



**Australian Government**  
**Cancer Australia**

**Report to the nation:  
Cancer in Aboriginal and  
Torres Strait Islander  
peoples of Australia  
2013**





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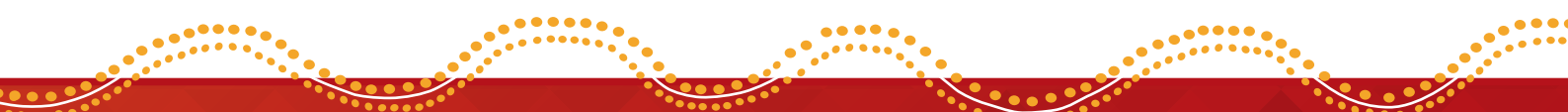
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# Cancer in Aboriginal and Torres Strait Islander peoples of Australia\*

This document provides a summary of cancer statistics across a number of States and Territories in Australia for Aboriginal and Torres Strait Islander peoples. This information is taken from the Australian Institute of Health and Welfare and Cancer Australia report *Cancer in Aboriginal and Torres Strait Islander peoples of Australia: an overview*.<sup>1</sup> All data, including data presented in graphs, are from this report unless otherwise specified.

## About Cancer Australia

Cancer Australia was established by the Australian Government in 2006 to provide national leadership in cancer control to improve outcomes for Australians affected by cancer, their families and carers.

Cancer Australia works to reduce the impact of cancer and improve the wellbeing of those diagnosed with cancer through improvements in both the quality of care people receive and their quality of life after diagnosis.

## Acknowledgement of Country and cultural diversity

Cancer Australia acknowledges the traditional owners of country throughout Australia, and their continuing connection to land, sea and community. We pay our respects to them and their cultures, and to elders both past and present.

Cancer Australia recognises that 'Aboriginal and Torres Strait Islander peoples' is the preferred term for referring to Aboriginal peoples and Torres Strait Islanders collectively. The term Aboriginal and Torres Strait Islander peoples recognises the distinct cultures, languages and homelands of Australia's Indigenous communities.

In this document 'Indigenous Australians' is used in place of 'Aboriginal and Torres Strait Islander peoples' when presenting information in tables or graphs or comparing cancer statistics with other groups such as non-Indigenous Australians so that the key information provided in the document is clearly presented.

In this document 'Indigenous Australians' refers to Aboriginal and Torres Strait Islander peoples from Australia, and does not include indigenous people from other countries.

Information from the 2011 Census suggests that 3% of the Australian population identified as being of Aboriginal and/or Torres Strait Islander origin.

\* Due to data availability, information in this document is shown for certain States and Territories. The relevant States/Territories are shown in the graphs and further information is in the "Which statistics are used in this report" section.

# Cancer in Aboriginal and Torres Strait Islander peoples: did you know?

## Cancer incidence in 2004-2008:

- 3,875 Aboriginal and Torres Strait Islander people were diagnosed with cancer (1,931 males and 1,944 females), representing 1.1% of all cancers diagnosed in Australia during this time.
- On average, around two Aboriginal and Torres Strait Islander Australians were diagnosed with cancer every day.
- The most commonly diagnosed cancers for Aboriginal and Torres Strait Islander Australians were lung cancer, followed by breast cancer (in females), bowel cancer, prostate cancer and cancer of unknown primary site.
- For all cancers combined, incidence was around 10% higher for Indigenous Australians than non-Indigenous Australians.

## Cancer mortality in 2007-2011:

- 2,197 Aboriginal and Torres Strait Islander people died from cancer (1,137 males and 1,060 females), representing 1.5% of all cancer deaths in Australia during this time.
- On average, one Aboriginal and Torres Strait Islander Australian died from cancer every day.
- The most common cause of cancer deaths in Aboriginal and Torres Strait Islander Australians was lung cancer, followed by liver cancer, breast cancer (in females), cancer of unknown primary site and bowel cancer.
- For all cancers combined, mortality was around 50% higher for Indigenous Australians compared with non-Indigenous Australians.

## Cancer survival in 1999-2007:

- Five-year survival for all cancers combined was 40% for Indigenous Australians which was lower than for non-Indigenous Australians at 52%.

## Cancer risk factors

Having certain risk factors increases the chance of developing cancer, but does not mean an individual will definitely develop cancer. Some of the risk factors for cancer are beyond individual control but there are some factors which can be modified. Aboriginal and Torres Strait Islander peoples in Australia have high rates of certain lifestyle risk factors, including tobacco smoking, higher alcohol consumption, poor diet, low levels of physical activity, poor Pap test coverage and high levels of Hepatitis B infection.<sup>2,3</sup> The high prevalence of these risk factors may contribute to the patterns of cancer incidence and mortality rates in this population group.<sup>3</sup>

# Incidence

## For Aboriginal and Torres Strait Islander peoples in 2004–2008 (in NSW, Qld, WA and NT):

- 3,875 new cancer cases were diagnosed (1.1% of all new cancers in these States and Territories).
- Although the number of new cancers diagnosed was similar between males (1,931) and females (1,944), when adjusted for the age structure of the population, the incidence rate was 40% higher for males than females.
- The number of new cancers diagnosed was highest in those aged 55–64 years.

The ten most commonly diagnosed cancers in Aboriginal and Torres Strait Islander peoples were lung cancer, breast (in females) cancer, bowel and prostate cancers, cancer of unknown primary site, non-Hodgkin lymphoma, cervical, uterine, liver and pancreatic cancers.

- Breast cancer (in females) was the most common cancer for those aged less than 55 years, accounting for 14% of all cancers diagnosed in this age group.
- Lung cancer was the most common cancer for those aged 55 years and over, accounting for 20% of all cancers diagnosed in this age group.

## How did cancer incidence compare between Indigenous and non-Indigenous Australians during this time?

- The incidence rate of cancer in Indigenous Australians was around 10% higher than for non-Indigenous Australians.
- Incidence was around 10% higher for Indigenous females compared with non-Indigenous females.
- A greater proportion of cancer cases were diagnosed in Indigenous Australians under 55 years of age (41%) compared with only 20% of cases for non-Indigenous Australians in this age group.

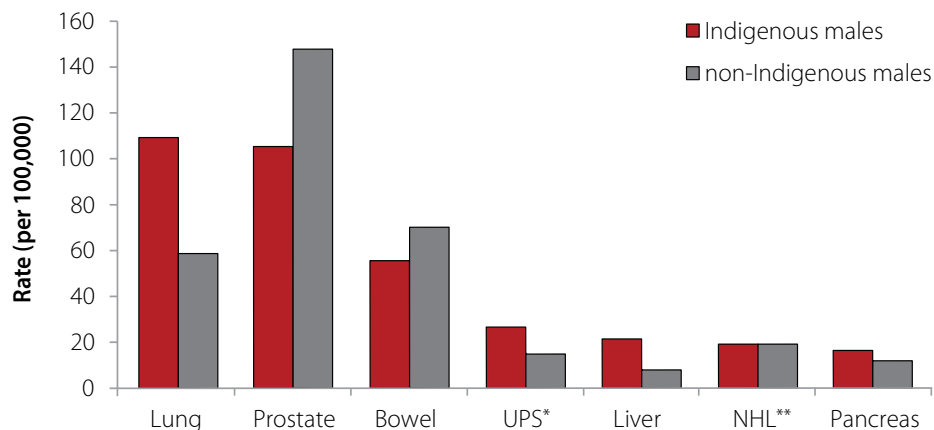
### **Compared with non-Indigenous Australians, Indigenous Australians were:**

- ▶ around three times as likely to develop liver and cervical cancer
- ▶ around twice as likely to develop lung cancer and cancer of unknown primary site

Indigenous Australians were also more likely to develop cancers of the uterus and pancreas, but less likely to develop cancers of the breast (in females), bowel and prostate.

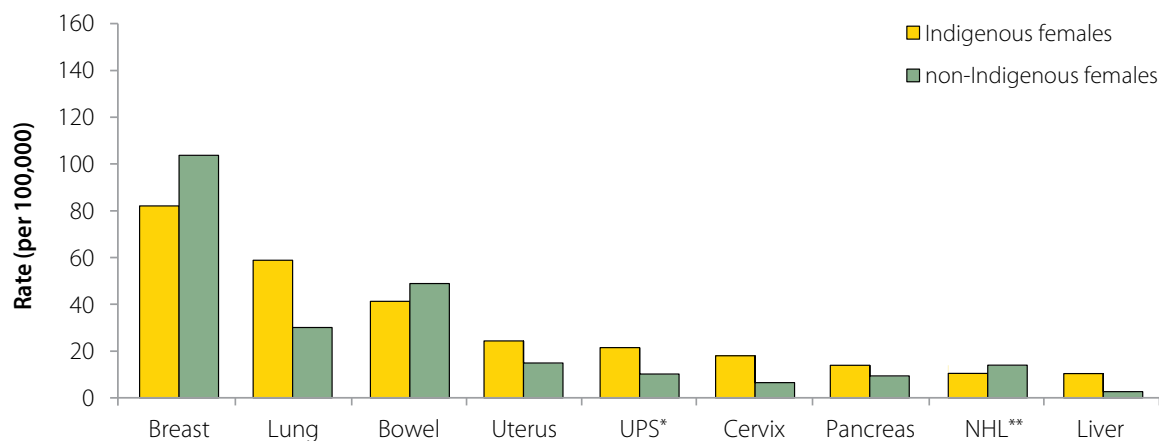


### What were the most commonly diagnosed cancers in Aboriginal and Torres Strait Islander males in 2004-2008 (in NSW, Qld, WA and NT)?



The three most common cancers for Aboriginal and Torres Strait Islander males were lung (18%), prostate (15%) and bowel (10%) cancers.

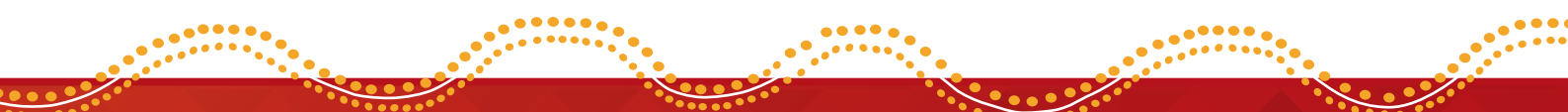
### What were the most commonly diagnosed cancers in Aboriginal and Torres Strait Islander females in 2004-2008 (in NSW, Qld, WA and NT)?



The three most common cancers for Aboriginal and Torres Strait Islander females were breast (in females) (23%), lung (14%) and bowel (8%) cancers.

\* Cancer of unknown primary site (UPS)

\*\* Non-Hodgkin lymphoma (NHL)



## Mortality

### For Aboriginal and Torres Strait Islander peoples in 2007-2011 (in NSW, Qld, WA, SA and NT):

- 2,197 cancer deaths occurred (1.5% of all cancer deaths in these States and Territories).
- Although the number of deaths was similar between males (1,137) and females (1,060), when adjusted for the structure of the population, the mortality rate was 40% higher for males than females.
- Mortality increased with age and was highest in those aged 75 years and over.

The ten most common types of cancer leading to deaths in Aboriginal and Torres Strait Islander peoples were lung, liver, breast (in females), cancer of unknown primary site, bowel, pancreatic, oesophageal, prostate, stomach and cervical cancers.

For Indigenous Australians, lung cancer was the most common cause of cancer death across all age groups.

### How did mortality from cancer compare between Indigenous and non-Indigenous Australians during this time?

- Indigenous Australians were 50% more likely to die from cancer than non-Indigenous Australians.
- Mortality rates were 40% higher for Indigenous males and 60% higher for Indigenous females compared with non-Indigenous males and females respectively.
- More cancer deaths occurred in Indigenous Australians younger than 55 years (29%) compared with non-Indigenous Australians (10%) in the same age group.

Overall, the most common cause of cancer death for both Indigenous and non-Indigenous Australians was lung cancer (25% and 19%).

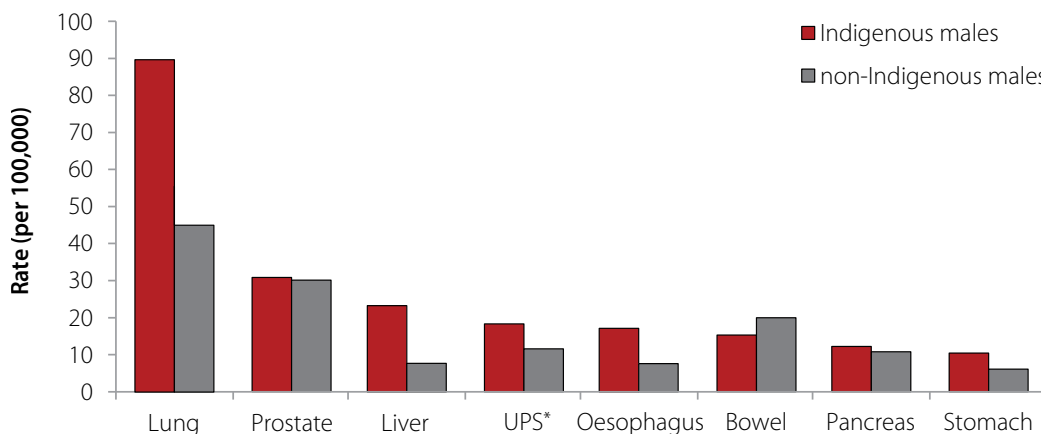
#### Compared with non-Indigenous Australians, Indigenous Australians were:

- ▶ almost four times as likely to die from cervical cancer
- ▶ more than three times as likely to die from liver cancer
- ▶ more than twice as likely to die from oesophageal cancer

Indigenous Australians were also more likely to die from cancers of the lung, breast (in females), stomach, unknown primary site and pancreas than non-Indigenous Australians.

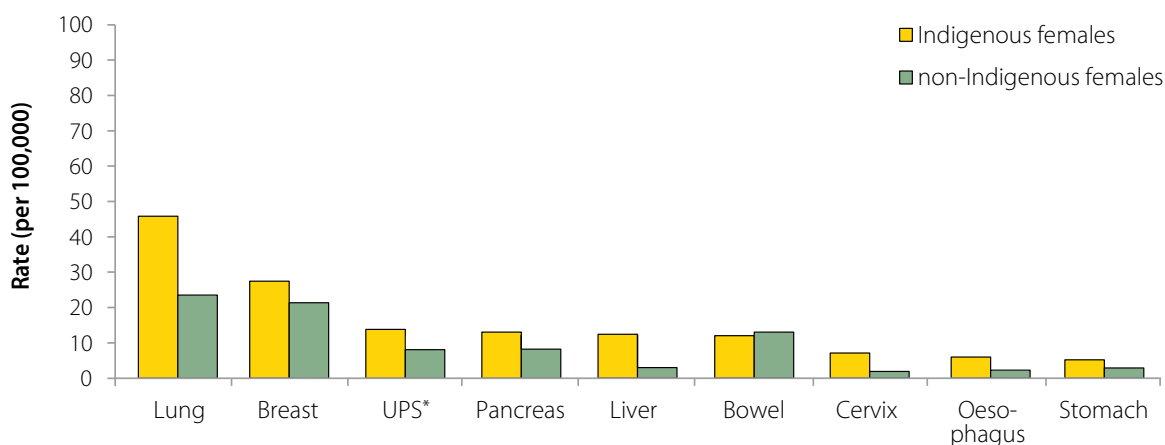


### What were the most common causes of cancer death in Aboriginal and Torres Strait Islander males in 2007-2011 (in NSW, Qld, WA, SA and NT)?



The three most common types of cancer leading to death for Aboriginal and Torres Strait Islander males were lung (27%), liver (8%) and oesophageal cancers (6%).

### What were the most common causes of cancer death in Aboriginal and Torres Strait Islander females in 2007-2011 (in NSW, Qld, WA, SA and NT)?



The three most common types of cancer leading to death for Aboriginal and Torres Strait Islander females were lung (22%), breast (in females) (13%) and cancer of unknown primary site (6%).

\* Cancer of unknown primary site (UPS)





## Survival

**Five-year crude survival for all cancers combined in Aboriginal and Torres Strait Islander peoples 1999-2007 (in NSW, Qld, WA and NT).**



**For Aboriginal and Torres Strait Islander peoples in 1999-2007 (in NSW, Qld, WA and NT):**

- 40 out of 100 Aboriginal and Torres Strait Islander people survive five years after being diagnosed with cancer.
- Five-year survival was higher for Aboriginal and Torres Strait Islander females than males (46% compared with 34%).

**How did survival from cancer compare between Indigenous and non-Indigenous Australians during this time?**

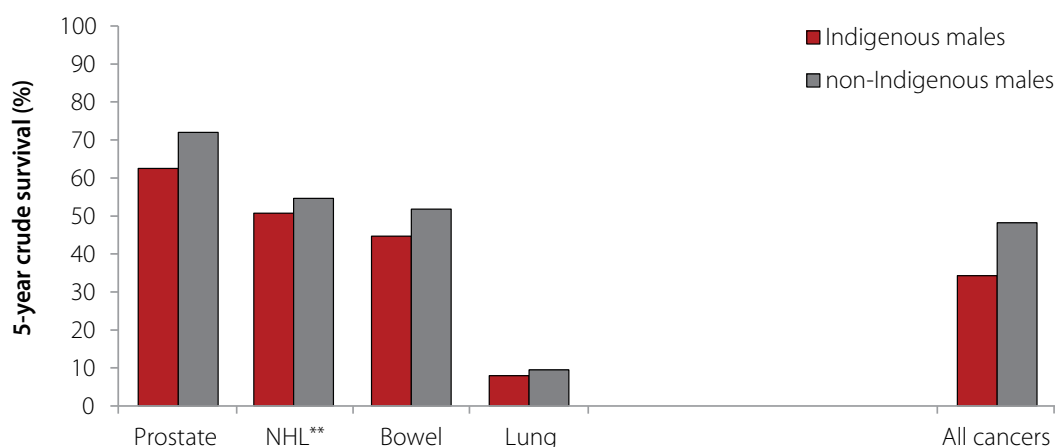
- Indigenous Australians were less likely to survive 5 years after a cancer diagnosis (40%) than non-Indigenous Australians (52%).
- Indigenous males diagnosed with cancer had lower five-year survival than non-Indigenous males (34% compared with 48%).
- Indigenous females diagnosed with cancer had lower five-year survival than non-Indigenous females (46% compared with 56%).
- For both Indigenous and non-Indigenous Australians five-year survival from cancer tended to decrease with increasing age.
- However, Indigenous Australians had lower five-year survival than non-Indigenous Australians for all age groups.



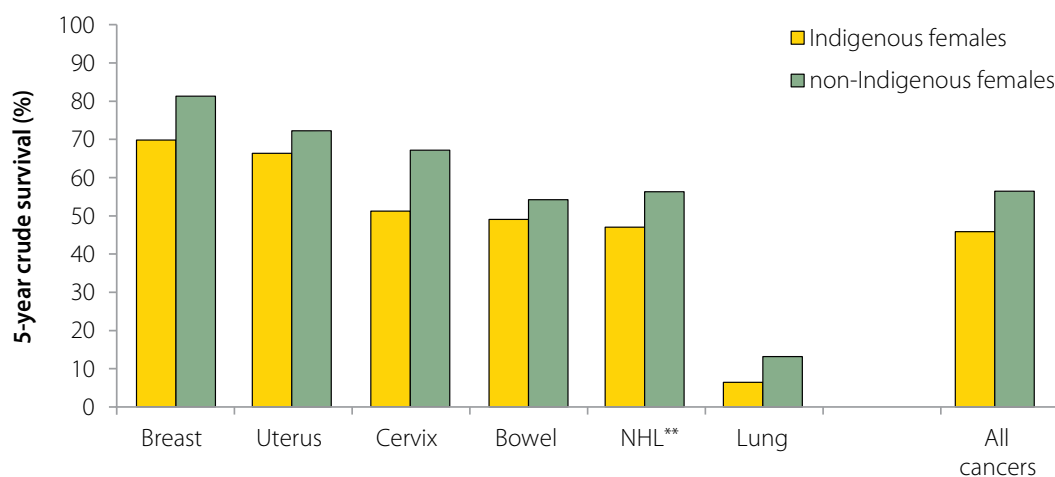
**Compared with non-Indigenous Australians, five-year survival for Indigenous Australians was significantly lower for cancers of the:**

- lung (7% compared with 11%)
- breast (in females) (70% compared with 81%)
- bowel (47% compared with 53%)
- prostate (63% compared with 72%)
- cervix (51% compared with 67%).

**What proportion of Aboriginal and Torres Strait Islander males who were diagnosed with cancer in 1999-2007 survived for at least 5 years (in NSW, Qld, WA and NT)\*?**



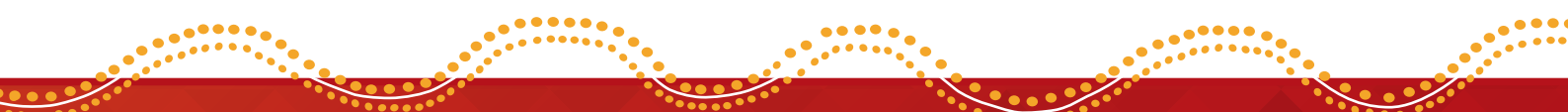
**What proportion of Aboriginal and Torres Strait Islander females who were diagnosed with cancer in 1999-2007 survived for at least 5 years (in NSW, Qld, WA and NT)\*?**



- Five year survival for lung cancer was similar between Indigenous and non-Indigenous males, however, lung cancer survival for Indigenous females was 50% lower than non-Indigenous females (i.e. 7% compared with 13%).

\* Crude five-year survival is presented for the top cancers. Rates for liver and pancreatic cancers and cancer of unknown primary site (UPS) are not presented due to small numbers.

\*\* Non-Hodgkin lymphoma (NHL).





## Burden of disease

One way to measure how much of an impact a disease has on a population is to use burden of disease. Burden of disease combines information about people who die earlier than would be expected (the number of years of life lost due to disease) and the number of healthy years of life lost due to disability or injury from disease.

In 2003 in Australia:<sup>1,4</sup>

- Lung cancer was responsible for the greatest burden of cancer-related disease in Aboriginal and Torres Strait Islander peoples.
- Aboriginal and Torres Strait Islander females experienced a greater proportion of cancer burden compared with their male counterparts (54% compared with 46%).
- Burden due to cancer in the Indigenous population was 70% higher than that of the total Australian population.
- For all cancers combined, 94% of the burden of disease was due to premature death for Aboriginal and Torres Strait Islander peoples.

## Expenditure

In the 2010–11 financial year:

- The expenditure on cancer-related hospitalisations for all cancers in Indigenous peoples was estimated to be \$58 million, accounting for around 1.4% of the total hospital expenditure on cancers in Australia. However when the smaller population size was considered, hospital expenditure per person was 50% lower for Indigenous Australians than non-Indigenous Australians for all cancers.

## Hospitalisations

Between 2006-07 and 2010-11:

- The ten most common cancers recorded as the primary reason for hospitalisation in Aboriginal and Torres Strait Islander peoples accounted for 57% of all cancer hospitalisations for this population group.
- Indigenous Australians were 50% less likely to be hospitalised for cancer than other Australians.
- When the main reason for hospitalisation was cancer, Indigenous Australians spent on average 9.6 days in hospital, compared with an average of 7.7 days for other Australians.
- 48% of hospitalisations due to cancer occurred in Indigenous Australians aged less than 55 years, compared with 21% of hospitalisations for other Australians in this age group.



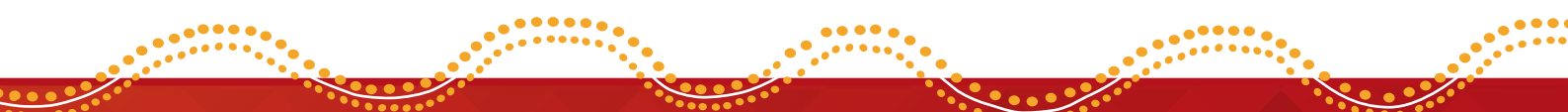
## Do cancer rates differ by area of remoteness?

### Incidence

- Incidence for all cancers among Indigenous Australians, was highest for those living in *Outer regional* areas, which was 16% higher than that for Indigenous Australians living in *Remote and very remote* areas.
- Incidence for all cancers was 17% higher for Indigenous Australians living in *Outer regional* areas compared with non-Indigenous Australians.
- Incidence was higher for Indigenous Australians compared to non-Indigenous Australians for cancers of the lung and cervix in all remoteness areas.
- Incidence for prostate cancer was lower in Indigenous Australians than non-Indigenous Australians across all remoteness areas.

### Survival

- Five-year survival for Indigenous Australians living in *Major cities* (49%), *Inner regional* (45%), *Outer regional* (36%) and *Remote and very remote* (32%) areas were all lower compared to non-Indigenous Australians (53%, 51%, 49% and 54%, respectively).
- Survival decreased as remoteness increased for Indigenous Australians which widened the difference in survival between Indigenous and non-Indigenous Australians.
- Survival for breast cancer in Indigenous females was lower in all remoteness areas (except for the *Major cities*) compared to non-Indigenous females.
- Survival for Indigenous Australians was lower than non-Indigenous Australians in *Remote and very remote* areas for non-Hodgkin lymphoma, prostate, cervical and bowel cancers.





## Cancer Australia initiatives for Aboriginal and Torres Strait Islander peoples

A key focus area for Cancer Australia is populations who experience poorer health outcomes, including Aboriginal and Torres Strait Islander peoples and people living in rural and remote Australia. Cancer Australia has several programs aimed at improving cancer outcomes for Aboriginal and Torres Strait Islander peoples through:

- Raising awareness of risk factors and delivering key cancer messages.
- Developing evidence-based information and resources for community and health professionals.
- Providing training for Aboriginal and Torres Strait Islander Health Workers and developing training resources.
- Increasing understanding of barriers to care and support.
- Encouraging and funding research.

Cancer Australia will continue to work to improve cancer outcomes for Aboriginal and Torres Strait Islander peoples. This work will continue to be built on a successful model of engagement with Aboriginal and Torres Strait Islander peoples and communities to:

- Improve knowledge within the community to act on cancer risk and symptoms.
- Improve capacity of Aboriginal and Torres Strait Islander Health Workers to provide cancer care and support to their communities.
- Improve system responsiveness to cultural needs.
- Improve our knowledge through targeted priority research.
- Improve our understanding of gaps through data monitoring.

In looking to support cancer research in identified priority areas, Cancer Australia has a dedicated budget which it administers through its national grant scheme the Priority-driven Collaborative Cancer Research Scheme. Within its priorities for this scheme, Cancer Australia encourages applications for research projects which focus on populations with poorer outcomes including Aboriginal and Torres Strait Islander peoples.

# Which statistics are used in this report?

## Incidence and mortality

Incidence refers to the actual number of new cancer cases. However, the total number of people in the population may change over time (e.g. from year to year) or may have a different size or structure, so to compare changes in the number of new cancer cases over time (or between different groups) we calculate the “incidence rate”. The “incidence rate” is calculated by taking the number of new cancers cases diagnosed, and dividing by the number of people in the population who could develop this cancer during a particular period. Similarly, the actual number of deaths (known as mortality) can also be shown as a “mortality rate”. Incidence and mortality rates presented in this document are “age-standardised” which means that the age distribution of the population is also considered. Therefore, any differences we see in these rates are not due to differences in the age distributions of the populations being compared.

## Survival

Survival rates provide information on the likelihood that a person will still be alive at a specified point in time (e.g. five years) following a diagnosis of cancer. Crude survival is the proportion of individuals alive at a specified point in time after a diagnosis of cancer.

## Data quality/availability

Reliable data on the incidence and mortality for cancers for Indigenous Australians are available for some States/ Territories but are not available nationally as this is dependent upon the ability to provide accurate information on those Australians who identify as members of this population group in key administrative data sets (also known as “Indigenous status”). In this report, incidence and survival data by Indigenous status are presented for four jurisdictions (NSW, Qld, WA and the NT), mortality data are presented for five jurisdictions (NSW, Qld, WA, SA and the NT) and hospitals data are presented for six jurisdictions (NSW, Vic, Qld, WA, SA and public hospitals in the NT).

Comparisons throughout the report are largely made with the “non-Indigenous Australians” population group. When comparisons are made with “other Australians”, this also includes those Australians where Indigenous status is unknown.

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