



Western Australian Health Promotion Strategic Framework 2012–2016

**Working together to promote health and prevent
chronic disease and injury in our communities**

**Draft for consultation
April 2012**

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Note on terminology

The use of the term “Aboriginal” within this document refers to Australians of both Aboriginal and Torres Strait Islander descent. The word “Indigenous” is retained where it is included as part of an already existing formal title.

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Foreword

WA Health is committed to promoting healthier, longer and better quality lives for all Western Australians.⁽¹⁾

Too many Western Australians are dying prematurely, or living with illness and disability, due to preventable chronic disease and injury.

The importance of reducing the burden of chronic disease and injury is recognised at Commonwealth and State level. The WA Government is signatory to the *National Partnership Agreement on Preventive Health* (NPAPH), which sets targets which will help prevent the lifestyle risks that cause chronic disease, especially obesity, tobacco use and harmful drinking.⁽²⁾

The *Health Promotion Strategic Framework 2012–2016* outlines the broad policy priorities which WA Health intends to pursue in fulfilment of its obligations under the NPAPH, and through state-funded initiatives to address chronic disease and injury prevention in WA. This document builds on the previous Framework (2007–2011), which emphasised the importance of understanding and addressing the contributing factors to ill-health, of integrating health across wider government policy, and of working with key partners to achieve our common goal of a healthier community. A comprehensive approach remains vital to attain the goal of this Framework—to lower the incidence of avoidable chronic disease and injury in WA by facilitating improvements in health behaviours and environments.

The multisectoral approach required to meet the desired outcome of better health for all Western Australians depends on continuing and building upon our strong working relationships between WA Health and our many government, non-government, industry, education and community partners. A shared vision is critical to the development of a robust policy framework.

It should be noted that the Framework presented here is a consultation draft and has not been endorsed by the Department of Health.

I invite you to participate in the consultation process for the Health Promotion Strategic Framework and welcome your comments.

signed by Kim Snowball

Kim Snowball
DIRECTOR GENERAL

April 2012

Executive summary

About the *WA Health Promotion Strategic Framework 2012–2016*

- The *WA Health Promotion Strategic Framework 2012–2016* (HPSF) sets out WA Health's strategic directions and priorities for the prevention of chronic disease and injury over the next five years.
- The goal of the HPSF is to lower the incidence of avoidable chronic disease and injury in WA by facilitating improvements in health behaviours and environments.
- The target populations for the HPSF are people who are currently well, and those who are at risk of developing disease or experiencing injury by engaging in risky lifestyle choices. These groups are reached by adopting a "whole of population" approach.
- A conceptual overview of the HPSF is provided in Figure 1.

Who will use the Health Promotion Strategic Framework?

- The main readership of the HPSF is likely to be Government agencies, non-government organisations and professional and voluntary organisations with a direct involvement in health promotion. However to achieve the goal of a healthier State, a wide range of organisations, groups and individuals will need to be involved across trade and industry, public and private sector workplaces, educational bodies, the health professions, local government authorities, community groups, the general public and the media.
- The HPSF sets broad strategic priorities to achieve the greatest health gain for the WA community, but decisions regarding appropriate interventions will differ between organisations and settings, depending on their responsibilities and priorities.
- The HPSF emphasises the importance of building strong and supportive partnerships across sectors to work towards the common goal of improving the population's health. An important measure of the HPSF's success will be its ability to act as a catalyst for cooperation and concerted action.

Links with other health policies

- The HPSF complements Commonwealth and State policies which support better health for Western Australians.

Chronic disease and injury in WA

- Chronic diseases include heart disease, stroke, some types of cancer, type 2 diabetes and respiratory diseases such as chronic obstructive pulmonary disease and asthma.
- Chronic diseases are a major contributor to the total burden of disease,⁽³⁾ and are the leading cause of potentially avoidable deaths in WA.⁽⁴⁾
- The risk of developing chronic disease and experiencing unintentional injury can be reduced by avoiding: being overweight or obese; poor diet and excessive energy intake; insufficient physical activity; tobacco use; and harmful levels of drinking.
- In 2010, over half (51%) of Western Australians aged 16 and over reported being diagnosed with at least one chronic health condition or having been injured in the past year.⁽⁵⁾
- People who are disadvantaged or live outside major cities,⁽⁶⁾ and people who live with a disability or mental illness⁽⁷⁾ are generally at greater risk of chronic disease or injury.
- Aboriginal people have a higher risk of developing chronic disease and suffering injury.⁽⁸⁾ About 80% of the mortality gap between Aboriginal people and other Australians aged between 35–74 is due to potentially avoidable chronic diseases.⁽⁹⁾
- Some culturally and linguistically diverse communities also have a higher prevalence of risk factors for disease.⁽¹⁰⁾ This may be due to cultural and social reasons related to their country of origin, or because they may be at greater risk of being disadvantaged.
- Between 2005–2010, chronic diseases and injury cost WA more than \$3 billion in hospital costs alone.⁽¹¹⁾

Complex health problems need comprehensive solutions

- The HPSF recognises the importance of the influences of the social, cultural and physical environment on health behaviours, as well as the effect of individual circumstances on shaping personal priorities and decision-making about health and other behaviours.
- Addressing complex health issues requires comprehensive solutions; intersectoral collaboration beyond the immediate health sphere; and a long term vision. The importance of working in partnerships is understood and actively supported by WA Health.⁽¹⁾
- Population-wide interventions should be complemented by specific strategies to target hard-to-reach groups, and those who are most vulnerable to developing preventable chronic disease or experiencing injury.

A framework for action

- The HPSF adopts a comprehensive approach to health promotion by using a broad range of intervention “levers.” These are:
 - development of healthy policy at government and organisation level;
 - legislation and regulation;
 - economic interventions;
 - creating environments for living, working and relaxing which support healthy choices;
 - raising public awareness and engagement;
 - community development;
 - targeted interventions; and
 - strategic coordination and capacity building.
- Priorities for each type of intervention are identified for the HPSF’s key areas. These are:
 - Maintaining a healthy weight;
 - Eating for better health;
 - A more active WA;
 - Making smoking history;
 - Reducing harmful drinking; and
 - Creating safer communities.

Putting policy into practice and measuring success

- Everybody has a role to play in improving the health of Western Australians.
- WA Health sets targets for reduction in chronic disease and injury which are measured against Key Performance Indicators (KPIs).⁽¹²⁾ The Government of WA is also committed to meeting targets set out in National Agreements.^(2, 13)
- Progress in implementation and measuring effectiveness of interventions to reduce the incidence of chronic disease and injury may be assessed by using qualitative or quantitative measures, or both, depending on the interventions which are being measured.

Informing future planning

- WA Health will monitor health promotion activities to build the evidence base about activities in this State. Building the evidence base also involves monitoring and critically reviewing strategies, programs and evidence originating from elsewhere in Australia and where relevant, internationally.

- WA Health places priority on developing structured ways of sharing and building on knowledge with key partners and stakeholders.
- The value and importance of a collaborative and consultative approach to research priority setting is well-recognised. WA Health will seek ways of focussing the research agenda, as well as capitalising and building on research capacity in this State.

Figure 1: Conceptual overview of the Western Australian Health Promotion Strategic Framework 2012–2016

| Goal | | | | |
|--|---|---|---|--|
| To lower the incidence of avoidable chronic disease and injury in WA by facilitating improvements in health behaviours and environments | | | | |
| Target Population | | | | |
| People who are currently well, and those who are at risk of developing disease or experiencing injury by engaging in risky lifestyle choices | | | | |
| Action Areas – “Levers” | | | | |
| Development of healthy policy at government and organisation level | | | | |
| Legislation and regulation | | | | |
| Economic interventions | | | | |
| Creating environments for living, working and relaxing which support healthy choices | | | | |
| Raising public awareness and engagement | | | | |
| Community Development | | | | |
| Targeted interventions | | | | |
| Strategic coordination and capacity building | | | | |
| Priority Areas | | | | |
| Maintaining a healthy weight | Eating for better health | A more active WA | Making smoking history | Reducing harmful drinking |
| <ul style="list-style-type: none"> Prevent overweight and obesity Increase awareness of and positive attitudes to maintaining a healthy weight Address the obesogenic environment | <ul style="list-style-type: none"> Promote a shift in dietary intake from excess energy-dense, nutrient-poor foods to dietary patterns consistent with current guidelines Improve food security | <ul style="list-style-type: none"> Increase the proportion of people who are active enough for good health Maintain the physical activity levels of those who are already active enough for good health Reduce sedentary behaviour | <ul style="list-style-type: none"> Continue the efforts to drive down smoking rates in the community Eliminate exposure to tobacco smoke in places where the health of others can be affected | <ul style="list-style-type: none"> Change community attitudes towards alcohol use Influence the supply of alcohol Moderate demand for alcohol |
| | | | | <ul style="list-style-type: none"> Reduce road crashes and road trauma Falls prevention in older people Protect children from injury Improve water safety Reduce interpersonal violence |
| Measuring Progress | | | | |
| Key Performance Indicators for WA Health Annual Reporting National Partnership Agreement on Preventive Health National Healthcare Agreement National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes | | | | |

Introduction

About the *Health Promotion Strategic Framework 2012–2016*

The *WA Health Promotion Strategic Framework 2012–2016* (HPSF) builds on the previous HPSF (2007–2011) and sets out WA Health’s strategic directions and priorities for the prevention of chronic disease and injury over the next five years.

The goal of the HPSF is to lower the incidence of avoidable chronic disease and injury in WA by facilitating improvements in health behaviours and environments.

The target populations for the HPSF are people who are currently well, and those who are at risk of developing disease or experiencing injury by engaging in risky lifestyle choices. These groups are reached by adopting a “whole of population” approach.

There is an important role for prevention across the continuum of care. This is addressed in complementary frameworks and policies of WA Health.

Strategies to encourage healthier and safer populations require a sustained and long term investment in health promotion (Box 1) and an integrated approach which takes into account the wider socioeconomic, cultural and environmental conditions which shape behaviour.

Box 1: What do we mean by health promotion?

WA Health endorses the World Health Organization’s broad definition of health promotion, which states that:

“Health promotion represents a comprehensive social and political process, it not only embraces actions directed at strengthening the skills and capabilities of individuals, but also action directed towards changing social, environmental and economic conditions so as to alleviate their impact on public and individual health. Health promotion is the process of enabling people to take control over the determinants of their health and thereby improve their health.”⁽¹⁴⁾

Effective health promotion operates on a number of levels. It includes policy development by governments and organisations; legislation and regulation; economic interventions; creating environments for living, working and relaxing in which support healthy choices; raising public awareness and engagement; community development; providing targeted interventions; and forming partnerships to maximise impact and develop a sustainable framework for ongoing action.

This HPSF identifies priorities in each of these key areas, and encourages a coordinated, consistent, evidence-based approach to achieve best practice. Where there is a lack of evidence for successful interventions, then initiatives underpinned by sound theoretical basis or expert opinion are to be encouraged.

A series of fact sheets has been developed which provide further information about chronic disease and injury in WA. These and other helpful resources to support implementation of the HPSF are available from the HPSF website.

Who will use the Health Promotion Strategic Framework?

The HPSF has been developed for use by all agencies and organisations with an interest in promoting better health in WA. Achieving a healthier WA will require the involvement of many partners, including Government departments and agencies; non-government organisations; professional and voluntary organisations; trade and industry groups; educational bodies; public and private sector workplaces; health professionals; community groups, the general public and the media. Each of these groups has the power to contribute to better health in their own way, and many are already doing so.

Many local governments in WA are working hard to build healthier communities.⁽¹⁵⁾ At the time of writing, a new Public Health Act for WA is being developed, with the aim of offering better protection for and promoting the health of the public, and of reducing the incidence of preventable illness and injury.⁽¹⁶⁾ The HPSF will help guide local governments in setting health promotion objectives and priorities for their communities.

The HPSF sets broad strategic priorities to achieve the greatest health gains for the WA population. Decisions regarding appropriate interventions will differ between organisations and settings, depending on their responsibilities and priorities.

The HPSF emphasises the importance of building strong and supportive partnerships across sectors to work towards the common goal of improving

the population's health, and demonstrates that health promotion is everybody's business. An important measure of the HPSF's success will be its ability to act as a catalyst for cooperation and concerted action.

Links with other health policies

WA Health's overarching policy, the *WA Health Strategic Intent*, envisions "healthier, longer and better quality lives for all Western Australians." The Strategic Intent affirms the Government's commitment to health promotion, illness prevention and early intervention, and to working towards closing the gap in health and wellbeing between Aboriginal and non-Aboriginal Western Australians.⁽¹⁾

The HPSF complements other policies which address different aspects of health in WA.

- **The health of Aboriginal people** is specifically addressed in several major policy and program areas. These include initiatives implemented under the *National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes*,⁽¹⁷⁾ and State policy frameworks developed by the Office of Aboriginal Health (<http://www.aboriginal.health.wa.gov.au/home/index.cfm>), WA Country Health Services (<http://www.wacountry.health.wa.gov.au/index.php?id=7>), the Drug and Alcohol Office (<http://www.dao.health.wa.gov.au/>) and the Mental Health Commission (<http://www.mentalhealth.wa.gov.au/Homepage.aspx>), among others.
- **Communicable (infectious) diseases**, including sexual health and associated chronic diseases which may arise from infectious diseases, are addressed in plans and policies managed by the Communicable Disease Control Directorate within the Public Health Division of the WA Department of Health. For more information, visit: http://www.public.health.wa.gov.au/1/1078/2/infectious_diseases_sexual_health_and_immunisation.pm
- **Mental health issues** are addressed by the Mental Health Commission in policies which include *Mental Health 2020: Making it personal and everybody's business* and the *Western Australian Suicide Prevention Strategy 2009–2013*, available from <http://www.mentalhealth.wa.gov.au/Homepage.aspx>
- **Alcohol and other drugs policies** are developed by the Drug and Alcohol Office. The *Drug and Alcohol Interagency Strategic Framework for Western Australia 2010–2015* and other resources are available from <http://www.dao.health.wa.gov.au/Informationandresources/Nationalandstatepolicies.aspx>

- **Prevention and management of chronic disease in people who have already been diagnosed** is addressed in the *WA Chronic Health Conditions Framework 2011-2016*, the *WA Chronic Conditions Self-Management Strategic Framework 2011-2015* and *Models of Care* for individual diseases, available from <http://www.healthnetworks.health.wa.gov.au/home>
- **Prevention and management of cancer** is discussed in the *Western Australia Cancer Plan 2012–2017*, and the *WA Framework for the Delivery of Cancer Priorities 2012–2017*, available from <http://www.healthnetworks.health.wa.gov.au/home>

In the past, state tobacco policy has been addressed in a separate Western Australian Tobacco Action Plan. Tobacco control policy is now included in the HPSF.

The HPSF is aligned with major health agreements between the Commonwealth and the WA Government, including the *National Partnership Agreement on Preventive Health* (Box 2). The *National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes*⁽¹⁷⁾ (Box 3), the *National Chronic Disease Strategy*⁽¹⁸⁾ and the *National Drug Strategy 2010–2015*⁽¹⁹⁾ are other important policies.

Box 2: The National Partnership Agreement on Preventive Health

The *National Partnership Agreement on Preventive Health*⁽²⁾ (NPAPH) is an agreement between the Commonwealth and all States and Territories. It came into effect in early 2009, and is the largest investment ever made by an Australian Government in disease prevention. The NPAPH provides \$872 million nationally over a six-year period.

The aim of the NPAPH is to address the rising prevalence of lifestyle-related chronic diseases and encourage the adoption of healthy behaviours, with a focus on the priority areas of smoking, nutrition, physical activity and alcohol. Under the NPAPH, WA Health and its partners are delivering programs aimed at children through settings such as schools, child care centres, community health centres and other community settings; and programs targeting the adult population via workplace and community-based programs. Local social marketing support activities complement national level campaigns.

The NPAPH also provides funding to help build up knowledge and expertise about preventing illness and disease associated with lifestyle risk factors.

For more information, see the NPAPH website:

<http://www.health.gov.au/internet/main/publishing.nsf/Content/phd-prevention-np>

In WA, more than \$177 million has been allocated to *Closing the Gap* programs over four years.⁽¹⁷⁾ *Our footprints—a traveller's guide to the COAG implementation process in Western Australia*⁽²⁰⁾ provides further information on *Closing the Gap* programs in WA.

Box 3: National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes

This important agreement spans 2009–2013 and identifies five priority areas to “close the gap” between Aboriginal health outcomes and the rest of the Australian population:⁽¹⁷⁾ These are: tackling smoking; providing a healthy transition to adulthood; making Aboriginal health everyone’s business; delivering effective primary health care services; and better coordinating the patient journey through the health system.

Closing the Gap acknowledges the importance of adopting an holistic, life stage approach to reaching its objectives. The agreement also recognises the need to work across government to address the underlying social determinants of poor health, including education, housing and employment.⁽¹⁷⁾

Links to major Commonwealth and State policies are included in the Appendix.

Part 1—Understanding chronic disease and injury

What do we mean by chronic disease and injury?

Chronic diseases are non-infectious health conditions which usually have a number of contributing factors, develop gradually, and have long-lasting effects. Some diseases may lead to many years of disability and require long-term management, while others cause premature death.⁽²¹⁾ Chronic diseases have substantial health, economic and social consequences. They are a major contributor to the total burden of disease,⁽³⁾ and are the leading cause of potentially avoidable deaths in WA.⁽⁴⁾

Chronic diseases are complex, and vary in nature, causality and health implications. Chronic diseases include heart disease, stroke, some types of cancer, type 2 diabetes and lung diseases such as chronic obstructive pulmonary disease and asthma. Chronic kidney disease, osteoarthritis and osteoporosis are other common chronic diseases.⁽²¹⁾

Once they have developed, most chronic diseases cannot usually be completely cured, but it is possible to reduce the risk of developing many diseases, or to reduce their severity, by avoiding the following lifestyle risk factors:⁽²¹⁾

- tobacco use, alcohol consumption;
- physical inactivity, poor diet, obesity;
- high blood pressure, high cholesterol, diabetes;
- stress; and
- exposure to environmental risk factors.

Preventing injury is often considered in partnership with approaches to prevent chronic disease, because addressing lifestyle risk factors may also help reduce the incidence of unintentional injury in the community. People who already have a chronic disease may also be at greater risk of injury. For example, people with osteoporosis are more likely to fracture or break bones if they fall.

There are also important links between mental health, chronic disease and risk of injury. People with chronic disease are more likely to report having a mental disorder than people who do not have a chronic disease,⁽²²⁾ and people with mental illness are more likely to experience chronic diseases due to a higher prevalence of lifestyle risk factors.⁽²³⁾ People with mental illness are also at greater risk of injuring themselves (accidentally or deliberately*) and experiencing injury at the hands of others.⁽²³⁾

* Injury and death due to self-harm are not discussed within the *WA Health Promotion Strategic Framework*. The Mental Health Commission develops policy and planning for mental health in this State. Visit:

<http://www.mentalhealth.wa.gov.au/Homepage.aspx>

What do we mean by prevention?

In the HPSF, 'prevention' refers to reducing the risk of developing chronic disease or being injured through modifying risk factors.

The main focus for the HPSF is people who are currently well, and those who are at risk of disease or injury because they engage in risky lifestyle choices. Well and at-risk populations are reached by adopting a whole-of-population approach.

Some groups command particular attention and need targeted approaches. These include groups which are recognised as being at greater risk of disease or injury (such as Aboriginal people and older people), and people who are in a position to influence the health of others around them (such as families). Helping families to give their children the best possible start to lifelong health is an important part of prevention.

There is also an important role for prevention in people who are already diagnosed with a chronic disease. For these people, it is important to help prevent disease progression, and to avoid the onset of other chronic diseases or health problems. The HPSF does not directly address health promotion interventions for people who are already unwell. Strategies for health promotion in these population groups are addressed in companion policy documents developed by WA Health. Some of these are listed on page 12.

Chronic disease and injury in WA at a glance

For further information, visit the HPSF website.

Chronic disease and injury cause substantial deaths and illness

Nearly two-thirds of all deaths in Western Australians aged under 75 in 2006 could potentially have been avoided. ⁽⁴⁾ V@Á of these deaths were due to chronic disease or injury.

Nearly one third (30%) of the total burden of disease and injury (including deaths, disability, and loss of quality of life) in WA in 2006 was due to preventable risk factors. Excess body weight caused most disease and injury, followed by smoking and physical inactivity. ⁽³⁾

The main modifiable risk factors for chronic disease are common...

Among WA children in 2010:

- more than one in five (22%) of 5–15 year olds were overweight or obese, ⁽²⁴⁾
- fewer than half (49%) of children aged 5–15 met the recommended guidelines for physical activity, ⁽²⁴⁾ and
- nearly three-quarters (74%) of WA children aged 4–15 had their recommended daily intake of fruit, but only 44% met their recommended daily intake of vegetables. ⁽²⁴⁾

Among WA 12–17 year olds in 2008:

- Almost one quarter (24%) reported having had a drink in the week prior to being surveyed, and of this group, nearly a quarter (24%) drank at levels that placed them at risk of short term harm, ⁽²⁵⁾ and
- 5% were regular smokers. ⁽²⁶⁾

Among WA adults aged 16 and over in 2010: ⁽²⁷⁾

- two-thirds (66%) were overweight or obese,
- almost half (46%) did not get enough physical activity,
- nearly two in five (39%) drank at a level which placed them at high risk of alcohol-related harm over the long term,
- just over half included enough fruit in their diet (55%), but only 13% ate the recommended five serves of vegetables daily, and
- 12% were daily smokers.

...and are responsible for a number of different diseases and health problems

- Being overweight or obese, having a poor diet, not getting enough exercise, smoking, and harmful levels of drinking contribute to many different kinds of chronic disease, and also increase the risk of injury (Table 1).

Many Western Australians suffer from chronic disease or injury...

- In 2010, about half (51%) of men and women aged 16 and over reported being diagnosed with at least one chronic health condition or having been injured in the past year,⁽⁵⁾ and almost one quarter (23%) of the population aged 16 and over had sought attention from a health professional for an injury in the past year.⁽²⁷⁾
- Males are more than twice as likely to die from injury as females.⁽²⁸⁾
- Injuries are the leading cause of death among children and adults under the age of 44 in WA.⁽²⁹⁾

...but some people are more at risk than others

- People who are disadvantaged, or who live outside major cities,⁽⁶⁾ and people who live with a disability or mental illness⁽⁷⁾ are generally at greater risk of chronic disease or injury because of a higher prevalence of most risk factors.
- Some culturally and linguistically diverse communities also have a higher prevalence of risk factors for disease.⁽¹⁰⁾ This may be due to cultural and social reasons related to their country of origin, or because they may be at greater risk of being disadvantaged.

Aboriginal people have much greater risk of chronic disease and injury

- Aboriginal people overall experience a greater burden of disadvantage, disability and mental illness, and have a higher risk of developing preventable chronic disease and suffering injury.⁽⁸⁾
- Aboriginal life expectancy is on average 12 years lower for men and 10 years lower for women than for other Australians. About 80% of the mortality gap between Aboriginal people and other Australians aged between 35–74 is due to chronic diseases.⁽⁹⁾

Preventing chronic disease makes good economic sense

Between 2005–2010, chronic diseases and injury cost Western Australia more than \$3 billion in hospital costs.⁽¹¹⁾ This figure doesn't include costs of other medical and health care, losses in productivity, and the financial and social impact on individuals and their families.

Table 1: Associations between risk factors and selected chronic diseases and injury

| Conditions → Risk factors ↓ | Cardio-vascular diseases | Some cancers | Injury | Type 2 diabetes | Mental health | Osteoporosis | Chronic kidney disease | Arthritis | Asthma | COPD* |
|--|--------------------------|--------------|--------|-----------------|---------------|--------------|------------------------|-----------|--------|-------|
| Behavioural | | | | | | | | | | |
| Tobacco smoking | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Physical inactivity | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Harmful alcohol use | ✓ | ✓ | ✓ | | ✓ | ✓ | | | | |
| Poor nutrition | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| Biomedical | | | | | | | | | | |
| Overweight and obesity | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | |
| High blood pressure | ✓ | | | | | | ✓ | | | |
| High blood cholesterol | ✓ | | | ✓ | | | | | | |
| Early life factors (including low birthweight) | ✓ | | | ✓ | ✓ | | | | ✓ | |

*COPD: Chronic obstructive pulmonary disease

Sources: AIHW, (6.30.31) ABS⁽²⁾ and WA Health⁽³⁾

A closer look at the causes of chronic disease and injury

It is well known that being overweight and unfit are bad for heart health; that smoking causes lung cancer; and that drink-driving leads to road crashes. But to reduce the rate of preventable injury, disability, disease and death in the community, then it is important to look at the **causes** of the causes: the underlying factors which lead to taking up smoking; or to gaining weight and not getting enough physical activity; as well as broader issues such as society's attitudes to alcohol use and how easy or affordable it is to buy and prepare nutritious foods.

The social determinants of health

A range of interrelated factors contribute to health outcomes (Figure 2). Personal factors—our age, gender and genes—are affected by individual lifestyle behaviours, which are in turn shaped by family, social and community influences. The immediate environment, including how and where we live; access to education, employment and information; availability and affordability of nutritious food; and access to safe and adequate health care, services and information have an impact on opportunities and choices. Beyond this, broader influences include societal and cultural attitudes and norms; government; national identity; and overarching socioeconomic conditions. These influences impact on personal health to a greater or lesser extent at all stages of life (see Box 4: A life course approach to preventing chronic disease and injury).

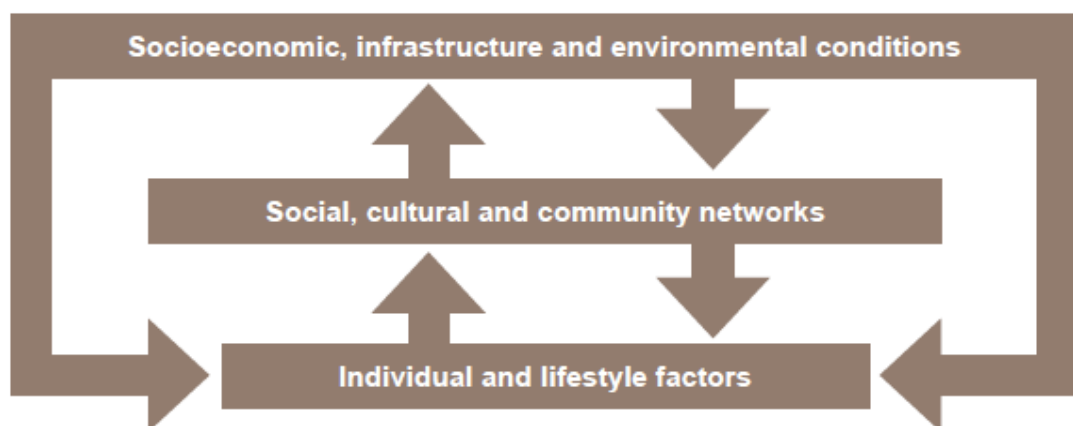


Figure 2: The main determinants of health ⁽²⁰⁾

“There are many positive changes that individuals and families can make, but if the environment in which they exist—where they live, work and play, interact and experience life—is not conducive to health, the impact on individual behaviours may be severely limited.”—National Preventative Health Taskforce⁽³⁴⁾

As well as understanding how the social, cultural and physical environment influences health behaviours, it is also important to understand how individual circumstances influence personal priorities and choices about health and other behaviours. One model which helps to explain this in general terms is shown in Figure 3.

The most fundamental human concerns (Level 1) revolve around the basic physiological requirements of living—air, water, food and shelter. Once the fundamental needs for survival are met, then the next priority is safety, including personal, family and financial security. Following this is the need for love and a sense of belonging, followed by esteem. Esteem encompasses confidence, self-respect, respect of others and personal achievement. The final stage is self-actualisation, which is being able to reach one’s full potential. This model, as proposed by Maslow,⁽³⁵⁾ helps us understand how immediate basic needs must be met before an individual is likely to place priority on changing lifestyle behaviours which may offer a distant benefit of better health. It also helps put into context the complex role played by certain lifestyle risk factors which are closely linked to social bonding (Level 3), such as alcohol and tobacco use.⁽³⁶⁾

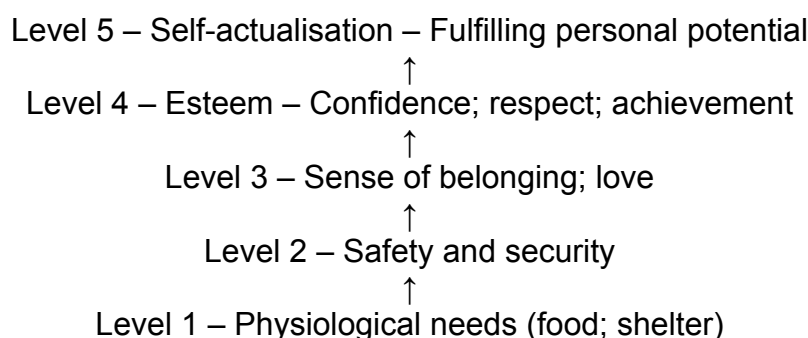


Figure 3: Maslow's Hierarchy of Needs⁽³⁵⁾

Effective health promotion therefore takes account of individual circumstances and the broader contexts which shape lifestyle behaviours.

Box 4: A life course approach to preventing chronic disease and injury

A life course approach to preventing chronic disease and injury acknowledges that at every stage of life, there is the potential to prevent the development of disease or risk of injury, and improve health and wellbeing.

The risk of developing chronic disease begins even before birth. Maternal health and exposures to risk factors such as alcohol and tobacco use impact on infant and child health. Breastfeeding in infancy and good nutrition in childhood help to protect against obesity, and the early onset of chronic diseases. Home, school, neighbourhood and cultural environments shape eating behaviours and patterns of physical activity during childhood, and set the stage for attitudes towards tobacco, alcohol and other drug use during adolescence.

In adulthood, pregnancy and parenthood mark a key time for re-evaluating lifestyle choices. A further stage of transition occurs as older adults begin to recognise in themselves symptoms related to chronic diseases, and to become aware of increasing rates of illness among their own age group. Moving into older age provides opportunities for promoting active and healthy ageing.

Adopting a healthier lifestyle at any age can improve health and increase vitality.

Complex health problems need comprehensive solutions

To reduce the impact of preventable chronic disease and injury, and improve health outcomes for Western Australians, we must raise and broaden awareness about health issues and how to address them in the community. Government must take a leading role in setting the agenda for reform, informing debate, making sure that credible, reliable information is widely communicated, and forming multisectoral and multilevel links so that health considerations become an essential component of policy development. The role of the non-government sector is critical.

“The prerequisites and prospects for health cannot be ensured by the health sector alone. More importantly, health promotion demands coordinated action by all concerned: by governments, by health and other social and economic sectors, by non-governmental and voluntary organisations, by local authorities, by industry and by the media. People in all walks of life are involved as individuals, families and communities. Professional and social groups and health personnel have a major responsibility to mediate between differing interests in society for the pursuit of health.”—The Ottawa Charter, World Health Organization.⁽³⁷⁾

The importance of working in partnerships is recognised and actively supported by WA Health.⁽¹⁾ Effective partnerships share knowledge, experience and networks; extend the reach of messages; help to make scarce resources go further; facilitate better understanding across sectors; and allow for constructive dialogue and wider

consultation about the best ways of developing workable policy options and translating them into action. The HPSF website provides some case studies showing effective partnerships at work.

Changing attitudes and behaviours and introducing the systemic changes needed to support and sustain healthier ways of living are not objectives which can necessarily be attained quickly.

A long term vision is required in order to meet the challenge of improving health outcomes in WA.

Target groups

Chronic disease and injury directly or indirectly have an impact on all Western Australians. It is sound public health practice to place population-wide approaches at the centre of health promotion strategies for curbing the epidemic of chronic disease.⁽³⁸⁾

A small shift in the average population levels of several risk factors can lead to a large reduction of the burden of chronic diseases.⁽³⁸⁾

The priority target groups for the HPSF are:

Children—because healthy diet and physical activity are essential for optimal physical growth and development; and because healthy behaviours established during childhood protect against future risk of chronic disease and injury and are more likely to be maintained throughout life;

Teenagers and young adults—because young people, especially males, are at highest risk of disability or death from injury; are more likely to engage in harmful levels of drinking; and are still at risk of taking up smoking;

Parents and families—because the home environment influences short and long-term health behaviours and outcomes for children, and parenthood marks a critical life stage when adults are more likely to be receptive to health messages;

Adults with unhealthy lifestyle behaviours—because they are at greatest immediate risk of developing chronic diseases and suffering injury, and significant health gains can be made by bringing about changes in unhealthy practices; and

Groups living in socially or economically disadvantaged circumstances—because social disadvantage is closely linked with a higher likelihood of experiencing chronic disease and injury, and poorer health outcomes.

Hard-to-reach groups or people with additional requirements

Population-wide interventions should be complemented by specific strategies to target hard-to-reach groups; groups who do not find mainstream programs to be accessible, culturally relevant or appropriate; and those who are most vulnerable to preventable chronic disease or injury.

These groups include:

- Aboriginal people;
- Some culturally and linguistically diverse populations;
- Newly-arrived migrants and refugees;
- People with mental illness;
- People with disabilities; and
- Populations living in regional and remote areas.

Well-designed mainstream programs, developed with a view to inclusiveness, have the capacity to be effective in harder-to-reach population groups as well as the wider population. However in some cases it may be necessary to develop unique interventions to meet the needs of specific groups.

Part 2—A framework for action

“The common risk factors contributing to chronic disease prevalence can be modified through cost-effective interventions.”—World Health Organisation⁽³⁸⁾

A comprehensive approach to health promotion requires a combination of interventions which challenge the fundamental causes of chronic disease and injury. These interventions or “levers” can be summarised into eight action areas:

- Healthy policies;
- Legislation and regulation;
- Economic interventions;
- Supportive environments;
- Public awareness and engagement;
- Community development;
- Targeted interventions; and
- Strategic coordination and capacity building.

Used in isolation, their impact is reduced. Used in combination, the levers have the potential to bring about real change. Table 2 (page 29–31) outlines the different components of the comprehensive strategy.

The components of the framework are integrated and inter-dependent. For example, initiatives to improve the built environment as a way of encouraging more physical activity will probably involve operating several “levers”, including the development of appropriate policy; engagement with planning, zoning or building regulatory authorities; and consultation with community groups.

In some cases, interventions will only proceed successfully if one or more levers are engaged first, or at the same time. Development of appropriate healthy policy, based on consultation and endorsement of relevant groups or authorities will often be needed before specific initiatives can be successfully introduced.

Interventions must be coordinated to ensure consistency of approach. As an example, workplace programs to support more nutritious eating choices are likely to be undermined if the onsite canteen offers inexpensive, unhealthy food choices.

A strong, evidence-based approach informs all components of the Framework. In newly-emerging areas where there is a lack of evidence for successful interventions, then initiatives underpinned by sound theoretical basis or expert opinion are to be encouraged.

Everybody has a role to play in promoting better health, whether through their work, in the community, or as individuals.

Developing healthy policy

WA Health has a significant role to play in the health of all Western Australians. However, as many of the most important influences on the population's health do not fall within the direct control of the health sector, it is vital to ensure that health and wellbeing are fundamental considerations in public policy development across all sectors.

Making health and wellbeing a shared priority across society has the power to influence the systemic factors which impact on health.⁽³⁹⁾

This includes (but is not limited to) government departments for planning and urban development, employment, transport, food and agriculture, sport and recreation, the environment, finance, education and tourism, as well as local government. It also embraces industry, non-government organisations, the education sector, professional organisations and the wider community.

Encouraging and supporting agencies and settings including workplaces, schools and community-based organisations to adopt healthy policies and practices helps to extend the reach of health messages, provides a supportive environment for behavioural change, and positively influences cultural norms regarding health behaviours.

Finally, the role of individuals in developing healthy policy should not be overlooked or underestimated. Health consumers and carers have an important contribution to make to the planning, development and delivery of policies and programs to improve health.

Legislation and regulation

Laws and regulations provide the cornerstone for safeguarding and improving public health.⁽³⁸⁾ Laws can be used to restrict the sales, promotion and use of harmful or potentially harmful substances (such as tobacco and alcohol), or to protect public safety (for example laws on seatbelts in cars and drink-driving). The production, processing, transport, sales and labelling of food are all subject to regulations intended to protect public health and safety.

By introducing and enforcing appropriate legislation to underpin health promoting behaviours, governments demonstrate a firm commitment to healthy public policy and provide a strong foundation for building environments to support health interventions.

Economic interventions

Economic interventions are an effective way of influencing consumer choices and consumption patterns. Higher tobacco prices in Australia due to increases in taxation are credited with helping to bring down the prevalence of smoking, particularly in young

people.⁽⁴⁰⁾ There are also precedents for allocating money raised from taxes on harmful or potentially harmful products into funding of health campaigns. The National Preventative Health Taskforce has identified the potential for tax and other fiscal instruments (including grants, pricing, incentives and subsidies) to be used to influence healthier nutritional choices and reduce harmful drinking.⁽³⁴⁾

Supportive environments

All of the environments we encounter—including the town or neighbourhood where we live; workplaces, schools and community settings; our social and cultural networks and in the home—have the potential to influence health outcomes. Environments which support good health may do so by promoting healthy behaviours; by making healthy choices the easier or more attractive choices; by ensuring equitable access to nutritious food; and by denormalising unhealthy or risky behaviours.

Good urban design incorporates well-connected, safe and attractive options for active transport (walking, cycling and public transport) to a variety of locations including schools, shops and workplaces. It also builds in opportunities for physical recreation; and a good mix of housing options. The important contribution of the natural and built environment to community health and wellbeing is recognised by a number of state and national town planning policies.⁽⁴¹⁾

Adopting healthy policies in specific settings, for example by promoting healthy food options in school and workplace canteens; or by restricting smoking and drinking at public events, all encourage healthier behaviours. The decision of many Western Australians (including smokers) to make their homes smokefree⁽²⁷⁾ is likely to have helped to drive down smoking rates among adults⁽⁴²⁾ and young people.⁽⁴³⁾

Table 2: A framework for the prevention of chronic disease and injury in WA

| Levers | Some examples of actions which could be taken |
|---|---|
| Healthy policies <i>Who can take action or advocate?</i> <ul style="list-style-type: none"> • Governments • Food and drink industry • Organisations • Workplaces • Health professionals • Community groups • Schools • Health consumers and carers • Individuals | <ul style="list-style-type: none"> • Integrate health considerations into government policy and planning across all relevant agencies (such as Departments of Planning, Education, Food and Agriculture). • Embed health considerations within the operational policies of organisations, workplaces and schools to support active transport, healthy eating, low risk alcohol use, and proper safety procedures. • Adopt flexible work policies to enable mothers to breastfeed. |
| Legislation and regulation <i>Who can take action or advocate?</i> <ul style="list-style-type: none"> • Governments • Organisations • Workplaces • Health professionals • Community groups • Health consumers and carers • Individuals | <ul style="list-style-type: none"> • Support the enactment and enforcement of legislation to reduce chronic disease and injury, such as legislation to control tobacco and alcohol use; promote road safety. • Develop and enforce laws and regulations which govern product safety, sales and marketing; clear contents labelling of consumable goods; laws to restrict access of potentially harmful goods to children. • Investigate regulatory methods to restrict density of alcohol outlets in disadvantaged areas. |
| Economic interventions <i>Who can take action or advocate?</i> <ul style="list-style-type: none"> • Governments • Organisations • Workplaces • Health professionals • Community groups • Schools • Health consumers and carers • Individuals | <ul style="list-style-type: none"> • Provide financial incentives to encourage the establishment of health-promoting businesses (such as shops which sell fresh food) in areas which lack access/availability. • Create financial incentives to adopt healthy behaviours, for example by <ul style="list-style-type: none"> ◦ introducing differential levels of taxation on alcohol so that lower-strength alcohol is more affordable than higher-strength drinks; ◦ promoting subsidies for first aid training; low-cost hire or loan of child car restraints; fitness classes for the elderly; and ◦ providing healthy food choices at competitive prices in canteens, tuck shops and at events. |

| | |
|--|--|
| <p>Supportive environments <i>Who can take action or advocate?</i></p> <ul style="list-style-type: none"> • Governments • Community groups • Workplaces • Schools • Health professionals • Health consumers and carers • Individuals | <ul style="list-style-type: none"> • Provide neighbourhoods with safe and connected footpaths and cycleways, local amenity, public parks, playground physical activity facilities, and adequate public transport. • Ensure that public, workplace, institutional, school and home environments are designed with safety and facilitation of health behaviours as priorities. • Ensure reliable and equitable access to a variety of healthy foods. • Work with the food industry to increase the availability of smaller food and drink portion sizes and reduce salt, sugar, saturated fats and trans-fats in products. • Provide easy-to-understand information about nutritional content of food choices offered in workplace canteens and public eating places. • Require the provision of nutritionally acceptable foods in public and other facilities (e hospitals; schools; childcare centres). • Limit the density of outlets selling tobacco or alcohol. • Investigate the impact of density of fast food outlets on eating choices. • Limit childhood exposure to advertising pressures and role-modelling to eat junk food, or use tobacco or alcohol. • Promote environments which are supportive of breastfeeding. |
| <p>Public awareness and engagement <i>Who can take action?</i></p> <ul style="list-style-type: none"> • Governments • Organisations • Workplaces • Health professionals • Schools • Health consumers and carers • Individuals | <ul style="list-style-type: none"> • Develop social marketing campaigns designed to change social norms, educate and support the community in modifying lifestyle behaviours • Influence professionals, organisations and policy-makers to incorporate consideration of health issues as part of their role. • Support health professionals in including brief interventions as part of their routine. • Engage the media as a platform for education and debate. • Encourage changes at individual and societal level to protect and promote health. |
| <p>Community development <i>Who can take action?</i></p> <ul style="list-style-type: none"> • Governments • Organisations • Workplaces • Schools • Health professionals • Communities • Health consumers and carers • Individuals | <ul style="list-style-type: none"> • Work with community groups, local stakeholders, other partners and individuals to define local needs and priorities for better health. • Adapt mainstream programs and resources for local uses. • Support implementation of local healthy policies, such as alcohol accords. • Develop locally-based activities to contribute to healthy lifestyle to suit community needs, such as walking groups; community gardens; farmers' markets. • Investigate gaining after-hours access to school sporting and recreational facilities for community purposes. |

| | |
|--|--|
| <p>Targeted interventions <i>Who can take action?</i></p> <ul style="list-style-type: none"> • Governments • Organisations • Workplaces • Schools • Health professionals • Communities • Health consumers and carers | <ul style="list-style-type: none"> • Design and deliver programs to suit <ul style="list-style-type: none"> ◦ specific population groups (such as children, parents or adults, lower SES, Culturally and Linguistically Diverse groups, the elderly) ◦ particular settings (such as communities, neighbourhoods, workplaces, schools, childcare facilities, residential care settings). • Adopt policies and practices which support activity in the workplace; such as lunch-time walking groups; showers; bicycle racks; negotiate reduced membership costs at local gym facilities |
| <p>Strategic coordination and capacity building <i>Who can take action?</i></p> <ul style="list-style-type: none"> • Governments • Food and drink industry • Organisations • Workplaces • Community groups • Health professionals • Health consumers and carers • Individuals | <ul style="list-style-type: none"> • Form partnerships and collaborations across all levels of government; the non-government sector, industry, workplaces, health professions, the physical activity sector; community groups etc. • Conduct health impact assessments to measure the impact of government agency policy and intervention decisions. • Build workforce capacity to meet future needs, taking into account the full range of skills required. • Monitoring and surveillance; including of new and emerging issues. • Take a strategic approach to research which is likely to have practical application in guiding future policy options and meeting consumer needs. • Full evaluation of policies and programs. • Communication and dissemination of information. |

Source: Adapted from a framework developed by WHO. ©

Public awareness and engagement

Public awareness campaigns prompt and motivate the community to consider lifestyle behaviours and behavioural changes to reduce risk of disease or injury. The most obvious tool for raising public awareness and engagement as well as persuading and motivating the community to change its behaviour is social marketing. Evidence-based, sustained campaigns and programs which are based on sound social marketing principles have the capacity to deliver real health gains.⁽⁴⁴⁾ Social marketing campaigns should be supported by appropriate resources and strategies to provide further information, and assistance in taking action to change behaviours. They also need to be supported by consistent policy and environmental interventions which will help facilitate behaviour changes.

There are a number of other effective ways of conveying health messages and information. For example, clear product information (such as food and alcohol labelling or health warnings on tobacco packs) has an important role in elevating public awareness and knowledge. Professional groups (such as GPs and other health workers), organisations and the media also have a vital role in disseminating information. Engaging the public by making information relevant at a personal, family, organisational or community level increases the effectiveness of interventions, particularly if that information is reliable and consistent.

As well as shaping knowledge and attitudes and influencing behaviour, public awareness campaigns promote wider discourse and debate about public health issues and provide the stimulus for, and broader community support for, ongoing policy development and environmental change.

Community development

“Health promotion works through concrete and effective community action in setting priorities, making decisions, planning strategies and implementing them to achieve better health. At the heart of this process is the empowerment of communities—their ownership and control of their own endeavours and destinies.”—Ottawa Charter, World Health Organization, 1986.⁽³⁷⁾

Community approaches to health promotion take into account the social, cultural, economic, environmental, geographical and other factors which make individual communities distinct. The community is directly engaged in identifying the factors which contribute to ill-health in their particular setting, deciding on priorities and working towards finding and implementing solutions. In some circumstances health and other professionals may work in partnership with communities, participating in decision-making and helping to control implementation of initiatives. In other settings, communities steer their own course, with health professionals acting as co-facilitators.⁽⁴⁵⁾

Community development applied to health promotion fosters participation, empowerment and sustainability. These important elements help to build more equitable, healthy and resilient communities.

Targeted interventions

Targeted interventions refer to delivery of health interventions in **specific settings** (such as workplaces, schools, leisure centres and GP surgeries) **specific communities** (such as remote Aboriginal communities or local government areas) or to **particular groups** (for example parents, and culturally and linguistically diverse groups), or a combination of these. Targeted interventions need to include, or be part of a larger integrated suite of activities which take account the social and individual determinants of health (see pages 21–22).

Providing public health messages in specific settings increases the likelihood that they will reach their target audiences, and enables tailoring of messages and associated support activities which will increase their likelihood of success. Many children attend pre-school or childcare and almost all go to school, which means that these settings provide an unrivalled opportunity to reach children and families, and to create health-promoting environments. As a large proportion of the adult population are in employment, workplaces are a powerful setting for introducing health promoting policies and interventions.⁽³⁴⁾ Moreover, healthy policies in workplaces and organisations not only benefit employees, but are cost-effective for employers by reducing absenteeism.⁽⁴⁶⁻⁴⁸⁾

Healthier and safer behaviours promoted in the workplace or through schools have a “take home” aspect and may influence attitudes and behaviours at home.

Community settings are another important setting for delivery of healthy lifestyle interventions. Whole-of-community health promotion interventions which are integrated, involve multiple interventions across multiple settings, target and work with individuals, groups and organisations; and actively involve the community in planning, implementation and evaluation, can be effective in improving health outcomes and reducing health inequalities.⁽⁴⁹⁾

The health setting is a key environment for health promotion. In 2009–10, 83% of the Australian population had at least one consultation with a GP.⁽⁵⁰⁾ There is good evidence that well-planned and delivered interventions in general practice and other health settings can be very successful.⁽⁵¹⁻⁵³⁾

Strategic coordination and capacity building

The need for strong and productive partnerships is intrinsic to delivery of the HPSF and requires a coordinated, cross-sectoral approach. Seeding the development of healthy policies beyond the health sector will depend on strengthening existing networks and partnerships, as well as initiating new ones.⁽³⁴⁾ Links with non-government

organisations and other agencies, and public-private sector partnerships also show great promise.⁽⁵⁴⁾

It is also essential to maximise existing resources by building capacity (Box 5).

Box 5: Capacity building

In the context of health promotion, capacity building is the process of developing “sustainable skills, organisational structures, resources and commitment to health improvement in health and other sectors, to prolong and multiply health gains many times over.”⁽⁵⁵⁾ At a practical level, this concept includes “⁽¹⁾ building infrastructure to deliver health promotion programs; ⁽²⁾ building partnerships and organisational environments so that programs are sustained—and health gains are sustained; and ⁽³⁾ building problem-solving capability.”⁽⁵⁶⁾

The health sector comprises a large and diverse workforce, and the existing health infrastructure and its networks offer great potential for contributing to prevention of chronic disease and injury. Facilitating ongoing workforce development is a crucial element in maximising opportunities for health promotion. There is a need to ensure awareness of in health promotion priorities, and competency in best practice methods to contributing to health promotion across the continuum of care.

Supporting and empowering the health workforce in identifying opportunities for, and delivering advice on healthy lifestyle choices is a powerful tool for improving public health.

Associated with this, there is also a need to develop a skilled workforce to undertake research and evaluation of health policies and programs. (See Boosting research capability and setting an agenda for research—page 70).

Part 3—The five year plan

Maintaining a healthy weight

Overweight and obesity are a major concern for the health system. High body mass increases the risk of a number of serious health conditions, particularly type 2 diabetes, coronary heart disease, stroke, certain cancers, sleep apnoea and osteoarthritis. Children with high body mass have a greater risk of psychosocial problems in childhood, and of being overweight in adulthood.

1. A snapshot of overweight and obesity in Western Australia

- In 2010, 66% of Western Australian adults aged 16 and over were either overweight or obese, based on self-reported body mass index (BMI) (see Box 6: How is healthy weight assessed?). Males were more likely to be overweight or obese than females (74% compared with 58%).⁽²⁷⁾
- Males aged 45–64 had the highest rates of overweight and obesity in the community (85%).⁽²⁷⁾ In women, the highest prevalence of overweight and obesity occurred in those aged 65 and older (72%).⁽²⁷⁾
- Rates of adult overweight and obesity have increased in Australia over the past three decades and show no signs of abating.⁽³⁴⁾ Between 2002–2010, the proportion of WA adults who were overweight and obese increased from 61% to 66%.⁽²⁷⁾
- In 2010, more than one in five (22%) Western Australian children aged 5–15 were classified as overweight or obese (based on BMI).⁽²⁴⁾ WA research indicates that children who speak a language other than English in their home have a slightly higher BMI.⁽⁵⁷⁾
- Conversely, around one in twenty (6%) Western Australian school children are underweight.⁽⁵⁾ While the vast majority of harm is caused by overweight, being underweight also increases the risk of a range of health issues.⁽⁵⁸⁾
- National data show that Aboriginal people are almost twice as likely to be obese, and more than three times more likely to be extremely obese compared with non-Aboriginal people.⁽⁵⁹⁾
- Rates of overweight and obesity are also significantly higher among lower socioeconomic and disadvantaged groups,⁽⁶⁰⁾ people with disabilities,⁽⁶¹⁻⁶³⁾ people living in rural or remote areas,⁽⁶⁰⁾ and some overseas-born populations.^(60, 64, 65)

Box 6: How is healthy weight assessed?

The following information is from the Australian Dietary Guidelines, December 2011.⁽⁶⁶⁾

Healthy weight in adults is usually assessed through **Body Mass Index (BMI)** or **waist circumference**.

BMI is calculated by dividing a person's weight in kilograms by their height in metres squared (kg/m²). In adults:

- a BMI of less than 18.5 kg/m² is classified as underweight;
- a BMI of 18.5–25.0 is in the healthy weight range;
- a BMI of 25.0 or more is overweight; and
- a BMI 30.0 or more is obese.

These classifications may not be suitable for all ethnic groups. Some groups may have equivalent levels of risk at a lower BMI (eg people of Asian origin) or higher BMI (eg people of Polynesian origin). BMI ranges have not been developed for Aboriginal people.

Classifications may also vary with increasing age. A higher BMI (23–28 kg/m²) may be desirable for people aged over 70.

Waist circumference is another way of assessing health risk due to excess weight in adults. A waist circumference of above 94 cm in males, and above 80 cm in females indicates being overweight. Measurements above 102 cm in males and or 88 cm in females signify obesity.

Assessing healthy weight is more complex in children. Because of individual patterns of growth and development, it is not appropriate to have a standard set of BMI values that apply to all ages and both sexes. In infants, children and adolescents, growth patterns and healthy weight are assessed on the basis of growth charts and reference tables.

For more information, see the Australian Government's Australian Dietary Guidelines (Draft; 2011).⁽⁶⁶⁾

2. Priorities for healthy weight in WA, 2012–2016

Prevent overweight and obesity

WA shares the growing problem of obesity with the rest of Australia and other parts of the world. Preventing obesity in the first place offers the most potential for reversing current trends, as it is difficult and expensive to treat once established[†], particularly over the long term.⁽⁶⁷⁾

[†] The management of adult obesity, morbid obesity in adults and children, underweight and eating disorders is outside the scope of this framework.

To date, no country which has experienced an upswing in obesity has been able to reverse the trend.⁽⁶⁷⁾ Although successful interventions from other areas of public health provide some guidance, tackling obesity is, to some extent, uncharted territory. Given this, the recommended approach is to “learn by doing”, in which staged interventions are closely monitored, researched and evaluated.⁽⁶⁷⁾ Turning the tide of obesity will depend on a willingness to try innovative approaches, and to set a priority-driven agenda for research (see Informing future planning—page 70).

Increase awareness of and positive attitudes towards maintaining a healthy weight

Increasing numbers of Australians perceive being overweight as normal.⁽⁶⁷⁾ There is an urgent need to address these attitudes and beliefs, and to emphasise the importance of maintaining a healthy weight at all stages of life. This will require a mixture of approaches, including public education to inform and motivate, and provision of practical information and support to help bring about behavioural change.

There also needs to be a greater focus on addressing obesity-related risk factors during pregnancy and in early childhood. A healthy weight is essential for appropriate growth and the early establishment of healthy behaviours that can continue throughout life.

Programs for children should focus on the promotion of appropriate growth and development, nutritious diet and physical activity rather than on weight or obesity. Interventions must be designed to minimise any risk of increasing eating disorders, body image problems or stigmatisation of those who are overweight or obese. These conditions can be associated with a significant burden of disease, particularly for adolescents.⁽⁶⁸⁾

Address the obesogenic environment

The “obesogenic environment” includes the physical environment; economic factors; laws; policies; and the social and cultural attitudes which influence how much exercise we get and what foods we eat.⁽⁶⁹⁾ It also includes the ways in which foods are grown, processed, packaged and marketed; and the relative accessibility and affordability of quality nutritious foods compared to less health options.

The complexity and multitude of influences on eating behaviours and patterns of physical activity means that there is no single or simple solution to the problem.⁽⁷⁰⁾ A multisectoral approach will be needed to create environments which support healthier eating and increased physical activity. The health sector needs to lead debate and the development and implementation of healthy policy on these issues, in partnership with the community, government, non-government organisations, and industry bodies.

3. Strategic directions for healthy weight in WA, 2012–2016 (Table 3)

NOTE: Strategic directions for healthier nutrition (Table 4) and physical activity (Table 5) complement and overlap with strategic directions for healthy weight.

| |
|--|
| Healthy policies |
| <ul style="list-style-type: none"> • Advocate for and actively contribute to the development of government policies at all levels that have a positive impact on overweight and obesity and its determinants. • Support the development and implementation of organisational policies in child and adult settings that support a healthy diet and active living. |
| Legislation and regulation |
| <ul style="list-style-type: none"> • Advocate for stronger regulation to restrict the marketing of unhealthy food and drinks, particularly where children are exposed. |
| Economic interventions |
| <ul style="list-style-type: none"> • Support research to identify appropriate fiscal policies to reduce obesity. |
| Supportive environments |
| <ul style="list-style-type: none"> • Encourage food industry initiatives that increase the production and promotion of healthier foods and drinks (eg with reduced added sugars and saturated fats) and offer smaller portion sizes. • Implement initiatives to create environments and settings that promote and support a healthy diet, active living and a healthy weight. • Implement initiatives to limit children's exposure to advertising pressures and role models promoting energy dense, nutrient poor foods and drinks. |
| Public awareness and engagement |
| <ul style="list-style-type: none"> • Invest in comprehensive social marketing programs to motivate and support adoption and maintenance of behaviours that ensure healthy weight in adults and children. • Implement strategies to increase access to reliable, practical, culturally-appropriate information about healthy weight, weight-related behaviours and determinants. |
| Community development |
| <ul style="list-style-type: none"> • Engage with local community and local government to identify and prioritise actions which will support healthier food choices and physical activity; for example community gardens; walking groups; active planning for healthier neighbourhoods. |

| Targeted interventions |
|---|
| <ul style="list-style-type: none">• Support/strengthen programs and policies that embed healthy lifestyle in everyday settings, particularly at home and in childcare, school and workplace settings.• Invest in locally driven, whole-of-community initiatives to address the factors influencing obesity levels, particularly in low socioeconomic and regional and remote communities.• Deliver parent education initiatives that increase their ability to establish healthy lifestyles and maintain healthy weight in children early in life. |
| Strategic coordination and capacity building |
| <ul style="list-style-type: none">• Bolster cross-sectoral strategic alliances at all levels to address the social and environmental determinants of overweight and obesity.• Strengthen skills among health professionals to identify weight-related health risks and undertake appropriate interventions and referral.• Build capacity of the non-health workforce to ensure that their programs, policy and plans support healthy eating, active living and a healthy weight.• Work with the eating disorder sector to minimise risks associated with obesity prevention programs.• Investigate and monitor effectiveness of policies and interventions targeting overweight and obesity and monitor key environmental and individual factors impacting on, or with potential to impact on obesity rates.• Support communities/key stakeholders/parents to advocate for and change local environments and policies to address overweight and obesity. |

Eating for better health

Good nutrition is essential for healthy growth and development in childhood, and ongoing health and wellbeing. All Western Australians are entitled to equitable access to a safe and nutritious diet. Many Western Australians' diets are inconsistent with national dietary guidelines.

1. A snapshot of nutrition in Western Australia

- Just over half (55%) of the WA population aged 16 and over met the recommended minimum intake of two serves of fruit every day, and only 13% met the recommended minimum of five serves of vegetables daily in 2010⁽²⁷⁾ (see Box 7: Australian Dietary Guidelines).
- Nearly three-quarters (74%) of WA children aged 4–15 consumed their recommended daily intake of fruit in 2010, but fewer than half (44%) met their recommended daily intake of vegetables. Older children were less likely to meet recommended daily requirements than younger children.⁽²⁴⁾
- In 2010, more than one third (36%) of adults ate meals from fast food outlets at least once a week⁽²⁷⁾ and two out of five school children consumed soft drinks at least once a week.⁽⁷¹⁾
- National data show that in 2004–05, metropolitan and regional-dwelling Aboriginal people aged 15 and over were generally less likely to consume recommended amounts of fruit and vegetables than their non-Aboriginal counterparts. Aboriginal people living in remote regions were less likely to eat fruit and vegetables than Aboriginal people in non-remote areas, possibly due to poorer access to fresh produce.⁽⁷²⁾
- Although Australian guidelines recommend that babies should be exclusively breastfed in their first six months of life, this was the case for only about 18% of infants in WA in 2010.⁽²⁴⁾
- In WA in 2010, foods which were of poorer nutritional value were generally cheaper to buy than fresh fruit, vegetables, meats and dairy foods.⁽⁷³⁾
- Food costs increase, and the quality and availability of foods tends to decrease with increasing distance from major WA cities. A survey undertaken in 2010 found that a typical healthy food basket cost 24% more in very remote areas.⁽⁷³⁾
- In 2010, about 3% of WA adults reported food insecurity, defined in this survey as being unable to afford to buy food on at least one occasion in the previous 12 months. This equates to more than 58,000 Western Australians.⁽²⁷⁾

Box 7: Australian Dietary Guidelines (Draft, December 2011)⁽⁶⁶⁾

Note: at the time of writing, these Guidelines were released for public consultation.

Guideline 1: Eat a wide variety of nutritious foods from these five groups every day:

- Plenty of vegetables, including different types and colours, and legumes/beans
- Fruit
- Grain (cereal) foods, mostly wholegrain, such as breads, cereals, rice, pasta, noodles, polenta, couscous, oats, quinoa and barley
- Lean meat and poultry, fish, eggs, nuts and seeds, and legumes/beans
- Milk, yoghurt, cheese and/or their alternatives, mostly reduced fat (reduced fat milks are not suitable for children under the age of 2 years)
- And drink water.

Guideline 2: Limit intake of foods and drinks containing saturated and trans fats, added salt, added sugars and alcohol.

- a. Limit intake of foods and drinks containing saturated and trans fats
include small amounts of foods that contain unsaturated fats
low-fat diets are not suitable for infants.
- b. Limit intake of foods and drinks containing added salt
Read labels to choose lower sodium options among similar foods.
Do not add salt to foods.
- c. Limit intake of foods and drinks containing added sugars. In particular, limit sugar-sweetened drinks.
- d. If you chose to drink alcohol, limit intake.

Guideline 3: To achieve and maintain a healthy weight you should be physically active and choose amounts of nutritious food and drinks to meet your energy needs.

Children and adolescents should eat sufficient nutritious foods to grow and develop normally. They should be physically active every day and their growth should be checked regularly.

Older people should eat nutritious foods and keep physically active to help maintain muscle strength and a healthy weight.

Guideline 4: Encourage and support breastfeeding.

Guideline 5: Care for your food: prepare and store it safely.

2. Priorities for healthier nutrition in WA, 2012–2016

Promote a shift in dietary intake from excess energy-dense, nutrient-poor foods to dietary patterns consistent with current guidelines

A healthy diet and good nutrition are essential for good health at all ages. They are critical factors for physical development and general health and aid in the prevention of chronic disease.⁽⁶⁶⁾ Many Western Australians are missing out on eating the recommended levels of essential nutritious foods, including fruit and vegetables, and are consuming diets high in saturated fats, sugar and salt. A number of personal factors can get in the way of healthy eating. Many are not aware of dietary recommendations and are not sufficiently convinced of the importance of a good diet for

their own health and their children's health. These factors are compounded by common barriers to healthy eating such as not liking the taste of healthier foods, perceived expense of healthy food options, time constraints and a lack of confidence in the kitchen.⁽⁷⁴⁾ There is also evidence that skills in basic food selection and preparation are being lost.⁽⁷⁵⁾

Addressing the factors that determine food choice through social marketing, education, clear food labelling and countering the promotion of unhealthy products is vital. Investing in providing accurate, credible and practical information on nutrition and developing food skills can also help to motivate and support individuals in improving their eating habits.

Improve food security

Food security is “the ability of individuals, households and communities to acquire appropriate and nutritious food on a regular and reliable basis using socially acceptable means.” Food security is determined by people's local food supply and their capacity and resources to access and use that food.^(76, 77)

Western Australians do not have equal and reliable access to affordable, nutritious, good quality foods.⁽⁷³⁾ Eating choices are influenced by the cost and availability of food types and the locations of food outlets, including fast food outlets and grocery stores. WA's food supply delivers energy dense, nutrient poor foods at a cheaper price than nutritious foods consistent with dietary recommendations.⁽⁷³⁾ Lower socioeconomic groups, particularly welfare recipients, are particularly disadvantaged by the cost of nutritious foods,⁽⁷³⁾ are less likely to eat according to dietary guidelines, and are more likely to consume more energy-dense, nutrient-poor foods.^(73, 78) People living in regional and remote areas face higher prices due to the time and expense of long-distance transport, have greatly diminished access due to limited food outlets. The range and quality of foods, particularly fresh foods, that are available decreases with increasing distance from the Perth metropolitan area.⁽⁷³⁾

How foods are produced, packaged, transported, processed, marketed, accessed, regulated and consumed all have the potential to affect health. A multisectoral, comprehensive approach that engages the agricultural sector, the transport industry, food manufacturers and retailers, and local and state planning authorities is needed to put in place consistent practices and policies to ensure that an affordable, healthy, reliable and environmentally sustainable food supply is available to the whole community.^(67, 79)

3. Strategic directions for healthier nutrition in WA, 2012–2016 (Table 4)

| |
|--|
| Healthy policies |
| <ul style="list-style-type: none"> • Support the development and implementation of organisational policies that encourage and support healthy eating and breastfeeding within key settings, particularly childcare, schools, workplaces and community venues. • Actively contribute to the development of government policies at all levels which improve equitable, sustainable access to quality healthy food choices. |
| Legislation and regulation |
| <ul style="list-style-type: none"> • Advocate for and support Commonwealth regulatory initiatives in food formulation, labelling and marketing to support healthier eating and reduce consumption of energy dense, nutrient poor foods and drinks. |
| Economic interventions |
| <ul style="list-style-type: none"> • Support research to identify appropriate fiscal interventions to encourage healthy food production and access to and consumption of healthier foods; encourage implementation of appropriate initiatives. |
| Supportive environments |
| <ul style="list-style-type: none"> • Work with the food industry to improve the nutritional quality, cost and availability of food; and increase marketing of healthier options. • Partner with local governments and planning authorities to create environments that maximise local availability of and access to healthy food. • Seek ways to improve access to quality, affordable, healthy food among those most vulnerable to poor nutrition. • Support initiatives that provide accurate, easy to understand nutrition information at point of sale (for example on food packaging, menus). |
| Public awareness and engagement |
| <ul style="list-style-type: none"> • Invest in comprehensive statewide public education and social marketing that motivate and support adults and children to adopt a healthy diet. Actively reinforce these messages through appropriate settings. • Increase access to reliable, culturally-appropriate information about nutritional needs at all stages of life. |
| Community development |
| <ul style="list-style-type: none"> • Engage with local community and local government to identify and prioritise actions which will support healthier food choices; for example community gardens; farmers' markets and location of food outlets. |

| Targeted interventions |
|---|
| <ul style="list-style-type: none">• Promote and implement initiatives that support and improve breastfeeding rates.• Build on and support initiatives that increase the availability, access and consumption of healthy, affordable food options in key child and adult settings (such as schools, workplaces and hospitals).• Invest in community-based food literacy* and food skills development programs targeting key groups, particularly those most at risk of poor nutrition. |
| Strategic coordination and capacity building |
| <ul style="list-style-type: none">• Establish mechanisms for intersectoral and cross-government collaboration to improve food security, food supply, access and availability, and to integrate activities that influence food intake.• Support skills development among health care professionals and the non-health workforce to deliver initiatives that motivate and support people in making healthy eating choices.• Ensure research, evaluation and surveillance structures are in place to build the evidence base of effective interventions and monitor food security, supply, availability, access and intake, and key issues impacting on these. |

* Food literacy relates to the knowledge of dietary guidelines, menu planning, food purchasing, budgeting, label reading, food selection/shopping, food preparation knowledge and skills.

A more active WA

Regardless of age, all Western Australians need regular physical activity for good physical and mental health.

1. A snapshot of physical activity in Western Australia

- In 2010, 56% of adults aged 16–64 reported being “sufficiently active” (according to the National Physical Activity Guidelines for Australians—Box 8, and definitions arising from those guidelines—Box 9). This has increased from 47% in 2006.⁽²⁷⁾
- As people get older they are less likely to participate in sufficient levels of physical activity. In 2010, about 60% of adults aged 16–44 participated in 30 or more minutes of moderate exercise over five or more sessions in a week. Among those aged 65 and over, 39% engaged in this level of activity.⁽²⁷⁾
- One in four older people do no leisure time physical activity.⁽²⁷⁾
- In 2010, almost half (49%) of children aged 5–15 were sufficiently active; 48% of children were insufficiently active; and 3% of children did not engage in any physical activity at all.⁽²⁴⁾ Younger children (aged 5–9) were more likely to report higher activity levels than older children (aged 10–15).⁽²⁴⁾
- Boys aged 5–15 were more likely to achieve sufficient levels of activity than girls aged 5–15 (59% compared to 38%).⁽²⁴⁾
- National data collected in 2004–05 found that 75% of Aboriginal adults aged 15 and over were sedentary or engaged in low levels of physical activity.⁽⁷²⁾
- In 2008, almost three-quarters (74%) of Aboriginal children aged 4–14 in Australia were reported as being sufficiently active.⁽⁸⁰⁾ Remote-dwelling children were more active than those living in cities.⁽⁸⁰⁾
- In 2006, physical inactivity was responsible for 6% of the total burden of disease and injury in WA. More than 1,000 Western Australian deaths were attributable to physical inactivity. The majority of deaths were due to ischaemic heart disease and stroke.⁽³⁾
- Premature mortality due to physical inactivity in Australia cost \$1.3 billion nationally in hospital and healthcare costs, lost productivity, and economic and social costs in the financial year 2007–08.⁽⁸¹⁾

Box 8: National Physical Activity Guidelines for Australians(82)

The National Physical Activity Guidelines for Australians provide advice on the levels of activity needed each day for good health.

For adults:

- Think of movement as an opportunity, not an inconvenience.
- Be active every day in as many ways as you can.
- Do at least thirty minutes of moderate intensity physical activity on most, preferably all, days.
- If you can, also enjoy some regular, vigorous exercise for extra health and fitness benefits.

For children and teenagers aged 5–18:

- Children and teenagers need at least 60 minutes (and up to several hours) of moderate to vigorous physical activity every day.
- Children and teenagers should not spend more than two hours a day using electronic media for entertainment (eg computer games, TV, Internet), particularly during daylight hours.

For children aged 0–5:

- For healthy development in infants (birth to 1 year), physical activity—particularly supervised floor-based play in safe environments—should be encouraged from birth.
- Toddlers (1 to 3 years) and pre-schoolers (3 to 5 years) should be physically active every day for at least three hours, spread throughout the day.
- For children 2 to 5 years of age, sitting and watching television and the use of other electronic media (DVDs, computer and other electronic games) should be limited to less than one hour per day.
- Children younger than 2 years of age should not spend any time watching television or using other electronic media.
- Children (from birth to 5 years) should not be sedentary, restrained, or kept inactive, for more than one hour at a time, with the exception of sleeping.

Box 9: Defining physical activity levels

Within the HPSF, levels of physical activity are defined as follows:

- sufficiently active: participates in physical activity at levels that meet or exceed the National Physical Activity Guidelines for their age group.
- insufficiently active: participates in some physical activity but not at levels sufficient to meet the National Physical Activity Guidelines for their age group.
- inactive: does not participate in physical activity.

2. Priorities for increasing physical activity in WA, 2012–2016

Increase the proportion of people who are active enough for good health

The proportion of Western Australians who are meeting recommended levels of physical activity is on the rise, but a substantial number of people are still not sufficiently active for good health. People need to be encouraged and supported to increase active living (Box 10). This can be achieved in a number of ways, through formal activities—such as by participating in sport or going to the gym, or informally—for example by walking or cycling to the shops instead of driving. Increasing the duration and intensity of activity above the *National Physical Activity Guidelines* may result in additional health and fitness benefits.

Although everyone should be encouraged to be more active, the greatest population health gains will be achieved by increasing levels of physical activity in those who are insufficiently active.⁽⁸²⁾

Maintain the physical activity levels of those who are already active enough for good health

It is common for people's activity levels to fluctuate over time. This may be due to a range of contributing factors, such as changes to personal circumstances, competing time pressures, injury, the weather or loss of personal motivation. Subsequently, there is a risk that those who are sufficiently active may relapse to insufficient levels of activity. Efforts need to be invested in maintaining the activity levels of those who are already sufficiently active for good health.

Reduce sedentary behaviour

Over the past few decades the way we live our lives has changed dramatically. The emergence of more passive forms of entertainment, labour saving devices, more sedentary occupations, longer working hours and increased car use have fundamentally changed how much time we spend being physically inactive at home, at work, during travel and in our leisure activities. Many people lead busy though often inactive lives, with prolonged sitting and insufficient physical activity a part of daily life.

Recent evidence has shown that prolonged sedentary behaviour, particularly sitting, is associated with health risks, even in people who exercise regularly.⁽⁸³⁻⁸⁵⁾ It is essential that action is taken to reduce the amount of time people spend being sedentary.⁽³⁴⁾

Box 10: Active living

Active living is a way of life that incorporates activity into daily routines and gets people up and moving. It means increasing physical activity and reducing sedentary behaviour at all stages of the life course.

Everyday examples of active living include walking to the bus stop; playing with the kids; cycling to the shops, to school or to work; gardening; competing in sport; and participating in an active class.

3. Strategic directions for physical activity in WA, 2012–2016 (Table 5)

| Healthy policies |
|---|
| <ul style="list-style-type: none"> • Explore and support the development and implementation of operational policies in childcare, school and workplace settings that increase active living. • Actively contribute to the development of planning, transport and land use policies that prioritise and support and embed active living. • Encourage the prioritisation of active transport over private car use. • In collaboration with other stakeholders, contribute to the development of new, and review of existing relevant Government policies to ensure that they support active living. • Call for the ongoing implementation of the Department of Education's two hours per week physical activity policy and its expansion to all schools. |
| Legislation and regulation |
| <ul style="list-style-type: none"> • Support State and Commonwealth Government regulatory initiatives that increase active living. These could include planning, transport and land use requirements which support active transport, and built environments which are conducive to a more physically active lifestyle. |
| Economic interventions |
| <ul style="list-style-type: none"> • Investigate and encourage the development of innovative tax and pricing interventions that facilitate active living; for example tax deductibility for membership of sporting associations and other physical activity groups; further subsidies for public transport use. |
| Supportive environments |
| <ul style="list-style-type: none"> • Assist in the creation of childcare, school and workplace environments that increase active living. • Advocate for the incorporation of healthy design principles in urban development to support active living. |
| Public awareness and engagement |
| <ul style="list-style-type: none"> • Promote and incorporate consistent key active living messages into statewide social marketing initiatives. • Actively reinforce these messages through school, workplace and community settings. |
| Community development |
| <ul style="list-style-type: none"> • Engage with local community and local government to identify and prioritise actions which will support more active living; for example walking groups; urban planning incorporating connected foot and cycle paths. • Advocate for the shared use of physical activity facilities; for example community access to school physical activity facilities outside school hours. |

| |
|--|
| Targeted interventions |
| <ul style="list-style-type: none">• Build on and support community-based initiatives that increase active living in school, workplace and community settings.• Deliver parent and family-oriented initiatives that increase children's active living.• Facilitate the transition from school-based to community-based participation in physical activity in conjunction with other stakeholders. |
| Strategic coordination and capacity building |
| <ul style="list-style-type: none">• Continue to work collaboratively with the Physical Activity Taskforce and its member agencies to ensure a coordinated approach to active living.• Support capacity building initiatives for the health and non-health physical activity workforce to assist their delivery of best practice active living initiatives.• Ensure research, evaluation and surveillance structures are in place to monitor initiatives and key issues impacting on active living. |

Making smoking history

Smoking rates continue to decline in WA, and more of us live, work and relax in smoke-free environments than ever before, but there is still much to be done to make tobacco use a thing of the past.

1. A snapshot of smoking in Western Australia

- In 2010, 12% of the Western Australian population aged 16 and over were daily smokers, and a further 3% were occasional smokers.⁽²⁷⁾
- Men were more likely to be daily smokers than women (14% compared to 9%).⁽²⁷⁾
- Five percent of Western Australian secondary school students aged 12–17 reported that they were regular smokers in 2008. Girls were slightly more likely to be smokers than boys (5.1% compared to 4.6%).⁽²⁶⁾
- Between 1984 and 2008, weekly smoking rates among 12–17 year olds fell from 18% to 5%.⁽²⁶⁾
- 44% of Aboriginal people in WA were smokers in 2008, lower than the national rate for Aboriginal people of 48%.⁽⁸⁶⁾
- Lower socioeconomic groups,⁽⁸⁷⁾ people who live outside major cities,⁽⁸⁷⁾ people with mental illness,⁽³²⁾ prison inmates,⁽⁸⁸⁾ and some overseas-born communities⁽¹⁰⁾ also have a higher prevalence of smoking than the general population.
- Most homes in WA are smoke-free. In 2010, only 4% of adults reported smoking in their home on a frequent basis,⁽²⁷⁾ and 98% of children aged 15 and under lived in a smoke-free home.⁽²⁴⁾
- Tobacco was responsible for 7% of the total burden of disease in 2006 and was estimated to have caused 1,295 deaths, or about 11% of all deaths in WA for that year. Most of the disease burden was due to lung cancer and chronic obstructive pulmonary disease (emphysema).⁽³⁾
- In 2004–05, the social costs of tobacco use in WA (including costs to government, business and individuals) were estimated at \$2.4 billion.⁽⁸⁹⁾ Hospital costs accounted for \$60 million of this total.⁽⁸⁹⁾

2. Priorities for tobacco control in WA, 2012–2016

Continue the efforts to drive down smoking rates in the community

Although smoking is in decline, tobacco use continues to have a major impact on public health and will continue to do so for many years to come.⁽⁸⁹⁾

There is no safe cigarette, and there is no risk-free level of exposure to tobacco smoke.⁽⁹⁰⁾ The only way to bring an end to the damage caused by smoking is to encourage people to stop smoking and to discourage children from starting to smoke.

Decades of experience gained from tobacco control in Australia and internationally have provided clear direction about best practice in reducing the prevalence of smoking. This has most recently been articulated by the National Preventative Health Taskforce.⁽³⁴⁾ Of the range of possible preventive strategies to reduce tobacco use, the two most effective are fiscal policies which result in increases in the real price of tobacco products, and social marketing campaigns designed and properly funded in order to maximise frequency, reach and intensity. In combination, these strategies have great potential to further reduce smoking in the community.⁽⁹¹⁾

Eliminate exposure to tobacco smoke in places where the health of others can be affected

The harmful effects of secondhand tobacco smoke⁽⁹²⁾ underpin the importance of ensuring smokefree public environments. While the primary goal of smokefree regulation is the immediate protection of others from tobacco smoke, restrictions on tobacco use in specific settings have a profound influence on smoking behaviour. There is good evidence that smoking restrictions help to reduce the uptake of smoking among young people,^(93, 94) reduce the amount of cigarettes consumed by smokers,⁽⁹⁵⁾ and prompt quit attempts.⁽⁹⁶⁾ They also have a flow-on effect of increasing the numbers of smokers who choose to keep their homes and cars smokefree, and to refrain from smoking in other people's homes.⁽⁹⁶⁾

3. Strategic directions for tobacco control in WA, 2012–2016 (Table 6)

| |
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| Healthy policies |
| <ul style="list-style-type: none"> • Strengthen partnerships between health and government agencies, non-government organisations and service providers to ensure consistent approaches to tobacco control and policy development. • Encourage implementation of smokefree policies. • Integrate smoking cessation with other healthy lifestyle initiatives. |
| Legislation and regulation |
| <ul style="list-style-type: none"> • Eliminate exposure to ETS in workplaces and public places, especially where children are present. • Identify and respond to shortfalls in the current regulatory environment. • Participate in forums to support and add value to regulatory initiatives at the national level, and in other states and territories. |
| Economic interventions |
| <ul style="list-style-type: none"> • Back Commonwealth Government fiscal policies to discourage tobacco use. |
| Supportive environments |
| <ul style="list-style-type: none"> • Continue to build on strong public support for tobacco control measures. • Encourage expansion of smokefree environments. |
| Public awareness and engagement |
| <ul style="list-style-type: none"> • Invest in sustained, high-quality statewide mass media campaigns. • Develop messages to address the needs of disadvantaged groups. • Adopt new technologies to enhance and extend marketing and PR activities. • Engage with the media to stimulate debate about tobacco policy. |
| Community development |
| <ul style="list-style-type: none"> • Work with local community and local government to identify and prioritise actions which will reduce exposure to secondhand tobacco smoke. • Encourage and sustain development of local government tobacco action plans. |
| Targeted interventions |
| <ul style="list-style-type: none"> • Ensure that health services provide clients who smoke with encouragement and support to quit. • Integrate successful, culturally appropriate program components, and collaborate on the range of initiatives implemented under the National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes. • Develop programs to meet the needs of other groups with higher smoking prevalence, including those with mental illness and the prison population, to reduce consumption and support cessation. • Encourage and embed provision of quit services and information throughout workplaces, educational and community settings and health service providers. |

Strategic coordination and capacity building

- Foster the development of skills, expertise and resources within tobacco control workforce.
- Capitalise on opportunities to add value to professional networking events.
- Contribute to the evidence base on tobacco policy and health and ensure that policies and programs are developed based on best evidence.
- Improve data collection on smoking behaviour in regional areas, among Aboriginal people, in culturally and linguistically diverse populations, and among disadvantaged groups.

Reducing harmful drinking

“All Australians have a role to play in reshaping our drinking culture, including our governments, law enforcement agencies, the health and welfare sector, the alcohol beverage and related industries, local communities, families and individuals.”⁽³⁴⁾

1. A snapshot of alcohol use in Western Australia

- In 2010, 77% of the WA population aged 16 and over reported that they consumed alcohol, and 23% reported that they were non-drinkers.⁽²⁷⁾
- Of those who reported that they drank alcohol, half did so at levels that put their health at high risk of harm from an alcohol-related disease over their lifetime, and 23% consumed alcohol at levels that put their health at high risk for an alcohol-related injury from a single occasion of drinking⁽²⁷⁾ (based on current National Health and Medical Research Guidelines⁽⁹⁷⁾—Box 11).
- Males who consumed alcohol were more likely to at drink at levels which placed them at risk of lifetime harm than females who drank (60% compared with 39%). Male drinkers were also more likely to drink at levels which placed them at risk of harm on a single occasion than female drinkers (31% compared with 14%).⁽²⁷⁾
- High-risk drinking behaviours decline with age for both men and women.⁽²⁷⁾
- In 2008, nearly a quarter (24%) of Western Australian adolescents (aged 12–17) who drank alcohol, consumed it at levels that placed them at risk of short term harm.⁽²⁵⁾
- In 2004–05, a higher proportion of Western Australian Aboriginal people had abstained from drinking alcohol in the previous year than non-Aboriginal people (30% compared to 14%). However Aboriginal people who drank had a higher prevalence of drinking at risky or high-risk levels for short term harm on at least a weekly basis compared with non-Aboriginal drinkers (18% compared with 8%).⁽⁹⁸⁾
- People living in very remote areas have twice the likelihood of dying from alcohol-related conditions than those who live in metropolitan areas.⁽⁹⁹⁾
- The most socioeconomically disadvantaged populations in WA have 1.5 times the death rate due to alcohol than the least socially disadvantaged group.⁽⁹⁹⁾
- In 2006 the total cost of hospitalisations in WA associated with alcohol was estimated at more than \$33 million. Emergency department attendances for alcohol-related injury and assault cost the State more than \$7 million in 2005–06.⁽¹⁰⁰⁾

Australian^(97, 101) and international⁽¹⁰²⁾ health authorities do not recommend drinking alcohol as a way of preventing or treating heart disease.

Box 11: Australian Guidelines to reduce health risks from drinking alcohol (2009)

The National Health and Medical Research Council recommends that:⁽⁹⁷⁾

- For healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury.
- For healthy men and women, drinking no more than four standard drinks on a single occasion reduces the risk of alcohol related injury arising from that occasion.
- Parents and carers should be advised that children under 15 years of age are at the greatest risk of harm from drinking and that for this age group, not drinking alcohol is especially important.
- For young people aged 15–17 years the safest option is to delay the initiation of drinking for as long as possible.
- For women who are pregnant or planning a pregnancy, not drinking is the safest option.
- For women who are breastfeeding, not drinking is the safest option.

2. Priorities for reducing harmful drinking in WA, 2012–2016

Change community attitudes towards alcohol use

Alcohol use is embedded in national culture⁽¹⁰³⁾ and the majority of Western Australians consume alcohol at some level.⁽²⁷⁾ Research shows that the greatest number of alcohol-related problems occur in people who often drink moderately but occasionally drink to harmful levels, which accounts for a large proportion of the general drinking population.⁽¹⁰⁴⁾

Australian children are initiated into a culture of drunkenness at an early age.⁽¹⁰³⁾ Among WA secondary schoolchildren in 2008, one third of current drinkers* aged 12–15 and 43% of current drinkers aged 16–17 reported that they drank alcohol with the aim of getting drunk.⁽²⁵⁾ Community attitudes to drunkenness, the availability and advertising of alcohol, and role-modelling all influence the drinking choices young people make.⁽¹⁰³⁾

The traditional Australian tolerance of excess drinking⁽³⁴⁾ is increasingly being countered by community concern and awareness about the harm it causes. In a WA survey in 2008, 60% of respondents thought it was inappropriate to get drunk.⁽¹⁰⁵⁾

*Current drinkers were defined as those who had consumed alcohol in the week prior to the survey.

Influence the supply of alcohol

How alcohol is made available influences the extent to which alcohol related harm occurs. Risk can be reduced by controlling alcohol sales and supply through location, density and type of licensed outlets.⁽³⁴⁾ Increasingly, communities are engaging in the decision making process about how alcohol is managed in their localities. Some remote communities in WA have opted for a complete ban on alcohol.⁽¹⁰⁶⁾

The most common source of alcohol for under-aged drinkers is their parents.⁽²⁵⁾ There is a need for public education about the harms of underage drinking and the importance of delaying initiation to alcohol use, as well as increasing awareness about adult responsibilities and obligations to protect children and adolescents from alcohol use.

Moderate demand for alcohol

A range of options has been demonstrated to influence demand for alcohol products and can be employed to help shape lower-risk patterns of drinking behaviour. These include changes to taxation and pricing; regulation of access and availability; drink-driving countermeasures; regulation of alcohol advertising and promotion; social marketing and educative approaches; and provision of appropriate treatment and rehabilitation options.⁽¹⁰³⁾

Alcohol is closely associated with injury. It is a contributing factor to almost one in five (19%) injury deaths and more than one in ten (12%) of hospitalisations due to injury.⁽²⁸⁾ Introducing effective strategies to reduce risky drinking in the community will also bring down the amount of injury caused by alcohol use.

3. Strategic directions for reducing harmful drinking in WA, 2012–2016 (Table 7)

| |
|---|
| Healthy policies |
| <ul style="list-style-type: none"> Promote the development and implementation of organisational policies on alcohol in workplaces and social settings, including sporting and social clubs, schools and other environments in which children or young people are involved. |
| Legislation and regulation |
| <ul style="list-style-type: none"> Support orienting current legislation to give priority to minimisation of harm and ill-health. Actively work towards reducing the exposure of children and adolescents to alcohol consumption and the promotion of alcohol. |
| Economic interventions |
| <ul style="list-style-type: none"> Participate in the national debate about reform in alcohol taxation and pricing as a means of reducing harmful alcohol consumption. |
| Supportive environments |
| <ul style="list-style-type: none"> Support the development of settings that discourage harmful drinking and promote a safer drinking culture, and in particular, reduce exposure of children to alcohol consumption and influences which encourage consumption. Consider evidence on the cumulative impact of high-risk licensed premises and options for balancing types and numbers of lower risk outlets. |
| Public awareness and engagement |
| <ul style="list-style-type: none"> Support the development and implementation of evidence-based social marketing campaigns and other engagement strategies to reduce short-term and long-term harmful drinking, and to influence the cultural and social attitudes about alcohol. Raise public awareness about adult responsibilities and obligations to protect children and adolescents from alcohol use and related harms. Provide ongoing supportive education regarding patrons' and licensees' responsibility to act in accordance with current legislation, including the responsible service of alcohol. |
| Community development |
| <ul style="list-style-type: none"> Empower communities in contributing to strategies to manage local alcohol policy, including availability. |
| Targeted interventions |
| <ul style="list-style-type: none"> Advocate for the compulsory delivery of appropriate alcohol education in schools. Support implementation of evidence-based and innovative interventions for at-risk populations. |

Strategic coordination and capacity building

- Promote and facilitate improved monitoring, evaluation and research regarding alcohol-related interventions in all settings.
- Support primary health care workers in helping clients and patients to adopt safer drinking practices.
- Increase the capacity and competency of regional alcohol prevention staff in the development of localised strategies and activities to support safer drinking.
- Continue to build collaborative partnerships between Commonwealth, Local and other State government departments, non-government organisations and community groups with a shared interest in changing the drinking culture and promoting less harmful drinking practices.

Creating safer communities

Most injuries have the potential to be anticipated, and could therefore be avoided.

1. A snapshot of injuries in Western Australia

Alcohol is a contributing factor to nearly one in five (19%) injury deaths, and almost one in eight (12%) hospitalisations due to injury.⁽²⁸⁾ Alcohol use is a contributing factor in about 45% of hospitalisations and deaths due to injury caused by violence.⁽²⁸⁾ Introducing effective strategies to reduce risky drinking in the community will have a positive impact on the amount of injury caused by alcohol use. Priorities for addressing harmful use of alcohol are discussed in the previous chapter.

- Injuries are the leading cause of premature death in WA.⁽²⁸⁾
- Nearly one quarter (24%) of attendances at hospital emergency departments are because of injury.⁽²⁸⁾
- The leading causes of death^{††} are suicide (30%),⁽²⁸⁾ [unintentional injuries^{‡‡} (18%) and falls (11%).⁽²⁸⁾

Policies for suicide prevention have been developed by the Mental Health Commission in its *Western Australian Suicide Prevention Strategy 2009–2013*, available from <http://www.mentalhealth.wa.gov.au/Homepage.aspx>

- The main causes of hospitalisation due to injury are other unintentional injuries (34%), falls (31%) and transport injuries (14%).⁽²⁸⁾
- Males are more than twice (2.4 times) as likely to die, and are 1.5 times more likely to be hospitalised because of injury compared with females.⁽²⁸⁾
- Falls are the leading cause of hospitalisation due to injury in all age groups except for people aged 15–24, among whom transport injuries are the leading cause of hospitalisation due to injury. Falls account for 23% of deaths due to injury in people aged 65 and over.⁽²⁸⁾
- About half of all deaths due to injury in people aged between 5–24 are due to transport accidents.

^{††} Excludes injuries due to complications of medical and surgical care, as well as other unclassified injuries, which account for 2.5% of all injury deaths.

^{‡‡} “other unintentional injuries” are injuries other than those caused by transport, falls, poisoning or interpersonal violence.

- Twenty-three percent of injuries occur in the home, and 9% take place on roads or highways.⁽²⁸⁾ Specific activities during which injuries are most likely to occur are while playing sport (10%) and in the course of employment (8%).⁽²⁸⁾
- People living in the most disadvantaged circumstances have about double the risk of dying from injury compared with people who are least disadvantaged. Those living in regional or remote areas are also at greater risk.⁽²⁸⁾
- Aboriginal people are about three and half (3.6) times more likely to be hospitalised due to injury, and to die from injury, than non-Aboriginal people.⁽²⁸⁾
- Hospital costs due to injury in WA are estimated at about \$173 million each year.⁽²⁸⁾

2. Priorities for injury prevention in WA, 2012–2016

WA Health works with a range of partners, including other government and non-government agencies, which share the goal of preventing injury and improving community safety in this State. In some areas WA Health takes a lead role, but in areas led by other agencies—such as road safety, occupational health and safety, product safety and crime prevention—WA Health provides support by offering a skills base, models of practice, and data provision and analysis.

Reduce road crashes and road trauma

Transport-related incidents are a leading cause of injury in all age groups and are major public health problem in this State.⁽²⁸⁾ Young people, especially males; Aboriginal people; residents of the most disadvantaged areas and people who live in remote and regional parts of the state are at greatest risk.⁽²⁸⁾

Reducing injuries and deaths on the roads requires a multisectoral approach, and the adoption of a comprehensive range of policies which address road safety from all angles. WA Health actively supports the Road Safety Council's *Towards Zero Road Safety Strategy*,^{§§} which is based on the four cornerstones of safe road use, safe roads and roadsides, safe vehicles and safe speeds.

Falls prevention in older people

Falls are an important cause of death from injury at all stages of life, but especially for people aged over 65.⁽²⁸⁾ Death rates from falls increased by about 9% between 2000–2008 in Western Australia,⁽²⁸⁾ reflecting the ageing of the population.⁽¹⁰⁷⁾

A number of factors increase risk of injury from falls in older people, including medical conditions, some kinds of medication, environmental factors and alcohol use.^(107, 108) Most falls occur in the home environment, especially among women. A significant number falls also occur in residential care settings and in hospitals.⁽¹⁰⁷⁾

§§ See: <http://ors.wa.gov.au/>

Experiencing a fall can have a devastating impact on quality of life in older people, and may mark the transition between living independently to leading a more dependent lifestyle.⁽¹⁰⁹⁾

Falls prevention involves education and support for creating safer environments, encouraging and enabling active ageing in the community, and engaging health care professionals in helping to reduce modifiable risk factors for falling.

Protect children from injury

Children are at special risk of injury. Children aged four and under have the highest death rates in the community due to drowning, and the highest rates of hospitalisation due to burns and scalds.⁽²⁸⁾ In children aged 14 and under, transport accidents and drownings are the leading cause of injury-related deaths. Most hospitalisations due to injury in this age group are caused by falls, transport-related injuries (particularly cycling injuries) and poisonings.⁽²⁸⁾

Preventing injuries among infants and younger children involves ensuring that home and community environments (including the products to which they are exposed) are safe, and that the people who look after them are aware of and understand how to protect children from potential risks. Older children encounter a wider range of settings and begin to make their own judgements about matters of personal safety. For this group, injury prevention should focus on the avoidance of serious injury while still providing opportunities to learn positive risk management strategies.⁽¹⁰⁹⁾

Improve water safety

Drowning and near-drowning are an important cause of death and hospitalisation, particularly in children, young adults, and people aged in their 60s and 70s.⁽²⁸⁾ The risk of drowning is higher for males, residents of more disadvantaged socioeconomic areas, and among people who live in rural and remote areas.⁽²⁸⁾ Near-drowning may result in serious brain damage.⁽¹⁰⁸⁾ Other injuries associated with water-based activities include spinal injuries, fractures and major wounds.⁽²⁸⁾

Key factors contributing to drowning and near-drowning incidents in children are insufficient adult supervision and poor or no safety barriers around bodies of water.⁽¹⁰⁸⁾ In adults, risk factors for drowning include alcohol use,⁽²⁸⁾ lack of awareness about possible dangers in and around natural water sources and inadequate swimming skills. Older people with pre-existing medical conditions are at increased risk of drowning.⁽¹¹⁰⁾

Reduce interpersonal violence

Interpersonal violence refers to family and intimate partner abuse, elder abuse and community violence.⁽²⁸⁾ Across the whole of the population, it ranks fourth as a cause of hospitalisation due to injury, and sixth as a cause of death due to injury. Males are almost twice as likely to be hospitalised for, or to die from injury due to interpersonal violence compared with females.⁽²⁸⁾ Alcohol use was a contributing factor in about 45% of deaths and hospitalisations due to violence in WA between 2000-2007.

Experience of interpersonal violence is much higher in the Aboriginal population. Aboriginal males are about 13 times more likely to be hospitalised due to interpersonal

violence than non-Aboriginal males, and Aboriginal females are about 68 times more likely to be hospitalised because of violence compared with non-Aboriginal females.⁽²⁸⁾

WA Police leads the multisectoral Crime Prevention Council (CPC), of which WA Health is a member. The Crime Prevention Council has endorsed a State Community Crime Prevention Plan^{***}, which brings together communities, local governments, State government departments and agencies and the non-government sector in an effort to identify grassroots solutions to local crime and safety issues, and set the foundations for long-term prevention of crime.

^{***} Available from: <http://www.crimeprevention.wa.gov.au>

3. Strategic directions for injury prevention in WA, 2012–2016 (Table 8)

| |
|--|
| Healthy policies |
| <ul style="list-style-type: none"> • Advocate for and contribute to the development of government policies that have a positive impact on injury prevention and community safety. • Contribute to the development of planning, transport and land use policies that prioritise and promote injury prevention and community safety. • Advocate for policies that mitigate harmful use of alcohol in the context of injury prevention and community safety. |
| Legislation and regulation |
| <ul style="list-style-type: none"> • Support State and Commonwealth Government regulatory initiatives that reduce the risk of injury. These could include reducing harm through alcohol and other drug use, promoting water safety legislation and supporting child safety protocols. |
| Economic interventions |
| <ul style="list-style-type: none"> • Encourage ongoing research, reviews and updates to determine accountability, cost and best practice in injury prevention and community safety. |
| Supportive environments |
| <ul style="list-style-type: none"> • Foster the development of environments and communities which reduce the risk of injury and promote safer behaviours. |
| Public awareness and engagement |
| <ul style="list-style-type: none"> • Raise awareness of injury risks and protective measures through public education campaigns. • Reduce falls risk factors and their determinants and enhance protective factors across the life-course. This includes promoting healthy ageing. • Educate and encourage individuals, families and communities to develop the knowledge, attitudes and skills to choose harm minimising activities and promote healthy environments. • Where appropriate, incorporate alcohol-related harm minimisation messages in injury prevention programs and policy initiatives. |
| Community development |
| <ul style="list-style-type: none"> • Engage and consult with local communities and local government to identify and prioritise actions to support injury prevention and community safety; for example water safety, the physical environment, interpersonal violence and falls. • Build constituent support for injury prevention, and embed injury prevention and community safety into community healthy lifestyle initiatives. |

Targeted interventions

- Promote injury prevention initiatives across the lifespan and develop programs appropriate to the needs of at-risk groups. These include; children, youth and young adults, adults, older people, rural and remote populations, and Aboriginal and Torres Strait Islander peoples.
- Incorporate messages about alcohol use and increased risk of injury in interventions for high risk populations.

Strategic coordination and capacity building

- Advocate for research methodologies that have a practical application in guiding future policy options and that add to the discourse on injury prevention.
- Build and support workforce development.
- Expect standards of policy and program evaluation that demonstrate robust and empirical evidence.
- Continue to work collaboratively with key stakeholders to ensure a coordinated approach to injury prevention and community safety.

Part 4—Putting policy into practice

Everybody has a role to play

Full implementation of the HPSF requires the involvement of many different sectors, working in partnership. There are already good examples of cross-sectoral partnerships which have achieved improved health outcomes in WA.

To see a range of WA case studies showing different approaches to promoting better health, and for helpful resources, visit the HPSF website.

Reporting on progress

WA Health sets targets for reduction in chronic disease and injury which are measured against Key Performance Indicators (KPIs) (Table 9).⁽¹²⁾ The Government of WA is also committed to meeting targets stipulated in National Agreements.^(2, 13)

Progress in implementation and measuring effectiveness of interventions to reduce the incidence of chronic disease and injury will be assessed by:

- annual reporting of activity in support of implementation of the HPSF; and
- monitoring prevalence of lifestyle risk factors, and morbidity and mortality caused by preventable chronic disease and injury.

Western Australian benchmarks and indicators

Annual Health and Wellbeing Surveillance System data collection

WA Health collects data on the general wellbeing of the population, risk factors, chronic diseases, demographics and health service utilisation. These data are also available on a region-by-region basis. Health and Wellbeing Surveillance System (HWSS) data are reported annually and are available from the Epidemiology Branch within the Public Health Division.^{†††}

Key performance indicators for WA Health Annual Reporting

As a whole-of-system measure, WA Health reports annually on loss of life from premature death due to identifiable causes of preventable diseases or injury. The measure used is Person Years of Life Lost (PYLL).⁽¹²⁾ WA Health implements health

^{†††} HWSS publications may be found at:

http://www.health.wa.gov.au/publications/pop_surveys.cfm

promotion programs as one of its strategies to reduce preventable disease and injury. However it is important to note that positive impacts of health promotion programs on health outcomes (as opposed to behaviours) can only be realised over the long term, since changes in risk factor prevalence do not translate into instant declines in disease outcomes.⁽¹²⁾

Table 9 shows PYLL from selected preventable diseases since 2000, and the current targets. The overall trend shows that PYLL from these preventable diseases and injury due to falls are either improving or being maintained at the same level.⁽¹²⁾

Table 9: Key performance indicators for WA Annual Health Reporting: person years of life lost from selected preventable diseases and injury, WA, 2000–2009

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Target |
|--------------------|------|------|------|------|------|------|------|------|------|------|------------|
| Lung cancer | 2.2 | 2.3 | 2.4 | 2.2 | 1.9 | 1.9 | 2.0 | 2.2 | 1.8 | 2.0 | 2.0 |
| IHD* | 3.8 | 4.2 | 3.7 | 3.1 | 3.2 | 3.3 | 3.3 | 3.6 | 3.3 | 3.0 | 3.0 |
| Falls | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.4 | 0.2 |

*Ischaemic heart disease

Source: WA Health⁽¹²⁾

National benchmarks and indicators

National Partnership Agreement on Preventive Health

The Government of WA is a signatory to this Agreement, which came into force in January 2009 and expires in mid-2015.⁽²⁾

Specific performance benchmarks have been provided for slowing the increase in the proportion of the population at unhealthy weight, and increasing fruit and vegetable consumption and physical activity in children and adults. Performance benchmarks have been specified for smoking in the adult population (Table 10). The performance indicators included in the Agreement are consistent with those in the National Healthcare Agreement (see following section).

Although it is a stated intention of the Agreement to “reduce the harmful and hazardous consumption of alcohol”,⁽²⁾ no specific performance benchmarks have been stipulated for alcohol.

The baseline for the benchmarks other than for smoking is the last available data at June 2009. The baseline for smoking is national data from 2007. Performance against these benchmarks will be assessed using data for WA collected through a combination of state and national surveys, including the WA HWSS, the National Drug Strategy Household Survey, the Australian School Students’ Alcohol and Drugs (ASSAD) Survey, and the National Secondary Students’ Diet and Activity (NaSSDA) Survey.

Performance against benchmarks will be assessed in June 2013 and December 2014,⁽²⁾ and based on the most recent survey data available at the time.

Table 10: Performance benchmarks in the *National Partnership Agreement on Preventive Health, 2009–2015*

| Children | Target |
|---|--|
| Slow and reverse the increase in children at unhealthy weight | Increase in proportion of children at unhealthy weight held at less than 5% from baseline for each state by 2013; proportion of children at healthy weight returned to baseline by 2015. |
| Increase fruit and vegetable consumption | Increase in mean number of daily serves of fruits and vegetables consumed by children by at least 0.2 for fruits and 0.5 for vegetables from baseline for each state by 2013; 0.6 for fruits and 1.5 for vegetables by 2015. |
| Increase physical activity | Increase in proportion of children participating in at least 60 minutes of moderate physical activity every day from baseline for each state by 5% by 2013; by 15% by 2015. |
| Adults | Target |
| Slow and reverse the increase in adults at unhealthy weight | Increase in proportion of adults at unhealthy weight held at less than 5% from baseline for each state by 2013; proportion of adults at healthy weight returned to baseline level by 2015. |
| Increase fruit and vegetable consumption | Increase in mean number of daily serves of fruits and vegetables consumed by adults by at least 0.2 for fruits and 0.5 for vegetables from baseline for each state by 2013; 0.6 for fruits and 1.5 for vegetables from baseline by 2015. |
| Increase physical activity | Increase in proportion of adults participating in at least 30 minutes of moderate physical activity on five or more days of the week of 5% from baseline for each state by 2013; 15% from baseline by 2015. |
| Reduce smoking | Reduction in state baseline from proportion of adults smoking daily commensurate with a 2% point reduction in smoking from 2007 national baseline by 2011; 3.5% reduction from 2007 national baseline by 2013. |
| Reduce the harmful and hazardous consumption of alcohol | No target set. |

Source: *National Partnership Agreement on Preventive Health*.⁽²⁾

National Healthcare Agreement

All Australian state and territory governments are signatories to the National Healthcare Agreement 2011.⁽¹³⁾ Fundamental to the agreement are the principles that Australia's health system should focus on the prevention of disease and injury and the maintenance of health, and support an integrated approach to the promotion of healthy lifestyles. This Agreement sets specific performance benchmarks, including one for smoking prevalence in Aboriginal people (Table 11). Progress against the performance benchmarks in Table 11 will be reviewed by late 2013.

Table 11: Performance benchmarks in the *National Healthcare Agreement*

| | |
|--|--|
| Diabetes in people aged 25 and over | Reduce the age-adjusted prevalence rate for Type 2 diabetes to 2000 levels (equivalent to a national prevalence rate of 7.1%) by 2023. |
| Smoking in the overall Australian population | Reduce the national smoking rate to 10% of the population by 2018, over the 2009 baseline. |
| Smoking in the Aboriginal population | Halve the Aboriginal smoking rate by 2018, over the 2009 baseline. |
| Increase proportion of the population with healthy bodyweight | Increase by five percentage points the proportion of Australian adults and Australian children at a healthy body weight by 2017, over the 2009 baseline. |

Source: *National Healthcare Agreement*.⁽¹³⁾

National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes

The *Closing the Gap Agreement* sets targets to improve health and educational outcomes for Aboriginal people. Health targets are shown in Table 12.⁽¹⁷⁾ This Agreement is in force from July 2009 until June 2013.

The WA Health reports annually against benchmarks and timelines which have been laid out in Implementation Plans for the agreement.^(111, 112) Progress is assessed by qualitative or quantitative measures, or both.

Table 12: Targets in the *National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes, 2009–2013*

| | |
|---|--|
| Life expectancy | Close the gap in life expectancy for Aboriginal Australians within a generation. |
| Mortality in children aged under 5 | Halve the gap in mortality rates for Aboriginal children under five by 2018. |

Source: *National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes*.⁽¹⁷⁾

Informing future planning

Many different agencies and organisations around the state engage in preventive work across chronic disease and injury. While some of this work is undertaken with the support of WA Health, other interventions—many of them excellent—have been initiated by other stakeholders. In order to inform future planning in chronic disease and injury prevention, WA Health will monitor activities. This work will help guide future planning by identifying shortfalls and gaps in current programming, as well as areas in which there is the potential for duplication and overlap. It will also help to identify current and emerging priorities and new opportunities.

Building the evidence base

Building an evidence base involves assembling relevant information to ensure that all considerations are taken into account in planning for future investment in prevention of chronic disease and injury.

Proper evaluation of programs and activities forms an important component of the evidence base. Robust evaluation will ensure that all aspects of programs can be properly assessed, lessons learnt, strengths built on, and future directions and policies properly informed. In the case of initiatives which are being funded by WA Health, evaluation is also vital to ensure that the Western Australian community is benefiting from the programs.

Importantly, building an evidence base also involves monitoring and critically reviewing strategies, programs and evidence originating from elsewhere in Australia and where relevant, internationally.

WA Health places priority on developing a strong evidence base, and on developing structured ways of sharing and building on knowledge with key partners and stakeholders.

Boosting research capability and setting an agenda for research

The value and importance of a collaborative and consultative approach to research priority setting is well-recognised. It allows for consensus on identifying essential and urgent research topics, establishes a unified research agenda, encourages maximisation of limited resources, and has potential to accelerate necessary policy changes and investment in appropriate interventions.

The National Health and Medical Research Council describes priority-driven research as work which “contributes directly, in the short to medium term, to population health and the effectiveness, efficiency and equity of the health system.” To ensure effective outcomes, the agenda requires the commitment of Government and other stakeholders, as well as the capacity to integrate research-based knowledge into policy and practice.⁽¹¹³⁾

Associated with this, there is also a need to develop and nurture a skilled, interdisciplinary workforce with the expertise to undertake research and evaluation of health policies and programs. This will require close engagement with tertiary educational institutions, and research organisations in this and other states.

While this State has a solid record in health promotion research, there is no doubt that there is a great opportunity for building interdisciplinary partnerships across Government, tertiary institutions and non-government organisations to develop and pursue priority-driven research agenda for chronic disease and injury prevention, policy and control.

WA Health will seek ways of focussing the research agenda, as well as capitalising and building on research capacity in this state.

Appendix: State and Commonwealth policies and key resources

General

Australia: the healthiest country by 2020. National Preventive Health Strategy
<http://www.health.gov.au/internet/preventativehealth/publishing.nsf/Content/nphs-roadmap>

National Healthcare Agreement
http://www.federalfinancialrelations.gov.au/content/national_agreements/downloads/IGA_FFR_ScheduleF_National_Healthcare_Agreement.pdf

National Partnership Agreement on Preventive Health
http://www.federalfinancialrelations.gov.au/content/national_partnership_agreements/HE004/Preventive_Health.pdf

National Indigenous Reform Agreement
<http://www.fahcsia.gov.au/sa/indigenous/progserv/ctg/Pages/NIRA.aspx>

National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes
http://www.federalfinancialrelations.gov.au/content/national_partnership_agreements/indigenous/closing_the_gap/Closing_the_Gap_indigenous_health_outcomes.pdf

The National Drug Strategy 2010–2015
<http://www.nationaldrugstrategy.gov.au/>

National Drug Strategy Aboriginal and Torres Strait Islander Peoples Complementary Action Plan 2003–2009
<http://www.health.gov.au/internet/drugstrategy/publishing.nsf/Content/indigenous-drug-strategy-lp>

A Healthier Future For All Australians – Final Report of the National Health and Hospitals Reform Commission – June 2009
<http://www.health.gov.au/internet/nhhrc/publishing.nsf/Content/nhhrc-report>

Maintaining a healthy weight

House of Representatives Standing Committee on Health and Ageing. Weighing it up: obesity in Australia (2009)
<http://www.aph.gov.au/house/committee/haa/obesity/report.htm>

Obesity Working Group. Technical Report No.1. Obesity in Australia: a need for urgent action. Canberra: National Preventative Health Taskforce, Department of Health and Ageing, 2008.
<http://www.health.gov.au/internet/preventativehealth/publishing.nsf/Content/tech-obesity>

Eating for better health

Eat Well Australia: An agenda for action in public health nutrition, 2000–2010
<http://www.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-strateg-food-nphp.htm>

National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan 2000–2010
<http://www.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-strateg-food-nphp.htm>

National Health and Medical Research Council. Dietary guidelines for children and adolescents in Australia, incorporating the infant feeding guidelines for health workers. Endorsed 10 April 2003. Canberra: NHMRC, 2003.
http://www.nhmrc.gov.au/files_nhmrc/file/publications/synopses/n34.pdf

Australian Dietary Guidelines (Draft, December 2011)
<http://www.eatforhealth.gov.au/page/public-consultation>
Note: at the time of writing, these Guidelines were released for public consultation.

The Australian Guide to Healthy Eating (Draft, December 2011)
<http://www.eatforhealth.gov.au/page/public-consultation>
Note: at the time of writing, these Guidelines were released for public consultation.

Infant Feeding Guidelines for Health Workers (Draft, October 2011)
<http://www.nhmrc.gov.au/guidelines/publications/ph14>
Note: at the time of writing, public consultation on these Guidelines had just closed.

National Health and Medical Research Council. Nutrient reference values for Australia and New Zealand (including recommended dietary intakes). Canberra: National Health and Medical Research Council, 2006.
http://www.nhmrc.gov.au/files_nhmrc/file/publications/synopses/n35.pdf

A more active WA

Active Living for All: a Framework for Physical Activity in Western Australia 2012–2016
www.beactive.wa.gov.au

Blueprint for an Active Australia
<http://www.heartfoundation.org.au/driving-change/current-campaigns/pages/active-by-design.aspx>

Our Cities Our Future—A National Urban Policy for a productive, sustainable and liveable future
<http://www.infrastructure.gov.au/>

Directions 2031 and Beyond: Metropolitan planning beyond the horizon
<http://www.planning.wa.gov.au/publications/826.asp>

Walk WA: A Walking Strategy for Western Australia 2007–2020

<http://www.beactive.wa.gov.au/whatswalkwa.asp>

National Physical Activity Recommendations for Australians

<http://www.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-strateg-phys-act-guidelines>

Active Transport Policy (currently under development by Department of Transport)

Making smoking history

Tobacco Products Control Act 2006

<http://www.health.wa.gov.au/about/strategicintent.cfm>

Tobacco Products Control Regulations 2006

[http://www.slp.wa.gov.au/pco/prod/FileStore.nsf/Documents/MRDocument:19938P/\\$FILE/TobaccoProdsContrlRegs2006_00-d0-01.pdf](http://www.slp.wa.gov.au/pco/prod/FileStore.nsf/Documents/MRDocument:19938P/$FILE/TobaccoProdsContrlRegs2006_00-d0-01.pdf)

The National Tobacco Strategy 2012–2018 (currently being developed)

<http://www.health.gov.au/internet/main/publishing.nsf/Content/tobacco-strat>

National Preventive Health Taskforce. Technical Paper 2: Tobacco Control in Australia: making smoking history

<http://www.health.gov.au/internet/preventativehealth/publishing.nsf/Content/tech-tobacco>

Reducing harmful drinking

Drug and Alcohol Office. Drug and Alcohol Interagency Strategic Framework for Western Australia 2010–2015. Perth: Government of Western Australia, 2011. Available from:

<http://www.dao.health.wa.gov.au/Informationandresources/Nationalandstatepolicies.aspx>

Strong Spirit Strong Mind—Aboriginal Drug and Alcohol Framework for Western Australia 2011–2015. Perth: Drug and Alcohol Office, 2011. Available from:

<http://www.dao.health.wa.gov.au/Informationandresources/Nationalandstatepolicies.aspx>

National Drug Strategy 2010-2015

<http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/nds2015>

National Health and Medical Research Council. Australian guidelines to reduce health risks from drinking alcohol. Canberra: Commonwealth of Australia, 2009.

<http://www.nhmrc.gov.au/publications/synopses/ds10syn.htm>

Alcohol Working Group. Australia: the healthiest country by 2020. Technical report no. 3. Preventing alcohol-related harm in Australia: a window of opportunity. Including

addendum for October 2008 to June 2009. Prepared for the National Preventative Health Taskforce by the Alcohol Working Group. Canberra: Commonwealth of Australia, 2009. Available from:

[http://www.health.gov.au/internet/preventativehealth/publishing.nsf/Content/09C94C0F1B9799F5CA2574DD0081E770/\\$File/alcohol-jul09.pdf](http://www.health.gov.au/internet/preventativehealth/publishing.nsf/Content/09C94C0F1B9799F5CA2574DD0081E770/$File/alcohol-jul09.pdf)

Creating safer communities

State Community Crime Prevention Plan (in development)

http://www.crimeprevention.wa.gov.au/state_strategy.php

Towards Zero. Road safety strategy to reduce road trauma in Western Australia 2008–2020. Office of Road Safety, 2008

<http://www.ors.wa.gov.au/StrategiesRoadSafety/Pages/NewStrategy2008-2020.aspx>

Western Australian Water Safety Framework: 2004–2007: A Strategic Framework for Addressing Drowning, Near-drowning and Related Injury in Western Australia

http://www.health.wa.gov.au/docreg/Education/Prevention/Injury_Prevention/Reports/HP1857_water_safety_framework_2004-2007.pdf

Worksafe Occupation Safety and Health Act 1984 and Occupation Safety and Health Regulations 1994

http://www.slp.wa.gov.au/legislation/agency.nsf/docep_menu.htmlx&category=4

Worksafe Codes of Practice

http://www.commerce.wa.gov.au/WorkSafe/Content/About_Us/Legislation/Codes_of_practice.html

Report on the Injury Cost Data Base, Injury Research Centre, UWA, D Hendrie, 2002

http://www.health.wa.gov.au/docreg/Education/Prevention/Injury_Prevention/HP1695_injury_WA_health_system_costs_of_falls.pdf

The epidemiology of injury in Western Australia, 2000–2008. Perth: Department of Health WA, 2011. Available from:

http://www.health.wa.gov.au/publications/documents/Injury_Report_2011.pdf

Injury in Western Australia. A review of best practice, stakeholder activity, legislation and recommendations. Injury Research Centre, The University of Western Australia, 2002.

http://www.health.wa.gov.au/docreg/Education/Prevention/Injury_Prevention/HP8228_injury_WA_review.pdf

WA Drowning Report, 2009

<http://www.lifesaving.wa.com.au/news/article/?id=313>

Australian Rural and Remote Water Safety Plan, 2010–2015

<http://www.watersafety.com.au/AWSCReports/tabid/58/Default.aspx>

National Injury Prevention and Safety Promotion Plan: 2004–2014

<http://www.nphp.gov.au/publications/sipp/nipspp.pdf>

National Aboriginal and Torres Strait Islander Safety Promotion Strategy

<http://www.nphp.gov.au/publications/sipp/atsi.pdf>

National Falls Prevention for Older People Plan: 2004 Onwards

<http://www.nphp.gov.au/publications/sipp/fallplan.pdf>

National Road Safety Strategy, 2011–2020

http://infrastructure.gov.au/roads/safety/national_road_safety_strategy/index.aspx

Australian Water Safety Strategy, 2008–2011

<http://www.watersafety.com.au/20082011Strategy/tabid/81/Default.aspx>

Child Safety on Farms: A Framework for a National Strategy

http://www.aghealth.org.au/tinymce_fm/uploaded/Child%20Safety%20Resources/childsafety_on_farms_nationalstrategy.pdf

Our Children Our Future: A Framework for Child and Youth Services in Western Australia 2008–2012

http://www.healthnetworks.health.wa.gov.au/modelsofcare/docs/WA_Child_&_Youth_Framework_2008-2012.pdf

Standards Australia (for access to safety standards applicable to Australian products, services and systems)

<http://www.standards.org.au/Home.aspx>

References

1. Department of Health. Working together. WA Health Strategic Intent 2010-2015. Perth: Government of Western Australia, 2010. Available from: http://203.0.172.119/about/docs/WAHealth_Strategic_Intent_2010_2015.pdf
2. Council of Australian Governments. National Partnership Agreement on Preventive Health. Canberra: COAG, Commonwealth of Australia, 2009. Available from: http://www.coag.gov.au/intergov_agreements/federal_financial_relations/docs/national_partnership/national_partnership_on_preventive_health.pdf
3. Hoad V, Somerford P, Katzenellenbogen J. The burden of disease and injury attributed to preventable risks to health in Western Australia, 2006. Perth: Department of Health, Western Australia, 2010. Available from: <http://www.health.wa.gov.au/publications/documents/BOD/BOD2006.pdf>
4. Hocking S, Draper G, Somerford P, Xiao J, Weeramanthri T. The Western Australian Chief Health Officer's Report 2010. Perth: Department of Health WA. Perth: Department of Health WA, 2010. Available from: http://www.health.wa.gov.au/publications/documents/WA_chief_health_officers_report_2010.pdf
5. Epidemiology Branch. Selected measures from the WA Health and Wellbeing Surveillance System, 2002-2010 (Unpublished). Perth: Epidemiology Branch, WA Department of Health, 2011.
6. Australian Institute of Health and Welfare. Chronic diseases and associated risk factors in Australia, 2006. Cat. No. PHE 81. Canberra: AIHW, 2006. Available from: <http://www.aihw.gov.au/publication-detail/?id=6442467914>
7. Australian Institute of Health and Welfare. Health of Australians with disability: health status and risk factors. AIHW Bulletin 83, November 2010. Canberra: AIHW, 2010. Available from: <http://www.aihw.gov.au/publications/aus/bulletin83/11608.pdf>
8. Australian Institute of Health and Welfare. The health and welfare of Australia's Aboriginal and Torres Strait Islander people, an overview 2011. Cat. no. IHW 42. Canberra: AIHW, 2011. Available from: <http://www.aihw.gov.au/publication-detail/?id=10737418989&tab=2>
9. Australian Institute of Health and Welfare. Contribution of chronic disease to the gap in adult mortality between Aboriginal and Torres Strait Islander and other Australians. Cat. No. IHW 48. Canberra: AIHW, 2011. Available from: <http://www.aihw.gov.au/indigenous-observatory-chronic-disease/>
10. Australian Bureau of Statistics. 4364.0 - National Health Survey: Summary of Results, 2007-2008 (Reissue) Canberra: ABS, 2009. Available from: [http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4364.0Main+Features12007-2008%20\(Reissue\)?OpenDocument](http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4364.0Main+Features12007-2008%20(Reissue)?OpenDocument)

11. Epidemiology Branch. Unpublished data. Perth: Department of Health Western Australia, 2011.
12. Department of Health. Annual Report 2010-11. Perth: Department of Health, Government of Western Australia, 2011. Available from: http://www.health.wa.gov.au/publications/documents/annualreports/2011/DoH_Annual_Report_2010-11.pdf
13. Council of Australian Governments. National Healthcare Agreement 2011. Intergovernmental agreement on federal financial relations. Canberra: COAG, Commonwealth of Australia, 2011. Available from: http://www.federalfinancialrelations.gov.au/content/national_agreements/healthcare/Healthcare_Agreement.pdf
14. Nutbeam D. Health promotion glossary. Geneva: WHO, 1998. Available from: http://www.who.int/hpr/NPH/docs/hp_glossary_en.pdf
15. Department of Health. Pathway to a healthy community: a guide for councillors. Perth: South Metropolitan Public Health Unit, 2010.
16. Government of Western Australia. Public Health Bill 2008. Draft Bill for public comment. Perth: Government of Western Australia, 2008. Available from: http://www.public.health.wa.gov.au/cproot/2960/2/Draft_Public_Health_Bill.pdf
17. Council of Australian Governments. National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes. National Healthcare Agreement. Canberra: COAG, Commonwealth of Australia, 2008. Available from: http://www.coag.gov.au/intergov_agreements/federal_financial_relations/docs/national_partnership/NP_closing_the_Gap_indigenous_health_outcomes.pdf
18. National Health Priority Action Council, Australian Health Ministers' Conference. National chronic disease strategy. Canberra: Australian Government Department of Health and Ageing, 2006. Available from: [http://www.health.gov.au/internet/main/publishing.nsf/content/7E7E9140A3D3A3BCCA257140007AB32B/\\$File/stratal3.pdf](http://www.health.gov.au/internet/main/publishing.nsf/content/7E7E9140A3D3A3BCCA257140007AB32B/$File/stratal3.pdf)
19. Ministerial Council on Drug Strategy. The National Drug Strategy 2010–2015. A framework for action on alcohol, tobacco, and other drugs. Canberra: Commonwealth of Australia, 2011. Available from: <http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/nds2015>
20. Department of Health WA. Our footprints - a traveller's guide to the COAG implementation process in Western Australia. Perth: Department of Health, Government of Western Australia. Available from: http://www.health.wa.gov.au/publications/documents/Our_Footprints.pdf
21. Australian Institute of Health and Welfare. Premature mortality from chronic disease. Bulletin no. 84. Cat. no. AUS 133. Canberra: AIHW, 2010. Available from: <http://www.aihw.gov.au/publications/aus/bulletin84/11897.pdf>
22. Slade T, Johnston A, Teesson M, Whiteford H, Burgess P, Pirkis J, et al. The Mental Health of Australians 2. Report on the 2007 National Survey of Mental

- Health and Wellbeing. Canberra: Department of Health and Ageing, 2009.
Available from:
<http://www.health.gov.au/internet/main/publishing.nsf/content/mental-pubs-m-mhaust2>
23. Coghlan R, Lawrence D, Holman CD, Jablensky A. Duty to care. Physical illness in people with mental illness. Perth: University of WA (Department of Public Health and Department of Psychiatry and Behavioural Science), 2001 (updated 2009). Available from: <http://www.sph.uwa.edu.au/research/chsr/projects/dtc-report>
 24. Davis P, Joyce S. The health and wellbeing of children in Western Australia in 2010, overview and trends. Perth: Department of Health, Western Australia, 2011. Available from: http://www.health.wa.gov.au/publications/documents/Health_and_Wellbeing_of_Children_in_Western_Australia_2010_Overview_and_Trends.pdf
 25. Haynes R, Kalic R, Griffiths P, McGregor C, Gunnell AS. Australian School Student Alcohol and Drug Survey: Alcohol Report 2008 - Western Australian results. Drug and Alcohol Office Surveillance Report: Number 2. Perth: Drug and Alcohol Office, 2010. Available from: http://www.dao.health.wa.gov.au/DesktopModules/Bring2mind/DMX/Download.aspx?Command=Core_Download&EntryId=94&PortalId=0&TabId=211
 26. Haynes R, Kalic R, Griffiths P, McGregor C, Gunnell A. Australian School Student Alcohol and Drug Survey: Tobacco Report 2008 – Western Australian results. Drug and Alcohol Office Surveillance Report: Number 4. Perth: Drug and Alcohol Office, 2010. Available from: http://www.dao.health.wa.gov.au/DesktopModules/Bring2mind/DMX/Download.aspx?Command=Core_Download&EntryId=542&PortalId=0&TabId=211
 27. Davis P, Joyce S. Health and wellbeing of adults in Western Australia 2010, overview and trends. Perth: Department of Health, Western Australia, 2011. Available from: http://www.health.wa.gov.au/publications/documents/Health_and_Wellbeing_Adults_WA2010_Overview_Trends.pdf
 28. Ballestas T, Xiao J, McEvoy S, Somerford P. The epidemiology of injury in Western Australia, 2000-2008. Perth: Department of Health WA, 2011. Available from: http://www.health.wa.gov.au/publications/documents/Injury_Report_2011.pdf
 29. Epidemiology Branch. Top fifteen causes of mortality for State residents (aged 0-44 years). Generated using data from the WA Death Registrations which includes data from the WA Register of Births, Marriages and Deaths and Australian Bureau of Statistics. Accessed from HealthTracks Mapping and Reporting, 1 December 2011. Perth: Epidemiology Branch (PHI) in collaboration with the Cooperative Research Centre for Spatial Information (CRC-SI). Government of Western Australia, 2011.

30. Australian Institute of Health and Welfare. Australia's health 2010. Australia's health series no. 12. Cat. no. AUS 122. Canberra: AIHW, 2010. Available from: <http://www.aihw.gov.au/publications/index.cfm/title/11374>
31. Australian Institute of Health and Welfare. Prevention of cardiovascular disease, diabetes and chronic kidney disease: targeting risk factors. Cat. no. PHE 118. Canberra: AIHW, 2009. Available from: <http://aihw.gov.au/publication-detail/?id=6442468313>
32. Australian Bureau of Statistics. National Survey of Mental Health and Wellbeing: Summary of Results, 2007. Canberra: ABS, 2008. Available from: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4326.0Main+Features12007?OpenDocument>
33. Department of Health. Western Australian Health Promotion Strategic Framework 2007-2011. Perth: Western Australian Government, 2007. Available from: http://www.health.wa.gov.au/publications/documents/WA_Health_Promotion_Strategic_Framework_2007_2011.pdf
34. National Preventative Health Taskforce. Australia: the healthiest country by 2020. National Preventative Health Strategy - the roadmap for action. Canberra: Commonwealth of Australia, 2009. Available from: <http://www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/Content/nphs-report-roadmap>
35. Maslow A. A theory of human motivation. Psychol Rev. 1943;50:370-96. Available from: <http://psychclassics.yorku.ca/Maslow/motivation.htm#r13>
36. Egger G, Spark R, Donovan J. Health Promotion Strategies and Methods. 2nd ed. Sydney: McGraw-Hill; 2005.
37. World Health Organization. Ottawa charter for health promotion. First international conference on health promotion. Ottawa, 21 November 1986 - WHO/HPR/HEP/95.1. Geneva: WHO, 1986. Available from: http://www.who.int/hpr/NPH/docs/ottawa_charter_hp.pdf
38. World Health Organization. Preventing chronic diseases. A vital investment. WHO global report. Geneva: WHO, 2005. Available from: http://www.who.int/chp/chronic_disease_report/contents/en/index.html
39. Ståhl T, Wismar M, Ollila E, Lahtinen E, Leppo K. Health in all policies. Prospects and potentials. Helsinki: Ministry of Social Affairs and Health; 2006; Available from: http://ec.europa.eu/health/archive/ph_information/documents/health_in_all_policies.pdf
40. Scollo M, Younie S, Wakefield M, Freeman J, Icasiano F. Impact of tobacco tax reforms on tobacco prices and tobacco use in Australia. Tob Control. 2003;12(suppl 2):ii59-ii66. Available from: http://tobaccocontrol.bmj.com/content/12/suppl_2/ii59.full.pdf

41. Department of Planning WA, Western Australian Planning Commission. Liveable Neighbourhoods. A Western Australian Government sustainable cities initiative. Perth: Department of Planning WA and WAPC, 2007; updated 2009. Available from: http://www.planning.wa.gov.au/dop_pub_pdf/ln_text_update_02.pdf
42. Mills A, Messer K, Gilpin E, Pierce J. The effect of smoke-free homes on adult smoking behavior: a review. *Nicotine Tob Res.* 2009;11:1131-41. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC27448/pdf/333.pdf>
43. Wakefield MA, Chaloupka FJ, Kaufman NJ, Orleans CT, Barker DC, Ruel EE. Effect of restrictions on smoking at home, at school, and in public places on teenage smoking: cross sectional study. *BMJ.* 2000;321:333-7. Available from: <http://www.bmj.com/content/321/7257/333.full.pdf>
44. Wakefield MA, Loken B, Hornik RC. Use of mass media campaigns to change health behaviour. *Lancet.* 2010;376:1261-71.
45. Keleher H. Reframing health promotion. In: Keleher H, MacDougall C, Murphy B, editors. *Understanding health promotion.* Melbourne: Oxford University Press; 2007.
46. Davis L, Loyo K, Glowka A, Schwertfeger R, Danielson L, Brea C, et al. A comprehensive worksite wellness program in Austin, Texas: partnership between Steps to a Healthier Austin and Capital Metropolitan Transportation Authority. *Prev Chronic Dis.* 2009;6:A60. Available from: http://www.cdc.gov/pcd/issues/2009/apr/08_0206.htm.
47. Goetzel R, Ozminkowski R. The health and cost benefits of work site health-promotion programs. *Annu Rev Public Health.* 2008;29:303-23.
48. Kuoppala J, Lamminpaa A, Husman P. Work health promotion, job well-being, and sickness absences—a systematic review and meta-analysis. *J Occup Environ Med.* 2008;50:1216-27.
49. The Centre for Allied Health Evidence. *Community-based Interventions: A Rapid Review.* A technical report prepared for Department of Health, Victoria. Adelaide: Centre for Allied Health Evidence, University of South Australia, 2009. Available from: http://www.health.vic.gov.au/healthpromotion/downloads/cbi_full_report_final.pdf
50. Britt H, Miller G, Charles J, Henderson J, Bayram C, Pan Y, et al. General practice activity in Australia 2009-10. General practice series no. 27. Cat. no. GEP 27. Canberra: AIHW, 2010. Available from: <http://www.aihw.gov.au/publication-detail/?id=6442472433>
51. Stead L, Bergson G, Lancaster T. Physician advice for smoking cessation. *Cochrane Database Syst Rev.* 2008 Issue 2;Art. No.: CD000165. DOI: 10.1002/14651858.CD000165.pub3. Available from: <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000165.pub3/abstract;jsessionid=4144AFA2B626AA94F13408BA7D5852D5.d01t03>
52. Rice V, Stead L. Nursing interventions for smoking cessation. *Cochrane Database Syst Rev.* 2008 Issue 1;Art. No.: CD001188. DOI:

- 10.1002/14651858.CD001188.pub3. Available from:
<http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD001188/frame.html>
53. Kaner EFS, Dickinson HO, Beyer F, Pienaar E, Schlesinger C, Campbell F, et al. The effectiveness of brief alcohol interventions in primary care settings: a systematic review. *Drug Alcohol Rev.* 2009;28:301-23.
 54. Easton A. Public-private partnerships and public health practice in the 21st century: looking back at the experience of the Steps Program. *Prev Chronic Dis.* 2009;6:A38. Available from:
http://www.cdc.gov/pcd/issues/2009/apr/08_0212.htm
 55. Hawe P, Noort M, King L, Jordens C. Multiplying health gains: the critical role of capacity-building within health promotion programs. *Health Policy.* 1997;39:29-42.
 56. Hawe P, King L, Noort M, Jordens C, Lloyd B. Indicators to help with capacity building in health promotion. Sydney: NSW Health Department, 2000. Available from: <http://www.health.nsw.gov.au/pubs/2000/pdf/capbuild.pdf>
 57. Hands B, Parker H, Glasson C, Brinkman S, Read H. Results of Western Australian Child and Adolescent Physical Activity and Nutrition Survey 2003 (CAPANS). Physical Activity Technical Report. Perth: Government of Western Australia, 2004. Available from:
<http://www.beactive.wa.gov.au/assets/files/Research/CAPANS%202003%20Physical%20Activity%20Technical%20Report%20in%20depth.pdf>
 58. World Health Organization. Obesity: preventing and managing the global epidemic. Report of a WHO consultation. WHO Technical Report Series No. 894. Geneva: WHO, 2000. Available from:
http://whqlibdoc.who.int/trs/WHO_TRS_894.pdf
 59. Penm E. Cardiovascular disease and its associated risk factors in Aboriginal and Torres Strait Islander peoples 2004-05. Cardiovascular disease series Cat no. 29 CVD 41. Canberra: Australian Institute of Health and Welfare, 2008. Available from: <http://www.aihw.gov.au/publication-detail/?id=6442468095>
 60. Australian Bureau of Statistics. 4719.0 - Overweight and obesity in adults, Australia, 2004-05 Canberra: ABS, 2008. Available from:
<http://www.abs.gov.au/ausstats/abs@.nsf/mf/4719.0/>
 61. World Health Organization, World Bank. World report on disability. Geneva: WHO, 2011. Available from:
http://www.who.int/disabilities/world_report/2011/en/index.html
 62. Van Riper C, Wallace L, American Dietetic Association. Position of the American Dietetic Association: Providing nutrition services for people with developmental disabilities and special health care needs. *J Am Diet Assoc.* 2010;110:296-307. Available from: <http://www.eatright.org/About/Content.aspx?id=8379>

63. De S, Small J, Baur L. Overweight and obesity among children with developmental disabilities. *Journal of Intellectual and Developmental Disability*. 2008;33:43-7.
64. O'Dea J. Gender, ethnicity, culture and social class influences on childhood obesity among Australian schoolchildren: implications for treatment, prevention and community education. *Health Soc Care Community*. 2008;16:282-90.
65. Colagiuri R, Thomas M, Buckley A. Preventing type 2 diabetes in culturally and linguistically diverse communities in NSW. Sydney: NSW Department of Health, 2007. Available from: <http://www.health.nsw.gov.au/pubs/2007/diabetes.html>
66. National Health and Medical Research Council. Australian Dietary Guidelines. Incorporating the Australian Guide to Healthy Eating. DRAFT FOR PUBLIC CONSULTATION. Canberra: NHMRC, 2011. Available from: <http://www.eatforhealth.gov.au/page/public-consultation>
67. Obesity Working Group. Technical Report No.1. Obesity in Australia: a need for urgent action. Canberra: National Preventative Health Taskforce, Department of Health and Ageing, 2008. Available from: <http://www.health.gov.au/internet/preventativehealth/publishing.nsf/Content/tech-obesity>
68. Butterfly Foundation. Eating disorders. The way forward. An Australian national framework. Prepared for the Commonwealth Department of Health and Ageing by the Butterfly Foundation, on behalf of the National Eating Disorders Collaboration. Canberra: Commonwealth Department of Health and Ageing, 2010. Available from: <http://nedc.com.au/media/>
69. Swinburn B, Egger G, Raza F. Dissecting obesogenic environments: the development and application of a framework for identifying and prioritizing environmental interventions for obesity. *Prev Med*. 1999;29:563–70.
70. Gortmaker SL, Swinburn BA, Levy D, Carter R, Mabry PL, Finegood DT, et al. Changing the future of obesity: science, policy, and action. *The Lancet*. 2011;378:838-47.
71. Department of Health. Additional analysis of CAPAN survey data (unpublished). Perth: Department of Health, Government of WA, 2011.
72. Australian Bureau of Statistics. 4715.0 - National Aboriginal and Torres Strait Islander Health Survey, 2004-05. Canberra: Australian Bureau of Statistics, 2006. Available from: [http://www.ausstats.abs.gov.au/Ausstats/subscriber.nsf/0/B1BCF4E6DD320A0BCA25714C001822BC/\\$File/47150_2004-05.pdf](http://www.ausstats.abs.gov.au/Ausstats/subscriber.nsf/0/B1BCF4E6DD320A0BCA25714C001822BC/$File/47150_2004-05.pdf)
73. Landrigan T, Pollard C. Food Access and Cost Survey (FACS), Western Australia, 2010. Perth: Department of Health in Western Australia, 2010. Available from: <http://www.public.health.wa.gov.au/cproot/4115/2/Food%20Access%20and%20Costs%20Survey%202010.pdf>

74. TNS Social Research. Healthy lifestyle qualitative research with adults and parents (unpublished research prepared for the Department of Health, Western Australia). Perth: Department of Health, Western Australia, 2011.
75. Lang T, Caraher M. Is there a culinary skills transition? Data and debate from the UK about changes in cooking culture. *Journal of the Home Economics Institute of Australia*. 2001;8:2-14.
76. NSW Centre for Public Health Nutrition. Improving food and nutrition in NSW series. Food security options paper: A planning framework and menu of options for policy and practice interventions. A NSW Centre for Public Health Nutrition project for NSW Health. Sydney: NSW Department of Health, 2003. Available from: http://www.health.nsw.gov.au/pubs/2003/pdf/food_security.pdf
77. Council of Australian Governments. National strategy for food security in remote Indigenous communities. Canberra: COAG, Commonwealth of Australia, 2009. Available from: http://www.coag.gov.au/coag_meeting_outcomes/2009-12-07/docs/nat_strat_food_security.pdf
78. Cassady D, Jetter K, Culp J. Is price a barrier to eating more fruits and vegetables for low-income families? *J Am Diet Assoc*. 2007;107:1909-15.
79. Donovan J, Larsen K, McWhinnie J. Food-sensitive planning and urban design (FSPUD). A conceptual framework for achieving a sustainable and healthy food system. Report commissioned by the National Heart Foundation of Australia (Victorian Division). Melbourne: National Heart Foundation of Australia (Victorian Division), 2011. Available from: <http://www.heartfoundation.org.au/SiteCollectionDocuments/Food-sensitive-planning-urban-design-full-report.pdf>
80. Australian Bureau of Statistics. 4714.0 - National Aboriginal and Torres Strait Islander Social Survey, 2008. Canberra: Australian Bureau of Statistics, 2009. Available from: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/4714.0/>
81. Medibank Private. The cost of physical inactivity, October 2008. Melbourne: Medibank Private, 2008. Available from: http://www.medibank.com.au/Client/Documents/Pdfs/The_Cost_Of_Physical_Inactivity_08.pdf.
82. National Health and Medical Research Council. National physical activity guidelines for Australians. Canberra: Commonwealth of Australia, 2005. Available from: <http://www.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-strateg-phys-act-guidelines>
83. Katzmarzyk PT, Church TS, Craig CL, Bouchard C. Sitting time and mortality from all causes, cardiovascular disease, and cancer. *Med Sci Sports Exerc*. 2009;41:998-1005.
84. Patel AV, Bernstein L, Deka A, Feigelson HS, Campbell PT, Gapstur SM, et al. Leisure time spent sitting in relation to total mortality in a prospective cohort of US adults. *Am J Epidemiol*. 2010;172:419-29.

85. Owen N, Healy GN, Matthews CE, Dunstan DW. Too much sitting: the population health science of sedentary behavior. *Exerc Sport Sci Rev*. 2010;38:105-13.
86. Australian Institute of Health and Welfare. Substance use among Aboriginal and Torres Strait Islander people. Cat. no. IHW 40. Canberra: AIHW, 2011. Available from: <http://www.aihw.gov.au/publication-detail/?id=10737418268&tab=2>
87. Australian Institute of Health and Welfare. 2010 National Drug Strategy Household Survey report. Drug statistics series no. 25. Cat. no. PHE 145. Canberra: AIHW, 2011. Available from: <http://www.aihw.gov.au/publication-detail/?id=32212254712&tab=2>
88. Butler T, Papanastasiou C. National Prison Entrants' Bloodborne Virus and Risk Behaviour Survey Report 2004 & 2007: National Drug Research Institute (Curtin University) and National Centre in HIV Epidemiology and Clinical Research (University of New South Wales), 2008. Available from: <http://ndri.curtin.edu.au/local/docs/pdf/publications/R223.pdf>
89. Collins DJ, Lapsley HM. The social costs of smoking in Western Australia 2004-05 and the social benefits of public policy measures to reduce smoking prevalence: report for the Cancer Council Western Australia. Perth: Cancer Council Western Australia, 2008. Available from: <http://www.cancerwa.asn.au/resources/2008-The-social-cost-of-smoking.PDF>
90. US Department of Health and Human Services. How tobacco smoke causes disease: The biology and behavioral basis for smoking-attributable disease: a report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2010. Available from: <http://www.surgeongeneral.gov/library/tobaccosmoke/report/>
91. Hurley S, Spittal M, Scollo M, Durkin S, Wakefield M. Predicted impact of proposed tobacco control strategies. Melbourne: VicHealth Centre for Tobacco Control, Cancer Council Victoria, 2009. Available from: [http://www.health.gov.au/internet/preventativehealth/publishing.nsf/Content/0FB E203C1C547A82CA257529000231BF/\\$File/commpaper-imp-tob-cont-strat.pdf](http://www.health.gov.au/internet/preventativehealth/publishing.nsf/Content/0FB E203C1C547A82CA257529000231BF/$File/commpaper-imp-tob-cont-strat.pdf)
92. US Department of Health and Human Services. The health consequences of involuntary exposure to tobacco smoke: A report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006. Available from: <http://www.surgeongeneral.gov/library/secondhandsmoke/report/>
93. White V, Warne C, Spittal M, Durkin S, Purcell K, Wakefield M. What impact have tobacco control policies, cigarette price and tobacco control program funding had on Australian adolescents' smoking? Findings over a 15-year period. *Addiction*. 2011;106:1493-502.

94. Siegel M, Albers A, Cheng D, Hamilton W, Biener L. Local restaurant smoking regulations and the adolescent smoking initiation process: results of a multilevel contextual analysis among Massachusetts youth. *Arch Pediatr Adolesc Med*. 2008;162:477–83. Available from: <http://archpedi.ama-assn.org/cgi/content/full/162/5/477>
95. Fichtenberg C, Glantz S. Effect of smoke-free workplaces on smoking behaviour: systematic review. *BMJ*. 2002;325:188. Available from: <http://www.bmj.com/content/325/7357/188.full.pdf+html>
96. Government of Queensland, Queensland Health. Review of smokefree laws: Discussion paper. Brisbane: Queensland Health, 2007. Available from: <http://www.health.qld.gov.au/tobaccolaws/documents/33161.pdf>
97. National Health and Medical Research Council. Australian guidelines to reduce health risks from drinking alcohol. Canberra: Commonwealth of Australia, 2009. Available from: <http://www.nhmrc.gov.au/publications/synopses/ds10syn.htm>
98. Australian Institute of Health and Welfare. Aboriginal and Torres Strait Islander Health Performance Framework 2010 report: Western Australia. Cat. no. IHW 59. Canberra: AIHW, 2011. Available from: <http://www.aihw.gov.au/publication-detail/?id=10737420736>
99. Drug and Alcohol Office WA, Epidemiology Branch of Department of Health WA. Alcohol-Related Hospitalisations and Deaths: State Profile. Perth: Drug and Alcohol Office WA and Epidemiology Branch of Department of Health WA, 2011. Available from: <http://www.dao.health.wa.gov.au/Informationandresources/Researchandstatistics/Statistics/AlcoholrelatedhospitalisationsanddeathsinWA.aspx>
100. Xiao J, Rowe T, Somerford P, Draper G, Martin J. Impact of alcohol on the population of Western Australia. Perth: Epidemiology Branch, Department of Health WA, 2008. Available from: http://www.health.wa.gov.au/publications/documents/Health_Dpt_15746_Alcohol_Report.pdf
101. National Heart Foundation of Australia. Position statement. Antioxidants in food, drinks and supplements for cardiovascular health. Canberra: NHF, 2010. Available from: <http://www.heartfoundation.org.au/SiteCollectionDocuments/Antioxidants-Position-Statement.pdf>
102. World Health Organization. Prevention of cardiovascular disease. Guidelines for assessment and management of cardiovascular risk. Geneva: WHO, 2007. Available from: http://www.who.int/cardiovascular_diseases/guidelines/Prevention_of_Cardiovascular_Disease/en/index.html
103. Alcohol Working Group. Australia: the healthiest country by 2020. Technical report no. 3. Preventing alcohol-related harm in Australia: a window of opportunity. Including addendum for October 2008 to June 2009. Prepared for the National Preventative Health Taskforce by the Alcohol Working Group.

- Canberra: Commonwealth of Australia, 2009. Available from:
[http://www.health.gov.au/internet/preventativehealth/publishing.nsf/Content/09C94C0F1B9799F5CA2574DD0081E770/\\$File/alcohol-jul09.pdf](http://www.health.gov.au/internet/preventativehealth/publishing.nsf/Content/09C94C0F1B9799F5CA2574DD0081E770/$File/alcohol-jul09.pdf)
104. Stockwell T, Hawks D, Lang E, Rydon P. Unravelling the preventive paradox for acute alcohol problems. *Drug Alcohol Rev.* 1996;15:7-15.
 105. Drug and Alcohol Office. Alcohol Think Again. WA Community Viewpoint (web page). Perth: Drug and Alcohol Office; 2008 [cited 14 November 2011]; Available from:
<http://www.alcoholthinkagain.com.au/Alcohol%20Related%20Information/Community%20Viewpoint.aspx>
 106. Education and Health Standing Committee of the Legislative Assembly, Parliament of Western Australia. Alcohol Restrictions in the Kimberley: A 'Window of Opportunity' for Improved Health, Education, Housing and Employment. Report No. 8. Perth: Government of Western Australia, 2011. Available from:
[http://www.parliament.wa.gov.au/Parliament/commit.nsf/\(Report+Lookup+by+Com+ID\)/460AD36276677B1B482578560022E6EE/\\$file/35607530.pdf](http://www.parliament.wa.gov.au/Parliament/commit.nsf/(Report+Lookup+by+Com+ID)/460AD36276677B1B482578560022E6EE/$file/35607530.pdf)
 107. National Public Health Partnership. The National Falls Prevention for Older People Plan: 2004 onwards. Canberra: NPHP, 2005. Available from:
<http://www.nphp.gov.au/publications/sipp/fallplan.pdf>
 108. Arena G, Cordova S, Gavin A, Palamara P, Rimajova M. Injury in Western Australia. A review of best practice, stakeholder activity, legislation and recommendations. Perth: Injury Research Centre, School of Population Health, The University of Western Australia, 2002. Available from:
http://www.health.wa.gov.au/docreg/Education/Prevention/Injury_Prevention/HP8228_injury_WA_review.pdf
 109. National Public Health Partnership. The National Injury Prevention and Safety Promotion Plan: 2004-2014. Canberra: NPHP, 2005. Available from:
<http://www.nphp.gov.au/publications/sipp/nipspp.pdf>
 110. Royal Life Saving Society Western Australia. 2009 Drowning Report. Perth: Royal Life Saving Society Western Australia, 2010. Available from:
http://www.lifesavingwa.com.au/docs/community/Drowning-Report_2009.pdf
 111. Council of Australian Governments. National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes: Implementation Plan. Jurisdiction: Commonwealth. Canberra: COAG, Commonwealth of Australia, undated. Available from:
[http://www.health.gov.au/internet/main/Publishing.nsf/Content/closinggap-tacklingchronicdisease/\\$File/commonwealth_implementation_plan.pdf](http://www.health.gov.au/internet/main/Publishing.nsf/Content/closinggap-tacklingchronicdisease/$File/commonwealth_implementation_plan.pdf)
 112. Department of Health. National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes. Implementation plan Western Australia. Perth: Government of Western Australia, 2009. Available from:
http://www.federalfinancialrelations.gov.au/content/national_partnership_agreements/indigenous/closing_the_gap_health_outcomes/WA.pdf

113. National Health and Medical Research Council. The virtuous cycle. Working together for health and medical research. Health and Medical Research Strategic Review: Summary. Canberra: Commonwealth of Australia, 1998. Available from:
[http://www.health.gov.au/internet/main/publishing.nsf/Content/8F72CFAE3493111DCA257058007A16BE/\\$File/summary_document.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/8F72CFAE3493111DCA257058007A16BE/$File/summary_document.pdf)

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