



Cancer Incidence, Mortality, and Survival in Western Australia, 2020

This executive summary presents key cancer trends in Western Australia (WA) based on the most recently analysed data from 2020. All age-standardised rates (ASR) and age-specific rates (ASPR) are expressed per 100,000 population.

Cancer incidence in WA

In 2020, there were 14,324 new cancer diagnoses among WA residents. Females accounted for 43.6 per cent of diagnoses (6,244 cases), and males for 56.4 per cent (8,080 cases). Age-standardised incidence rates declined by 7.3 per cent over the past decade, from 495.2 in 2011 to 459.2 in 2020, (Figure 1). In 2020, cumulative risk estimates indicated that 1 in 4 females and 1 in 3 males were at risk of receiving a cancer diagnosis before the age of 75.

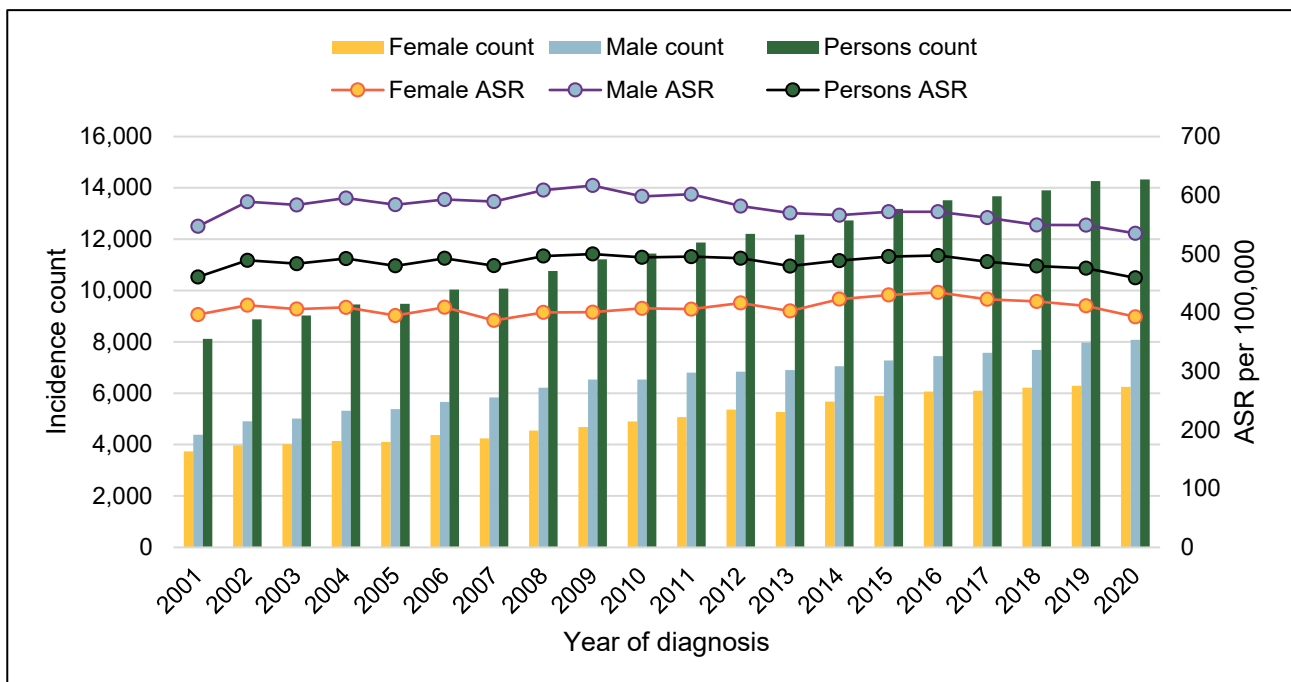


Figure 1. Incidence counts and age-standardised incidence rates (per 100,000) of all cancers by sex, WA, 2001 to 2020

Leading cancer type by incidence in WA

The cancers responsible for the highest incidence rates were prostate, breast, melanoma, colorectal, lung, and lymphoma, representing 63.1 per cent of all new cancer diagnoses (9,035 of 14,324 cases) (Figure 2).

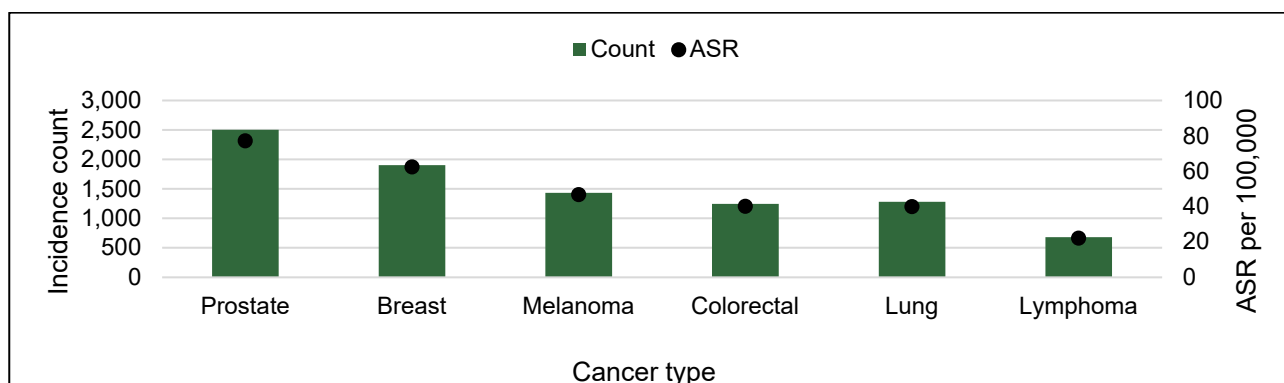


Figure 2. Leading cancer type by incidence count and age-standardised incidence rate among persons, WA, 2020

Cancer mortality in WA

There were 4,449 cancer-related deaths in WA in 2020, comprising 43.4 per cent female (1,930 cases) and 56.6 per cent (2,519 cases) male mortality. Age-standardised cancer mortality rates fell by 15.5 per cent over the past decade, from 164.8 in 2011 to 139.2 in 2020 (Figure 3). Cumulative risk of cancer-related death in 2020 was estimated at 1 in 15 for females and 1 in 11 for males.

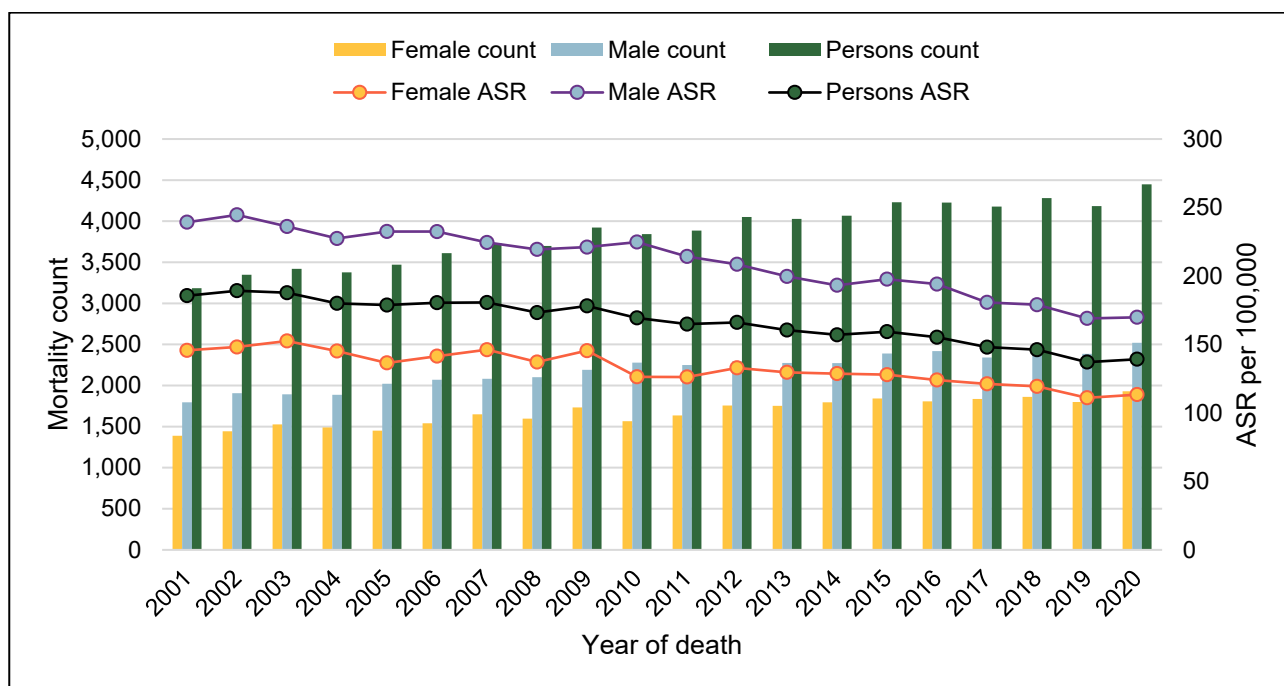


Figure 3. Mortality counts and age-standardised mortality rates (per 100,000) of all cancers by sex, WA, 2001 to 2020

Leading cancer type by mortality in WA

The cancers responsible for the highest cancer-related mortality rates were lung, colorectal, pancreas, breast, prostate, and unknown primary cancer and represented 53.2 per cent of all cancer-related mortality in 2020 (2,366 of 4,449 cases) (Figure 4).

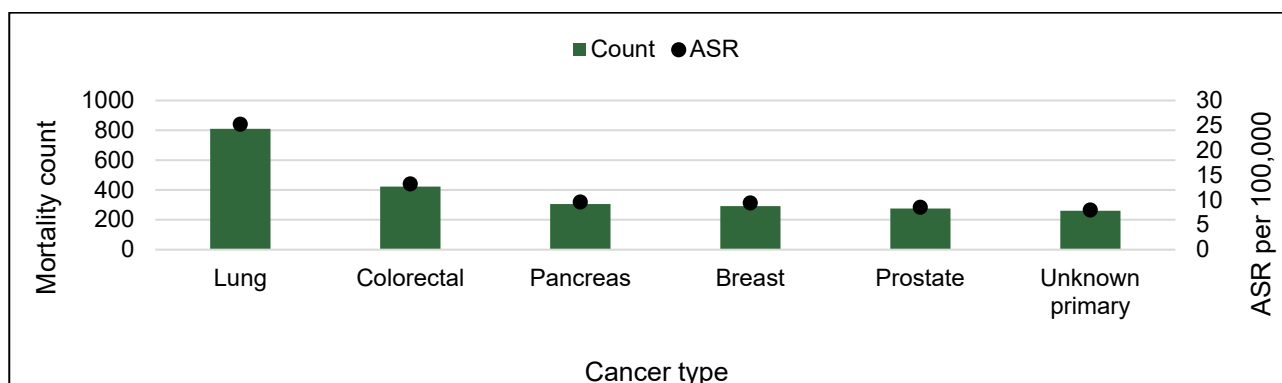


Figure 4. Leading cancer type by mortality count and age-standardised mortality rate among persons, WA, 2020

5-year relative survival of cancer in WA

Cancer survival outcomes continue to improve. Between 2016 and 2020, 72.1 per cent of people diagnosed with cancer (excluding basal cell carcinomas (BCC) and squamous cell carcinomas (SCC)) survived at least five years post-diagnosis; an increase from 69.9 per cent in the 2011-2015 period. Detailed figures are provided in Table 1.

Table 1. 5-year relative survival for 2016 – 2020 among persons.

No. Years After Diagnosis	Relative Survival (per cent)
1	84.6
2	79.0
3	75.9
4	73.7
5	72.1

Age-specific cancer rates in WA

Cancer incidence and mortality increased with age, peaking for those aged 85 years and older. In 2020, the incidence rate among adults aged 85 years and older was double the rate in those aged 60 to 64 years, and 29 times the rate of those aged 30 to 34 years. Mortality rate followed a similar pattern with adults aged 85 years and older having a mortality rate that was 7 times higher than in those aged 60 to 64 years, and 195 times the rate of those aged 30 to 34 years (Figure 5).

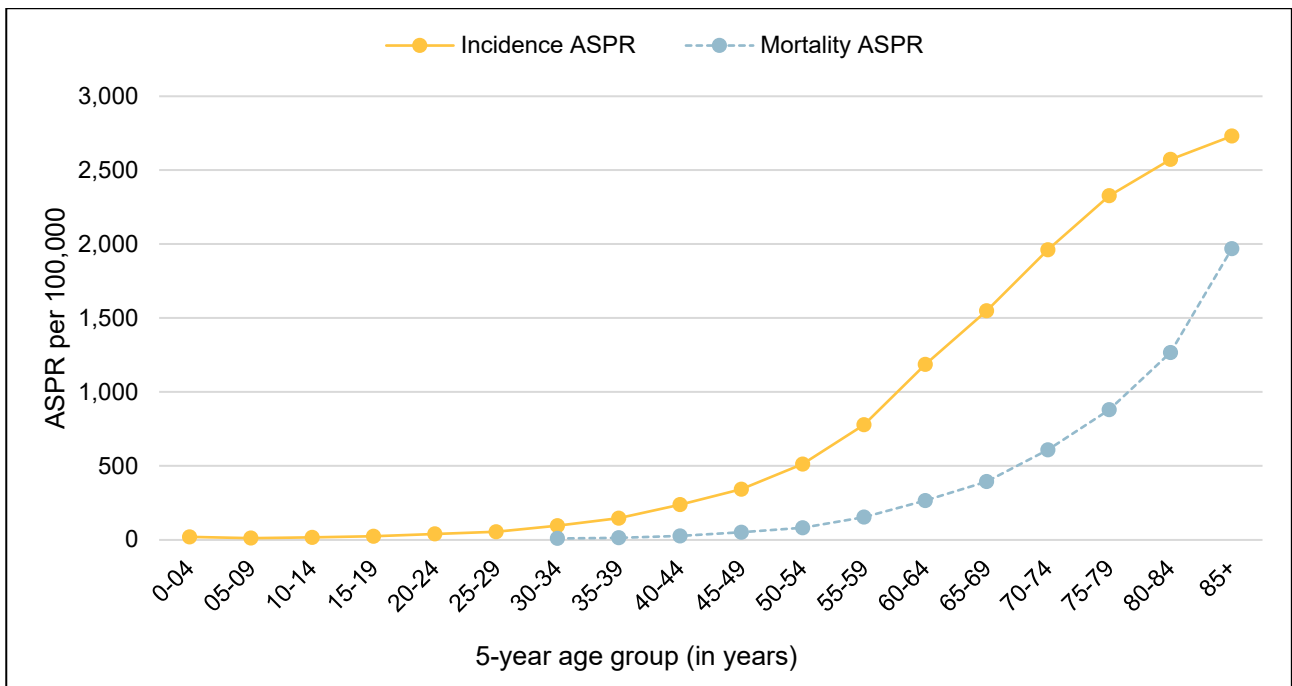


Figure 5. Age-specific incidence and mortality rates of all cancers among persons, WA, 2020

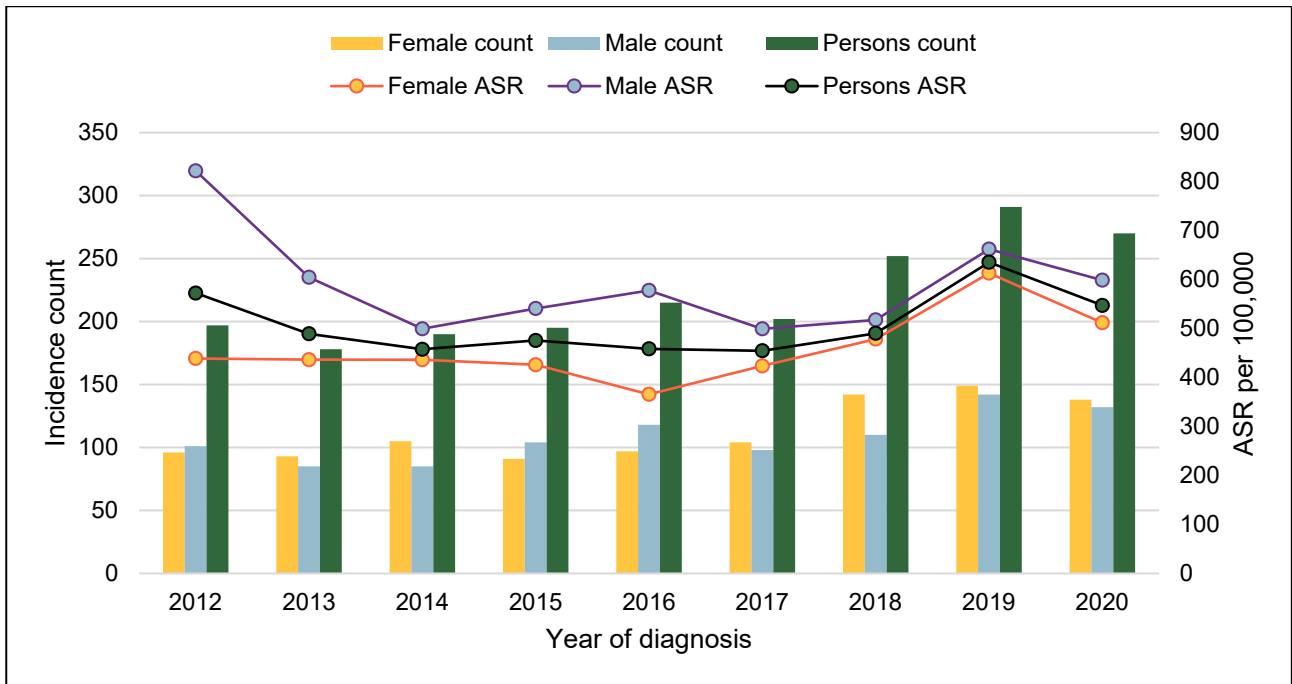
Aboriginal people in WA

Aboriginal communities in Western Australia lead culturally secure approaches to cancer care, grounded in holistic concepts of wellbeing, culture, Country and self-determination, with community-controlled services playing a central role across the cancer continuum. Cancer data for Aboriginal peoples in WA have known limitations, including under-identification and inconsistent recording, which may affect interpretation of trends and outcomes. Improving data quality requires ongoing commitment to Indigenous Data Sovereignty and genuine partnerships with communities.

Note: Reporting for Aboriginal populations are presented from 2012 onwards to align with improvements in Indigenous identification and reporting practices across health datasets in WA.

Cancer incidence in WA Aboriginal population

In 2020, there were 270 new cancer diagnoses recorded among Aboriginal people in WA. Females accounted for 51.1 per cent of diagnoses (138 cases), and males for 48.9 per cent (132 cases). The age-standardised incidence rate has decreased by 4.4 per cent, from 572.4 cases per 100,000 people in 2012 to 547.2 cases per 100,000 in 2020 (Figure 6). In 2020, cumulative risk estimates indicated that 1 in 4 Aboriginal females and 1 in 3 Aboriginal males were at risk of receiving a cancer diagnosis before the age of 75.

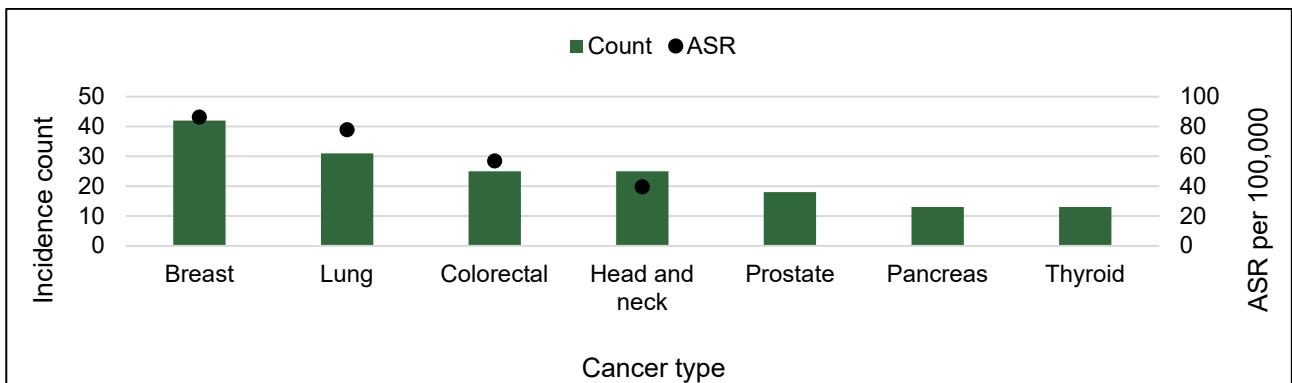


Note: These results should be interpreted with caution due to small case numbers and year-to-year fluctuations.

Figure 6. Incidence counts and age-standardised incidence rates (per 100,000) of all cancers by sex among Aboriginal people, WA, 2012 to 2020

Leading cancer type by incidence in WA Aboriginal population

The most common cancer diagnoses in 2020 were breast, lung, colorectal, head and neck, prostate, and pancreatic and thyroid cancer (both 13 cases), representing 61.9 per cent of all new cancer diagnoses (167 of 270 cases) (Figure 7).



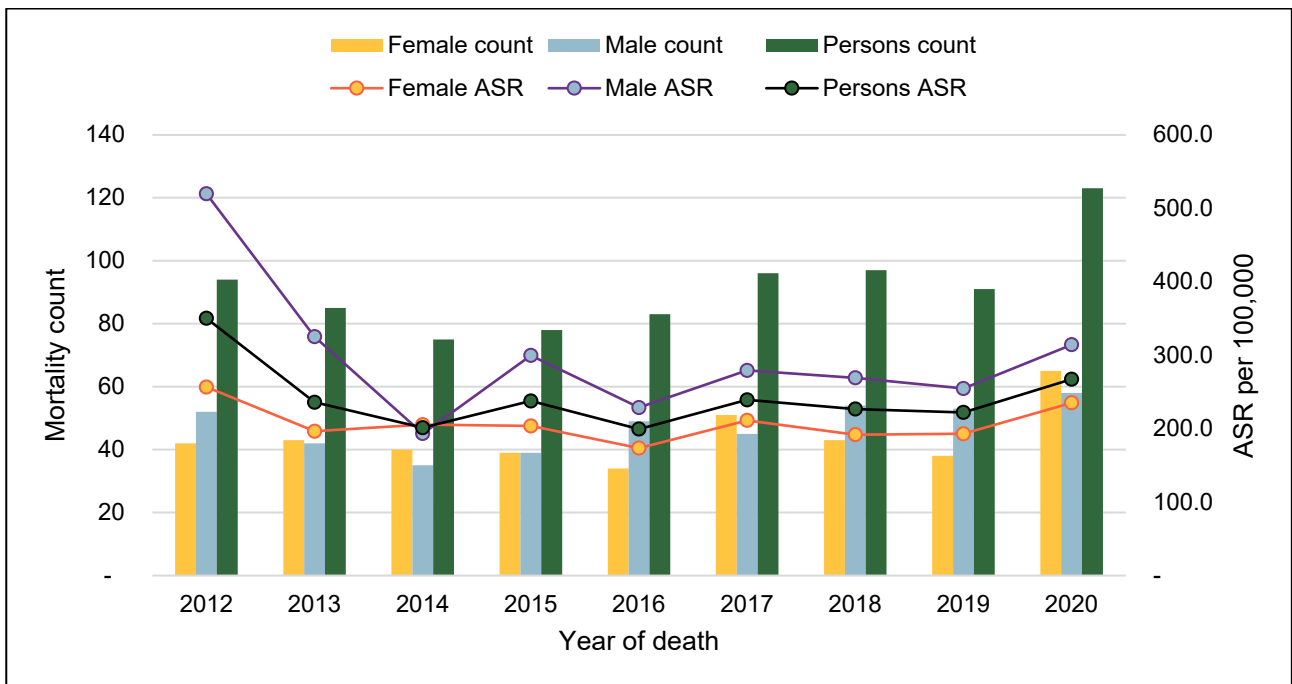
Note: These results should be interpreted with caution due to small case numbers. ASR is not calculated for incidence where counts are less than 20 due to unreliability.

Figure 7. Leading cancer type by incidence count and age-standardised incidence rate among Aboriginal persons, WA, 2020

Cancer mortality in WA Aboriginal population

In 2020, there were 123 cancer-related deaths in the Aboriginal population living in WA. Females accounted for 52.8 per cent of cancer-related deaths (65 cases), and males for

47.2 per cent (58 cases). Age-standardised mortality rates decreased by 23.7 per cent, from 350.1 in 2012 to 267.2 in 2020 (Figure 8). Cumulative risk estimates in 2020 indicated that 1 in 7 Aboriginal females and 1 in 7 Aboriginal males were at risk of dying from cancer before the age of 75.

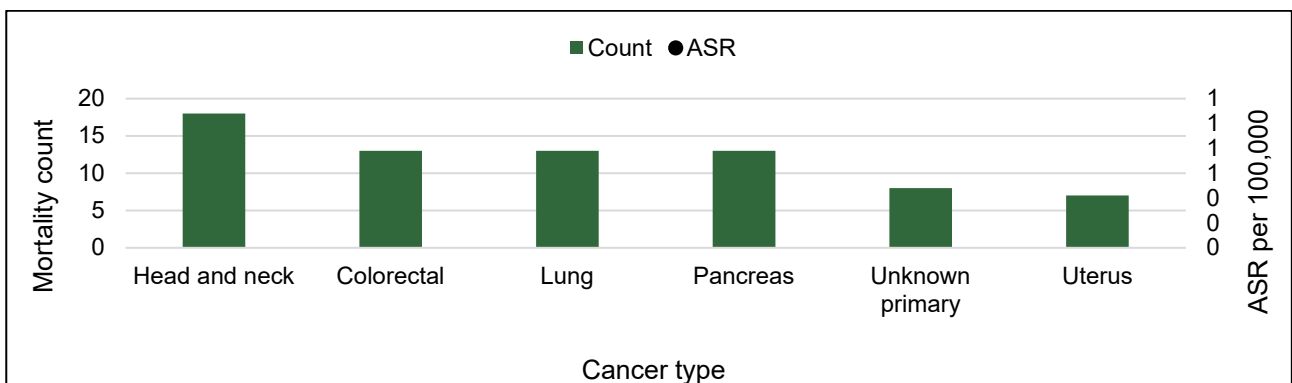


Note: These results should be interpreted with caution due to small case numbers and year-to-year fluctuations.

Figure 8. Mortality counts and age-standardised mortality rates (per 100,000) of all cancers by sex among Aboriginal people, WA, 2012 to 2020

Leading cancer type by mortality in WA Aboriginal population

The cancers responsible for the highest cancer-related mortality rate within the Aboriginal population were head and neck, colorectal, lung, pancreatic, unknown primary, and uterine cancer, representing for 58.5 per cent of cancer-related mortality in 2020 (72 of 123 cases) (Figure 9).

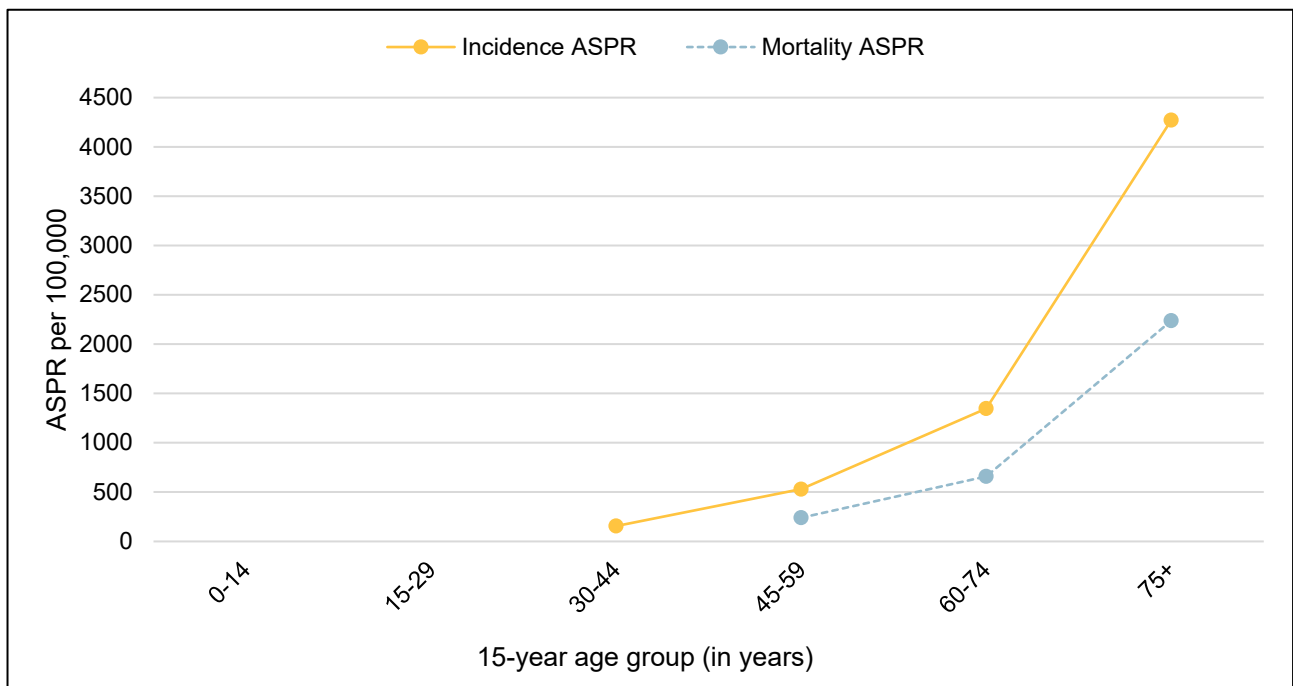


Note: These results should be interpreted with caution due to small case numbers. ASR is not calculated for mortality where counts are less than 20 due to unreliability.

Figure 9. Leading cancer type by mortality count and age-standardised mortality rate among Aboriginal persons, WA, 2020

Age-specific cancer rates in WA Aboriginal population

Cancer incidence and mortality increased with age, peaking in those aged 75 years and older. In 2020, the incidence rate among adults aged 75 and older was 3 times higher than the rate for those aged 60 to 74 years, 8 times higher than those aged 45 to 59 years, and 27 times higher than those aged 30 to 44 years. Mortality rate followed a similar pattern. In 2020, the mortality rate among adults aged 75 and older was 3 times higher than the rate for those aged 60 to 74 years, and 9 times higher than those aged 45 to 59 years (Figure 10).



Note: These results should be interpreted with caution due to small case numbers. ASPR is not calculated where counts are less than 20 due to unreliability.

Figure 10. Age-specific incidence and mortality rates (ASPR) of all cancers among Aboriginal persons, WA, 2020



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A report of the Western Australian Cancer Registry

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