3.4 Cancer

Cancer is a diverse group of several hundred diseases where some of the body's cells become abnormal and begin to multiply out of control. In 2011, cancer (as a disease group) was the greatest cause of disease burden in Australia, accounting for around one-fifth (19%) of the total disease burden.

Cancer is a notifiable disease in all Australian states and territories. The Australian Cancer Database holds data on all new cases of cancer diagnosed in Australia since 1 January 1982. Common non-melanoma skin cancers, including basal cell carcinoma and squamous cell carcinoma are not reportable to cancer registries. So, incidence and survival data presented for all cancers combined do not include these cancers.

This snapshot presents cancer incidence and mortality estimates for 2018. The estimates are a mathematical extrapolation of past trends.

How common is cancer?

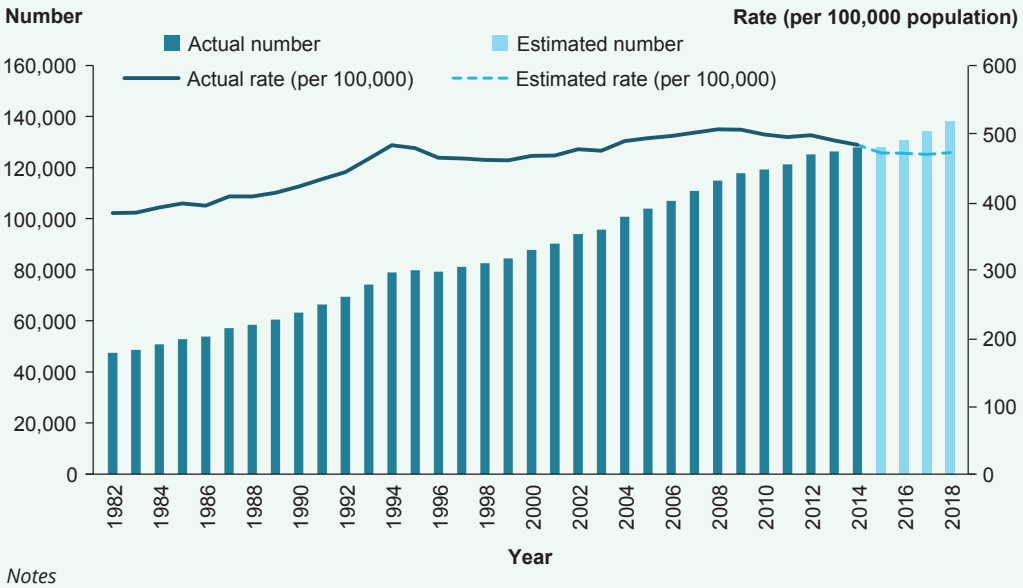
Incidence

In 2018, it is estimated that:

- about 138,300 new cases of cancer will be diagnosed in Australia, an average of about 380 people every day—more than half (54%) of these cases will be diagnosed in males
- the risk of being diagnosed with any cancer before the age of 85 will be 1 in 2 for males and females
- the most commonly diagnosed cancers in males will be prostate cancer (17,700 cases), colorectal cancer (9,300), melanoma of the skin (8,700) and lung cancer (7,200)
- the most commonly diagnosed cancers in females will be breast cancer (18,100 cases), colorectal cancer (7,700), melanoma of the skin (5,700) and lung cancer (5,500).

The age-standardised incidence rate of all cancers combined rose from 383 per 100,000 population in 1982 to a peak of 504 per 100,000 in 2008, before decreasing to 484 per 100,000 in 2014. It is projected to continue to fall to 472 per 100,000 in 2018 (Figure 3.4.1). The increasing trend to 2008 was largely due to a rise in the number of diagnosed prostate cancers in males and breast cancers in females. This trend may have been the result of increased formal and informal population screening, and improvements in technologies and techniques used to identify and diagnose cancer.

Figure 3.4.1: Trends in incidence of all cancers combined, 1982–2018



Notes

1. Cancers coded in the International Statistical Classification of Diseases and Related Health Problems, tenth revision (ICD-10) as C00-C97, D45, D46, D47.1 and D47.3, except those C44 codes that indicate basal or squamous cell carcinoma of the skin.
2. The 2015–2018 estimates presented in blue bars and the blue dotted line are based on 2002–2013 incidence data.
3. The rates were age standardised to the Australian population as at 30 June 2001 and are expressed per 100,000 population.

Source: Australian Cancer Database 2014; Table S3.4.1.

Cancer incidence by stage at diagnosis

In 2015, the AIHW, Cancer Australia and state and territory cancer registries committed to work together to produce national population-level data on incidence by cancer stage at diagnosis for the first time for breast, prostate, colorectal and lung cancers and melanoma of the skin. These cancers were selected as they account for the most number of cancers diagnosed. Cancers can be assigned a 'stage' that reflects the seriousness of the disease. Stages range from 1 (best prognosis) to 4 (worst prognosis).

Collection and analysis of cancer staging data will enhance understanding of the variability in the cancer stage at the time of diagnosis and how this relates to treatments received and to survival rates.

In 2011:

- most cancers were diagnosed at stage 1, with melanoma of the skin having the highest percentage diagnosed at stage 1 (78%)
- 12% of people diagnosed with 1 of the 5 most commonly diagnosed cancers presented with a stage 4 cancer—stage 4 cancer accounted for 42% of lung cancers diagnosed, which was the highest percentage of the 5 most common cancers
- the percentage of Aboriginal and Torres Strait Islander people who were diagnosed with stage 4 cancer was generally higher than for non-Indigenous Australians (except for prostate cancer).

Impact

Survival

Information on survival from cancer indicates a cancer prognosis and the effectiveness of treatment available. Relative survival of less than 100% means that people with cancer had a lower chance of surviving for at least 5 years after diagnosis than the general population.

In 2010–2014 in Australia:

- individuals diagnosed with cancer had, on average, a lower (69%) chance of surviving for at least 5 years after diagnosis compared with their counterparts in the general population (referred to as '5-year relative survival', see Glossary)
- among people who had already survived 5 years past their cancer diagnosis, the chance of surviving for at least another 5 years was 91%
- for males, 5-year relative survival was highest for testicular cancer (98%) and prostate cancer (95%) and lowest for mesothelioma (5.8%) and pancreatic cancer (9.1%)
- for females, 5-year relative survival was highest for thyroid cancer (98%) and lip cancer (97%) and lowest for mesothelioma (9.7%) and pancreatic cancer (9.2%)
- Between 1985–1989 and 2010–2014, 5-year relative survival for all cancers combined rose from 49% to 69%.

Deaths

It is estimated that, in 2018, around 48,600 people will die from cancer, an average of around 133 deaths every day. Males will account for more than half (57%) of these deaths.

It is estimated that between 1982 and 2018, the age-standardised mortality rate for all cancers combined will drop by around 24% from 209 deaths per 100,000 population to 159 deaths per 100,000.

What is missing from the picture?

There are no national registry data on the stage (severity) of cancer at diagnosis except for breast, prostate, colorectal and lung cancers and melanoma of the skin, and these data are currently available for 2011 only. Information is also not readily available on the treatments applied to individual cases of cancer, the frequency of recurrence of cancer after treatment, or the incidence of common non-melanoma skin cancers (basal cell carcinomas and squamous cell carcinomas).

Where do I go for more information?

The reports *Cancer in Australia: an overview, 2017*, *Australian Cancer Incidence and Mortality (ACIM) books 2017*, *Cancer incidence projections: Australia 2011 to 2020*, *Cancer survival and prevalence in Australia: period estimates from 1982 to 2010*, and *Cancer mortality trends and projections: 2013 to 2025* are available for free download.