



CANCER

Cancer is a disease of the cells, which are the body's basic building blocks. Cancer occurs when abnormal cells grow in an uncontrolled way. These abnormal cells can damage or invade the surrounding tissues, or spread to other parts of the body, causing further damage.

In 2018, it is estimated that there will be 138,321 newly diagnosed cases of cancer in Australia.

More than 48,586 deaths from cancer are estimated in 2018.

For information on incidence and mortality of cancer in Australia by cancer type, please visit the [AIHW website](#) for the *Cancer in Australia 2017* report, (pages x-xi).

The latest Australian Institute of Health and Welfare report on cancer burden, which measures the combined impact of dying prematurely, as well as living with disease, shows that cancer was the greatest cause of health burden in Australia. Cancer accounted for around one-fifth (19%) of the total disease burden. Most of the burden from cancer was due to dying prematurely, with only a small proportion due to living with a cancer diagnosis.

Cancer is not a single disease

There are around 90 disease classifications that are considered to be a type of cancer. These diseases present different symptoms, require different treatments and have different outcomes.

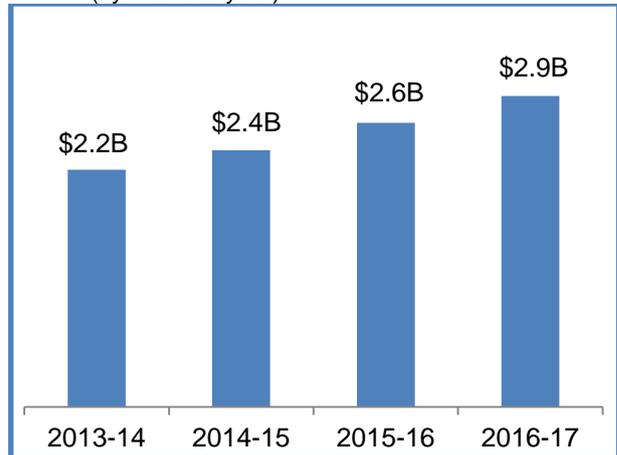
Outcomes for Australians with cancer have improved significantly in the past 30 years. The current overall relative five-year survival rate is 68 per cent for all types of cancers combined – equivalent to the best in the world.

Improved survival rates highlight the progress the Australian Government has made in cancer control.

This progress has been achieved through sustained investment in research, the introduction of cancer prevention and early detection programs as well as access to high quality health care.

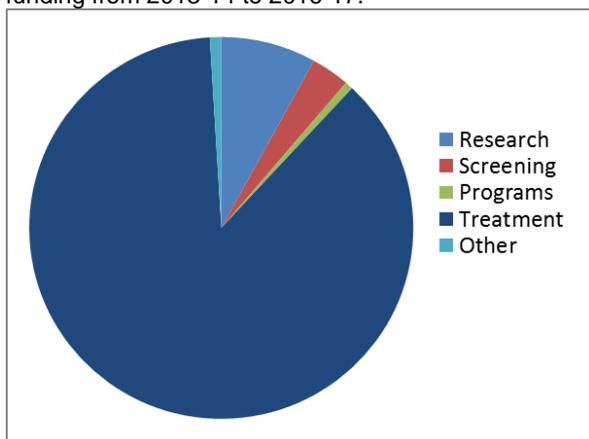
In addition to the funding provided for preventive health measures, the Australian Government invested over \$10 billion for cancer control activities over four years from 2013-14 to 2016-17.

Figure 1: Australian Government investment in cancer control (by financial year).



This investment includes funding for cancer research, and provides Australians with access to treatments such as radiotherapy, and medicines that treat cancer, cancer screening for targeted age groups and cancer support programs such as specialist cancer nurses.

Figure 2: Allocation of over \$10b Australian Government funding from 2013-14 to 2016-17.



Cancer drugs

There are approximately 130 cancer treating medicines currently available on the Pharmaceutical Benefits Scheme (PBS). Cancer medicines cost the Government around \$2 billion in 2016-17 – around one in every six dollars of PBS expenditure. The Government has approved over 70 new cancer medicines (or amended listings) since October 2013.

Budget 2018-19 PBS announcement - newly listed breast cancer drug Kisqali®.

For the first time in Australia, Ribociclib (Kisqali®) has been listed on the PBS for the treatment of breast cancer.

From 1 July 2018, patients will pay \$6.40 or \$39.50 for this medicine that without the subsidy would have cost more than \$71,820.

This listing is expected to help around 3,150 patients per year.

Cancer research

The Australian Government is the biggest single investor in cancer research in Australia. The majority of the Government's targeted research funding for cancer is provided through the National Health and Medical Research Council (NHMRC), Cancer Australia and the Department of Health.

From 2013-14 to 2016-17, the Australian Government provided over \$800 million for cancer research.

NHMRC

From 2013-14 to 2016-17, the Government has provided over \$738 million in funding through the NHMRC to support cancer research.

Cancer Australia

From 2013-14 to 2016-17, \$43 million has been provided for cancer research through Cancer Australia's Priority-driven Collaborative Cancer Research Scheme (PdCCRS). Of this funding, the Government has provided \$26 million and funding partners provided \$17 million.

Medical Research

The Australian Government is investing over \$7 billion in health and medical research over six years from 2016-17 through three foundational programs – the Medical Research Future Fund (MRFF), the Biomedical Translation Fund and the NHMRC.

MRFF

The MRFF will strengthen the clinical trial sector and enhance Australia's reputation as a global destination for clinical trials.

As announced in the recent budget the \$1.7 billion committed to date under the MRFF includes \$248 million over five years to increase clinical trial activity and international collaboration with a focus on cancer and areas of unmet need.

This measure:

- extends funding under the Rare Cancers, Rare Diseases and Unmet Need Clinical Trials program to \$206 million over five years; and
- delivers new funding of \$42 million over five years to support international clinical trial

collaborations to enhance Australia's capability to lead and collaborate on research of global significance as well as bring benefits to Australian patients.

This significant investment will improve health and create new jobs and innovative businesses delivering breakthrough drugs, medical devices and clinical therapies to the world.

Recent MRFF disbursements relevant to cancer research include:

\$55 million towards the \$105 million Australian Brain Cancer Mission to double survival rates and improve the quality of life of patients with brain cancer over the next ten years, with the longer term aim of defeating brain cancer.

\$5 million for clinical trial activity for adolescents and young adults with cancer.

\$69 million for rare cancer and rare disease research. The funding includes:

- more than \$26 million for 19 research projects under the MRFF Rare Cancer, Rare Diseases and Unmet Needs Clinical Trials Program,
- \$10 million to help find new treatments for low survival cancers and diseases to improve survival rates and outcomes for patients, and
- \$33 million in grants to support clinical trials.

Previous Budget Measures

In the 2017 Budget, the Australian Government consolidated its commitment to cancer control by investing in initiatives as follows:

Infrastructure

\$68 million to support Australia's first proton beam therapy centre to be operational by 2020, offering an alternative to conventional radiotherapy for certain cancer types and as a useful research tool for Australian scientists.

Screening

The Government continues to invest in the bowel, breast and cervical screening programs.

Investments in the (2014-15 to 2017-18) budget included:

\$64.3 million over four years to enable BreastScreen Australia to continue to actively invite women aged 70 to 74 to screen for the early detection of breast cancer. This follows funding of \$55.7 million from 2013-14 to 2016-17 to target this age group.

\$41.6 million over four years for the Victorian Cytology Service to continue providing high quality cytology services to support the National Cervical Screening Program.

The National Cervical Screening Program was renewed on 1 December 2017, implementing the Government's commitment in the 2015-16 Budget to introduce 5-yearly human papillomavirus (HPV) testing as the primary cervical cancer screening test for women aged 25 to 74 years in Australia. The renewed National Cervical Screening Program is estimated to reduce cervical cancer incidence and mortality by up to 30% as compared to the two-yearly Pap test program.

\$95.9 million over four years from 2014-15 to the National Bowel Cancer Screening Program to accelerate the implementation of biennial screening for all Australians aged 50 to 74 years between 2015 and 2020. By 2020 every Australian aged 50 to 74 years will be invited to participate in the Program every two years with approximately 4 million Australians invited to screen annually.

Information on the screening programs can be accessed at the [Cancer Screening website](#).

Support

\$5.9 million to expand the current Prostate Cancer Nurse (PCN) program to bring the total number of Commonwealth funded PCNs from 14 up to 28. This is in addition to funding announced earlier to continue Commonwealth support for McGrath Breast Care Nurses across rural and regional Australia.

These measures build on the Government's 2016 election commitment of \$20 million for the ground breaking Zero Childhood Cancer Initiative. The Government also provides support for the Youth Cancer Services Program managed by CanTeen (\$14.5 million over three years), and funding for CanTeen's Online Support Platform (\$1.3 million over two years).

Research

\$5.8 million for several initiatives aimed at improving outcomes for children with cancer, through increasing Australia's research capacity to advance diagnosis, treatment, management, analysis, and improve data and awareness of childhood cancer, and fast tracking international research collaborations of paediatric brain cancer in Australia.

Grant for ground-breaking prevention – TRACEBACK

In early 2018 the Australian Government announced almost \$3 million in funding for the TRACEBACK project.

The project aims to reduce the incidence of BRCA-related cancer in Australia by providing women and their families with a history of ovarian cancer the opportunity to be tested for mutation carriers and to adopt cancer risk-reducing strategies. TRACEBACK will seek to identify women who have not been referred for BRCA1 and 2 testing during period 2001-2006.

Success stories

Examples of how Australian Government funding is improving cancer outcomes for Australians.

Human papillomavirus (HPV) vaccine

Australia was the first country to introduce a free National HPV Vaccination Program commencing with girls in 2007, followed by boys in 2013.

From 2018, boys and girls aged 12-13 years will be provided with a new vaccine which protects against an additional five strains of HPV.

Gardasil9 is provided through the school based program and is given in a two dose schedule. It will

help to protect girls and women ages 9-26 years against cervical, vaginal, vulvar, anal cancers and genital warts caused by 9 types of HPV. It will also protect boys and men ages 9-26 years against anal cancer and genital warts caused by those same HPV types.

National HPV vaccine coverage rates for Australia are the highest they have ever been, with the proportion of 15 year old girls receiving all recommended doses increasing in 2016 to 78.6% (up from 78% in 2015) and 72.9% for boys (up from 67.2% in 2015).

The result highlights how investment in preventive health through research and vaccination programs can be effective in controlling or eliminating preventable diseases. More information can be found at [HPV Vaccination Program](#)

Cancer Australia's STaR Project

For the first time in Australia, national data on cancer stage at diagnosis is available for the top five incidence cancers - female breast cancer, colorectal, lung, prostate cancers and melanoma. In April 2018, Cancer Australia released new data on 'stage at diagnosis' – the extent to which a cancer has spread at diagnosis – marking a significant advance in the reporting of cancer information.

The landmark data reveals the extent and spread of these cancers at diagnosis across four stages of severity – with stage 1 being localised disease and stage 4 being metastatic or more widely spread disease.

The data will help us explore the relationship between cancer stage at diagnosis and survival outcomes, and the role of public health initiatives, early detection and awareness campaigns. More information can be found at: [Cancer Australia STaR Project](#).

Cancer research breakthrough reduces pancreatic tumour growth

Recently, Australian cancer scientists established a highly hopeful nanomedicine that could improve treatment for Australia's deadliest cancer—pancreatic cancer. Most often diagnosed at an advanced stage, this type of cancer has one of the lowest survival rates.

When tested in mice, the nanomedicine decreased growth of tumours by 50 per cent, reducing the spread of pancreatic cancer.

This breakthrough was made possible with research funding provided in part by the Australian Government through NHMRC. More information can be found at [NHMRC Features](#).

Mechanisms to fund cancer research

The Australian Government provides opportunities for researchers to apply for funding through the NHMRC, Cancer Australia and the MRFF.

NHMRC

Investigator-driven research grants

The NHMRC will accept grant applications in any research discipline and applicants are provided with an opportunity within their application to explain how their research will lead to improved outcomes in health.

NHMRC's range of funding schemes offers flexibility and responsiveness for targeting research and capacity building in key areas of need in the health system.

Targeted research grants

NHMRC also sets aside funding each year to address identified priorities, such as through its Targeted Calls for Research (TCR) funding program, which invites grant applications to address a specific health issue.

NHMRC has created an online pathway for community and professional groups to propose ideas for health research topics, which NHMRC may develop into a TCR. The TCR portal can be accessed through the [NHMRC website](#).

Cancer Australia

Cancer Australia's PdCCRS draws on non-government sector research funding to boost investment in priority areas, and is a successful model of how priorities and gaps in cancer research can be identified and collaboratively funded using a merit-based and

competitive selection process. More information about the PdCCRS can be accessed through the [Cancer Australia website](#).

MRFF

The MRFF complements NHMRC funded investigator initiated research, by utilising a strategic top down approach that funds priority-driven health and medical research to address systemic gaps in the sector and foster an evidence-based health system.

The *Australian Medical Research and Innovation Strategy 2016-2021* and related *Priorities 2016-2018*, developed by the independent Australian Medical Research Advisory Board after a series of extensive public consultations in 2016, are considered by Government when determining MRFF investments.

For more information contact:

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