



All-cause cancers and top five cancers among people from culturally and linguistically diverse backgrounds, Western Australia, 2007 - 2016

Summary

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

- The rate (incidence) of all-cause cancers was 7% to 23% lower among those born overseas compared to the Australian-born population.
- The trend patterns of all-cause of cancers between 2007 and 2016 were similar among those born in Australia and those born in main English-speaking countries but the rate was higher in those born in Australia. However, the trend pattern in those born in non-English-speaking countries was different and the rate across all years was significantly lower compared with above two groups.
- Analysis by country of birth (COB) region found that some regions experienced higher rates of all-cause cancers and the top five cancer types (prostate, breast, colorectal, melanoma and lung) among overseas-born populations. Specifically, compared with their Australian-born counterparts,
 - Males born in Other Oceania and Antarctica and females born in New Zealand experienced significantly higher rates of all-cause cancers.
 - Females born in New Zealand experienced significantly higher rates of colorectal cancer.
 - Both males and females born in UK/Ireland, males born in Other North-West Europe and females born in New Zealand experienced significantly higher rates of lung cancer.

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 hospitalisations 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', particularly in Asian immigrants, past research in Australia has found that this early advantage in migrants is no longer the case after long term residence in Australia (Pasupuleti et al. 2016). Lower participation rates in cancer screening programs in some CALD populations may contribute to the lower rate of cancer diagnoses. Language barriers, attitudes towards screening and low capacity to use screening kits or attend screening tests in CALD population groups were some of the issues reported in previous studies (Weber et al. 2009, Ogunsiji et al. 2017, Phillipson et al. 2019).

Aims

This paper aims to describe the rates of all-cause cancers and top five cancers (prostate, breast, colorectal, melanoma and lung cancer) among people from CALD backgrounds in WA and whether the rates differed by broad COB groups, COB regions, gender and year. Details on the definitions of cancers due to all causes and the top five 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 cancers and cancers 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 6.5% and 22.6% lower rates, respectively, for all-cause cancers (Figure 1). Among the three COB groups, female rates were significantly lower than male rates.

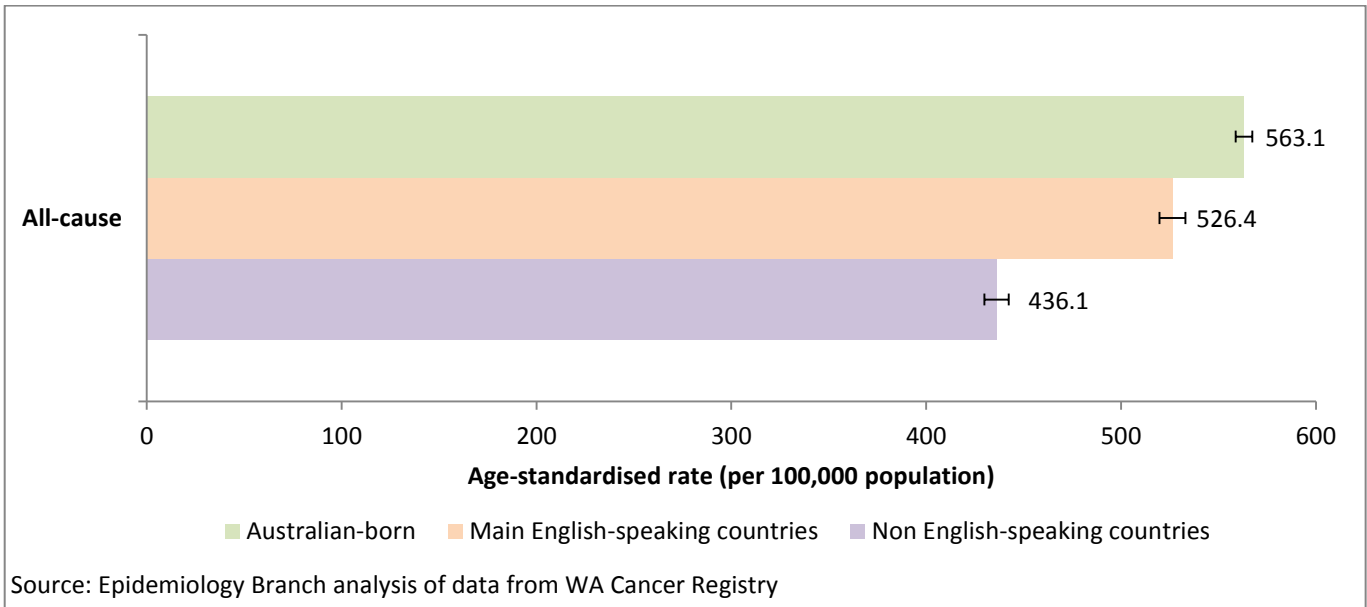


Figure 1. Rates and 95% confidence intervals of all-cause cancers by broad COB group, WA, 2007-2016

Compared with Australian-born people, those born in main English-speaking countries and those born in non-English-speaking countries experienced similar or lower rates of the top five cancer types, except for lung cancer. The incidence rate of lung cancer was highest in those born in main English-speaking countries and lowest in those born in non-English-speaking countries (Figure 2).

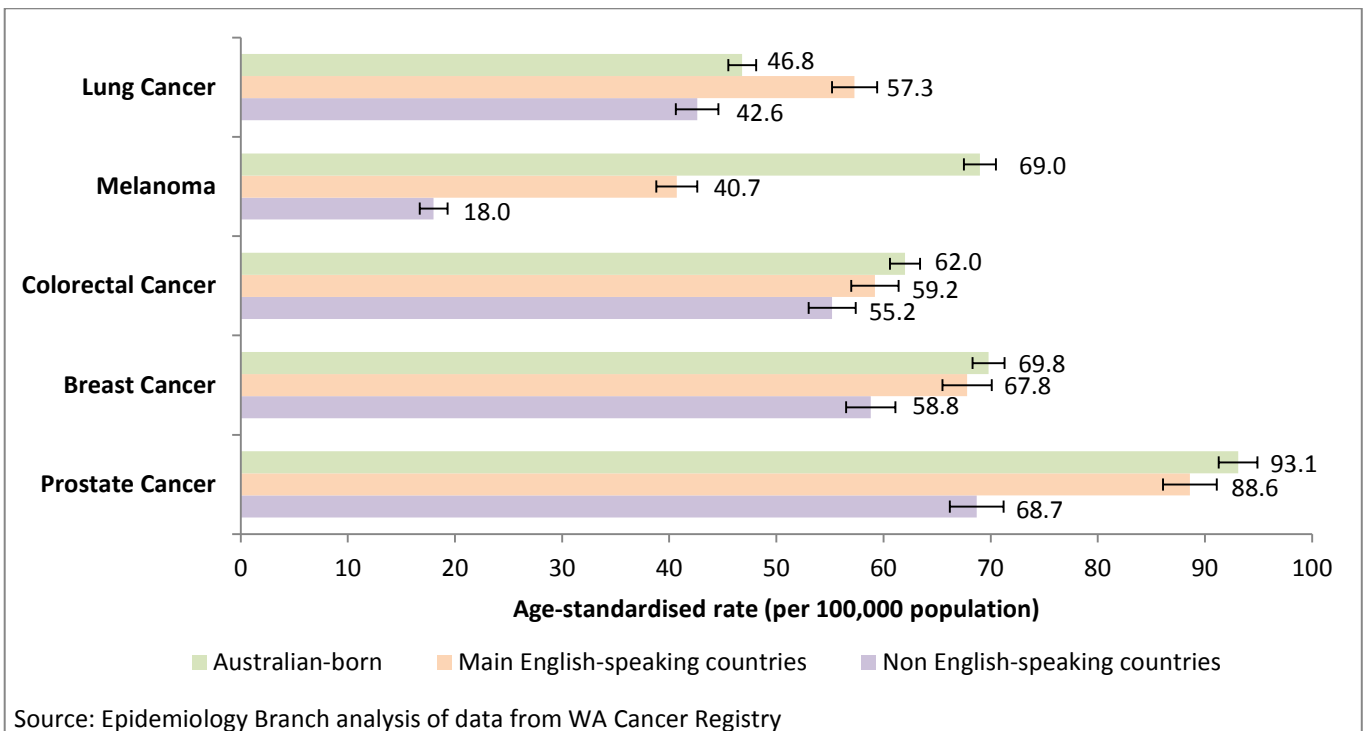


Figure 2. Rates and 95% confidence intervals of top five cancers by broad COB group, WA, 2007-2016

All-cause cancers by broad COB group and year

Among those born in Australia and those born in main English-speaking countries, rates of all-cause cancers increased between 2007 and 2010 and stayed relatively stable in the years between the 2010 and 2016. Among those born in non-English-speaking countries, rates of all-cause cancers increased between 2007 and 2010 and fluctuated in the years between the 2010 and 2016 (Figure 3).

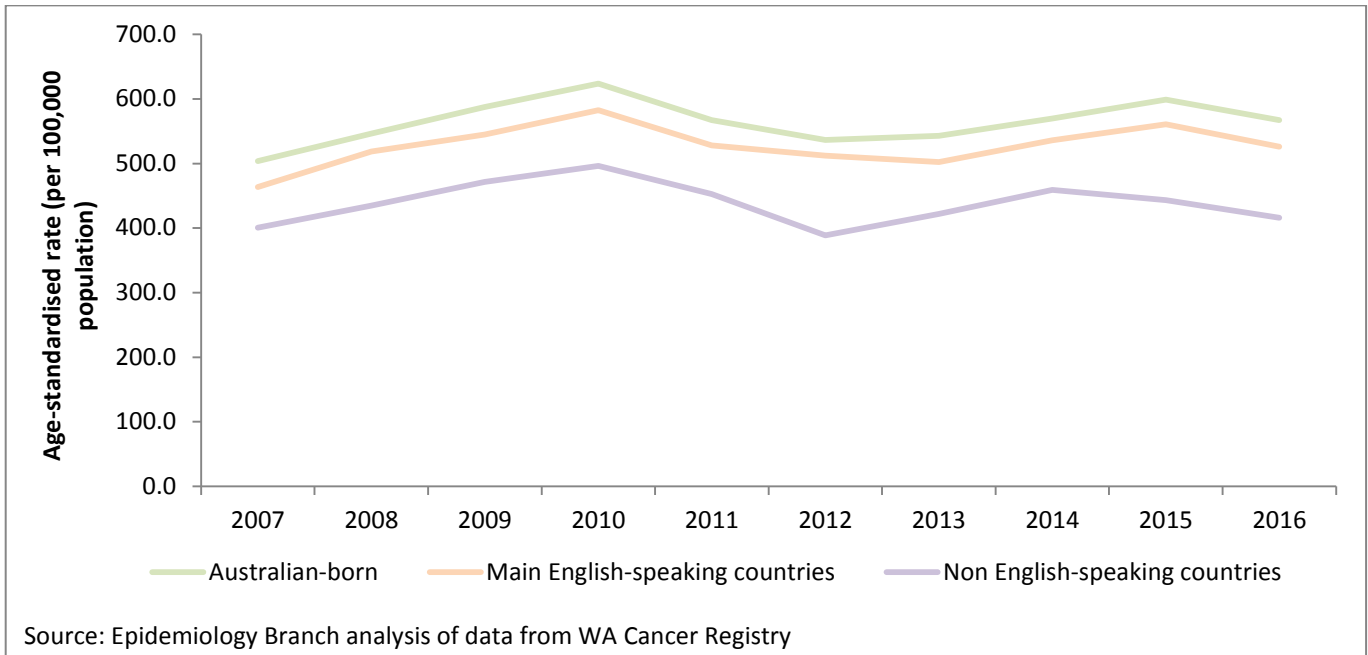


Figure 3. Rates of all cause cancers by broad COB group and year, WA, 2007-2016

All-cause cancers by COB region and gender

Compared with their Australian-born counterparts, males born in Other Oceania and Antarctica and females born in New Zealand experienced significantly higher rates of all-cause cancers whereas those born in other regions had similar or lower rates (Figure 4).

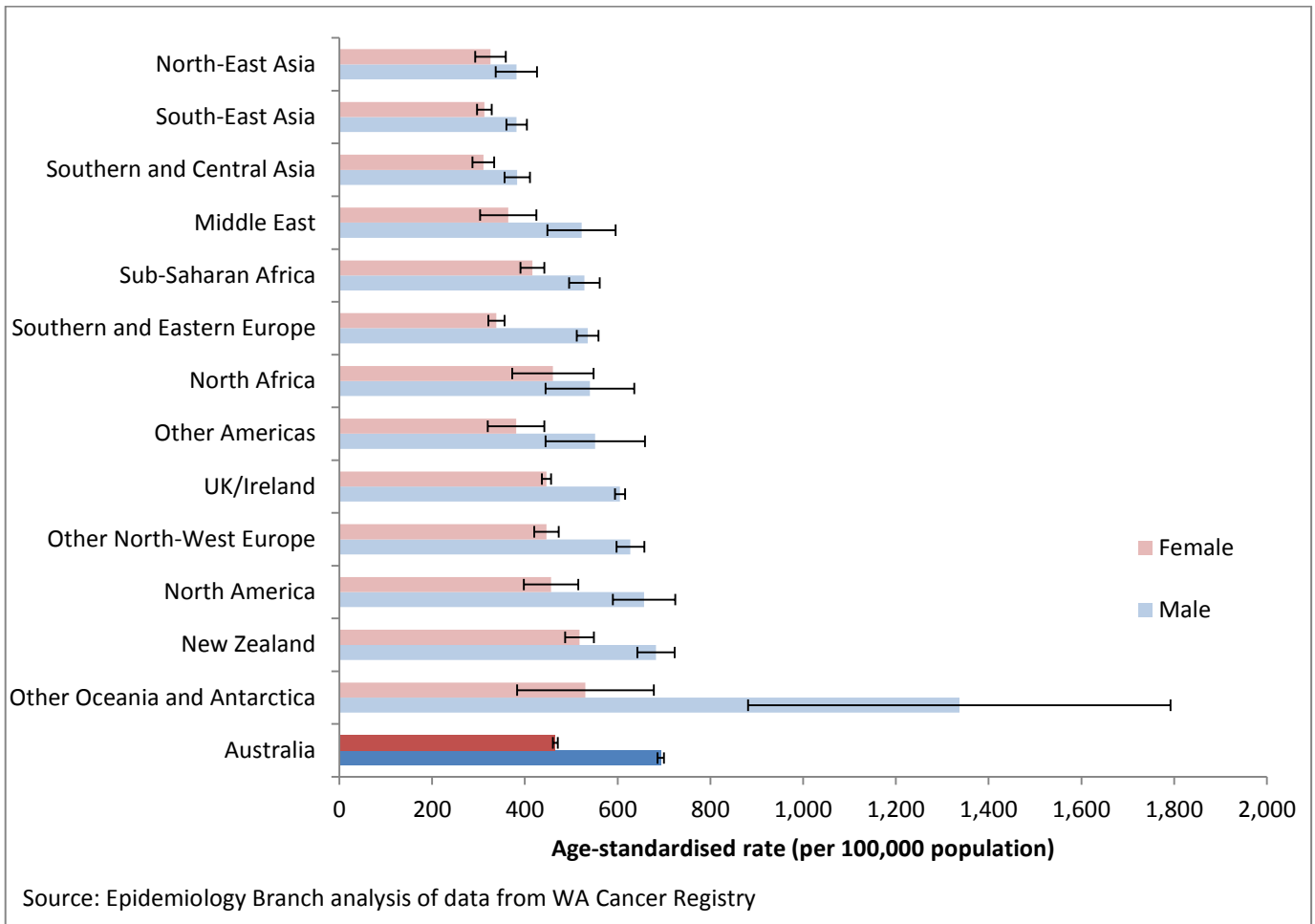


Figure 4. Rates and 95% confidence intervals of all-cause cancers by COB region and gender, WA, 2007-2016

Prostate cancer by COB region

Compared with their Australian-born counterparts, males born in Asia, Middle East, Other Americas, and European countries had significantly lower rates of prostate cancer whereas males born in the other regions had similar rates (Figure 5).

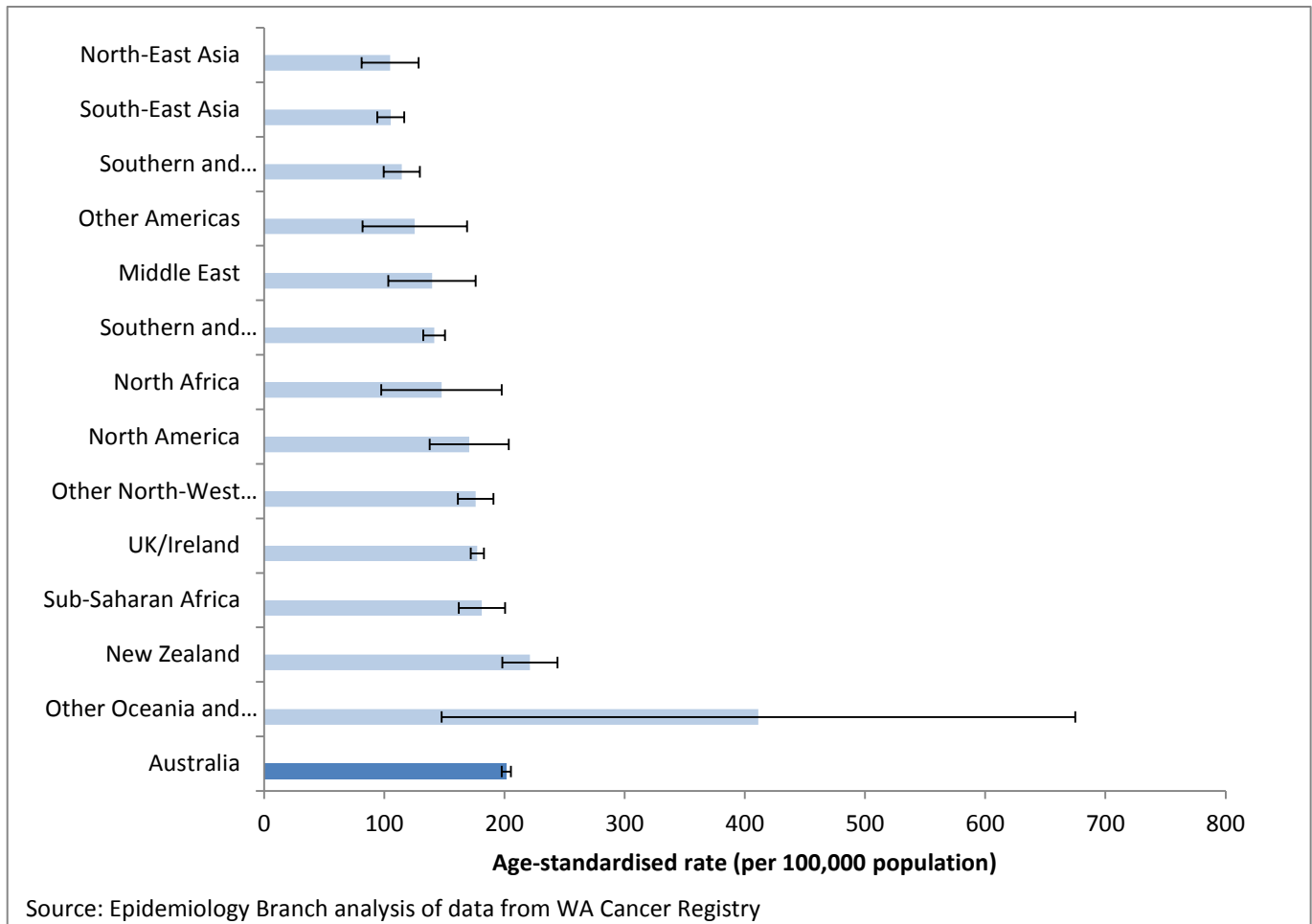


Figure 5. Rates and 95% confidence intervals of prostate cancer by COB region and gender, WA, 2007-2016

Breast cancer by COB region

Compared with their Australian-born counterparts, females born in Asia, Southern and Eastern Europe and Sub-Saharan Africa had significantly lower rates of breast cancer whereas females born in other regions had similar rates (Figure 6).

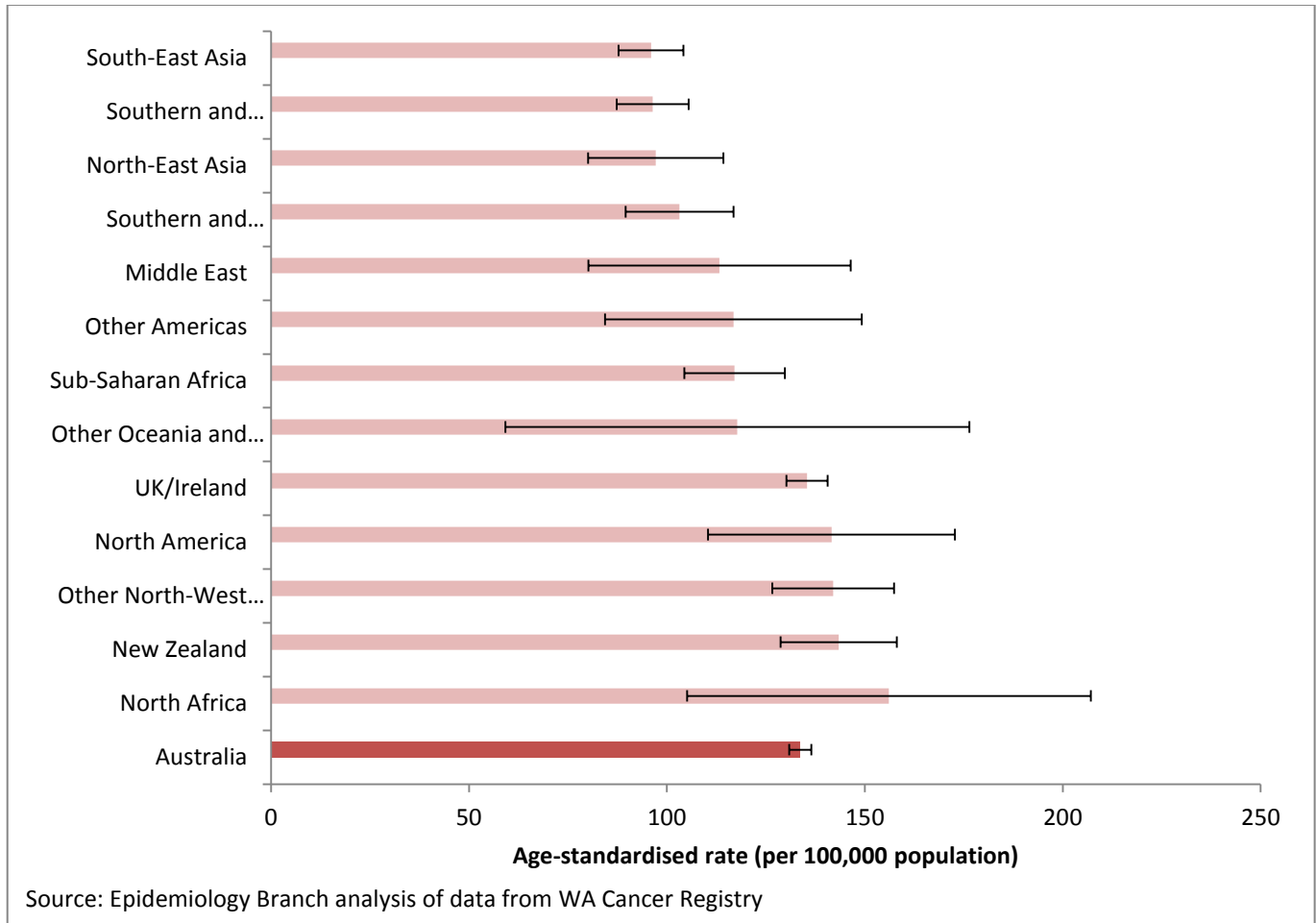


Figure 6. Rates and 95% confidence intervals of breast cancer by COB region, WA, 2007-2016

Colorectal cancer by COB region and gender

Compared with their Australian-born counterparts, females born in New Zealand experienced significantly higher rates of colorectal cancer whereas those born in other regions had similar or lower rates (Figure 7). Note that the rates for Other Oceania and Antarctica, North Africa, Middle East and Other Americas are not reliable enough to be displayed in the figure below due to the small number of cases.

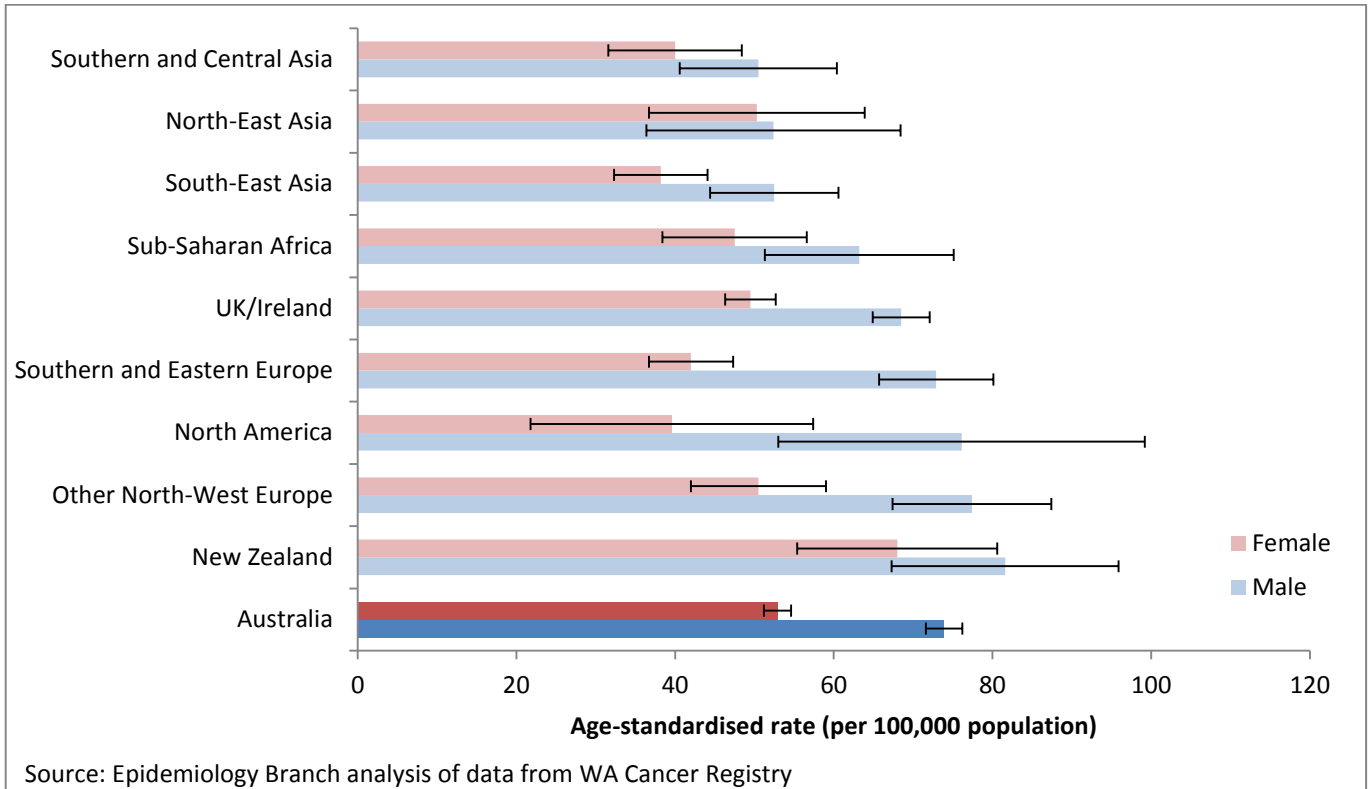


Figure 7. Rates and 95% confidence intervals of colorectal cancer by COB region and gender, WA, 2007-2016

Melanoma by COB region and gender

Compared with their Australian-born counterparts, both males and females born in other regions had significantly lower rates of melanoma (Figure 8). Note that the rates for Other Oceania and Antarctica, North Africa, Middle East, all Asian regions and Other Americas, as well as the female rates for North America, are not reliable enough to be displayed in the figure below due to the small number of cases.

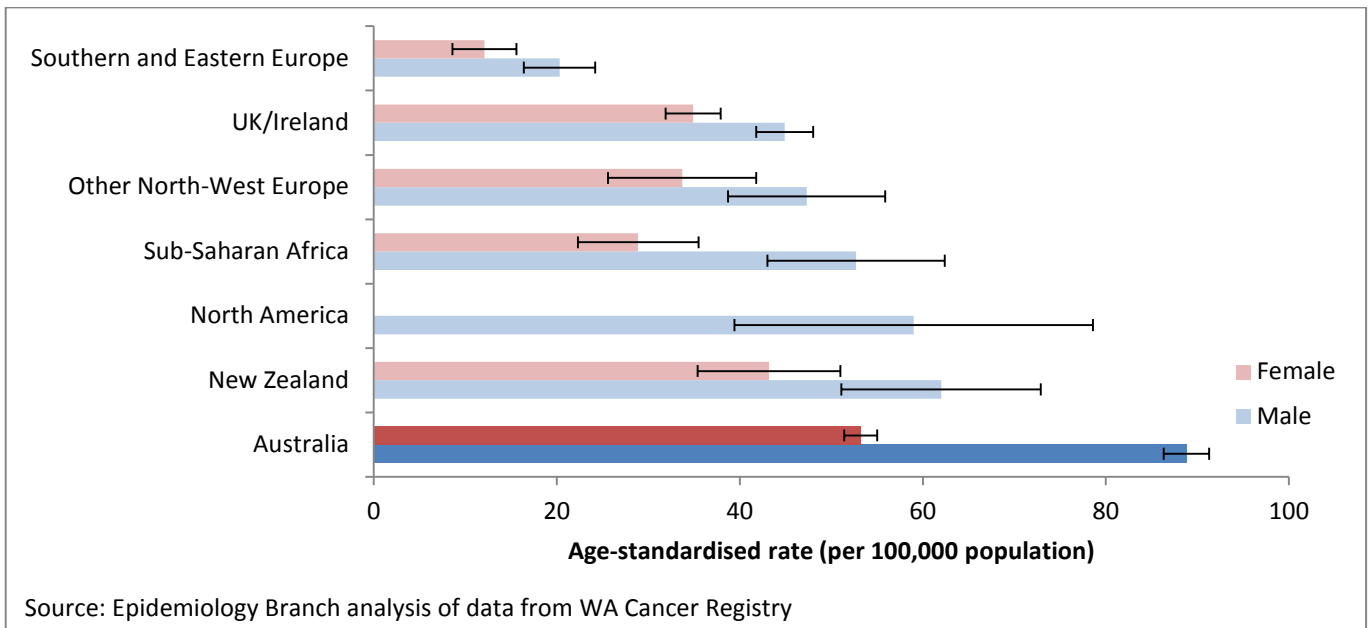


Figure 8. Rates and 95% confidence intervals of Melanoma by COB region and gender, WA, 2007-2016

Lung cancer by COB region and gender

Compared with their Australian-born counterparts, both males and females born in UK/Ireland, males born in Other North-West Europe and females born in New Zealand experienced significantly higher rates of lung cancer whereas those born in other regions had similar or lower rates (Figure 9). Note that the rates for Other Oceania and Antarctica, North Africa and Other Americas, as well as the female rates for Middle East, are not reliable enough to be displayed in the figure below due to the small number of cases.

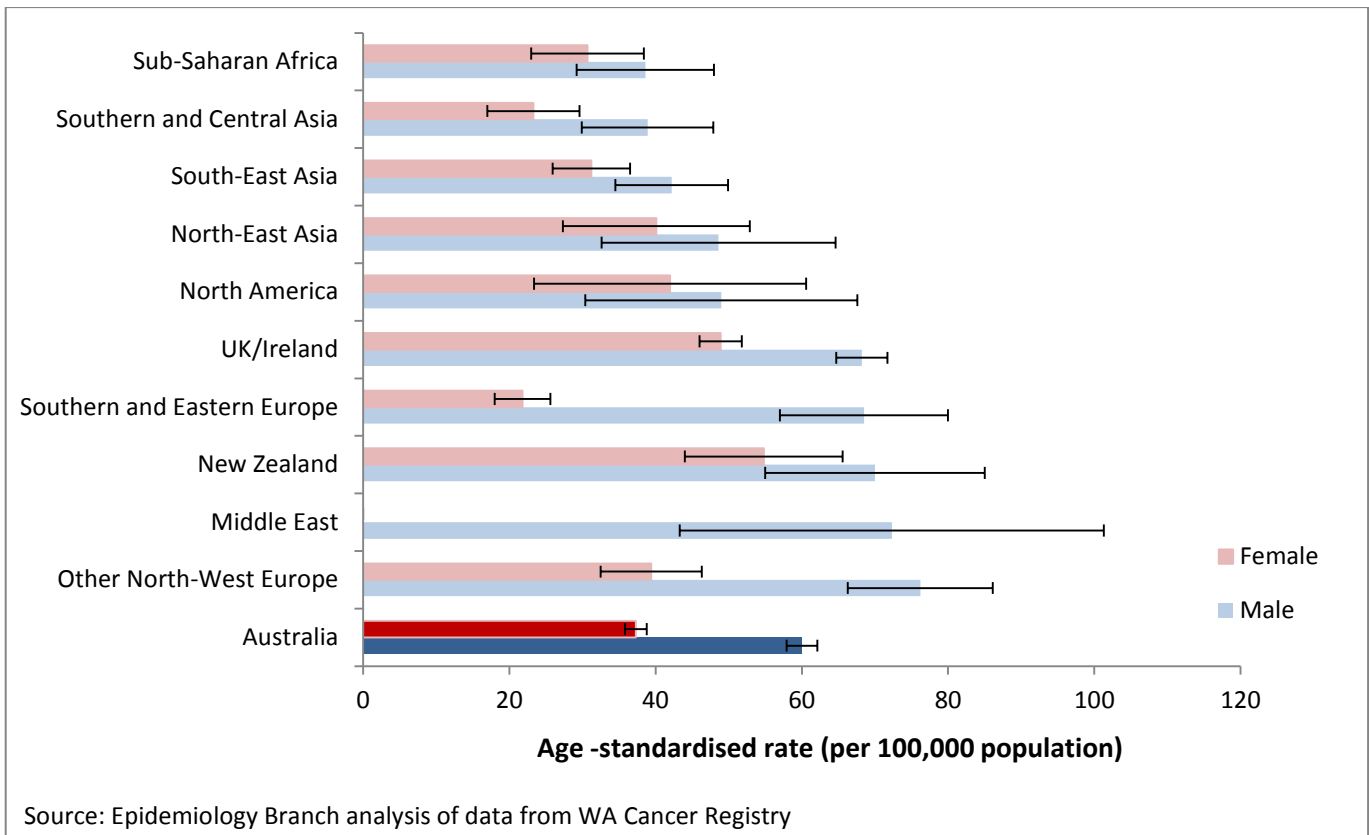


Figure 9. Rates and 95% confidence intervals of lung cancer by COB region and gender, WA, 2007-2016

References

- ABS (Australian Bureau of Statistics) (2017). 4364.0.55.002 - Health Service Usage and Health Related Actions, Australia, 2014-15. Available from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0022014-15?OpenDocument>
- 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. (2019a). 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.
- Ogunsiji, O. O., Kwok, C., & Fan, L. C. (2017). Breast cancer screening practices of African migrant women in Australia: a descriptive cross-sectional study. BMC Women's Health, 17(1), 32. doi:10.1186/s12905-017-0384-0
- OMI (Office of Multicultural Interests) (2017). Cultural and Linguistic Diversity in Western Australia (WA) - 2016 Census. Available from [https://www.omi.wa.gov.au/StatsInfoGuides/Documents/Cultural%20and%20Linguistic%20Diversity%20in%20Western%20Australia%20\(WA\)%202016%20Census.pdf](https://www.omi.wa.gov.au/StatsInfoGuides/Documents/Cultural%20and%20Linguistic%20Diversity%20in%20Western%20Australia%20(WA)%202016%20Census.pdf)
- Pasupuleti, S., Jatrana, S., & Richardson, K. (2016). Effect of nativity and duration of residence on chronic health conditions among Asian immigrants in Australia: a longitudinal investigation. Journal of Biosocial Science, 48(3), 322-341. doi:10.1017/S0021932015000206
- Phillipson, L., Pitts, L., Hall, J., & Tubaro, T. (2019). Factors contributing to low readiness and capacity of culturally diverse participants to use the Australian national bowel screening kit. Public Health Research & Practice, 29(1): e28231810. doi:10.17061/phrp28231810
- Weber, M. F., Banks, E., Smith, D. P., O'Connell, D., & Sitas, F. (2009). Cancer screening among migrants in an Australian cohort; cross-sectional analyses from the 45 and Up Study. BMC Public Health, 9, 144. doi:10.1186/1471-2458-9-144

For more information

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