

Government of **Western Australia** Department of **Health** 

## Chief Health Officer's Report

# Priorities and preferences for cancer control in Western Australia

Epidemiology Branch, Public Health Division, Department of Health, Western Australia



#### Suggested citation:

Girschik J, Miller LJ, Sun W, Jardine A & Weeramanthri TS (2016). Priorities and Preferences for Cancer Control in Western Australia. Perth: Department of Health, Government of Western Australia.



## Contents

Foreword	1
Part 1: Introduction	4
Consultation process	4
Respondent characteristics	4
General perceptions of cancer prevention in WA	4
Part 2: Individual cancers	8
Bowel cancer	8
Breast cancer	10
T Cervical cancer	12
🙏 Lung cancer	14
Melanoma	16
Oesophageal and stomach cancer	18
Prostate cancer	20
Part 3: Conclusions	22
Summary	22
Conclusions	22
Agenda for action	24
Acknowledgments	25
References	26





## Foreword

The Western Australian Chief Health Officer's (CHO) Report is a series of occasional reports released by the Department of Health that examine health-related issues in Western Australia (WA). The purpose of the series is to provide a useful resource for the public as well as for policy makers and planners.

The aim of this latest report is to reflect on how well WA is progressing in cancer control, with a specific focus on cancer prevention. Almost 12,000 Western Australians are diagnosed with cancer and around 4,000 lose their lives to the disease every year.<sup>1</sup> Recent studies have estimated that 30–40 per cent of these cancers could be prevented,<sup>2, 3</sup> which if achieved, would save much of the pain, anguish and cost associated with treating cancer.

This report focuses on seven cancers which have the biggest impact on the WA community, and which also offer the greatest opportunity for prevention. These cancers were selected by examining recent incidence and mortality data, and reviewing established and potential prevention strategies. The final seven cancers chosen include:

- 1. Bowel cancer
- 2. Breast cancer
- 3. Cervical cancer
- 4. Lung cancer
- 5. Melanoma
- 6. Oesophageal and stomach cancer
- 7. Prostate cancer.

An online public consultation, *Your Say on Cancer in WA* (Figure 1), was undertaken using Citizen Space consultation software. It presented a range of statistics and short expert commentaries on these seven common cancers in WA, and asked people their views and ideas on what more could be done to prevent these cancers. The consultation was conducted between 4 February and 27 March 2015.



Figure 1: Screenshot of online public consultation: yoursayoncancer.health.wa.gov.au

Chief Health Officer's Report Choices in Cancer Control	Government of Western Australia Department of Health Public Health and Clinical Services
Consultation Hub Find Consultations	
Have Your Say On Cancer In WA	
Overview	Contact
<text><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></text>	Lan Miller distainmentopoli Deglahment of Health Weekeen Australia 1922 (Hall 1922 (Hall 1922 (Hall 1923 (Ha
Share This	
Phone Stare	

The two key questions the consultation sought to answer were:

- 1. What are the gaps in knowledge around both the impact and prevention of cancer in WA?
- 2. What do people view as the most important priorities for cancer prevention?

This is the first time we have asked the community for feedback in a Chief Health Officer's report and the first time we have used an online forum to gather community opinion on cancer prevention. The whole process was guided by a reference group composed of experts who have provided invaluable insights into our findings.

This document describes the findings of the public consultation, some snapshots of current practice in Australia and some commentary from myself, as the WA Chief Health Officer, on opportunities for action.

Perun Weeramanthi

**Professor Tarun Weeramanthri** Chief Health Officer, Department of Health, Government of Western Australia



## What do we mean by cancer control?

In this report 'cancer control' refers to the primary prevention of cancer in order to minimise the number of new cases of the disease; and the early detection of cancer which will increase the chance of successful treatment by detecting cancers when they are likely to be small and responsive to treatment.

**Primary prevention:** preventing the initial development of a disease in people who are well, through measures such as immunisation and reducing exposure to risk factors. For example, getting people to stop smoking in order to reduce the number of people who develop lung cancer.<sup>4</sup>

**Early Detection:** early detection of an existing disease in people who have the disease, but have not yet developed clinical signs and symptoms of the illness, in order to reduce disease severity and complications and improve treatment outcomes. For example, mammography screening can detect breast cancer before any breast lump can be felt.<sup>4</sup>

## Part 1: Introduction

#### **Consultation process**

The purpose of the consultation was to stimulate discussion and generate ideas. Our focus was on gathering rich information (rather than representative responses) that could be used to inform and improve existing cancer prevention strategies. The consultation was promoted widely using a mix of traditional media (newspaper articles), social media (Facebook and Twitter) and professional networks to attract an audience for whom cancer might be a meaningful and relevant topic. Electronic advertising materials contained hyperlinks to allow people to directly access the consultation. The consultation presented information on cancer and cancer prevention using infographics and short videos from cancer experts and asked participants to respond to a mix of tick-box and open-ended questions. We encouraged participants to be frank, open and creative in providing their thoughts and suggestions for cancer prevention strategies for the future.

### **Respondent characteristics**

A total of 440 respondents participated in the online consultation. The majority of the respondents were female and lived in the Perth metropolitan area (Figure 2). Forty per cent of the respondents were aged less than 40 years, 54 per cent were aged 40 to 64 years and 6 per cent were aged 65 years or older. Participation by non-health professionals versus health professionals was evenly split. The findings were analysed separately for health professionals and non-health professionals but as the results showed no substantive differences, only the combined results are presented.



#### Figure 2: Respondent characteristics

#### General perceptions of cancer prevention in WA

Almost one-third of respondents were surprised by the preventability of the seven cancers included in the consultation, and expected the proportion of preventable cases to be lower, in particular for bowel and cervical cancer. To get an impression of views on cancer risk factors, respondents were asked to select one risk factor they considered the most important priority across all seven cancers (Figure 3). Smoking was the most commonly selected risk factor (40 per cent), followed by poor diet (19 per cent) and obesity (16 per cent).



## Figure 3: Proportion of respondents by the risk factor they considered the most important cancer prevention priority

Respondents were also asked how supportive they were of a range of general cancer prevention actions. Education actions were strongly supported, with 97 per cent either supportive or very supportive of providing advice on the harms associated with both smoking and alcohol (Figure 4). There was also overwhelming support for making healthy foods more affordable (97 per cent) and increasing the opportunity for physical activity in neighbourhoods (96 per cent). The majority of respondents were also supportive of increasing the cost of unhealthy food (69 per cent) and alcohol (58 per cent) (Figure 4); however, these options were less popular compared to the other proposed prevention actions.



Figure 4: Support for cancer prevention actions



Participants were then asked to provide written feedback on what they believed was the best course of action to prevent cancer in WA. A total of 378 people (86 per cent) answered this question. Most participants suggested more than one action and a number specifically said that collaborative, coordinated and multifaceted approaches would be the most effective.

#### Awareness

In general, qualitative responses were closely aligned with the quantitative results. Increasing awareness of all aspects (risk factors, prevention strategies, early detection, treatment and survival) of cancer was overwhelmingly supported by participants as an important strategy to minimise the impact of cancer in WA. School-based education was by far the most commonly suggested awareness action, but targeting older age groups through health promotion, health advertising, training activities and labelling of products was also mentioned. Some respondents specifically commented that raising awareness would not necessarily change behaviour and other measures, such as pricing and access, should be considered. A small number of respondents also mentioned awareness in the context of restricting advertising and sponsorships that promoted or were associated with unhealthy food, alcohol and tobacco products.

#### Accessibility

Affordability and accessibility were also frequently raised by participants as important aspects of cancer prevention. Respondents in general supported 'cheap' and 'easy' access to healthy foods, physical activity, sun protection, HPV vaccinations and cancer screening programs. Issues of access and affordability for specific vulnerable groups such as Aboriginal people, people in rural and remote communities or low socioeconomic areas, migrant groups, workers and school children were also highlighted by some respondents. Consistent with the quantitative results, there was strong support for increasing the cost and decreasing the availability of tobacco products, including banning tobacco outright. In comparison there was less support for increasing the cost or decreasing the availability of alcohol and unhealthy foods. A small number of respondents did not support price increases, predominantly because of the perceived potential to adversely affect marginalised groups, and to a lesser extent because this approach was not perceived to be effective.

"Multi-sectoral and cross agency collaboration on projects, supported by (the) highest level evidence and research"

Female, aged 40-64 years.

"A combination of strategies that provide (the) opportunity for the community at all levels to be involved and strong leadership from governments and community organisations in promoting and explaining the ways of preventing cancer"

Female, aged 40-64 years.

"Education and awareness-raising; built environment modifications; fiscal policies; labelling of fast foods and calorie counts on menus"

Male, aged 40-64 years.

"Increasing the opportunities to have moderately priced, convenient and healthy food options"

Female, aged 15-39 years.

Respondents' comments on the best course of action to prevent cancer in WA

## Part 2: Individual cancers

## Bowel cancer

The majority of respondents indicated that both the incidence and mortality rates of bowel cancer were higher than expected, with the rates among females being particularly surprising. This was supported by responses from the qualitative data in which participants self-identified a lack of knowledge on bowel cancer and (incorrectly) inferred that bowel cancer is a disease predominantly affecting men.

#### **Risk factors**

Excessive red meat consumption stood out as the risk factor for bowel cancer that surprised most respondents, and many expressed a desire to be better informed on what constituted 'excessive' consumption. Almost half of respondents supported a focus on excessive red meat consumption in a future bowel cancer prevention campaign. The results also suggested that other diet-related factors, such as fibre and 'organic' foods were not well understood by participants. Participants were supportive of bowel cancer prevention campaigns aimed at improving dietary knowledge generally and addressing healthy weight.

Evidence of the health benefits of unprocessed lean red meat is consistently recognised in international dietary guidelines, although it has been reported that many young women and children are not eating sufficient red meat or alternatives for good health.<sup>5, 6 p.48-54</sup> There is also convincing evidence that both red meat and processed meats (such as sausages and salami) independently contribute to increased bowel cancer risk.<sup>7</sup> In order to balance the health benefits with the risks, dietary guidelines recommend adults eat no more than 65g of cooked lean red meat per day (or 455g per week) and minimise the consumption of processed meats.<sup>5, 6 p.49, 52</sup> Research also suggests that eating one to three serves per day of cereals high in fibre is associated with a reduced risk of bowel cancer.<sup>6 p.45</sup>

#### Screening

There was generally low awareness of bowel cancer screening and substantial confusion around the screening process and eligibility criteria. Participants strongly supported improving awareness of bowel cancer generally, and the screening process more specifically, as measures to improve participation in the National Bowel Cancer Screening Program.

In 2006 the National Bowel Cancer Screening Program began providing free bowel screening using the faecal occult blood test (FOBT) to people turning 55 and 65 years.<sup>8</sup> The program has gradually been expanded with the aim of providing free biennial screening to Australians aged between 50 and 74 years by the year 2020.<sup>8</sup> The most recent monitoring report for 2013/14 found a participation rate of 38.3 per cent in WA, which is slightly above the national average of 36 per cent.<sup>8</sup>



The results of our consultation are consistent with other Australian research which has also found that bowel cancer in general, and excessive red meat consumption as a risk factor in particular, are not well understood.<sup>9-11</sup> However, it is encouraging that participants wanted to be better informed and were supportive of future bowel cancer prevention programs. In addition, the low awareness and high confusion around bowel cancer screening amongst our participants is consistent with the low participation rates for the National Bowel Cancer Screening Program Australia-wide.<sup>8</sup> However, since our consultation was run in February 2015, the 'Gift for Living' Campaign was launched in April 2015 by the Federal Minister for Health to encourage greater participation in the program.<sup>12</sup> In addition, a modified instruction sheet was developed for the National Bowel Cancer Screening Program by the WA Department of Health. The changes included making the instructions more pictorially-based and appropriate for lower-literacy audiences. The instructions are currently being trialled as a tool to potentially improve participation rates.

"We hear far less about bowel cancer screening than any other kinds of screening programs"

Male, aged 40-64 years.

"Excessive red meat is not well understood in the community. How much is excessive? What is the risk associated with consuming excessive amounts?"

Male, aged 15-39 years.

Respondents' comments on bowel cancer prevention

Detection & Age Process Easy & Age Knowledge Test Family Risk & Bowel cancer Advertising Cost Participate Promotion Information



### 👪 Breast cancer

Respondents were generally aware that breast cancer is a leading cancer among women; however, there was some surprise at how high the incidence of breast cancer is compared to the other common cancers. Respondents were also surprised by the low mortality rate and the high five-year survival for breast cancer.

#### **Risk factors**

Participants did not report being particularly surprised by overweight/obesity or alcohol consumption as risk factors for breast cancer. However, there was some indication in the qualitative responses that they were surprised that more was not known about other potentially preventable risk factors. A number of participants commented on the overall low preventability of breast cancer and the association with non-modifiable familial and genetic risk factors.

Although alcohol consumption was recognised as a risk factor for breast cancer, there appeared to be a strong perception that it was only excessive 'binge' consumption, mostly attributed to young people, that was risky. Participants were very supportive of awareness-raising activities, and there was also some support for structural changes, including increasing the price and decreasing the availability of alcohol. Several respondents suggested the need to challenge Australian cultural and social norms around alcohol consumption.

#### Screening

In the qualitative answers, many respondents reported having had experience with the BreastScreen WA service and were complimentary and supportive of it. A minority of respondents expressed some confusion about the relevance of traditional x-ray mammography in the face of emerging technologies such as ultrasound and MRI.

In 2012–13, over 150,000 women aged 50 to 69 had a screening mammogram through BreastScreen WA, a participation rate of 57 per cent for the target age group.<sup>13</sup> The BreastScreen Australia National Accreditation Standards recommends that at least 70 per cent of women in the target age range should participate in the screening program at least once over a two-year period.<sup>13</sup>



The results of our consultation indicate that although breast cancer has a reasonably high profile, its true impact on the community in terms of the number of new cases may be underappreciated. In addition, the good news around early detection and effective treatments for breast cancer leading to improvement in survival may also not be widely recognised. Regarding alcohol consumption, awareness of the risk of breast cancer associated with regular, low to moderate alcohol consumption may be a gap in knowledge that needs to be addressed.<sup>14, 15</sup> In terms of screening, the esteem with which the BreastScreen program was viewed by respondents is encouraging. Future opportunities for action include reinforcing messages around the safety and efficacy of the current screening program and furthering efforts to increase participation to meet target rates.<sup>13</sup>

"This is a hard one – the highest incidence of excessive drinking is among young women 18–25 – there is already lots of advertising targeting this group who are greatly subject to peer pressure"

Female, aged 65 years or older.

"I think that BreastScreen WA do an excellent job especially in the rural and remote communities"

Female, aged 15–39 years.

Respondents' comments on breast cancer prevention

#### Awareness Culture Breast cancer Information Advertising B Consumption B Consumption B Consumption B Const Young Drinking Cost Young Drinking Cost Young Drinking Cost Young Drinking B Culture Information Campaign School





### TCervical cancer

Participants were surprised by the low ranking of cervical cancer incidence; however, the majority of respondents reported that the person years of life lost per death was higher than expected.

#### **Risk factors**

Overall preventability of cervical cancer was reported by participants as being higher than expected and almost half of respondents were surprised that cervical cancer was caused by persistent viral infection (human papilloma virus [HPV]).

In responses to the open-ended questions, participants expressed strong support for HPV vaccination. Participants suggested increasing public awareness of the vaccine's potential to prevent most cases of cervical cancer, particularly among parents of school-aged children, as a strategy to improve vaccine uptake. Affordability was also raised as an issue for those who are not eligible for free vaccination through the National Immunisation Program.

Australia became the first country to introduce a publicly-funded national HPV vaccination program in 2007. This program has resulted in a significant reduction in the prevalence of vaccine-targeted HPV genotypes<sup>16</sup> and an associated reduction in pre-cancerous cervical abnormalities among young women in Australia.<sup>17</sup> Data from the national HPV vaccination register show that coverage for the third and final dose of the HPV vaccine in the school based program in WA was 76 per cent for females and 61 per cent for males in 2014.<sup>18</sup>

#### Screening

Increasing awareness of the importance of cervical screening was again the key theme in comments by respondents on how to increase participation. Suggestions to improve the system for reminding women to undertake screening were also provided, such as trialling email or text message reminders. Barriers to participation included affordability and anxiety about the invasive and embarrassing nature of cervical screening.

The National Cervical Screening Program is undergoing major changes in 2017 and the current recommendation of cervical screening with two-yearly Pap smears will be replaced by cervical screening every five years with a test to detect the presence of HPV, the virus that causes the abnormal cervical cell changes.<sup>19</sup>

Finally, general comments on cervical cancer prevention indicated some confusion about the need for ongoing cervical screening given the prevention of HPV infection by the vaccine.

The current HPV vaccines in use in Australia provide protection against the most common types of HPV infection that can cause cervical disease, but do not prevent infection from all HPV types that can lead to cervical cancer. Therefore ongoing cervical screening is still necessary even in vaccinated women.<sup>19, 20</sup>



Our results indicate that there was generally good awareness of the importance of cervical cancer prevention amongst our respondents, although the finding for person years of life lost may reflect a lack of awareness that deaths from cervical cancer occur at a younger age compared to many other cancers. It is encouraging that participants were supportive of vaccination against HPV. However, there were signs of confusion in our consultation about the relevance of ongoing cervical screening since the introduction of the vaccine. A recent Australian study reported that screening participation was lower among vaccinated women.<sup>21</sup> Given the changes due to take place to the National Cervical Screening Program, it will be important to maintain ongoing communication and education with health care providers and women in order to ensure a successful transition and to increase participation in cervical screening in WA. With the introduction of the HPV vaccine and the impending changes to the National Cervical Screening Program, there has been speculation that cervical cancer in Australia could conceivably be eradicated in the next 50 years.<sup>22, 23</sup> Eradicating cervical cancer would be an exciting and unprecedented achievement for public health.

"I liked the idea of being vaccinated against HPV during high school" Female, aged 15-39 years

"Continue to send reminders but include other communication methods as well such as text message or email"

Female, aged 15-39 years

Respondents' comments on cervical cancer prevention

Clinics GP Women Culturally sensitive Cervical cancer Appointments Screening Less invasive Details



### Lung cancer

The consultation revealed that while participants were not surprised by the high ranking of lung cancer incidence, they were surprised that it still ranked as the number one cause of mortality among all cancers for both men and women. Further, the five-year survival for lung cancer was lower than expected and the number of days in hospital due to lung cancer was higher than expected.

#### **Risk factors**

There was almost universal awareness of the strong association between smoking and lung cancer with only 3 per cent of respondents surprised by this. Overall the consultation revealed strong support for tobacco control – 40 per cent of respondents chose smoking as the key priority risk factor among all risk factors for cancer prevention, and 97 per cent of respondents were either supportive or very supportive of health promotion campaigns on the harms associated with smoking.

Respondents supported the current multifaceted tobacco control strategies, and recognised the value of specific strategies such as increasing taxation, smoking bans, restricting tobacco advertising and cigarette sales, and education campaigns to reduce smoking rates. Regarding specific strategies to reduce smoking rates, regulation was by far the most commonly mentioned, with banning the sale of tobacco outright a common suggestion.

In addition, many participants expressed frustration that people still smoke given the wellestablished detrimental health effects and supported the need to "keep up the pressure" to make smoking socially unacceptable. However, the difficulty of quitting smoking was also recognised, especially for vulnerable populations such as people with mental health problems. Respondents suggested that more support from family and friends, access to Quit programs, affordable nicotine replacement therapy and alternatives to smoking will assist smoking cessation.

Rates of daily smoking in adults in WA have decreased consistently over the past decade, from 21.5 per cent in 2001 to 14.2 per cent in 2014-15.<sup>24, 25</sup> Similarly, the proportion of 12 to 17 year olds smoking has decreased nationally from 7 per cent in 2008 to 5 per cent in 2014.<sup>26</sup>

#### **E-cigarettes**

The issue of e-cigarettes was raised by a small number of participants; however, opinions on their use were divided.

In Australia, nicotine in liquid form, as used in e-cigarettes, is classified as a Schedule 7 poison. E-cigarettes have not been approved by the Therapeutic Goods Administration for use as smoking cessation aids. In WA, it is illegal to sell e-cigarettes under the *Tobacco Products Control Act 2006*, which prohibits the sale of products that are designed to resemble a tobacco product.<sup>27</sup>



The results of our consultation are consistent with other Western Australian research, which has also found that lung cancer in general, and smoking as a risk factor in particular, are well recognised.<sup>11</sup> The consultation indicated that there is still strong community support for government action on tobacco control, including via legislation. Tobacco control in WA has made encouraging progress as a result of a comprehensive approach that includes education, legislation, advocacy and cessation support. Nevertheless, we should not be complacent. Smoking remains our largest preventable cause of death and disease, and two thirds of smokers are still likely to die because of their smoking.<sup>28, 29</sup> We need to continue to work to reduce smoking rates further to achieve our ultimate goal of a tobacco free state. Effective options to reduce smoking rates include: regular price increases, additional public education programs, smoke-free environments, ending all forms of tobacco promotion, and ensuring vulnerable populations receive adequate support in both prevention and cessation.<sup>30, 31</sup>

"Keep all existing approaches, the battle is being won" Female, aged 40–64 years.

"I think that clamping down on e-cigarettes is important as they may act to make smoking appear fashionable again"

Female, aged 15–39 years.

Respondents' comments on lung cancer prevention



### Melanoma

In general, respondents were not surprised by the number of new cases of melanoma but were surprised by a lower than expected mortality ranking and a higher than expected five-year survival rate. The association between UV radiation exposure and melanoma appears to be well understood, with less than 5 per cent of respondents being surprised by this. There was also strong support for WA to join the other Australian states in banning commercial solaria.

A ban on commercial solaria came into effect in WA on 1 January 2016.32

#### **Risk factors**

Using sunscreen, wearing protective clothing, checking the UV index and wearing a hat were highlighted as sun protection strategies that respondents felt they needed to use more often. There was also strong support for increasing access to shade (trees, shade sails) and sunscreen (free sunscreen dispensers) in public spaces such as parks, playgrounds, the beach and bus stops. This overlapped with a number of responses that supported regulation around mandatory shade 'targets' for outdoor events and in council planning codes. There were also numerous suggestions for outside activities, such as school and professional sporting events, to be shaded or scheduled to minimise UV exposure. In particular, high schools were identified by participants as institutions that needed, but often lacked, strong sun protection practices.



While sunscreen, hats and protective clothing have previously been identified by the public as key sun protection strategies,<sup>33 34</sup> checking the UV index is a relatively new addition so it is encouraging to see that many respondents were aware of its importance. The ideas of public sunscreen dispensers and shade targets are novel and there is an opportunity for those ideas to be evaluated for their feasibility, cost and potential benefits.

"People often look at the weather forecast to see a maximum temperature, and they know what that means and it influences how they dress. This is not the case with the UV rating"

Male, aged 15–39 years.

"Primary schools are good at getting the message across (no hat no play) but that is all but ignored in high school"

Female, aged 40–64 years.

Respondents' comments on melanoma prevention

Schedule Melanoma Temperature Summer Exposure Children Schools Schools (Change UV Sumschede Outdoor (Change UV Outdoor (Change UV Outdoor (Change UV Outdoor (Change UV) Smart (Change UV) Outdoor (Change UV) Smart (Change UV) Sma





### Oesophageal and stomach cancer

Respondents were surprised that these two cancers combined ranked as the fourth leading cause of cancer mortality for men, and the five-year survival for these cancers was also lower than expected. Overall preventability was higher than expected and people were most surprised that infection (*Helicobacter pylori*) was an important risk factor.

Participants reported having limited knowledge about oesophageal and stomach cancer in general and indicated that they would like more information about the symptoms, who is at risk, and ways of preventing these cancers. There was common confusion around the definition of a healthy diet and the link between high salt intake and cancer.

The World Cancer Research Fund and the American Institute for Cancer Research report that salt and salt-preserved foods are a probable cause of stomach cancer.<sup>35</sup> The Australian Dietary Guidelines recommend limiting intake of foods and drinks containing added salt, including processed foods.<sup>6 p. 73</sup>

#### **Risk factors**

The most common suggestion regarding actions to encourage healthy eating in WA was decreasing the cost of healthy foods through GST exemptions or subsidies to make them more affordable, especially in remote areas. There was also moderate support for increasing the cost of unhealthy food through taxation, particularly if the revenue raised was used to subsidise the cost of healthy foods.

There were also suggestions to restrict unhealthy food advertising, increase availability of healthy food and make unhealthy food less available, particularly in schools, sporting venues and places visited by children.

A systematic review of studies on the impact of price changes on food consumption behaviour found that taxation of unhealthy food and subsidising healthy food can be effective means of changing behaviour and improving consumption patterns.<sup>36</sup>



Improving nutrition knowledge and skills has been the focus of school- and communitybased nutrition and food literacy programs in WA for many years. There are a large number of factors that influence people's food choices, such as personal beliefs and family practices, food cost and availability, location and access to food outlets and food marketing and advertising. This means that a broad range of strategies are required to encourage healthy eating in WA. A recent report by the World Health Organization supports the use of a range of regulatory, fiscal, educational, and legislative options to create environments that promote healthy food choices.<sup>31</sup> This is reflected in the *Western Australian Health Promotion Strategic Framework 2012–2016*, which sets priorities and directions to improve healthy eating.<sup>37</sup> The potential for substantial and widespread public health gains for a range of chronic diseases beyond just cancer highlights that improving healthy eating is an area that requires sustained and comprehensive multi-sectorial action.

"Educate people to recognise the signs of stomach cancer. Who are the at risk people? Sending them targeted education packs about healthy eating and encouraging them to look for signs. This could be done with support of GPs"

Female, aged 15–39 years.

"Cheaper healthy food subsidised by a tax on junk food"

Female, aged 40-64 years.

Respondents' comments on oesophageal and stomach cancer prevention

Fresh Cost Options Healthy Cooking Cheaper Fast food Advertising



## **Prostate cancer**

The consultation process showed that respondents were surprised by the high incidence of prostate cancer. In addition, respondents were surprised by the five-year survival of prostate cancer, with the majority reporting that it was higher than expected. However, respondents were not surprised by the high mortality ranking.

#### **Risk factors**

More than half of the respondents in the consultation were surprised that modifiable risk factors for prostate cancer are still not well understood.

A significant amount of research over many decades has evaluated a range of dietary, lifestyle, environmental, and occupational factors as potentially modifiable risk factors for prostate cancer.<sup>38, 39</sup> Smoking is associated with a moderate increase in prostate cancer risk; however, there is no clear consensus in the literature regarding other modifiable risk factors and research is ongoing.<sup>38, 39</sup>

#### Screening

The consultation revealed strong support for prostate cancer screening in both the quantitative and qualitative responses. Only 3 per cent of respondents indicated that they did not support screening men for prostate cancer while 60 per cent supported screening and a further 32 per cent indicated that screening should be decided on between patient and doctor. However, within the qualitative responses (response rate 60 per cent) many comments were short and nonspecific such as "more screening", suggesting limited knowledge in this area.

A recent review of the evidence on prostate cancer screening in asymptomatic men by the National Health and Medical Research Council found there is insufficient evidence to support the benefits of population-based screening for prostate cancer using the prostate specific antigen (PSA) test.<sup>40</sup> Research is ongoing into new screening methods and markers,<sup>39</sup> but the current recommended course of action is for men to speak to their doctor about prostate cancer testing and make an informed choice that best suits their individual circumstances.

Other themes in the comments on prostate cancer prevention included the promotion of a general healthy lifestyle as a prevention measure and undertaking additional research into the causes of prostate cancer given the current lack of certainty regarding prevention. The final theme identified was increasing awareness of prostate cancer, particularly in the context of improving awareness of symptoms and the issues around screening and early detection of the disease.



The results of this consultation indicate a good level of awareness of the importance of prostate cancer among respondents. It is not surprising that most respondents were unclear on risk factors, given the research community has not identified strong modifiable risk factors, despite significant work in this area.<sup>39</sup> It is also not surprising that there is community support for prostate cancer screening given that until recently, there was a lack of consensus on PSA testing, which may have confused both the public and their health care providers. Only recently have high-quality, large-scale studies become available upon which recommendations around population-based PSA screening can be based.<sup>40</sup> Clinical practice guidelines for PSA testing and the early management of test-detected prostate cancer have recently been released and should assist general practitioners (GPs) and their patients in making informed decisions on undergoing PSA testing.<sup>41</sup> There is an opportunity for the WA Department of Health to assist with disseminating these new clinical practice guidelines to health professionals.

"Considering that risk factors, therefore prevention, is uncertain, education regarding symptoms, and screening seems the best way forward" Female, aged 40–64 years.

"Continue screening and work towards better methods of screening" Male, aged 15–39 years.

Respondents' comments on prostate cancer prevention

Prevention for Symptoms of Risk Awareness of Streening Education to Lifestyle of Healthy Information Age Methods Prostate cancer

## Part 3: Conclusions

### Summary

- Respondents were generally positive about the consultation process, the importance of cancer prevention and the role government can play in cancer prevention / early detection.
- Respondents were generally positive about taking personal responsibility for their own health and being able to act on health information.
- A substantial proportion of respondents were surprised by the preventability of cancer.
- Bowel cancer appears to be a clear target for improving public awareness generally and increasing screening participation in WA.
- Breast cancer appears to be a target for improving public awareness around alcohol consumption and increasing screening participation in WA.
- Strong community support remains for action on tobacco control.
- Overall awareness was lowest for oesophageal and stomach cancer, including who is at risk, what the symptoms are, and how to prevent these cancers.
- Actions suggested by participants in regards to cancer prevention were consistent with a collaborative, coordinated and multifaceted approach.

### Conclusions

Western Australians should be proud of our State's record in cancer prevention. We have been leaders both nationally and internationally across a range of programs and policies related to tobacco control, melanoma, asbestos and more recently, obesity. However, as a State we also need to be conscious that more needs to be done. There are almost 12,000 new cases of cancer diagnosed each year in WA<sup>1</sup>, 30–40 per cent of which are considered preventable.<sup>2, 3</sup> Of those cancers that can be prevented, around 9 in 10 are caused by smoking, UV radiation, poor diet, physical inactivity, obesity/overweight and alcohol consumption.<sup>2</sup> Smoking remains the number one preventable risk factor, increasing the risk of lung and fifteen other cancers.<sup>29, 42</sup>

On a positive note, rates of cancer deaths have been declining nationally and are predicted to continue to decline over the next 10 years.<sup>1, 43</sup> Paradoxically however, as the population as a whole ages, and because cancer incidence increases with age and improved treatment lengthens survival, the overall burden of cancer in the community may actually increase compared to other diseases.

Historically, much of the discussion about cancer in the community has focused on treatment, sometimes to the detriment of prevention messages. However, the release of a key Australian body of work on the 'preventability' of some major cancers may help to reinvigorate cancer prevention in public discussion.<sup>2, 44</sup> This research highlighted that up to 37,000 cancers in Australia each year are preventable.<sup>2</sup>



This consultation found that one-third of survey respondents were surprised by the preventability of cancer overall, and in particular, bowel cancer and cervical cancer. Reassuringly, the consultation identified that current actions on tobacco control, sun protection, cancer screening, obesity and physical inactivity were all strongly supported, while participants also acknowledged that vulnerable populations need additional attention in these areas.

In addition, the consultation identified some clear areas for increased community education in the immediate future, in particular around recommended red meat intake, reduced processed meat consumption, moderate alcohol consumption and reduced salt intake, and we are already engaging with our health promotion partners on strengthening evidence-based messages to address these.

Furthermore, the consultation identified that we need to do more around population-based screening policy. For some cancers, we rely heavily on good screening as our principal prevention strategy. We need to promote both bowel and breast cancer screening even more effectively to achieve higher participation rates, and communicate the changes to the National Cervical Screening Program.<sup>8, 13, 19</sup>

In this report we deliberately chose to focus on cancers that result in the greatest burden to the whole population and which offer the greatest opportunities for prevention. As a result, several key cancers and risk factors have not been discussed. In addition, we have not considered in detail the impact of cancer on marginalised and vulnerable groups in this report. In particular, there are other data that show the disproportionate impact of cancer on Aboriginal people in WA,<sup>1, 45</sup> which will require the development of additional targeted prevention and treatment strategies.

Looking towards the future, we are over half-way through the term of the current WA Cancer Plan (2012–2017), and need to look to embed a strong prevention focus into the next plan.<sup>46</sup> We should continue to support and promote the existing State and Australian evidence-based policies, programs and guidelines, including the national dietary and physical activity guidelines, which will also reduce the impact of other chronic lifestyle diseases, as well as obesity.<sup>6, 47</sup>

This consultation process has generated momentum in bringing together a range of organisations and individuals, including the general public, to discuss cancer prevention in WA. The development of a specific State Cancer Prevention Strategy could be one way to formalise this collaborative approach, while also communicating clear, evidence-based targets for cancer prevention activities in WA. A formal State Cancer Prevention Strategy could also improve our collective capacity to scan the horizon for new information that bears on cancer risk and preventive opportunities in this state. For example, recent discussions about risks associated with diesel exhaust and occupational sun exposure may be relevant for WA.<sup>48-50</sup> Developing a sound Cancer Prevention Strategy in WA is possible in part because of our world-class Western Australian Cancer Registry,<sup>1</sup> which collects high quality cancer data and supports our ability to plan and evaluate cancer prevention policies and programs.

With clear targets for cancer prevention in sight, and with the whole community on board and engaged in the effort, we should be ambitious and optimistic in our attempts to live longer without cancer.



### Agenda for action

In collaboration with other relevant organisations, the WA Department of Health to:

- work to increase the number of Western Australians participating in the National Bowel Cancer Screening Program
- strengthen health promotion messages around recommended red meat intake; reducing processed meat consumption; reducing alcohol consumption; and reducing salt intake, as well as links between obesity and cancer risk
- work with clinicians to raise the profile of cancer prevention and early detection
- ensure wide dissemination of the latest clinical practice guidelines for PSA testing and early management of test detected prostate cancer, to ensure men and their GPs are informed by the best available evidence
- monitor the SunSmart program in high schools to ensure that we continue to prevent sun exposure and reinforce sun protection messages after children leave primary school
- communicate the upcoming changes to the National Cervical Screening Program to ensure a successful transition to the new screening program and increased participation in cervical screening in WA
- build on gains made in tackling harm caused by smoking, exposure to ultra violet radiation and asbestos, as well as exploring new and innovative programs to reach vulnerable groups and address emerging issues
- lead discussions on the feasibility of developing a State Cancer Prevention Strategy.



## Acknowledgments

## This consultation and report would not have been possible without the assistance of the following people. Their contributions are greatly appreciated:

#### **Reference group:**

Tony Addiscott, Mike Daube, Lin Fritschi, Paul Katris, Simone Pettigrew, David Ransom, Terry Slevin and Tim Threlfall.

#### Expert commentaries and feedback:

Krista Coward, Ian Hammond, Susan Leivers, Carolyn Minto, Brett Montgomery, Kathleen O'Connor, Christobel Saunders, Nerida Steel, Denise Sullivan, Dishan Weerasooriya and Margie Winstanley.

#### **Project Staff:**

Bridget Egan, David Gibson, Jennifer Girschik, Andrew Jardine, Colleen Koh, Laura Miller, Stacey-Mae Prokopyszyn, Peter Somerford, Wendy Sun and Marcia van Zeller.

#### Graphic Design for the infographics in the consultation survey by Edith Cowan University, School of Communications and Arts:

Gabrielle Harcourt, Leandro Misseroni, Grace Moodie and Natalie Sullivan.



## References

- 1. Threlfall TJ, Thompson JR. Cancer incidence and mortality in Western Australia, 2013. Statistical Series Number 101. Perth: Department of Health Western Australia; 2015.
- 2. Whiteman DC, Webb PM, Green AC, Neale RE, Fritschi L, Bain CJ, et al. Cancers in Australia in 2010 attributable to modifiable factors: summary and conclusions. Aust N Z J Public Health. 2015;39(5):477-484.
- 3. Parkin DM. 1. The fraction of cancer attributable to lifestyle and environmental factors in the UK in 2010. Br J Cancer. 2011;105(S2):S2-S5.
- 4. Gordis L. Epidemiology. 4<sup>th</sup> ed. Philadelphia: Elsevier Health Sciences; 2008.
- 5. Cancer Council Australia. Position statement meat and cancer prevention. Sydney: Cancer Council Australia; 2013.
- 6. National Health and Medical Research Council. Australian Dietary Guidelines. Canberra: National Health and Medical Research Council; 2013.
- Bouvard V, Loomis D, Guyton KZ, Grosse Y, Ghissassi FE, Benbrahim-Tallaa L, et al. Carcinogenicity of consumption of red and processed meat. Lancet Oncol. 2015;16(16):1599-1600.
- 8. Australian Institute of Health and Welfare. National Bowel Cancer Screening Program monitoring report 2013-2014. Cancer series no. 94. Cat. no. CAN 92. Canberra: AIHW; 2015.
- 9. Jalleh G, Donovan RJ, Lin C, Slevin T, Clayforth C, Pratt IS, et al. Beliefs about bowel cancer among the target group for the National Bowel Cancer Screening Program in Australia. Aust N Z J Public Health. 2010;34(2):187-192.
- 10. Javanparast S, Ward PR, Carter SM, Wilson CJ. Barriers to and facilitators of colorectal cancer screening in different population subgroups in Adelaide, South Australia. Med J Aust. 2012;196(8):521-523.
- 11. MacTiernan A, Fritschi L, Slevin T, Jalleh G, Donovan R, Heyworth J. Public perceptions of cancer risk factors: a Western Australian study. Health Promot J Austr. 2014;25(2):90-96.
- 12. Hon Sussan Ley MP. Media release bowel cancer not a dirty word. Canberra: Government of Australia. 18 April 2015.
- 13. Australian Institute of Health and Welfare. BreastScreen Australia monitoring report 2012–2013. Cancer series no. 95. Cat. no. CAN 93. Canberra: AIHW; 2015.
- 14. National Breast and Ovarian Cancer Centre. Breast cancer risk factors a review of the evidence. Surry Hills: National Breast and Ovarian Cancer Centre; 2009.
- 15. International Agency for Research on Cancer. IARC monographs on the evaluation of carcinogenic risks to humans, volume 96, alcohol consumption and ethyl carbamate. Lyon: IARC; 2010.



- Tabrizi SN, Brotherton JML, Kaldor JM, Skinner SR, Cummins E, Liu B, et al. Fall in Human Papillomavirus prevalence following a national vaccination program. J Infect Dis. 2012;206(11):1645-1651.
- 17. Gertig DM, Brotherton JML, Budd AC, Drennan K, Chappell G, Saville AM. Impact of a population-based HPV vaccination program on cervical abnormalities: a data linkage study. BMC Med. 2013;11:227.
- 18. National HPV Vaccination Program Register. Coverage data [Internet]. Melbourne: HPV Register; 2015 [cited 2015 July 21]. Available from: http://www.hpvregister.org.au/research/coverage-data.
- National Cervical Screening Program. Medical Services Advisory Committee recommendations [Internet]. Canberra: Australian Government Department of Health; 2015 [cited 2015 Aug 18]. Available from: http://www.cancerscreening.gov.au/internet/ screening/publishing.nsf/Content/MSAC-recommendations.
- 20. Australian Institute of Health and Welfare. Cervical screening in Australia 2012–2013. Cancer series no. 93. Cat. no. CAN 91. Canberra: AIHW; 2015.
- Budd A, Brotherton J, Gertig D, Chau T, Drennan K, Saville M. Cervical screening rates for women vaccinated against human papillomavirus. Med J Aust. 2014;201(5):279-282.
- 22. Castellsagué X. Natural history and epidemiology of HPV infection and cervical cancer. Gynecol Oncol. 2008;110(3, Supplement 2):S4-S7.
- 23. Onon TS. History of human papillomavirus, warts and cancer: What do we know today? Best Pract Res Clin Obstet Gynaecol. 2011;25(5):565-574.
- 24. Australian Bureau of Statistics. National Health Survey 2001- companion data. Cat. No. 4364.0. Canberra: ABS; 2002.
- 25. Australian Bureau of Statistics. National Health Survey: first results 2014-15. Cat. No. 4364.0.55.001. Canberra: ABS; 2015.
- 26. White V, Williams T. Australian secondary school students' use of tobacco in 2014. Melbourne: Cancer Council Victoria; 2015.
- 27. Department of Health Western Australia. Electronic cigarettes in Western Australia [Internet]. Perth: Department of Health Western Australia; 2015 [cited 2015 May 14]. Available from: http://ww2.health.wa.gov.au/Corporate/Articles/A\_E/Electronic-cigarettes-in-Western-Australia.
- 28. Banks E, Joshy G, Weber MF, Liu B, Grenfell R, Egger S, et al. Tobacco smoking and all-cause mortality in a large Australian cohort study: findings from a mature epidemic with current low smoking prevalence. BMC Med. 2015;13:38.
- 29. Cancer Council Australia. National Cancer Prevention Policy [Internet]. Sydney: Cancer Council Australia; 2015 [cited 2015 Dec 7]. Available from: http://www.cancer. org.au/policy-and-advocacy/prevention-policy/national-cancer-prevention-policy.html.
- 30. World Health Organization. WHO Framework convention on tobacco control. Geneva: WHO; 2003.





- 31. World Health Organization. Global action plan for the prevention and control of NCDs 2013-2020. Geneva: WHO; 2013.
- 32. Western Australian Government. Western Australian Government Gazette, No 150, 9 October 2015.
- 33. Stanton W, Janda M, Baade P, Anderson P. Primary prevention of skin cancer: a review of sun protection in Australia and internationally. Health Promot Int. 2004;19(3):369-378.
- 34. Volkov A, Dobbinson S, Wakefield M, Slevin T. Seven-year trends in sun protection and sunburn among Australian adolescents and adults. Aust N Z J Public Health. 2013;37(1):63-69.
- 35. World Cancer Research Fund/American Institute for Cancer Research. Food, nutrition, physical activity and the prevention of cancer: a global perspective. Washington DC: AICR; 2007.
- 36. Thow AM, Downs S, Jan S. A systematic review of the effectiveness of food taxes and subsidies to improve diets: understanding the recent evidence. Nutr Rev. 2014;72(9):551-565.
- 37. Department of Health Western Australia. WA Health Promotion Strategic Framework 2012–2016. Perth: Department of Health Western Australia; 2012.
- 38. Bostwick DG, Burke HB, Djakiew D, Euling S, Ho S-m, Landolph J, et al. Human prostate cancer risk factors. Cancer. 2004;101(S10):2371-2490.
- 39. Cuzick J, Thorat MA, Andriole G, Brawley OW, Brown PH, Culig Z, et al. Prevention and early detection of prostate cancer. Lancet Oncol. 2014;15(11):e484-e492.
- 40. National Health and Medical Research Council. Prostate-Specific Antigen (PSA) testing in asymptomatic men: evidence evaluation report. Canberra: National Health and Medical Research Council; 2013.
- 41. Prostate Cancer Foundation of Australia and Cancer Council Australia PSA Testing Guidelines Expert Advisory Panel. Clinical practice guidelines for PSA testing and early management of test-detected prostate cancer. Sydney: Prostate Cancer Foundation of Australia and Cancer Council Australia; 2016.
- 42. International Agency for Research on Cancer. IARC monographs on the evaluation of carcinogenic risks to humans, volume 100 E, personal habits and indoor combustion. Lyon: IARC; 2012.
- 43. Australian Institute of Health and Welfare. Cancer mortality trends and projections: 2013 to 2025 [Internet]. Canberra: AIHW; 2015 [cited 2015 Dec 15]. Available from: http://www.aihw.gov.au/cancer/mortality-trends-projections/.
- 44. Whiteman DC, Webb PM, Green AC, Neale RE, Fritschi L, Bain CJ, et al. Cancers in Australia in 2010 attributable to modifiable factors: introduction and overview. Aust N Z J Public Health. 2015;39(5):403-407.
- 45. Australian Institute of Health and Welfare and Cancer Australia. Cancer in Aboriginal and Torres Strait Islander peoples of Australia: an overview. Cancer series no.78. Cat. no. CAN 75. Canberra: AIHW; 2013.

- 46. Department of Health Western Australia. WA Cancer Plan 2012-2017. Perth: Department of Health Western Australia; 2011.
- 47. Australian Government Department of Health. Australia's physical activity and sedentary behaviour guidelines. Canberra: Australian Government Department of Health; 2015.
- 48. Carey RN, Driscoll TR, Peters S, Glass DC, Reid A, Benke G, et al. Estimated prevalence of exposure to occupational carcinogens in Australia (2011–2012). Occup Environ Med. 2014;71(1):55-62.
- 49. Fernandez RC, Driscoll TR, Glass DC, Vallance D, Reid A, Benke G, et al. A priority list of occupational carcinogenic agents for preventative action in Australia. Aust N Z J Public Health. 2012;36(2):111-115.
- 50. Cancer Council Western Australia. Occupational exposures to carcinogens in Australia. Perth: Cancer Council Western Australia; 2015.



This page has been left blank intentionally



This document can be made available in alternative formats on request for a person with a disability.

Produced by the Epidemiology Branch © Department of Health 2016

Copyright to this material is vested in the State of Western Australia unless otherwise indicated. Apart from any fair dealing for the purposes of private study, research, criticism or review, as permitted under the provisions of the *Copyright Act 1968*, no part may be reproduced or re-used for any purposes whatsoever without written permission of the State of Western Australia.