

Victorian cancer plan 2016–2020

Improving cancer outcomes
for all Victorians







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Acknowledgments

The Victorian Government would like to acknowledge and thank the individuals and organisations from across the cancer control sector who contributed to the development of the *Victorian cancer plan 2016–2020*.

People affected by cancer and leaders and professionals with expertise in research, prevention, early detection and treatment shared their time and expertise to improve cancer outcomes for all Victorians.

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Where the term 'Aboriginal' is used it refers to both Aboriginal and Torres Strait Islander people. Indigenous is retained when it is part of the title of a report, program or quotation.

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Minister's foreword



It is with great pleasure that I release the *Victorian cancer plan 2016–2020*, the first cancer plan to be developed under the *Improving Cancer Outcomes Act 2014*.

Cancer affects us all. A cancer diagnosis can be devastating – and it has an impact not only on the individual, but also on their friends and loved ones. Intensive and often lengthy care, treatment and recovery also have effects on the workforce, the health system and the community as a whole.

As our population ages, the incidence of cancer will continue to grow – and with it, the impact across our whole community. In fact, around one in three Victorians will develop cancer by the age of 75.

This cancer plan sets out the Andrews Labor Government's long-term vision for improving cancer outcomes for all and supporting Victorians affected by this illness, and outlines our priorities for the next four years as we work towards our long-term goals.

Despite the increase in cancer incidence, there is hope. Survival rates from cancer have steadily increased thanks to our efforts to detect cancers earlier and improve treatments. Across Australia there are now one million people living with or having survived cancer.

Research breakthroughs, particularly in genomics, are opening up exciting new pathways for personalised and targeted treatments – offering new hope of vastly improved outcomes for many cancer patients.

Many cancers are preventable, and our prevention efforts are effective. We are seeing reductions in the incidence rates for some cancers, thanks for example to efforts to reduce tobacco use, so we know that persistence in prevention now will have long-term pay-offs.

But we also know that there are some cancers, some populations and some areas that have worse outcomes than others. These differences are not fair, and if we are to improve cancer outcomes for all Victorians we need to focus on reducing them.

I am proud of Victoria's achievements in combatting cancer and our role as a respected global partner in cancer research. I am proud of the outstanding prevention, diagnosis, treatment and support services – and compassion – that our health professionals already offer. There is a strong system to build on, but there are multiple and complex challenges that confront us.

This cancer plan provides a framework and a basis for action and achievement over the next four years that will make a real difference to Victorians affected by cancer, and to those who are most at risk. The plan establishes the key areas for development of real, ongoing improvements in cancer outcomes, and a coordinated approach to the research and other initiatives needed to achieve them.

I thank our partners in this endeavour for sharing their passion, dedication and commitment to developing a long-term vision to improve cancer outcomes. This cancer plan will be implemented through ongoing engagement with them – and with the many Victorians who are living with or have lived the experience of cancer – as, together, we continue our rapid advances in the fight against this terrible disease.

A handwritten signature in black ink that reads "Jill Hennessy". The signature is fluid and cursive.

The Hon Jill Hennessy MP

Minister for Health

Minister for Ambulance

Message from the Chief Advisor for Cancer



I am pleased to support the *Victorian cancer plan 2016–2020*; the plan provides a framework for our future actions at a time when there are many changes and challenges facing cancer control in Victoria.

I am encouraged when I consider how far we have come – our research agenda and our combined efforts in prevention, early detection, treatment and care are saving lives.

I am excited by the opportunities that are on the horizon – new technology, infrastructure, expanded treatment options and models of care are changing the experience of cancer for so many people.

But there is a long way to go. The stark reality is that a cancer diagnosis is a challenging and potentially life-changing event for patients and their families. What is most important to me is that we put patients at the centre of what we do, and that patient outcomes and quality of life are improved through consistent quality, safe, coordinated care.

This plan establishes long-term goals, and we will work together to continue to make a real difference for Victorians.

A handwritten signature in black ink, appearing to read 'Bob Thomas'.

Professor Robert Thomas OAM
Chief Advisor Cancer

Victorian cancer plan 2016–2020

About the cancer plan

The *Victorian cancer plan 2016–20* (the cancer plan) provides a framework to improve cancer outcomes for all Victorians.

Through the *Improving Cancer Outcomes Act 2014* (the Act), the state government is committed to preparing a cancer plan for Victoria every four years. Each plan must:

- report on the status and burden of cancer in Victoria
- establish Victoria's objectives and policy priorities with respect to cancer
- state how these objectives will be achieved, based on available evidence
- specify how the state intends to work with other parties to achieve these objectives and policy priorities.

This is the first cancer plan developed under the Act, and it establishes long-term goals that focus our actions and guide the development of future plans.

We have set goals to 2040 – this reflects the Victorian Government's commitment to long-term reform of the health system. These long-term goals are to:

- halve the proportion of Victorians diagnosed with preventable cancers
- double the improvement in one- and five-year survival of Victorians with cancer
- ensure Victorians have the best possible experience of the cancer treatment and care system
- achieve equitable outcomes for all Victorians.

We have established a medium-term goal, to save 10,000 lives by 2025.

This plan is underpinned by principles that align with those for our broader health system, and recognises the building blocks that support our world-leading system.

This cancer plan provides a framework to support all Victorians, people affected by cancer and health professionals – across public and private providers and primary, community and acute care settings – to work together towards common goals.

To support the implementation and monitoring of the cancer plan, we will work with the cancer control sector, including people affected by cancer, to establish:

- implementation priorities reviewed during the course of the plan
- outcomes measures that identify short-, medium- and long-term targets and monitor the impacts of our efforts to improve cancer outcomes.

A summary of the cancer plan is provided on the following page.

Figure 1: Victorian cancer plan summary



Building on our strengths

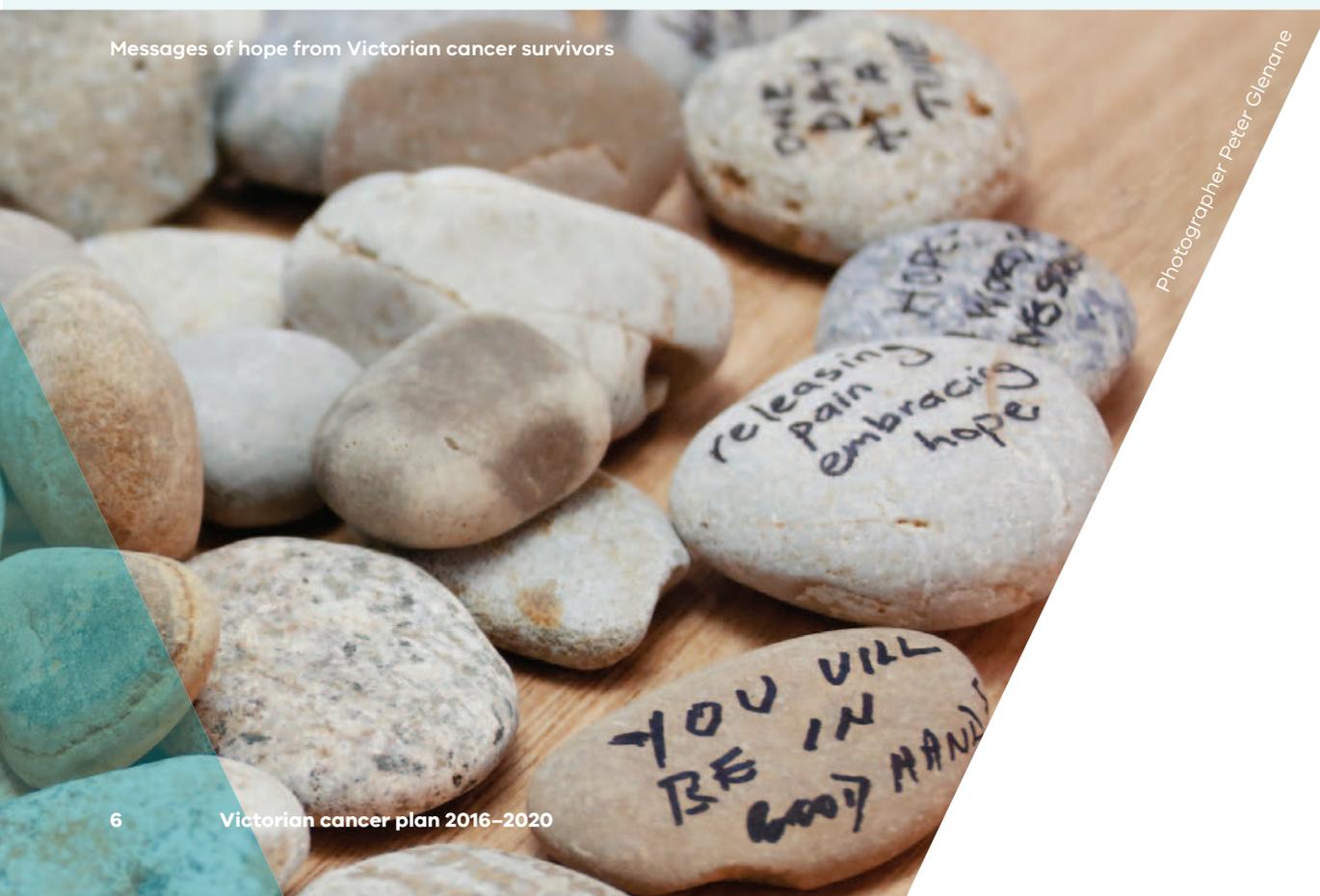
Victoria has been at the forefront of evolving state, national and international approaches to improve cancer outcomes.

From the 1936 Act of Parliament to establish the Anti-Cancer Council of Victoria, now the Cancer Council Victoria, to the 2015 enactment of the Improving Cancer Outcomes Act, a significant program of reform has changed the landscape of responses to cancer.

Policy and legislative responses have been supported by significant investment in new initiatives, infrastructure and service models.

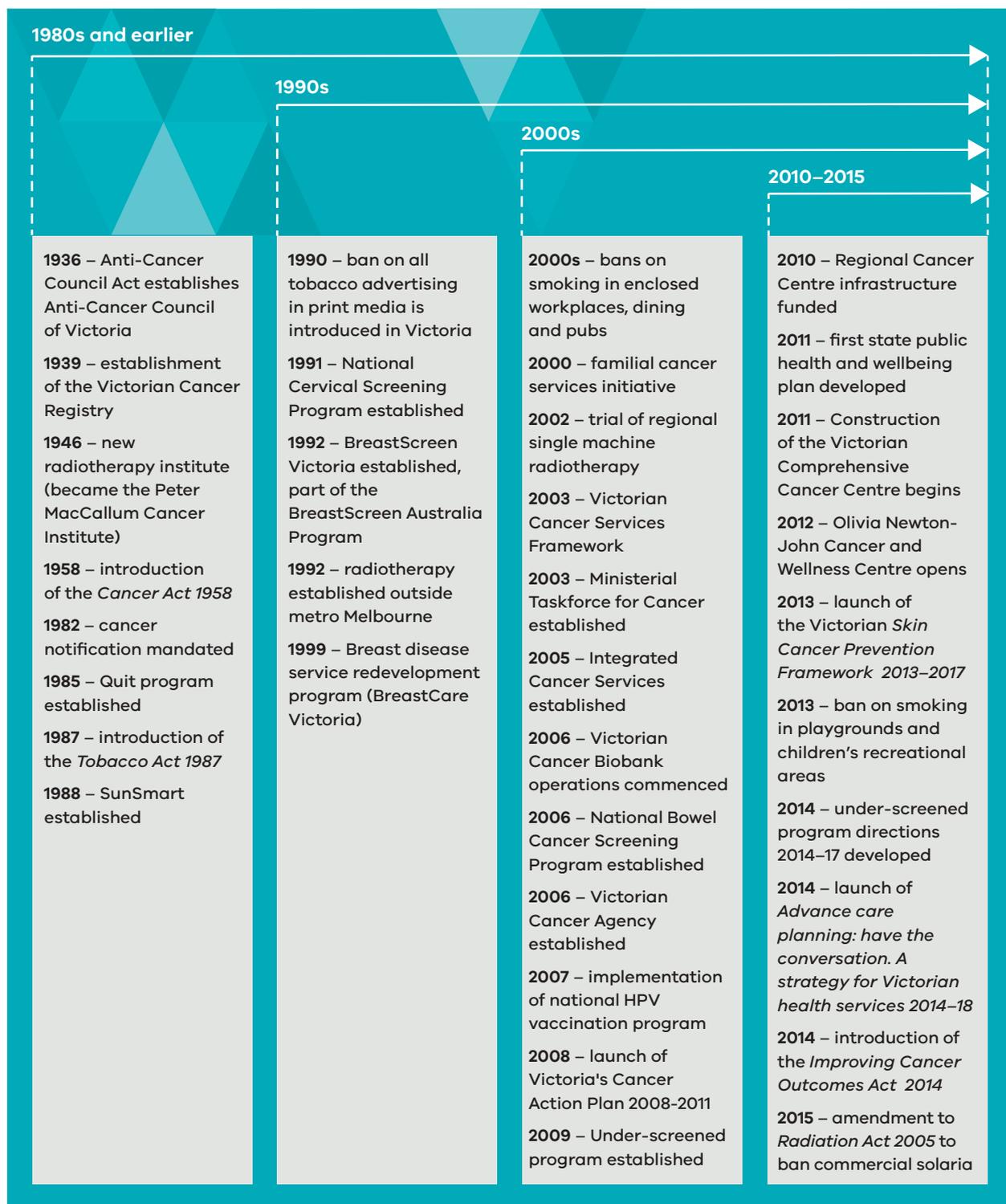
This has seen improvements in prevention, early detection, treatment, care and support, and resulted in significant improvements in our five-year survival rate for cancer.

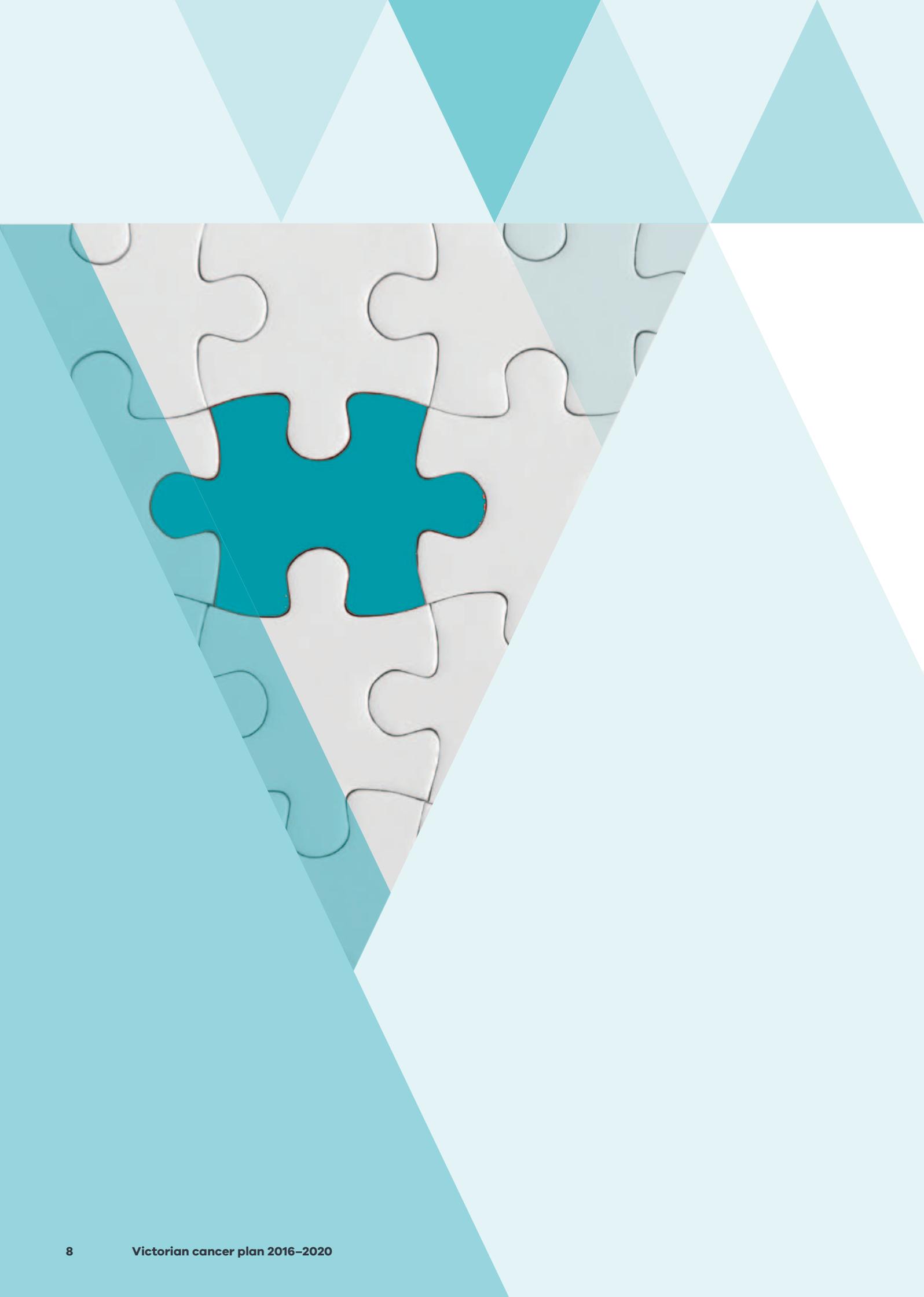
Messages of hope from Victorian cancer survivors



Photographer Peter Glenane

Figure 2: Victoria's responses and achievements in cancer control





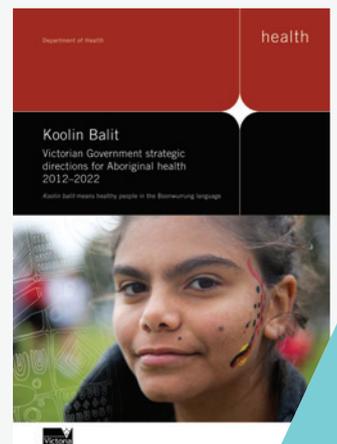
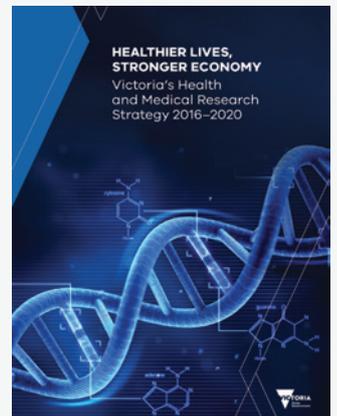
Policy environment

Cancer outcomes in Victoria are influenced by a broad range of partners, including those working specifically in the cancer control sector, broader health services and prevention and population health sectors.

The cancer plan is supported by, and delivered through, a number of other strategies including priorities to: strengthen our health system; improve palliative care and end of life care; focus efforts for health and medical research; prevent illness and promote health and wellbeing; and improve health outcomes for particular population groups.

Victoria has a significant role in both contributing to national outcomes and advocating for outcomes for Victorians at the national level.

We can capitalise on the increasing understanding at national and global levels of how best to improve cancer outcomes, and there is much that Victoria can learn from and contribute to globally.



The burden of cancer in Victoria

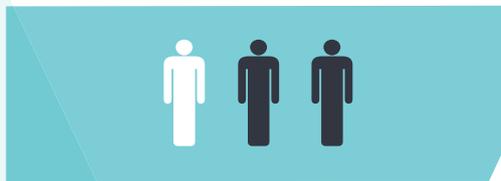
Cancer is a significant and growing economic, social and emotional burden to patients and their families, the Victorian workforce, the health system and the community as a whole.

Cancer has the biggest fatal burden of disease in Australia, accounting for 35 per cent of the total years of life lost in 2010, followed by cardiovascular diseases (23 per cent) and injuries (13 per cent) (Australian Institute of Health and Welfare 2015).

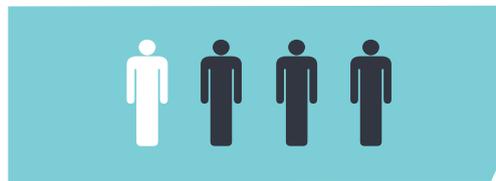
In 2014:

- 30,585 Victorians were newly diagnosed with cancer
- five cancer types accounted for just over half of all these new cases: breast (14 per cent); prostate (13 per cent); bowel (12 per cent); lung (9 per cent) and melanoma (8 per cent)
- nearly 11,000 Victorians died from cancer (Cancer Council Victoria 2015a).

By age 75, one in three men and one in four women will have been diagnosed with a cancer (Cancer Council Victoria 2015b).



1 in 3 men



1 in 4 women

Cancer primarily affects the older population – the average age at diagnosis is 67, so as our population grows and ages the burden of cancer will continue to grow. It is estimated that by 2025–29 each year over 41,000 Victorians will be diagnosed with cancer, and over 13,000 will die from cancer (Cancer Council Victoria 2015a).

Almost all newly diagnosed cancer patients in Victoria require specialist treatment, and approximately one-fifth of Victorian admitted-hospital activity is related to cancer treatment and diagnosis.

The cost of cancer care is rising. Between 2001 and 2009, the incidence of cancer nationally increased by 29 per cent (Australian Institute of Health and Welfare 2014) and over the same period, the cost of cancer care grew 56 per cent from \$2.9 billion to \$4.5 billion (Australian Institute of Health and Welfare 2013).

Demand for cancer services is increasing, driven by both new diagnoses and expanded and improved treatment options. While the improvements are positive, the growing demand places ongoing pressure on services and necessitates changes in the way that cancer care is provided and funded.

The complexity of treatment is increasing because of technology, medical advances and the increasing number of people whose cancer will be complicated by other chronic disease.

There is good news – Victoria's cancer survival rates are among the best in the world, and more people than ever are now living with or beyond cancer. We also know that prevention can be effective, and we are seeing reductions in the incidence rates for some cancers.

However, outcomes are not the same for all. Some cancers and population groups continue to have persistently poorer survival rates. For example, Aboriginal Victorians have a significantly higher mortality rate than non-Aboriginal Victorians, and people living in some regional areas have poorer outcomes than those in metropolitan Melbourne.

To reduce the burden of cancer, we need to take a comprehensive approach with a focus on reducing these differences in outcomes. This includes continued efforts in relation to prevention, early detection, treatment, support and research.

Our goals

Medium-term goal

We will save 10,000 lives by 2025. Through preventing cancers, detecting cancers earlier, improving treatment and reducing unwarranted variations in outcomes – we can avert 10,000 cancer related deaths in the next 10 years. Progress towards this goal will be monitored through incidence, mortality and survival data.

Long-term goals

By 2040 we will:

- halve the proportion of Victorians diagnosed with preventable cancers
- double the improvement in one- and five-year survival of Victorians with cancer
- ensure Victorians have the best possible experience of the cancer treatment and care system
- achieve equitable outcomes for all Victorians.

The long-term goals for the cancer plan shape the focus of our policy priorities and guide how we will measure success.

Halve the proportion of Victorians diagnosed with preventable cancers

It is estimated that at least one-third of cancer cases are preventable, and that potentially more than half of all cancers could be avoided through a combination of healthy lifestyle and regular screening (Cancer Australia 2015b).

Many risk factors related to lifestyle disproportionately affect vulnerable groups (Department of Health and Human Services 2015).

In 2010:

- six risk factors caused nine in 10 preventable cancers: smoking, UV radiation, poor diet, being overweight, physical inactivity and excessive alcohol consumption
- the leading potentially preventable cancers were lung, colorectal, melanoma of the skin, and breast (Whiteman et al. 2015).

We have seen decreased incidence rates for some cancers, particularly where primary prevention is effective. For example, incidence and mortality rates for lung cancer are reducing following declining smoking prevalence, and cervical cancer rates are reducing due to the success of the population-based screening program, with further improvements to result from human papilloma virus (HPV) vaccination.

Liver cancer was the ninth-highest cause of cancer-related mortality in Victoria in 2014 (Cancer Council Victoria 2015a), and is the fastest increasing cause of cancer death of Australians. The preventable risk factors for liver cancer include chronic hepatitis B infection, which is a significant contributor (Department of Health 2014a). Smoking, excessive alcohol consumption and being overweight are also risk factors for liver cancer (Cancer Australia 2015b).

Exposure to environmental pollutants and exposure to occupational risks (such as chemicals, dust, radiation and industrial processes) are preventable risk factors for some cancers (Australian Institute of Health and Welfare 2014).

With sustained and increased efforts in prevention, we will continue to see improvements. By 2040 we expect to halve the proportion of Victorians who are diagnosed with preventable cancers.

Double the improvement in one- and five-year survival of Victorians with cancer

Victoria has some of the best cancer survival rates in the world. Overall five-year survival rates for cancer steadily increased from 49 per cent in 1989–93, to 67 per cent in 2009–13. This trend is consistent across the most common types of cancer (including prostate, bowel, breast and lung), and reflects treatment advances, as well as successes of screening programs to increase early detection (Cancer Council Victoria 2015a).

Overall one-year survival rates in Victoria for 2009–13 were 82 per cent (Cancer Council Victoria 2015a), an increase from 80 per cent in 2006–10. While one-year survival rates are a base for longer-term survival, they also provide an indicator of the effectiveness of healthcare in relation to early detection and diagnosis, and the provision of timely treatments.

By detecting cancers early and providing timely and optimal treatment – combined with access to new research and new advances – we can double the improvement of our survival rate.



Ensure Victorians have the best experience of the cancer treatment and care system

Monitoring the experience of being treated for cancer, as well as the outcomes of treatment, will inform our improvement efforts across the entire care pathway: during investigations and diagnosis, treatment, after treatment, long-term recovery and end of life.

A Victorian cancer patient experience survey has been developed and piloted, yielding important information about the pathway of care. The survey found that the vast majority of patients are very satisfied with the care that they receive, but many would like more information about the long-term effects of treatment.

Cancer affects all aspects of people's lives, and this is reflected in their support needs: physical, emotional, spiritual, practical, social and informational. Since 2010, supportive care for people with cancer in Victoria has improved through the systematic implementation of processes to identify and manage their needs. Across the state, implementation of screening for supportive care needs is close to 40 per cent, and sustained effort is needed to ensure that this approach is embedded in usual care.

To ensure the best experience of the cancer treatment and care system, people need to be supported as partners to navigate the steps in the care pathway and to make decisions about what care they receive, when and where. A focus on understanding the outcomes of care most important to cancer patients will facilitate shared decision making about treatment and promote recovery.

Achieve equitable outcomes for all Victorians

While overall cancer survival rates have consistently risen over the last 20 years, substantial variations have persisted (Cancer Council Victoria 2015a). These include:

- **cancer type** – cancers with the best five-year survival rates include testis (98 per cent), prostate (94 per cent), thyroid (94 per cent), female breast (90 per cent), follicular lymphoma (90 per cent) and melanoma (89 per cent). Five-year survival for some cancers remains at a low rate, including lung (17 per cent), liver (17 per cent), cancer of unknown primary (12 per cent), mesothelioma (7 per cent) and pancreas (7 per cent)
- **regional variations** – Victorians living in some regional areas have poorer outcomes than those living in metropolitan Melbourne for cancer overall and for a range of specific cancer types. The overall cancer five-year survival rate is 69 per cent for metropolitan and 65 per cent for non-metropolitan residents
- **Aboriginal Victorians** have mortality rates significantly higher than those of non-Aboriginal Victorians. Of the common cancers, incidence rates were significantly higher for Aboriginal Victorians for cervical cancer and lung cancer.

The reasons for variations in survival rates are complex. They are influenced by our scientific understanding and treatment approaches, as well as the broader social and cultural determinants of health. Reducing variations will require concerted efforts in prevention, early detection, treatment, support and research.

Understanding differences in outcomes – International Cancer Benchmarking Partnership

Victoria is one of 13 global partners in the International Cancer Benchmarking Partnership (ICBP).

The ICBP will support us to understand what drives differences in cancer outcomes, and what policies and services may make a difference.

The ICBP commenced in 2010 with its first study on survival. Several other separate studies have been completed since then and the current active studies will run until 2017.

This program of research studies will provide internationally comparable data on:

- epidemiology – a robust and comparable overview of cancer survival in the six different ICBP countries
- population awareness and beliefs – exploring the attitudes and beliefs the general public have towards cancer.
- beliefs, behaviours and systems in primary care – looking at the role of primary care in diagnosing cancer, exploring both attitudes and beliefs of general practitioners and examining differences in primary care systems
- root cause of diagnosis and treatment delays – international comparison of the time intervals from first symptom(s) until diagnosis and start of treatment of cancer patients
- exploration of early deaths – highlighting that observed cancer survival differences might partly be explained by a group of patients who die shortly after diagnosis.

Victoria has expanded all of the studies to allow us to explore any differences between metropolitan and regional Victoria.

What the plan means for Victorians

The priorities of the cancer plan contribute to long-term improvements for all Victorians, for people who are affected by cancer, their families and communities, and for our healthcare providers.

For all Victorians

'Victorians realise the benefits of actively participating in prevention and early detection.'

For Victorians with cancer and their families

'People with cancer and their carers are supported as they access high-quality cancer treatment and care across their life course.'

For healthcare providers

'Victoria has a collaborative cancer system that is driven by the world's best research and tailored to meet the needs of communities and individuals.'

Achieving the goals

To achieve these goals, we have identified objectives to guide our efforts. In creating a world-leading system, we want to work together to ensure that:

- Victorians are supported to reduce risks of cancer
- Victorians know their risk and have cancers detected earlier
- Victorians with cancer have timely access to optimal treatment
- Victorians with cancer and their families live well
- Victoria has a strong and integrated research system.

These objectives will be realised through a focus on actions that build on our achievements and respond to key challenges across five priority action areas:

- primary prevention
- screening and early detection
- treatment
- wellbeing and support
- research.

These action areas are interdependent, and they share resources and capabilities that will build a system that can deliver improved outcomes. We have identified key system supports, with a focus on enabling integration, innovative practice, investment, health intelligence and workforce. Underpinning all of the actions are the principles that will align our practice:

- person-centred care with equitable access
- prevention across the care pathway
- quality and safe care
- evidence-informed
- sustainable system.

Delivering for diversity

The principles of person-centred care with equitable access underpin this cancer plan.

Providing culturally responsive, competent, respectful and accessible services is core to improving cancer outcomes for all Victorians.

People from culturally and linguistically diverse (CALD) communities face unique challenges in regard to participation in cancer screening and early diagnosis services, as well as access to appropriate treatment.

This can include language barriers and lack of familiarity with the Australian health system, as well as beliefs and attitudes about cancer which may influence trust in health professionals and health systems (Phillipson et al. 2012). The department's *Delivering for diversity: cultural diversity plan 2016–2019* provides a framework to embed cultural diversity in all programs, services and policies (Department of Health and Human Services 2016a).

Inclusive practice and active consideration of the needs of lesbian, gay, bisexual, transgender and intersex (LGBTI) people is an essential part of the broader cultural competence and cultural safety of services.

This requires understanding and recognition of the diverse needs of LGBTI people. The department has developed an online guide called *Rainbow eQuality* to assist mainstream health and community service agencies identify and adopt inclusive practices and become more responsive to the health and wellbeing needs of LGBTI individuals and communities (Department of Health and Human Services 2016b). The guide contains information about building inclusive services, understanding LGBTI health, working with specific groups, and good practice examples.

We recognise that Aboriginal Victorians are part of our cultural diversity and are diverse communities themselves. Because of the inequity in health outcomes for Aboriginal Victorians, we have identified key opportunities to deliver improvements for Aboriginal Victorians across the care pathway.

Improving outcomes for Aboriginal Victorians

This cancer plan recognises that there are inequities for Aboriginal Victorians across the entire cancer pathway, from prevention, screening and early detection, to treatment, palliative care and survivorship. The plan seeks to achieve equitable cancer outcomes for Aboriginal communities.

Compared with non-Indigenous Australians, Aboriginal people in Australia (Cancer Australia 2015a):

- have higher levels of modifiable risk factors, including smoking, risky alcohol consumption, poor diet, low levels of physical activity and higher levels of infection such as HPV and hepatitis B
- have higher incidence of preventable cancers that are more likely to be fatal (lung and liver cancer)
- are less likely to participate in cancer screening programs (breast, cervical and bowel)
- are more likely to have a late-stage diagnosis of cancer
- are less likely to receive adequate treatment or to be hospitalised for cancer
- are much less likely to survive five years after a diagnosis.

There are a range of existing policies, programs, initiatives and investments aimed at improving cancer outcomes for Aboriginal communities. We will build on these, and continue to work in partnership with Aboriginal communities, the Aboriginal community-controlled sector and the broader health and community care sector to deliver lasting improvements in cancer outcomes that enable Aboriginal people and communities to thrive.

The *National Aboriginal and Torres Strait Islander Cancer Framework* (Cancer Australia 2015a) provides a useful starting point for further efforts in cancer care for Aboriginal Victorians.

The cancer plan seeks to achieve better cancer outcomes for Aboriginal communities by embedding culturally responsive approaches across the cancer care pathway. An Improving Cancer Outcomes for Aboriginal Communities Working Group has been established and will provide leadership and support collaboration to:

- co-plan, co-design and co-deliver appropriate structures and services to:
 - achieve effective and acceptable cancer care pathways that are culturally responsive
 - remove barriers to access to services and programs
 - build connections across health, wellbeing and resilience and culture
 - improve community knowledge and awareness about cancer and its effects on Aboriginal people, families and communities
 - improve community trust in a culturally responsive cancer care system
 - reduce modifiable risk factors
- build a cancer care workforce that is culturally competent and responsive and increase the number of Aboriginal people in the cancer care workforce
- strengthen data collection and performance monitoring of access and outcomes for Aboriginal Victorians.

The Victorian Government is committed to improving Aboriginal health and wellbeing and 'is determined to overcome the unacceptable health disparity and health outcomes for Aboriginal and Torres Strait Islander Victorians' (Victorian Labor Party 2014).



Strengthening prevention and early detection with Aboriginal communities in Victoria

Working together for health establishes a framework to strengthen delivery of prevention and early detection for and by Aboriginal communities in Victoria.

The program aims to reduce preventable and chronic diseases, including cancer. Place-based initiatives are underway in Loddon Mallee Region, Gippsland Region and Ballarat.

Those initiatives:

- focus on Aboriginal community-controlled health organisations as a key settings for primary and secondary prevention
- support systematic, proactive and sustainable approaches to offering prevention, early detection and chronic disease management across all life stages
- address barriers and improve access for Aboriginal people to culturally safe universal healthcare, prevention and early detection services
- deliver innovative, culturally safe and locally determined prevention and early detection programs.

In addition, a partnership with the Victorian Aboriginal Community Controlled Health Organisation focuses on statewide improvements that equip the sector with systems, tools and policies to deliver needed and accepted prevention and early detection services.

Working with Aboriginal health workers to improve access to cancer services

To reduce the barriers for Aboriginal Victorians, the Hume Region has led programs to develop links between Aboriginal organisations and mainstream cancer services. This has included a focus on providing education about cancer, cancer services, supportive care and advance care planning for Aboriginal health workers and their communities.

Through these programs, the region has developed culturally appropriate resources on a range of topics, including: early detection, signs and symptoms for lung cancer; introduction to radiation and chemotherapy treatment, and side effects of cancer treatment.

The resources are complemented by cultural awareness activities and the development of strong partnerships between the cancer sector, Aboriginal health workers and the community.

The programs are seeing positive changes. Aboriginal health workers are able to dispel cancer myths, have a greater awareness of signs and symptoms of cancer, screening and cancer services and the knowledge and confidence to support and attend specialist appointments with community members.

Local oncology staff have a greater understanding of Aboriginal patients' cultural needs and recognition of the importance of displaying Aboriginal artwork, literature and posters.

The programs have resulted in an increase in Aboriginal people accessing local screening and treatment services.



Action area 1: Primary prevention

Victorians are supported to reduce risks of cancer

Priorities:

- Reduce risk factors related to lifestyle and environmental hazards
- Prevent cancers related to viral infections

We need to place as much emphasis on preventing cancer as on treating it.

At least one-third of all cancers are preventable, and cancer deaths could be reduced significantly by addressing modifiable lifestyle-related risk factors. These risk factors include smoking, excessive exposure to UV radiation, poor diet, being overweight, low levels of physical activity, excessive alcohol use and exposure to infections.

Many risk factors related to lifestyle disproportionately affect vulnerable groups, and there are persistent inequalities in health outcomes that are linked to the social determinants of health.

Addressing inequalities and improving the health and wellbeing of the whole population requires a mix of universal interventions (aimed at the whole population) and targeted interventions that focus on particular population groups or geographic areas.

Interventions to prevent cancer are part of broader approaches to protect health and promote public health and wellbeing.

The overarching policy for primary prevention in Victoria is *the Victorian public health and wellbeing plan 2015–2019*, which aims to reduce health and wellbeing inequalities and sets a vision for 'a Victoria free of the avoidable burden of disease and injury, so that all Victorians can enjoy the highest attainable standards of health, wellbeing and participation at every age'. This whole-of-government plan outlines priorities for: healthier eating and active living; tobacco-free living; reducing harmful alcohol and drug use; improving mental health; preventing violence and injury, and improving sexual and reproductive health.

The *Victorian public health and wellbeing plan* identifies three platforms to create improvements in health and wellbeing. These platforms are healthy and sustainable environments, place-based approaches to create healthy places to live, work, learn and play, and people-centred approaches that focus on working with communities and service users to co-produce and co-design policy, service systems and programs.

Recent initiatives to reduce cancer risk factors related to environment, lifestyle and viral infections have included:

- smoking bans in outdoor public spaces, particularly where children gather
- targeted smoking cessation initiatives
- bans on commercial solaria
- initiatives to increase shade in public places
- vaccinations against common virus infections (hepatitis B and human papilloma virus) and providing enhanced hepatitis C treatment.

There are opportunities to continue to build on these achievements. In addition to the ongoing investment in primary prevention, new funding of \$15 million has been committed to skin cancer prevention over four years. Further legislative reform is underway for smoke free environments.



Reduce risk factors related to lifestyle and environmental hazards

Modifiable lifestyle risk factors such as tobacco use, over-exposure to UV radiation in sunlight, being overweight, alcohol misuse and physical inactivity are linked to many cancer-related deaths.

Exposure to some substances through the workplace or environment are also preventable risk factors for some cancers.

In Victoria, smoking claims approximately 4,000 lives and costs \$2.4 billion in direct healthcare costs and lost productivity each year.

Currently 12 per cent of Victorian adults smoke daily (Department of Health 2014). While smoking rates have significantly decreased over the past 30 years, the rates continue to be much higher for Aboriginal people, people who experience psychological distress, prison populations, people with a lower level of education and people on low incomes or who are unemployed (Department of Health and Human Services 2015).

Smoking prevalence can be reduced by preventing young people from beginning to smoke and by supporting people to quit. Support to quit includes anti-smoking social marketing campaigns, smoking cessation services and programs to reduce smoking in specific groups and certain settings.

The majority of skin cancers in Australia are caused by over-exposure to UV radiation. Outdoor activity, both recreational and work-related, increases a person's risk of skin cancer.

It is important to balance the risks of developing skin cancer with spending time outdoors and maintaining an active lifestyle. It is also important to balance the risks of skin cancer with maintaining adequate vitamin D levels – essential for bone and muscle health in all age groups.

Focus for 2016–2020

- Continue to reduce smoking rates, with the ultimate aim of achieving a tobacco-free Victoria.
- Protect people from the harms of smoking through legislative and non-legislative approaches to tobacco control.
- Target smoking cessation measures for those groups with disproportionately high smoking prevalence, particularly Aboriginal Victorians.
- Implement statewide social marketing campaigns to increase sun-protective behaviours.
- Expand access to shade through the Victorian Government shade grants program.
- Support key settings such as schools and workplaces to be SunSmart.
- Partner with key stakeholders to reduce risk relating to environmental and occupational hazards.
- Implement population health approaches to reduce lifestyle-related risk factors including obesity, physical inactivity, inadequate diet and alcohol misuse through the implementation of the *Victorian public health and wellbeing plan 2015–19*.

Sharing best practice smoking cessation for Aboriginal people and their communities

In 2014, in partnership with the Victorian Aboriginal Community Controlled Health Organisation, the then Department of Health established the Best Practice Forum for Aboriginal Tobacco Control.

Forum members identified a need to conduct a practical workshop targeted to Aboriginal health workers, Tackling Indigenous Smoking teams and other healthcare professionals with an interest in supporting Aboriginal people to stop smoking.

The workshop provided a platform for the workers to profile their work, share what was working to support people to stop smoking and collaborate with tobacco-control activities through networking.

Building on the success of the inaugural workshop, two subsequent workshops have been held, each focused on priority areas of tobacco control, including smoking during pregnancy, tobacco use among youth and supporting smoke-free Aboriginal community-controlled health organisations and healthcare services.

These workshops provide an important and valued opportunity for distinct types of health workers to network and to share best practice in tobacco control.

Prevent cancers related to viral infections

Reduce hepatitis-related cancers

Deaths from primary liver cancer tripled between 1982 and 2007, and hepatitis B and C is a leading cause (Carville 2012).

People who have had long-term viral hepatitis infections will continue to have a higher risk of developing liver cancer, and may require closer monitoring.

Increasing awareness and access to treatment in priority populations, including people born in high-prevalence countries, men who have sex with men, Aboriginal people, injecting drug users and the children of people living with hepatitis, are key in reducing the increasing rates of hepatitis-related liver cancer.

Radical developments in treatment and prevention science have occurred for both hepatitis B and C, so new models of testing, treating and preventing hepatitis B and C are required.

Focus for 2016–2020

- Develop and implement strategies to improve hepatitis B and C prevention, testing, treatment and care.
- Reduce stigma and discrimination experienced by people living with hepatitis B and C.

‘Stigma and discrimination are major barriers to health and wellbeing’.

Enhance human papilloma virus vaccination coverage

Human papilloma virus (HPV) is a common sexually transmitted infection in both males and females.

Different types of HPV target different parts of the body. HPV is responsible for almost all cases of genital warts and cervical cancer, 90 per cent of anal cancers, 65 per cent of vaginal cancers and 60 per cent of oropharyngeal cancers (Cancer Council Victoria 2016).

HPV vaccine protects against virus types that cause up to 80 per cent of cervical cancer in females and 90 per cent of HPV-related cancers in males.

In 2014, 77 per cent of Victorian females aged 14 to 15 years and 67 per cent of males 14 to 15 years of age received all three HPV vaccine doses (Cancer Council Victoria 2015c).

Some groups are at higher risk of HPV-associated disease and need to be supported through expanded models of delivery. These include men who have sex with men, people who are immunocompromised and Aboriginal women.

In 2007, Australia became the first country to implement a publicly funded national vaccination program with the quadrivalent HPV vaccine (three-dose course).

Since then, the prevalence of HPV in young women has declined dramatically, and pre-cancerous cervical lesions have declined 17 per cent in women aged 25–29 (2012–14 data) (Brotherton et al. 2016).

Focus for 2016–2020

- Increase uptake of HPV vaccination for at-risk individuals.
- Provide catch-up vaccination for young people who missed scheduled immunisation during school immunisation program and for at risk populations.
- Provide HPV vaccination for immunosuppressed women and girls.

Action area 2: Screening and early detection

Victorians know their risk of cancer and have cancers detected earlier

Priorities:

- **Equitable and increased participation in population cancer screening programs**
- **Improve access to family cancer centres for people at high risk of developing heritable cancers**
- **Increase early detection of cancers through improved health literacy and enhanced primary care capacity to support early diagnosis**

Every Victorian should understand their risk of cancer and be supported to manage their own health.

Assessing risks, screening and early detection of cancer enables prompt action, early diagnosis and better outcomes.

Early detection happens through:

- organised population screening – programs such as the breast, bowel and cervical cancer screening programs seek to detect early signs of disease, either before a cancer has developed or in its early stages before any symptoms occur, when early interventions can be most successful
- opportunistic testing – offered to people who are being examined for other reasons, such as part of a routine medical check-up
- risk recognition – identification of people who have an increased risk of cancer and providing professional advice and referral for screening or surveillance. For example, genetic tests are available for people with an established family history of cancers
- symptom recognition – identification of early symptoms and providing professional advice and referral for appropriate testing and treatment.

Improvements in incidence and mortality rates through organised cancer screening programs depend on participation of the target age group. In Victoria, participation rates in the breast and cervical cancer screening programs remain steady. However, improvements can be made for the bowel cancer screening program, which is low, at 37 per cent.

Ongoing investment supports population screening for breast, cervical and bowel cancer, and testing of people at high risk of cancer.

Across all cancer screening programs, there are population groups that have lower participation rates, notably Aboriginal people, culturally and linguistically diverse communities, people experiencing socioeconomic disadvantage and people living in some specific local government areas. Since the introduction of the Under-screened Program in 2009, there has been a significant focus on increasing participation in cancer screening programs by under-screened groups, with a focus on making the programs more accessible by responding to health literacy needs, developing new partnerships and improving service delivery. In recent years, the number of Aboriginal women screened by BreastScreen Victoria has increased by over 10 per cent annually.

Some people have an increased risk of developing cancer due to a family history and genetic susceptibility. For some, genetic testing can inform patient management, which can include prophylactic treatment to reduce cancer risk as well as increased surveillance for early cancer detection.

It is important for individuals to better understand and act on the warning signs for different cancers. Primary health providers have a role to promote screening and support early detection. General practitioner endorsement of screening can significantly increase participation rates.



Equitable and increased participation in population screening programs

- 55 per cent of Victorian women aged 50–69 and approximately 34 per cent of Victorian women aged 70–74 participated in the BreastScreen program in 2012–2014 (Australian Institute of Health and Welfare 2016).
- 59 per cent of Victorian women aged 20–69 years participated in two-yearly pap tests in 2013–14 (73 per cent had been tested within the last three years and 84 per cent within the last five years) (Victorian Cervical Cytology Register 2014).
- 37 per cent of eligible Victorians participated in the National Bowel Cancer Screening Program in 2012–13 (Australian Institute of Health and Welfare 2015a).

Participation in population screening programs for breast, cervical and bowel cancers is variable across communities and groups, including lower participation by Aboriginal communities, some cultural and linguistically diverse groups and people living in areas affected by socioeconomic and other disadvantages.

Data has not been routinely collected for Aboriginal people or for culturally and linguistically diverse groups for the cervical and bowel cancer screening programs; however, it is anticipated that this data will be collected and available in the future.



Focus for 2016–2020

- Increase participation in cancer screening programs by under-screened groups.
- Provide culturally appropriate, acceptable and responsive services to all Victorians in the relevant age ranges.
- Develop strategies that integrate screening approaches.
- Improve data collection to ensure that all national cancer screening registries and relevant associated databases collect data on under-screened populations.
- Prepare for full implementation of the National Bowel Cancer Screening Program by 2020, so that eligible Victorians are ready to participate and healthcare providers can support them to participate.

Piloting new models to address cultural barriers to screening

The cervical self-collection pilot project aims to develop a sustainable, culturally appropriate, alternative pathway to cervical screening for under-screened women in preparation for the renewed National Cervical Screening Program. Through this pilot project, women who are under-screened and have declined a traditional pap test are offered the option to do a HPV self-collected test.

The project is being implemented in multiple pilot sites across Victoria. It is a partnership between the Victorian Department of Health and Human Services, the Victorian Cytology Service, Melbourne University's Centre for Health Equity and the Indigenous Health Equity Unit (Onemda) and the Ballarat and District Aboriginal Cooperative.

Early results from the first phase of the pilot project indicate participants found self-collection more acceptable and convenient. In the first phase, 77 per cent of under-screened women offered self-collection were screened. This phase identified some psychological, practical and cultural barriers to screening. The ease and convenience of the test, the privacy it offered and the reduction in shame and embarrassment were consistent themes that influenced uptake. The value of community engagement has also emerged as an important element to the pilot.

A second phase of the pilot is being conducted in community health settings in metropolitan Melbourne reaching a diverse group of women.

General practitioners play a key role in bowel cancer screening

The *GP Education Series* is the result of a partnership between the Victorian Department of Health and Human Services and Cabrini Health to develop four online videos for general practitioners to increase knowledge and awareness about bowel cancer screening.

The videos provide information, advice and case studies. They cover topics such as the National Health and Medical Research Council guidelines and how they relate to the National Bowel Cancer Screening Program, the management of a positive faecal occult blood test, and the management of patients who are not suitable for faecal occult blood testing.

The videos can be viewed at <https://www2.health.vic.gov.au/public-health/population-screening/cancer-screening/bowel-cancer-screening>.



Improve access to family cancer centres for people at high risk of developing heritable cancers

- 10,485 consultations were undertaken by family cancer clinics in 2014–15, up 41 per cent over the previous four years.
- There is up to a seven-month wait at some familial cancer clinics for a consultation regarding risk assessment for a potential breast/ovarian/bowel cancer.
- There is up to a five-month wait at some familial cancer clinics for a consultation for rare cancers.

Taking a family history and appropriate genetic testing allows us to identify people at high risk of developing heritable cancers. These people may elect to undergo prophylactic treatment or more intensive surveillance to detect cancer early.

People who are identified as not carrying the family's cancer mutation have a similar risk of developing cancer as the general population, so need only follow universal screening guidelines.

Insufficient and inappropriate access to family cancer clinics results in lost opportunities for early intervention and prevention of cancer. General practitioners play an important role in referring and managing people with family histories of cancer.

Focus for 2016–2020

- Improve access to family cancer clinics for individuals and families at high risk of developing heritable cancers.
- Ensure appropriate referrals of individuals and families by general practitioners and specialists to familial cancer services.
- Improve service capacity to increase access to clinical genetic services for risk assessment of those at high risk of developing heritable cancers.



Increase early detection of cancers

Respond to health literacy needs

Outcomes for all cancers are improved with early detection; however, for most cancers, there is either no identified pre-cancerous state or there is not an appropriate test that can be applied at the population level as part of an evidence-based population screening program.

It is essential that Victorians are aware of signs and symptoms of cancer, and seek professional advice early, because early diagnosis and treatment may lead to improved survival. It is also important that those who are at increased risk (for example, smokers and outdoor workers) seek advice about appropriate testing.

Focus for 2016–2020

- Provide Victorians with appropriate information for guidance on self-checks for cancer and when to seek professional advice for signs or symptoms that may indicate cancer.
- Provide appropriate messages and information to Aboriginal communities to enhance understanding of cancer and prevention.

'I was extremely happy with all the doctors for having me tested and diagnosed so quickly.'

Enhance primary care capacity to support early diagnosis

Internationally, the readiness of primary care providers to investigate cancer, either directly or by referral to secondary care, has been shown to correlate with cancer survival (Rose et al. 2015).

Primary care providers, as part of routine assessment of patients, have an important role to identify people at elevated risk of cancer and identify symptoms that may be indicative of cancer.

Primary care providers include general practitioners, practice nurses, allied health practitioners, dentists, community health workers, antenatal carers and so on. General practitioners are often the first point of contact to seek health advice, and they are therefore a key engagement partner.

Focus for 2016–2020

- Support health professionals to identify symptoms of cancer early and provide appropriate advice and timely referral to testing/assessment.

Working with health and oral health professionals to detect oral cancer risks

In Victoria, oral cancer is the ninth most common cancer in men and the 12th-most common cancer in women. A strong socioeconomic gradient exists, with people in low-income groups at much higher risk. An important aspect in the early detection of oral cancer is the ability for health and oral health professionals to recognise early signs of cancerous lesions and identify people who are most at risk. Oral cancer currently has a low survival rate so early detection is crucial.

Action area 3: Treatment

Victorians with cancer have timely access to optimal treatment

Priorities:

- **Consistency in the quality of treatment**
- **Improve patients' experience of treatment and care**
- **Optimise infrastructure, analytics and service system design**

A cancer treatment system that maximises safety, quality and outcomes will help to improve cancer outcomes in a challenging and changing care environment.

Cancer treatments have evolved over time, becoming increasingly more targeted and personalised.

A person with cancer can face complex decisions, and may need to negotiate two or three different treatment teams, sometimes across different institutions and between public and private services, and sometimes across metropolitan and rural settings, and over multiple episodes of care.

Victoria has led a range of reform initiatives that have resulted in considerable change in the cancer control sector. These initiatives have included:

- development of Optimal Care Pathways for 15 tumour types to improve consistency in the quality of treatment and experience of care
- improved care and outcomes for patients through multidisciplinary care
- improved coordination of patients' care across settings
- a focus on reducing unwarranted variations in treatment and outcomes
- investment in major infrastructure including cancer centres across metropolitan and regional Victoria
- improved local access to radiotherapy and advanced imaging services
- establishment of academic health science centres
- training facilities such as the state endoscopy training centre.

Victoria's Integrated Cancer Services have been key agencies in facilitating this reform agenda, and there is an opportunity to review the existing configuration of these consortiums to ensure cancer service improvements have the best possible structure and mechanism.

Cancer treatment is also part of the broader health system. There are significant healthcare reforms underway to respond to the long-term challenges facing the health system.

The Better Care Victoria initiative is building on recommendations to increase the capacity of the Victorian public hospital system for better patient outcomes. A statewide design, service and infrastructure plan for Victoria's health system, as well as a specific design, service and infrastructure plan for cancer services, is being developed to address hospital and related service capability and capacity, including infrastructure, required to meet patient demand into the future.

Alongside health system reforms are further investments in cancer services infrastructure, including \$10 million for the first stage of the Maroondah Breast Cancer Centre, and \$50 million towards establishing Australia's first National Proton Beam Therapy Centre to improve outcomes in the treatment of cancers, particularly in children.



Consistency in the quality of treatment

Victorians should receive timely, high-quality cancer treatment no matter where they live. Currently, there are unwarranted variations across Victoria in the timeliness, consistency and outcomes of cancer treatment.

The Optimal Care Pathways for cancer patients have been described for 15 major tumour types, and provide a template against which variations in care can be assessed and understood. To complement the Optimal Care Pathways, statewide tumour summits have been held to better understand the opportunities for improvements in the care of colorectal, lymphoma, lung and prostate cancer.

Improving the consistency of cancer care will lead to fewer unnecessary procedures for patients, more timely interventions that reduce the need for more complex care, address disparity in outcomes, and also support better morale among the health workforce.

Cancer treatment is increasingly complex, both because of advances in personalised and targeted treatments, and the growing incidence of comorbid chronic diseases. Some cancer treatments require highly specialist staff, high-volume centres or specific equipment to be provided safely. Therefore, clear referral pathways between health services are essential to support people when they need to travel for treatment.

Focus for 2016–2020

- Implement the nationally endorsed Optimal Care Pathways across Victorian cancer services and monitor variations against best practice.
- Build on the statewide tumour summit program undertaken to date by organising further summits and implementing outcomes from these.
- Continue to develop a statewide cancer performance indicator and monitoring program, and implement data collection and reporting against a range of key agreed indicators.
- Streamline referral processes to higher-volume services for complex and rarer cancer patients and implement a services capability framework across Victoria to inform referral pathways.

'Effort should be put into doing consistently what we already know works well.'





Improving outcomes through Optimal Care Pathways

Victoria has led the development of Optimal Care Pathways as part of a national work plan for improving cancer care in Australia. The Optimal Care Pathways are a framework for the delivery of consistent, safe, high-quality and evidencebased care for people with cancer. They are not clinical guidelines, but standards of care that aim to foster an understanding of the whole pathway and its distinct components.

The benefits of Optimal Care Pathways include increased collaboration, more effective clinical care, improved clinician–patient communication and patient experience. The resources to support implementation include:

- **clinical Optimal Care Pathways** – developed by multidisciplinary expert groups for healthcare professionals and administrators
- **quick reference guides for general practitioners** – based on the clinical Optimal Care Pathways to familiarise general practitioners with the entire care pathway
- **quick reference guides for consumers** – to assist patients and carers navigate the care pathway at point of diagnosis.

These pathways cover every step from prevention and early detection through to recovery and end of life care. The pathways act as a reminder that the patient is the constant in this journey, and that the health system has a responsibility to deliver care in an appropriate and coordinated manner.

Figure 3: The Optimal Cancer Care Pathway



Optimal Care Pathways have been developed for 15 tumour types, and include a suite of resources to support clinicians and people with cancer to better understand the care pathway, and to improve communication and access to supportive care across the care pathway.

Optimal care pathway for people with lung cancer

Quick reference guide

Remember that your role varies at every step of the pathway.

Step 1 Prevention and early detection	<p>Prevention:</p> <ul style="list-style-type: none"> All current smokers should be offered advice to quit smoking. Effective strategies include: <ul style="list-style-type: none"> access to quitlines and self-help materials referral to health professionals individual or group counseling prescription drugs such as varenicline, bupropion, and nicotine replacement therapy and other nicotine replacement agents 	<p>Risk factors:</p> <ul style="list-style-type: none"> Age Family history of lung cancer Chronic lung disease Current or former smoking Radon exposure Occupational exposure to asbestos, diesel exhaust, and other lung irritants 	
Step 2 Presentation, initial investigations and referral	<p>Signs and symptoms:</p> <ul style="list-style-type: none"> Change in cough Change in sputum Shortness of breath Weight loss Hoarseness Chest pain Recurrent pneumonia Unexplained hemoptysis Swollen lymph nodes Swollen legs Unexplained weight loss Unexplained fatigue Unexplained loss of appetite Unexplained loss of interest in usual activities Unexplained change in voice Unexplained change in voice Unexplained change in voice 	<p>Investigations:</p> <ul style="list-style-type: none"> Physical examination Age Family history of lung cancer Chronic lung disease Current or former smoking Radon exposure Occupational exposure to asbestos, diesel exhaust, and other lung irritants 	
Step 3 Diagnosis, staging and treatment planning	<p>Investigations:</p> <ul style="list-style-type: none"> Physical examination Age Family history of lung cancer Chronic lung disease Current or former smoking Radon exposure Occupational exposure to asbestos, diesel exhaust, and other lung irritants 	<p>Investigations:</p> <ul style="list-style-type: none"> Physical examination Age Family history of lung cancer Chronic lung disease Current or former smoking Radon exposure Occupational exposure to asbestos, diesel exhaust, and other lung irritants 	<p>Investigations:</p> <ul style="list-style-type: none"> Physical examination Age Family history of lung cancer Chronic lung disease Current or former smoking Radon exposure Occupational exposure to asbestos, diesel exhaust, and other lung irritants

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Optimal care pathway for people with lung cancer

Quick reference guide

Remember that your role varies at every step of the pathway.

Step 4 Treatment	<p>Key points:</p> <ul style="list-style-type: none"> Surgey will benefit people with early stage non-small-cell lung cancer (NSCLC) who are fit for surgery and have no other options NSCLC who are not suitable for surgery or have locally advanced disease and are fit for chemotherapy should be offered chemotherapy Small-cell lung cancer (SCLC) is a highly aggressive cancer that is usually treated with chemotherapy Targeted therapy may benefit people with advanced disease and are fit for surgery or have locally advanced disease and are fit for chemotherapy Small-cell lung cancer (SCLC) is a highly aggressive cancer that is usually treated with chemotherapy Targeted therapy may benefit people with advanced disease and are fit for surgery or have locally advanced disease and are fit for chemotherapy 	<p>Investigations:</p> <ul style="list-style-type: none"> Physical examination Age Family history of lung cancer Chronic lung disease Current or former smoking Radon exposure Occupational exposure to asbestos, diesel exhaust, and other lung irritants
Step 5 Care after initial treatment and recovery	<p>Key points:</p> <ul style="list-style-type: none"> Surgey will benefit people with early stage non-small-cell lung cancer (NSCLC) who are fit for surgery and have no other options NSCLC who are not suitable for surgery or have locally advanced disease and are fit for chemotherapy should be offered chemotherapy Small-cell lung cancer (SCLC) is a highly aggressive cancer that is usually treated with chemotherapy Targeted therapy may benefit people with advanced disease and are fit for surgery or have locally advanced disease and are fit for chemotherapy Small-cell lung cancer (SCLC) is a highly aggressive cancer that is usually treated with chemotherapy Targeted therapy may benefit people with advanced disease and are fit for surgery or have locally advanced disease and are fit for chemotherapy 	<p>Investigations:</p> <ul style="list-style-type: none"> Physical examination Age Family history of lung cancer Chronic lung disease Current or former smoking Radon exposure Occupational exposure to asbestos, diesel exhaust, and other lung irritants
Step 6 Managing recurrent, residual and metastatic disease	<p>Key points:</p> <ul style="list-style-type: none"> Surgey will benefit people with early stage non-small-cell lung cancer (NSCLC) who are fit for surgery and have no other options NSCLC who are not suitable for surgery or have locally advanced disease and are fit for chemotherapy should be offered chemotherapy Small-cell lung cancer (SCLC) is a highly aggressive cancer that is usually treated with chemotherapy Targeted therapy may benefit people with advanced disease and are fit for surgery or have locally advanced disease and are fit for chemotherapy Small-cell lung cancer (SCLC) is a highly aggressive cancer that is usually treated with chemotherapy Targeted therapy may benefit people with advanced disease and are fit for surgery or have locally advanced disease and are fit for chemotherapy 	<p>Investigations:</p> <ul style="list-style-type: none"> Physical examination Age Family history of lung cancer Chronic lung disease Current or former smoking Radon exposure Occupational exposure to asbestos, diesel exhaust, and other lung irritants
Step 7 End of life care	<p>Key points:</p> <ul style="list-style-type: none"> Surgey will benefit people with early stage non-small-cell lung cancer (NSCLC) who are fit for surgery and have no other options NSCLC who are not suitable for surgery or have locally advanced disease and are fit for chemotherapy should be offered chemotherapy Small-cell lung cancer (SCLC) is a highly aggressive cancer that is usually treated with chemotherapy Targeted therapy may benefit people with advanced disease and are fit for surgery or have locally advanced disease and are fit for chemotherapy Small-cell lung cancer (SCLC) is a highly aggressive cancer that is usually treated with chemotherapy Targeted therapy may benefit people with advanced disease and are fit for surgery or have locally advanced disease and are fit for chemotherapy 	<p>Investigations:</p> <ul style="list-style-type: none"> Physical examination Age Family history of lung cancer Chronic lung disease Current or former smoking Radon exposure Occupational exposure to asbestos, diesel exhaust, and other lung irritants

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Improve patients' experience of treatment and care

Patients should be empowered to be active partners in their care. The knowledge, skills and confidence a person has in managing their own health and healthcare has been widely shown to positively affect health outcomes.

Coupled with this is the growing recognition of the importance of wellness during and after treatment. While models of wellness vary, the common underlying factor is that wellness focuses holistically on the person and their ability to live the life they desire, rather than focusing on disease, its prevention or amelioration (Clinical Oncology Society of Australia 2015). Understanding the outcomes of care that are important to cancer patients provides the basis for a focus on wellness and quality of life.

Wellness centres are now embedded as part of all Victoria's cancer treatment centres and started with the Olivia Newton John Cancer, Wellness and Research Centre, which opened in 2012. These wellness centres, which are community and philanthropically funded, provide opportunities for patients to become more involved in the management of their symptoms in a non-clinical setting.

For some patient groups, their experience of cancer care can be significantly improved where home-based care options are available. Home-based care can reduce patients' anxiety over accessing and receiving care, particularly for the elderly or frail, and provide better opportunities to inform and educate patients in self-management.

Measuring and monitoring patients' self-reported experience of Victoria's public cancer services is essential for ensuring continual improvements in the overall patient experience.

Focus for 2016–2020

- Support and develop self-management programs for cancer patients, and implement service reforms to better support patients in preventing and managing the side effects associated with treatment.
- Better understand and address social and cultural barriers that may affect access to services.
- Expand options for patients to have care provided locally where appropriate.
- Monitor and assess patients' experiences of care, both locally and statewide, and include quality of life and other patient-reported outcome measures to better understand treatment impacts.



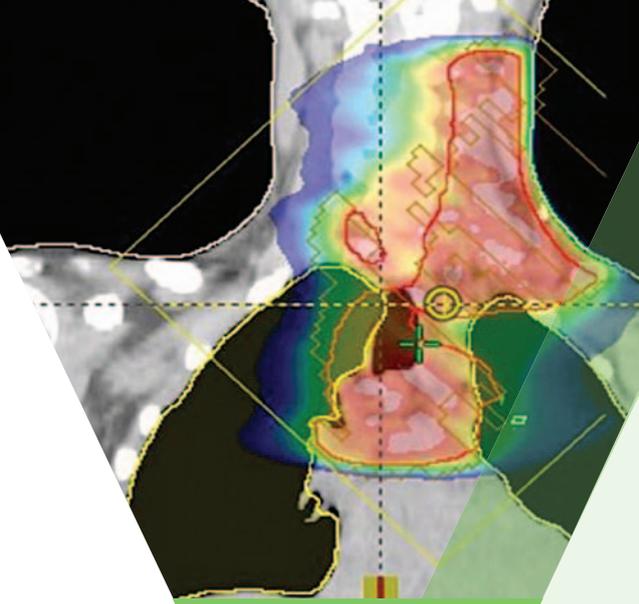
'The care was excellent and I had a fantastic experience considering my circumstances'.

Understanding the patient experience

Over recent years the Cancer Council Victoria, supported by the Department of Health and Human Services, has developed and piloted a program to measure patient's experience throughout their cancer treatment pathway. This patient experience survey can be used to inform both individual service improvements and ongoing reforms on a statewide basis.

The pilot program found that while the majority of patients are very satisfied with their care and treatment, there are opportunities to improve their experience. These include recommendations for working with general practitioners and emergency department staff, side effects management as well as information provision – particularly in relation to supportive care, car parking, financial support and fertility impacts.

This work has led to the creation of a toolkit and database that can be used by health services and Integrated Cancer Services (locally or statewide) to understand how Victorian cancer patients experience the care they receive at the local level. This information can be used to understand how and where care can improve statewide.



Optimise infrastructure, analytics and service system design

Recent investments in infrastructure including the Victorian Comprehensive Cancer Centre and the opening of Regional Cancer Centres are changing the structure and capabilities of the cancer service system. There is also planning underway to develop a Parkville-based National Proton Beam Therapy Centre. We need to ensure we fully realise the potential collective benefit from new and existing infrastructure.

There are opportunities to better coordinate services and resources to optimise patient outcomes. The new cancer centres have extended capabilities and our health services' have improved abilities to capture and analyse clinical data. Together this provides an opportunity for Victorian health services and Integrated Cancer Services to consolidate system approaches to cancer care – at the regional as well as whole-of-state level.

In addition, the Improving Cancer Outcomes Act allows for expanded data collection and integration to support improved analytics. There are opportunities to modernise our data capability across the patient journey, including investment in the Victorian Cancer Registry.

New models of care and new treatment options provide an opportunity and imperative to consider funding models that can deliver the best value through a flexible and integrated cancer system.



Photographer: Tony Miller

Focus for 2016–2020

- Build on the significant investment in our regional cancer services to improve service linkages and reduce the cancer outcome disparities between metropolitan and regional areas.
- Develop a capital business case for a Parkville-based National Proton Beam Therapy Centre.
- Undertake service system delineation articulating cancer centre relationships, patient pathways and service capabilities.
- Review the configuration of Integrated Cancer Services to ensure the best possible structure and mechanisms for cancer services.
- Promote service redesign projects to improve treatment quality and patient experiences of care.
- Build on our current data and analytics capabilities to link state and national datasets to better understand where unwarranted variations exist and how care can be improved.
- Continue to improve our service system through approaches that engage both public and private providers, and improve accessibility, coordination across the care pathway and outcomes of care.

Using technology to bring workforces together and improve outcomes

Victorian health services and the Department of Health and Human Services have teamed with the international company Varian Medical Systems to implement a world-first approach to improving the quality of care for cancer patients receiving radiotherapy.

The approach uses Varian's proprietary product RapidPlan, which is smart software that predicts 'treatment' and plan outcomes and then uses the predictions to optimise intensity-modulated radiotherapy plan parameters.

Varian will provide access to a secure cloud server to enable Victorian public radiotherapy services to pool and share the required models to create the best treatment plans for their patients.

It is expected that this will result in improved individual treatment plans facilitating lower normal tissue radiation doses and reduce potential side effects, while maintaining or even enhancing tumour control. As the models develop through more plans being added by services, variations in the resultant plans will be reduced and treatment outcomes optimised.



Photographer Peter Bennetts

The Victorian Comprehensive Cancer Centre

The opening of Victoria's new \$1 billion purpose-built comprehensive cancer centre provides a world-class facility for cancer research and care. The 13-storey building houses state of the art cancer diagnostic, treatment and patient facilities, and 10 purpose-designed laboratory clusters with space for around 600 laboratory researchers.

Additional features of the facility include:

- eight radiation therapy bunkers
- four CT machines
- four PET/CT machines
- three MRIs, as well as one intra-operative MRI and space for another intra-operative MRI.

As well as the building project – 10 world-leading cancer organisations have come together to form the Victorian Comprehensive Cancer Centre alliance to share knowledge and resources and drive the next generation of cancer research and education in support of best practice treatment and care. These include the Peter MacCallum Cancer Centre, Melbourne Health, The University of Melbourne, the Walter and Eliza Hall Institute of Medical Research, Royal Women's Hospital, The Royal Children's Hospital, Western Health, St Vincent's Hospital, Austin Health and Murdoch Childrens Research Institute.

Victoria's network of regional cancer centres

Victoria pioneered the development of integrated cancer centres in regional areas and over recent years has seen expansion and redevelopment of these centres and new developments across the state. By 2016, each rural region in Victoria will have its own regional cancer centre with expanded radiotherapy and chemotherapy facilities.

- In the Barwon South-West region: redeveloped and expanded cancer services at Barwon Health centred around the Andrew Love Cancer Centre, and the opening in mid-2016 of the new South West Regional Cancer Centre in Warrnambool.
- In the Grampians region: the new Ballarat Regional Integrated Cancer Centre, featuring new state of the art linear accelerators, a research and clinical trials unit, and patient and carer wellness centre. Planning is also underway to develop the Wimmera Cancer Centre, a new cancer service at Horsham Hospital.
- In the Loddon-Mallee region: a new Integrated Cancer Centre opening early 2017 as part of the new Bendigo Hospital co-locates existing services and future proofs the centre for demand growth for years to come.
- In the Hume region: the new Albury-Wodonga Regional Cancer Centre opening in mid-2016 co-locates a range of public and private providers from across the region into the one centre, providing expanded chemotherapy and radiotherapy, as well as the first PET facility in the region.
- In the Gippsland region: the Gippsland Cancer Care Centre at Latrobe Regional Hospital expanded in 2014 to operate two linear accelerators with room for a third, an expanded chemotherapy day unit and improved access to diagnostic services and multidisciplinary treatment planning.

Continuing to enhance and expand Victoria's regional cancer centres is a key component of addressing cancer survival disparities between regional and metropolitan Victorians.





Action area 4: Wellbeing and support

Victorians with cancer and their families live well

Priorities:

- **Strengthen supportive care and self-management**
- **Support cancer survivors to recover and thrive**
- **Maintain quality of life through palliative care and end of life care**

Cancer affects all aspects of people's lives, and drives the need for support with physical, emotional, spiritual, social and information concerns. Support is required across the whole care pathway. This includes:

- during **investigation** and at the **point of diagnosis** – people want support and information so they avoid the experience of walking out of the doctor's room and not knowing what to do
- **through treatment** – people need information and support for physical, emotional, practical and spiritual issues. Physical problems such as fatigue, sleep and pain comprise 60 per cent of identified problems and emotional concerns such as worry, nervousness, sadness and fears account for about 30 per cent (Shand 2015)
- **after treatment** – people report feeling abandoned by health services and anxious about cancer returning. Some continue to experience medium- to long-term effects of cancer treatment
- at the **end of life** – people need support and the opportunity to consider and specify the place and type of care they would like to receive – care that relieves pain and suffering, and provides empowering support to family, friends and carers.

Supportive care needs and the life course effects of cancer will vary with personal circumstances and age at diagnosis. For example, older Victorians with cancer may have other existing chronic illnesses that need to be considered during treatment, whereas children, adolescents and young adults being treated for cancer are at an increased risk for reduced fertility and some illnesses later in life.

Most people diagnosed with cancer are treated successfully. Five-year survival for the two most common cancers (breast and prostate) is above 90 per cent, and for the third-most common cancer, bowel, it is around 69 per cent. These high survival rates, in addition to very high survival in some less common cancers, mean that more people are living with and beyond cancer.

Completing active treatment is a challenging and difficult time for cancer patients. In addition to supportive care during treatment, Victoria has piloted models of care for the post-treatment phase, including: follow-up care and surveillance; recovery and rehabilitation; management of later treatment effects; and chronic disease management.

Some people with cancer have other concurrent health needs that need to be managed alongside appropriate treatment for cancer. The specific needs of older people in hospital have already been recognised, leading to a range of initiatives to support and enhance treatment outcomes for this group. Developing geriatric oncology models of care will support improved care for older Victorians with cancer.

For people who have residual, recurring or progressive/metastatic disease, early access to palliative care services and support to make genuine choices about future and end of life care will help people live and die well. The Victorian Government has developed an end of life and palliative care framework, with the aim of achieving high quality end of life and palliative care.

Strengthen supportive care and self-management

People with cancer and their families and carers have diverse support needs, including information, emotional, physical, practical, financial and social needs across the care pathway.

Many supportive care needs can be addressed by the right information at the right time; others require referral to specific services such as dietetics and psychology. These services may be accessed either at hospital or in the community. Some Victorians with cancer have greater needs for supportive care services, due to pre-existing conditions, social circumstances, age, frailty or place of residence.

Systematic approaches to identifying and managing the supportive care needs of cancer patients are guided by *Providing optimal cancer care: supportive care policy for Victoria* (Department of Human Services 2009). This systematic approach includes; identifying concerns, assessment, education and referral.

In 2015, 39 per cent of cancer patients were screened for their supportive care needs. Sustained effort is required to embed this approach into usual care.

The new consumer versions of the Optimal Cancer Care Pathways provide a summary of what to expect along the cancer pathway.

'I think the info I have received has helped me get over having cancer and reduced my worry and anxiety.'

Focus for 2016–2020

- Ensure implementation of systematic approaches to meet people's support needs through the Optimal Care Pathway, including the identification of needs and referral to appropriate supportive care services for people with cancer, their families and carers.
- Build and refresh the workforce skills and competency in supportive care approaches.
- Build self-sufficiency to enable cancer patients, their families and carers to seek information, peer support, referral and supportive care services at all stages of the pathway.
- Support approaches for priority groups that may have additional needs, including young people and older Victorians with cancer.



Support cancer survivors to recover and thrive

Some cancer treatments are debilitating and have side effects that may last for some time after treatment is completed. People living with and beyond cancer may require support to reduce and manage consequences of treatment and to sustain recovery.

Recovery after cancer treatment may require rehabilitation, support to return to work or school and ongoing management for pre-existing and/or persisting chronic conditions.

Older people may take longer to recover from cancer treatment and hospital admissions and require more support in the community. Whereas young people with cancer may be at risk of developing other conditions later in life as a result of cancer treatment.

Follow-up and surveillance for recurrence, late effects and new cancers are also a component of post-treatment recovery.

Focus for 2016–2020

- Implement survivorship programs to support people in their recovery and to reduce and manage consequences of treatment to achieve better long-term quality of life:
 - rehabilitation
 - long-term follow-up for late effects of treatment – follow-up programs with children and adolescents
 - link with chronic disease management in the community for those who have persisting effects of treatment.
- Develop agreed follow-up guidelines, including shared care with general practitioners, and implement across Victoria.
- Integrate the care of other conditions with cancer treatment, particularly for the elderly.

'You need to take responsibility for your mental health and wellbeing right from the beginning but it's very important at the end of treatment.'



Recovering and thriving – John’s story

Early in 2011, John was a 20-year-old with a passion for graphic design by day, and drumming in a band by night. He felt soreness in his leg but brushed it off as too much drumming. After nine months a diagnosis of osteolympoma was revealed.

Six months on John had completed his cancer treatment, but found it impossible to continue his studies or play in the band. He recognised his quality of life was significantly affected by his chronic fatigue and pain, and 12 months later he was still living with the effects.

An appointment and assessment through a survivorship program led to his referral for rehabilitation within a community health service. Physiotherapy, hydrotherapy sessions and pain management helped him to regain the use of his leg, get his pain under control and get his life back on track.

John was assisted to connect with a local general practitioner who could support him to manage his health. John says the survivorship program at his treating hospital has been incredibly beneficial in helping him recover his physical fitness and develop ways to cope.

Maintain quality of life through palliative care and end of life care

For people with advanced, recurrent or residual cancer, care focuses increasingly on maintaining quality of life, as well as treatment for cancer. This care should be coordinated and integrated with the Optimal Care Pathway; and delivered with a person-centred focus that recognises and embraces diversity.

Palliative care improves the quality of life of people and their families who are facing problems associated with progressive illness. The focus is on the prevention and relief of suffering by early identification and assessment, the treatment of pain together with addressing other physical, psychosocial, spiritual and practical issues. Palliative care can be delivered at the same time as curative treatment, and should be promoted as everyone's responsibility.

End of life care responds to the needs of people in the 12 months before death. It allows time to engage in purposeful conversations with people and their families to discuss their preferences and what matters to them, and focuses on approaches to meet their needs in the last year, months, weeks and days of life.

People with complex end of life care and palliative care needs may require clinicians that have specialist qualifications in palliative care and specialist palliative care services. However, often the most valuable role palliative care specialists play is supporting other healthcare teams and professionals through consultation, advice and support to provide end of life care to their clients.

Advance care plans guide decision making at a future time when that person cannot make or communicate his or her decisions. They enable people to make decisions about treatment and care consistent with their needs and values, and support the health system to respect their values and preferences.

Focus for 2016–2020

- Implement the end of life and palliative care framework to support people to make decisions about their end of life care.
- Build end of life care skills and competencies across the cancer workforce and support early referral to palliative care services.
- Work with health services to increase the uptake of advance care plans.

Supporting Victorians at the end of life – Bill's story

Eighty-year-old Bill has had multiple myeloma for some years, and the oncology team has told him and his wife Wilma that he most likely is in his last weeks of life. Bill and Wilma are sad but philosophical. They are grateful for the time they've had and that Bill's symptoms of pain, nausea and constipation have been well controlled. His main issues now are weakness and fatigue.

The palliative care team at the hospital knows Bill and Wilma well. They met when Bill was first diagnosed and have been involved in his care from time to time. They visit Bill and Wilma with his oncologist to talk about what to do next.

Wilma says that she would like to take Bill home and reactivate their usual supports: their family who live close by, personal care attendants from the local council who help Bill bathe, the nurses from Royal District Nursing Service who monitor his symptoms and his general practitioner. Bill and Wilma feel fortunate to have a general practitioner who can visit at home when Bill is no longer able to go to the clinic. Wilma is not sure if she will manage to keep Bill at home until the end, but she wants to see how they go. The palliative care team tell them about the palliative care inpatient unit nearest to them and offer to make a 'just in case' referral. Bill and Wilma are happy to have a backup plan and look forward to getting home again.



Action area 5: Research

Victoria has a strong and integrated research system

Priorities:

- **Improve access to clinical trials**
- **Support cancer researchers to collaborate**
- **Accelerate translation of cancer research into improved prevention efforts and clinical outcomes**

High-quality cancer research drives clinical practice improvements and underpins all of our efforts in prevention, detection, treatment and support. Victoria's cancer research system is supported by world-renowned medical researchers, institutes, hospitals and universities which have made great strides in improving cancer outcomes.

Victoria has made and attracted significant investment to enable a nationally leading research system. Over 50 per cent of all National Health and Medical Research Council-funded cancer research activities across Australia take place in this state. In addition to commercial support for cancer clinical trials, the Victorian cancer research sector also attracts a large proportion of funding from other Commonwealth organisations, cancer councils, cancer-specific research foundations and other not-for-profit and charitable funders (Cancer Australia 2015c).

The Victorian Cancer Agency (VCA) was established by the Victorian Government in 2006 to sustain and enhance Victoria's excellent track record in cancer research. Through the VCA we have increased collaboration and linkages across the cancer system and with the private and charitable sectors, and funded over 230 research projects furthering prevention, early detection, treatment and support. Since inception, investments through the VCA have resulted in:

- support of \$57 million into the rapid translation of evidence into policy and practice by funding targeted programs into cancers of high incidence and mortality such as breast, lung, colorectal, prostate, blood cancers and melanoma
- close to \$7 million directly invested into regional projects and infrastructure
- development of the cancer research workforce through over 100 fellowships and scholarships
- support of over 830 full-time equivalent positions throughout the cancer research sector.

The VCA has recurrent funding of up to \$14.9 million per annum to continue to support research infrastructure programs, workforce and collaborative projects.

There are further opportunities to build translational cancer research capacity and capability across Victoria and to strengthen Victoria as an internationally recognised leader in cancer research. These include building on the strengths of individual research centres to ensure knowledge sharing, efficient resource use, increase capability across the state and optimise investment in key research agencies including the Victorian Comprehensive Cancer Centre, the Monash Partners Comprehensive Cancer Consortium and their partners.

Cancer research directions complement broader health and medical research strategies. *Victoria's health and medical research strategy 2016–2020* identifies priorities, promotes innovation, and prepares the state for the economic and healthcare opportunities on offer both nationally and internationally. The *Medical Technology and Pharmaceuticals Sector Strategy* seeks to grow Victoria's economic activity by promoting our world-class capabilities.

Advances in human genetics and genomic sequencing over recent years have revolutionised our knowledge of the role of inheritance in health and disease, including cancer. The Victorian Government has committed \$25 million over four years towards developing genomic sequencing capability across Victoria. This Australian-first research translation initiative is being implemented through the Melbourne Genomics Health Alliance, which comprises health services, medical research institutes and organisations and universities. In addition, the Victorian Government is developing a strategy to inform the future direction of public genetic and genomic services in Victoria, which will continue to be informed by the genomic sequencing research translation initiative.





Improve access to clinical trials

Clinical trials are fundamental to establish whether new cancer treatments or new ways of using existing therapies, diagnostic tests, preventive or supportive interventions are safe and effective. Clinical trials generate the evidence for new treatments and best-practice cancer care.

The participation of Victorians in cancer clinical trials can be improved. A better understanding of the barriers to participation in cancer clinical trials, and improving patient and general practitioner awareness of trials are key to improving participation and health outcomes.

We will promote increased participation in clinical trials through a focus on system-wide improvements and infrastructure.

Focus for 2016–2020

- Develop a strategy to improve patient awareness of and access to clinical trials across the state.
- Improve equity of access to clinical research.
- Improve processes to support streamlining and coordination of clinical trials.

Part of a global solution

For nearly a decade the participation rate of Victorian cancer patients in interventional clinical trials to test treatment options has remained relatively static at approximately 7 per cent. There are opportunities to improve this through strategic investments and partnerships in clinical trials infrastructure, research, training and education.

There is momentum internationally to accelerate cancer research and to make more treatments available to more patients. This presents an opportunity for Victoria to develop national and international links aligned with these programs to leverage investment in clinical trials activity.

Support cancer researchers to collaborate

Victoria is home to some of Australia's best and brightest translational cancer researchers and world renowned research organisations. Victoria's research excellence has delivered significant benefits to the state. There is an opportunity to support our researchers to develop valuable collaborations that will progress the rapid translation of cancer research to clinical care.

Focus for 2016–2020

- Work with the Victorian Comprehensive Cancer Centre and the Monash Partners Comprehensive Cancer Consortium to strengthen collaboration in cancer research across Victoria.
- Facilitate better linkages between metropolitan and regional cancer research centres in order to improve access to cutting-edge research and to increase research capability in regional Victoria.
- Support for collaborative research projects through the VCA to encourage collaboration between disciplines and organisations and to increase the quality, capacity and sustainability of cancer research in Victoria.
- Build strategic partnerships with the philanthropic and private sectors to leverage cancer research funding.

Working together to improve outcomes for people with lung cancer

The VCA invests in translational research projects and programs with a collaborative approach to addressing a number of priority tumour streams including lung cancer.

The VCA funded the Victorian Lung Cancer Initiative, a collaborative project to improve outcomes for Victorians with lung cancer through advanced bio-banking, excellence in outcome research, rapid translation of new therapies and validation of preclinical models in the clinic.

This grant enabled the establishment of a broad, multidisciplinary, collaborative initiative to develop strategies to drive quality improvement in the clinical assessment and management of lung cancer in Victoria.

The lung cancer therapies developed through the initiative were made available to Victorian patients through clinical trials. The initiative achieved broad engagement across the Integrated Cancer Services with enthusiastic contributions from multiple organisations across the public, private and academic sectors.

Accelerate translation of cancer research activity into improved prevention efforts and clinical outcomes

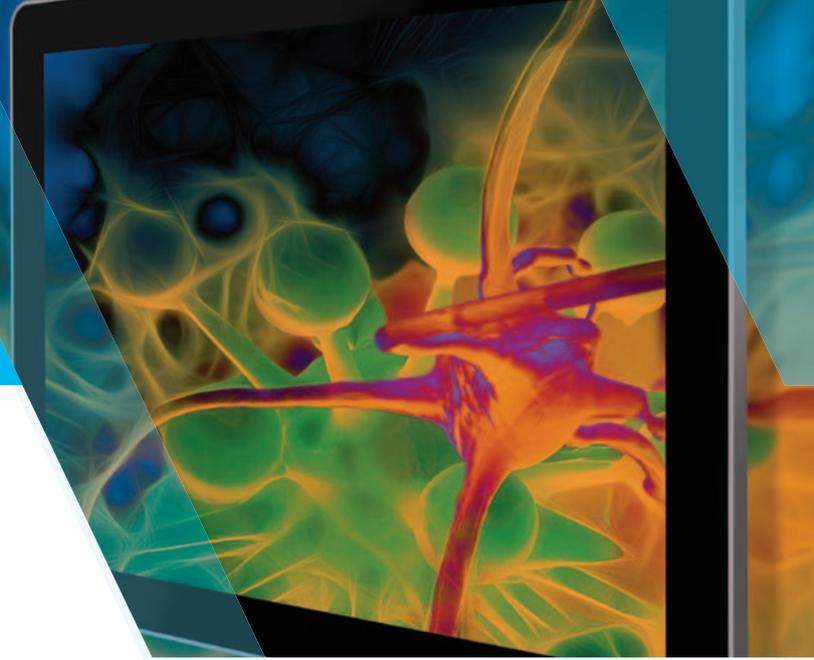
Translational research focuses on clinical outcomes and quality research principles. The knowledge generated from Victoria's translational cancer researchers will be used to drive advances in areas of patient clinical need across the spectrum of prevention, early detection, treatment and support.

Research platforms and resources facilitate the rapid translation of high-quality science into the clinic and healthcare system in order to improve patient outcomes. The statewide research repositories, collections and networks strengthen the foundations that support, shape, and focus efficient, high-quality cancer research in Victoria.

We will continue to build Victoria's research capabilities with an emphasis on translating research into practice through targeted research activities, workforce development and support systems.

Focus for 2016–2020

- Support workforce progression and attract talented researchers through fellowships and scholarships.
- Support translational research into cancer diagnosis and treatment through the Melbourne Genomics Health Alliance.
- Promote health services research to support knowledge translation including clinical care models, evaluation of care pathways, and development of decision support tools.
- Maximise the benefit of resources available to researchers and the community through effective data collection and improved access.
- Support research into Aboriginal cancer-related outcomes in order to identify priority areas for action to improve cancer outcomes for Aboriginal Victorians.
- Develop a framework to evaluate the impact of translational research activities to inform future investment.



Preserving fertility for children and adolescents with cancer

Dr Yasmin Jayasinghe was awarded a VCA Early Career Seed Grant to conduct research into fertility preservation measures in Victorian children and teenagers with cancer.

In the diagnosis and treatment of oncology patients, considerations of fertility can often be of secondary importance. However, given that the overall survival for paediatric cancers is high, fertility issues later in life are of real concern.

Reproductive technologies offer the potential for fertility preservation in cancer survivors through sperm or ovarian tissue retrieval prior to treatment. Fertility preservation poses unique clinical challenges in children, adolescents and young adults, however detailed national guidelines do not exist.

Dr Jayasinghe, along with coinvestigators of the Fertility Preservation Taskforce, is performing an audit of clinical practice at The Royal Children's and Royal Women's Hospitals Melbourne to identify barriers to fertility preservation.

In one of the largest studies on paediatric and adolescent fertility preservation worldwide, the taskforce will establish the first paediatric and adolescent fertility preservation database with links to the Australian and New Zealand Fertility Preservation Register; evaluate a toolkit to deliver information to clinicians and families; and establish the first paediatric and adolescent fertility preservation guidelines in Victoria.



System supports

Victoria's cancer control system encompasses actions to prevent cancer, screen and detect cancer, treat cancer and support people affected by cancer as well as their family and carers. This system is supported by research efforts to optimise wellbeing and improve the health outcomes of Victorians.

The Victorian cancer control system is changing. Capital investment in metropolitan and regional cancer centres, the establishment of academic health science centres, developments in treatments, increasing awareness of the impact of chronic disease – both as a pre-existing condition in the cancer population and as a result of cancer treatment – and the role of non-government organisations in cancer care have all added to the potential but also the complexity of the system.

We need to ensure that we work together for a collective impact. These system supports are interrelated with one another and across all of our priority action areas. They will support a responsive and innovative system to improve cancer outcomes.

Our efforts to improve system supports will focus on:

- integration – working together to deliver optimal care pathways
- innovation – supporting and systematic scaling-up of innovative practice
- investment – in infrastructure, outcome-focused service models and research platforms
- intelligence – better access to and use of data and information to drive continuous improvements in cancer prevention and care
- workforce – ensuring a workforce that can meet the future needs of cancer prevention and care.

Principles

To achieve the best outcomes for cancer control in Victoria, our directions need to be underpinned by strong and clear principles.

Person-centred care with equitable access

We need to move to person-centred and person-directed care, valuing and respecting patients and their preferences, taking into account the whole person and what is important to them. We also need to address disparities in access and outcomes for individuals and communities across the state.

This will mean a strong focus on inclusive services and service accessibility, capacity of individuals and health literacy at the core of cancer service delivery.

Prevention across the care pathway

We need to invest in prevention, acknowledging that the payoff is long-term rather than short-term, and ensure that when treatment is needed, it is provided early.

For cancer control, this means a focus on three levels of prevention: preventing the onset of the disease; reducing mortality through early detection and treatment; and improving prognosis and quality of life through treatment and rehabilitation.

Quality and safe care

We need to ensure quality care that is safe, effective and person centred. This includes care that is culturally safe, provided in a manner that is respectful of a person's culture and beliefs, and that is free from discrimination.

For cancer control, this means a focus on fostering continuous improvement and clinical excellence, and working with broader governance, oversight and transparency improvements.

Evidence informed

We need to ensure interventions are informed by evidence, reduce low-value and futile care, and commit to ongoing and rapid translation of new evidence into service delivery.

Sustainable system

We need to ensure that our health system remains affordable for both taxpayers and individual patients. A sustainable cancer control system will focus on value while expanding access and improving outcomes.

Implementing the cancer plan

The cancer plan establishes long-term goals, and provides a framework from which to base actions over the life of the plan.

The development of a cancer plan every four years is now legislated. This cancer plan is the first of a succession of plans, and the evaluation of this plan will inform the next one.

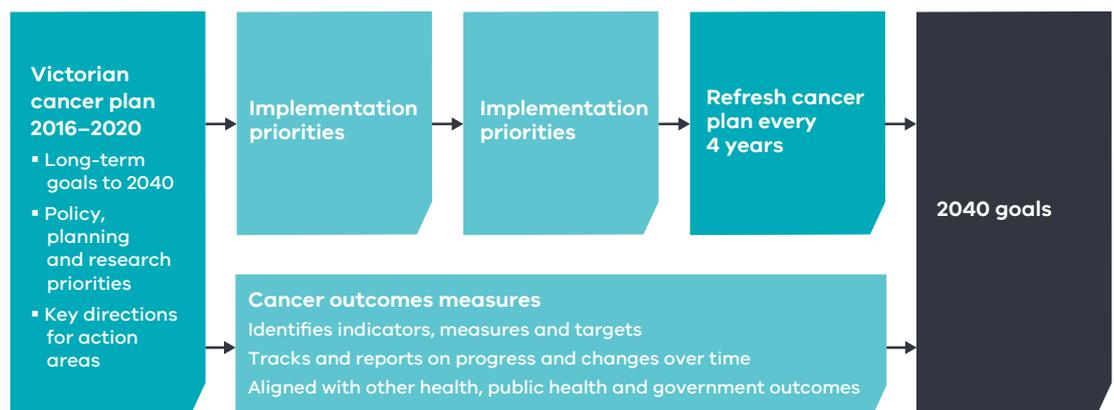
Victoria is well placed to build on investments made in cancer care. We recognise and acknowledge the critical role of our cancer sector partners in our work to strengthen and improve the cancer system, and we will work with them to achieve the objectives and policy priorities set out in this plan.

To ensure the continued involvement of the cancer control sector, and of individuals affected by cancer, the planning and implementation process will be supported by a **Victorian statewide cancer forum**. This will be held every two years to continually inform objectives and policy priorities for cancer control.

To support the implementation and monitoring of the cancer plan we will:

- develop and document implementation priorities detailing the key initiatives that require collective efforts
- establish outcomes measures that identify short-, medium- and long-term targets and monitor the impacts of our efforts to improve cancer outcomes. These outcomes will be complemented by a population-level health and wellbeing outcomes framework.

Figure 4: Working towards 2040



Evaluation of the cancer plan will focus on what we have achieved, what we learn about what works, and what difference we are making as we progress towards the goals.

Potential indicators that track and measure our progress towards the goals include:

<p>Primary prevention</p>	<ul style="list-style-type: none"> ■ Proportion of Victorians who smoke tobacco, including data for people in high prevalence population groups ■ Progressive evaluations of annual SunSmart campaigns, demonstrating population reach and behavioural impacts ■ Notification rates for hepatitis B and C ■ Vaccination rates for hepatitis B ■ HPV vaccination rates, including for people in target population groups
<p>Screening and early detection</p>	<ul style="list-style-type: none"> ■ Participation rate in population cancer screening including data for populations who under-screen – Aboriginal people, particular cultural and linguistically diverse groups, and people living in geographical areas affected by socioeconomic and other disadvantages. Data collected by sex, age, region, metro/non metro ■ Timely access to familial cancer services for individuals who are classified as being at high risk of developing a heritable cancer
<p>Treatment</p>	<ul style="list-style-type: none"> ■ Number of Optimal Care Pathways mapped by Integrated Cancer Services against constituent health service activity ■ The measurement of impact of service quality improvement initiatives against the Optimal Care Pathways ■ Implementation and uptake by Victorian health services of cancer quality of life and experience of care measures ■ Number of services/uptake of home-based care options for cancer patients receiving active treatment. ■ Implementation of common agreed service principles for Victoria’s Regional Cancer Centres ■ Expansion of cancer data analytics to understand variations in access to care, treatments received and outcomes

**Wellbeing
and support**

- Patient experience data demonstrates access to supportive care
- Increased awareness and uptake of the consumer Optimal Care Pathways
- Number of people on shared-care follow-up programs
- Outcomes for older Victorians with cancer including length of stay in hospital, adverse events and discharge to community
- Number of people who are cared for in the place of choice
- Number of people who die in their place of choice

Research

- Number of cancer clinical trials open across Victoria and expected recruitment
- Number of patients participating annually on cancer clinical trials
- Funds invested in the VCA funded collaborative research projects
- Number of VCA funded research projects with a regional component
- Outcomes of research including: changes to clinical models of care; funding and collaboration leveraged from other national and international sources, alternative funding mechanisms identified
- Percentage of VCA-funded projects that use statewide research infrastructure

A snapshot of the Victorian population

There are close to six million people living in Victoria

- Most of Victoria's population is concentrated around metropolitan Melbourne.
- Around 1.5 million live in regional Victoria.
- In many rural areas, the proportion of older Victorians is increasing.
- Victorians come from more than 200 countries and speak 260 languages and dialects.
- 23 per cent of Victorians speak a language other than English at home.
- There are an estimated 51,000 Aboriginal Victorians. Just over half live in regional and rural areas.



Glossary

Advance care planning	Advance care planning is the process of planning for future health and personal care. A person makes their values, beliefs and preferences known so they can guide clinical decision making when and if they are unable to make or communicate their decisions themselves. Advance care planning can be verbal or written. Both verbal and written advance care plans can result in the appointment of a substitute decision-maker. (Department of Health and Human Services 2016c)
Biomarker	A specific physical trait used to measure or indicate the effects or progress of a disease or condition.
Cancer staging	Staging describes the extent or severity of an individual's cancer based on the extent of the primary (original) tumour and the extent of spread in the body.
Cancer	An abnormal growth of cells. The cells multiply in an uncontrolled way and replace healthy cells. Cancer is not one disease and can occur in any tissue in many forms.
Chemotherapy	A drug or combination of drugs used to destroy malignant cells. It can cure some types of cancer and in some cases it is used to slow the growth of cancer cells or to keep the cancer from spreading to other parts of the body.
Clinical trial	Any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects on health outcomes.
Colonoscopy	An endoscopic examination of the colon.
Consumer advocate	A member of a professional consumer or non-government organisation whose role is to voice a consumer (patient or carer) perspective and take part in decision-making processes as a representative of consumers.
End of life care	This describes the care delivered to people with progressive, incurable illness to live as well as possible until they die. It allows the supportive and palliative care needs of both the patient and their family to be identified and met using the palliative approach to care for approximately the last 12 months of life. (Department of Health and Human Services 2016c)

Equity	The absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically. The World Health Organization acknowledges that health inequities therefore involve more than inequality with respect to health determinants, access to the resources needed to improve and maintain health or health outcomes; they also entail a failure to avoid or overcome inequalities that infringe on fairness and human rights norms.
Faecal occult blood test	A chemical test that can detect tiny traces of blood in the faeces that may indicate the presence of disease.
Genetic screening	Testing of a person to identify risk for a specific condition.
Geriatric oncology	A branch of medicine specialising in care for older persons with cancer.
HPV	The human papilloma virus is a risk factor for cervical cancer. Vaccines are now available to prevent infection and help prevent development of cervical cancer.
Incidence rate	Number of people with a particular cancer per 100,000 population.
Incidence	Number of cases or episodes in a defined population within a given time period.
Integrated Cancer Services	The Integrated Cancer Services (ICS) form the Victorian cancer clinical network. The role of this network is to promote system integration across structural boundaries and to encourage collaborative approaches to evidence-based service development and quality improvement at the local level to deliver better patient outcomes. The three metropolitan ICS and five regional ICS were established in 2005. The statewide Paediatric ICS was established in 2004 and has a focus on improving outcomes for children with cancer and their families.
Mortality rate	The number of people who have died from cancer per 100,000 population.
Multidisciplinary care	A team approach where health professionals work together to plan treatment and care for individual cancer patients.

Optimal Care Pathways	A clear description of the care pathway, identifying the critical points along that pathway and the optimal model of care required. They are intended to improve patient outcomes by facilitating consistent care based on evidence and best practice across the state.
Palliative care	Palliative care is defined as care that improves the quality of life of patients and their families facing the problems associated with life-threatening or life-limiting illness through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems – physical, psychosocial and spiritual. (Department of Health and Human Services 2016c)
Personalised/ targeted/ precision medicine	An emerging approach to medicine that tailors treatment and prevention to each patient, taking into account individual variability in genes, environment and lifestyle.
Prevalence	Proportion of individuals in the population with a particular disease. In cancer, it refers to the number of cases of cancer that are present in a particular population at a given time.
Proton beam therapy	A form of radiotherapy that uses a beam of protons to target tumours. The proton beam can be more tightly focused on cancerous tissue than conventional radiotherapy, which means less normal tissue is affected by the treatment.
Risk behaviours	Behaviour-related risk factors that can be used to help determine the risk of future adverse health events and the development of cancer.
Screening	Examination of people with no symptoms to detect unsuspected disease.
Supportive care	Services used by patients to assist with needs beyond treatment. Supportive care includes self-help and support, information, psychological support, symptom control, social support, rehabilitation, spiritual support, palliative care and bereavement care.
Surveillance program	A surveillance program targets people who are at a greater risk of developing cancer, or who have cancer, and involves close and continuous observation and monitoring over a long period of time in order to detect early signs of cancer, or changes in their condition.

Survival rate	The percentage of people still alive at measured number of years after they have been diagnosed with cancer. The interval most commonly referred to in this cancer plan is a five-year survival rate.
Survivorship	A phase of care that follows primary treatment for cancer. It involves support for rehabilitation, the prevention and detection of new or recurrent cancers, and psychosocial and community based support.
Translational research	This is a general term encompassing research that focuses on clinical outcomes and quality research principles, carried out by multi- and inter-disciplinary teams that explicitly address how knowledge created from the research will be used to drive advances in an area of patient clinical need.
UV radiation	Ultraviolet radiation is present in sunlight and artificial light from tanning lamps. UV radiation in sunlight is both a major cause of skin cancer and the best natural source of vitamin D.
Wellness	Complete physical, mental and social wellbeing, not merely the absence of disease. This can encompass physical, social, psychological, spiritual and informational dimensions and is influenced by human biology, social and physical environment, health care systems and lifestyle.

References

Australian Institute of Health and Welfare 2013, *Health system expenditure on cancer and other neoplasms in Australia: 2008–09*, Cancer series no. 81, cat. no. 78, Australian Institute of Health and Welfare, Canberra.

Australian Institute of Health and Welfare 2014, *Cancer in Australia: an overview 2014*, Cancer series no 90, cat. no. CAN 88, Australian Institute of Health and Welfare, Canberra.

Australian Institute of Health and Welfare 2015, *Australian Burden of Disease Study: Fatal burden of disease 2010*, Australian Burden of Disease Study series no. 1, cat. no. BOD 1, Australian Institute of Health and Welfare, Canberra.

Australian Institute of Health and Welfare 2015a, *National Bowel Cancer Screening Program: monitoring report 2013–14*, Cancer series no. 94. Cat. no. CAN 92, Australian Institute of Health and Welfare, Canberra.

Australian Institute of Health and Welfare 2016, 'Participation in BreastScreen Australia 2013–14 data tables', from <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129551514>.

Brotherton JM, Gertig DM, May C, Chappell G and Saville M 2016, 'HPV vaccine impact in Australian women: ready for an HPV-based screening program', *Medical Journal of Australia*, no. 204, vol. 5, p.184.

Cancer Australia 2015a *National Aboriginal and Torres Strait Islander Cancer Framework*, Cancer Australia, Sydney.

Cancer Australia 2015b *Position statement: lifestyle risk factors and the primary prevention of cancer*, Cancer Australia, Sydney

Cancer Australia 2015c *Cancer research in Australia: an overview of funding initiatives to support cancer research capacity in Australia 2006 to 2011*, Cancer Australia, Sydney.

Cancer Council Victoria 2015a *Cancer in Victoria: statistics and trends 2014*, Cancer Council Victoria, Melbourne.

Cancer Council Victoria 2015b, *Cancer in Victoria: cancer risk 2015 Melbourne*, Cancer Council Victoria, Melbourne.

Cancer Council Victoria 2015c, 'HPV vaccine protecting Victorian teens, but greater focus needed on boys' (media release), Cancer Council Victoria, Melbourne.

Cancer Council Victoria 2016, *What is HPV?* from <http://www.hpvvaccine.org.au/parents/parents-what-is-hpv.aspx?link=home>.

Carville K, McLachlan J and Cowe N 2012, *Liver cancer in Victoria, 1982–2007: epidemiological determinants and secular and geographic trends*, Victorian Infectious Diseases Reference Laboratory, Melbourne.

Clinical Oncology Society of Australia 2015, *Cancer survivorship care in Australia, draft position statement and survivorship model*, Clinical Oncology Society of Australia, Sydney.

Department of Health 2014, *Victorian population health Survey 2011–12, survey findings*, State Government of Victoria, Melbourne.

Department of Health 2014a, *Second national hepatitis B strategy 2014–2017*, Commonwealth of Australia, Canberra.

Department of Health and Human Services 2015, *Victorian public health and wellbeing plan 2015–2019*. State Government of Victoria, Melbourne.

Department of Health and Human Services 2016a, *Delivering for diversity: cultural diversity plan 2016–2019*, State Government of Victoria, Melbourne.

Department of Health and Human Services 2016b, *Rainbow eQuality: LGBTI inclusive practice guide for health and community services*, State Government of Victoria, Melbourne, <<http://www.health.vic.gov.au/rainbowequality>>.

Department of Health and Human Services 2016c, *Victoria's end of life and palliative care framework*, State Government of Victoria, Melbourne.

Department of Human Services 2009, *Providing optimal cancer care: supportive care policy for Victoria*, State Government of Victoria, Melbourne.

Phillipson L, Larsen-Truong K, Jones S and Pitts L 2012, *Improving cancer outcomes among culturally and linguistically diverse communities: an Evidence Check rapid review brokered by the Sax Institute for the Cancer Institute NSW*, Cancer Institute NSW, Sydney.

Rose PW, Rubin G, Perera-Salazar R, Almberg SS, Barisic A, Dawes M, Grunfeld E, Hart N, Neal RD, Pirootta M, Sisler J, Konrad G, Toftegaard BS, Thulesius H, Vedsted P, Young J, Hamilton W, IMW Group and IMW Group 2015, 'Explaining variation in cancer survival between 11 jurisdictions in the International Cancer Benchmarking Partnership: a primary care vignette survey', *BMJ Open*, vol. 5, no. 5: e007212.

Shand MBA, Simons K 2015, 'Supportive care needs of a sample of cancer patients in metropolitan Melbourne: implications for service improvement', Clinical Oncology Society of Australia Annual Scientific Meeting.

Victorian Cervical Cytology Register 2014, *Statistical report 2014*, State Government of Victoria, Melbourne.

Victorian Labor Party 2014, *Platform 2014*, Victorian Labor Party, Melbourne.

Whiteman DC, Webb PM, Green AC, Neale RE, Fritschi L, Bain CJ, Parkin DM, Wilson LF, Olsen CM, Nagle CM, Pandeya N, Jordan SJ, Antonsson A, Kendall BJ, Hughes MC, Ibiebele TI, Miura K, Peters S and Carey RN 2015, 'Cancers in Australia in 2010 attributable to modifiable factors: introduction and overview', *Australia and New Zealand Journal of Public Health*, vol. 39, no. 5.



