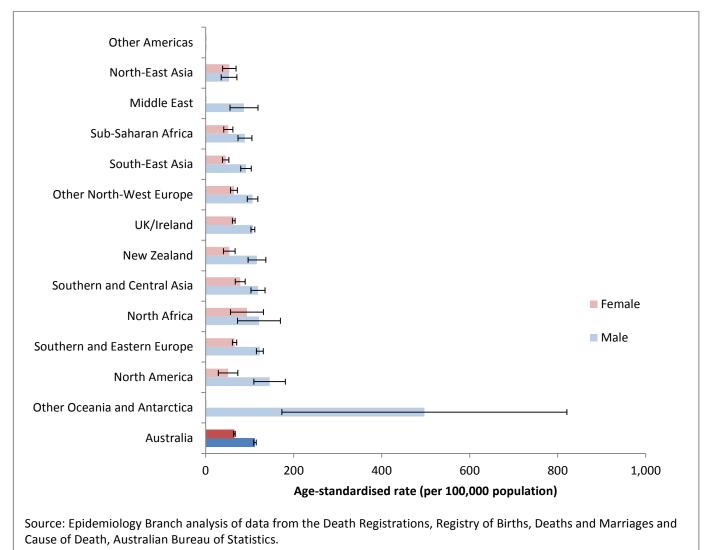
Figure 4. Rates and 95% confidence intervals of all-cause deaths by COB region and gender, WA, 2007-2016

## Deaths due to IHD by COB region and gender

Compared with their Australian-born counterparts, males born in Other Oceania and Antarctica and Southern and Eastern Europe had significantly higher rates of IHD-related deaths, whereas those born in other regions had similar or lower rates (Figure 5).

Among females, compared with their Australian-born counterparts, those born in all regions had similar or lower rates of IHD-related deaths.

Note that the male and female rates for Other Americas and the female rates for the Middle East and Other Oceania and Antarctica are not reliable enough to be displayed in the figure below due to the small number of deaths.



# Figure 5. Rates and 95% confidence intervals of deaths due to IHD by COB region and gender, WA, 2007-2016

# Deaths due to dementia by COB region and gender

Both males and females from all COB regions experienced similar or lower rates of dementia-related deaths compared with their Australian-born counterparts (Figure 6).

Note that the female rates for North-East Asia and all rates for Other Oceania and Antarctica, North Africa, the Middle East and Other Americas are not reliable enough to be displayed in the figure below due to the small number of deaths.

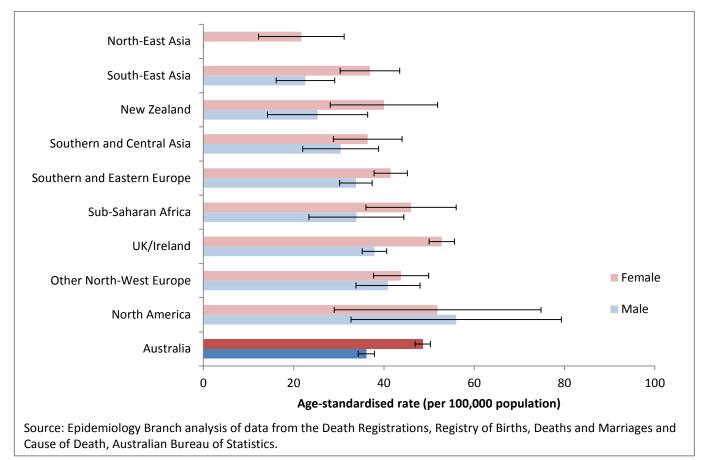


Figure 6. Rates and 95% confidence intervals of deaths due to dementia by COB region and gender, WA, 2007-2016

# Deaths due to CVD by COB region and gender

Compared with their Australian-born counterparts, males and females from all COB regions experienced similar or lower rates of CVD-related deaths (Figure 7).

Note that the rates for North America, Other Oceania and Antarctica, North Africa, the Middle East and Other Americas are not reliable enough to be displayed in the figure below due to the small number of deaths.

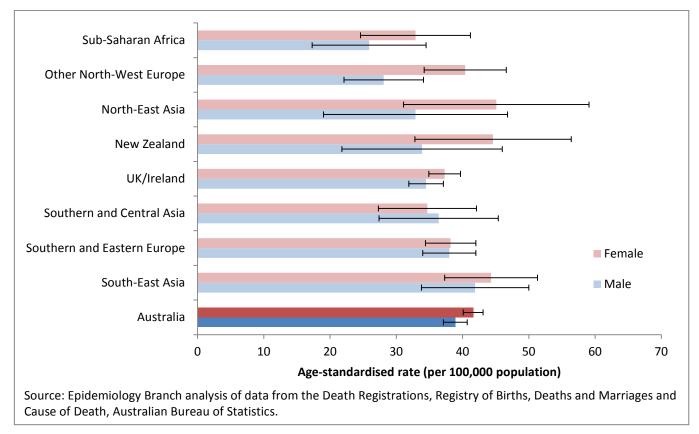


Figure 7. Rates and 95% confidence intervals of deaths due to CVD by COB region and gender, WA, 2007-2016

### Deaths due to lung cancer by COB region and gender

Compared with their Australian-born counterparts, males born in UK/Ireland, Other North-West Europe and Southern and Eastern Europe and females born in UK/Ireland experienced significantly higher rates of lung cancer-related deaths, whereas those born in other regions had similar or lower rates (Figure 8).

Note that the female rates for North America and all rates for Other Oceania and Antarctica, North Africa, the Middle East and Other Americas are not reliable enough to be displayed in the figure below due to the small number of deaths.

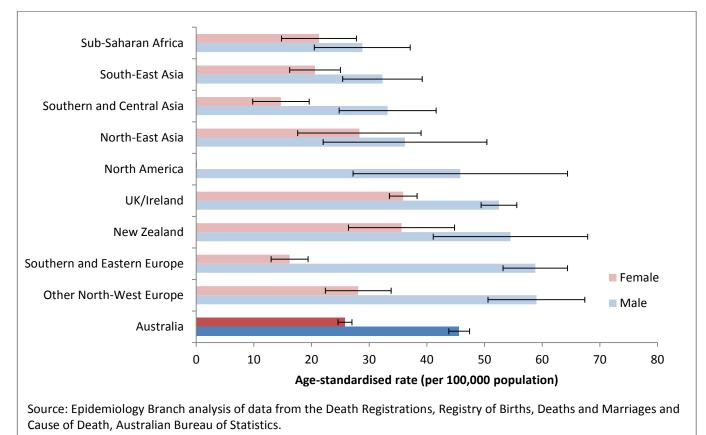


Figure 8. Rates and 95% confidence intervals of deaths due to Lung Cancer by COB region and gender, WA, 2007-2016

### References

- ABS (Australian Bureau of Statistics) (2017). 4364.0.55.002 Health Service Usage and Health Related Actions, Australia, 2014-15. Available from <u>http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0022014-15?OpenDocument</u>
- AIHW (Australian Institute of Health and Welfare) (2018). Culturally and linguistically diverse populations. Australia's Health 2018. Australia's Health series no.16. AUS 221. Available from <u>https://www.aihw.gov.au/getmedia/f3ba8e92-afb3-46d6-b64c-ebfc9c1f945d/aihw-aus-221-chapter-5-3.pdf.aspx</u>
- Endo, T., Watson, M., Jardine, A., Bright, M., & Macleod, S. (2011). Death and hospitalisation rates by country of birth in Queensland #2: All-causes. Country of Birth Data Analysis Report, Queensland Health. Available from

https://www.health.qld.gov.au/\_\_data/assets/pdf\_file/0028/354583/report2.pdf

- Koh, C., Liu, Y., Xiao, J., & Jian, L. (2019). Health service utilisation and health outcomes among people from culturally and linguistically diverse backgrounds: Overview, aims and methods. Epidemiology Branch, Public and Aboriginal Health Division, Department of Health Western Australia.
- OMI (Office of Multicultural Interests) (2017). Cultural and Linguistic Diversity in Western Australia (WA)

   2016 Census. Available from

   <a href="https://www.omi.wa.gov.au/StatsInfoGuides/Documents/Cultural%20and%20Linguistic%20Diversity%20i">https://www.omi.wa.gov.au/StatsInfoGuides/Documents/Cultural%20and%20Linguistic%20Diversity%20i</a>
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### For more information

Please contact Epidemiology Branch, Public and Aboriginal Health Division, Western Australia Department of Health @ EPI@health.wa.gov.au

### Suggested citation

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