

Healthy people NSW

Improving the health of the population



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Population Health Division

Healthy people NSW: Improving the health of the population

NSW DEPARTMENT OF HEALTH

73 Miller Street

NORTH SYDNEY NSW 2060

Tel. (02) 9391 9000

Fax. (02) 9391 9101

TTY. (02) 9391 9900

www.health.nsw.gov.au

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Gladesville NSW 2111

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February 2007

A message from the Minister

Now is the ideal time to plan for the future – given the challenges confronting the health system, the communities of NSW and our key partners within and between governments and sectors.

In 2006, the NSW Government released the *State Plan: A New Direction for NSW* that outlined clear directions across NSW and recognised the importance of early intervention and prevention in reducing morbidity and mortality as well as the need to address disadvantage in our communities. Early in 2007, the NSW Health Department released the State Health Plan for the whole health system that reflected the priorities in the State Plan.

Healthy People NSW incorporates the priorities of the NSW State Plan and the *NSW State Health Plan 2006–2010* and prescribes the major population health programs that will be undertaken in NSW in the coming years. It also provides a prioritised set of initiatives aimed at the process of re-directing the focus of the health system to and align with the objectives outlined in the State Plan and the State Health Plan, that is, a shift in focus to primary prevention.

At the core of the plan is the principle of equity in health and this will guide decisions and actions taken to pursue each of the priorities in *Healthy People NSW*. This reflects the NSW Government's long-term commitment to making sure we have a fair health system and a fair society.

In this Plan we acknowledge that improvements to the health and wellbeing of the people of NSW can never be achieved by the health system alone. For NSW to Live Life Well, government, communities and individuals need to work together in a sustained way.

A handwritten signature in black ink, reading 'John Hatzistergos'.

The Honourable John Hatzistergos MLC
NSW Minister for Health

A message from the Chief Health Officer

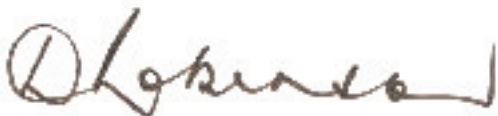
Healthy People NSW: Improving the health of the population sets the platform for population health action in NSW over the coming years and ensures that those interventions that bestow the highest benefits on our population, and which address health differentials are implemented. The plan builds on existing population health efforts in NSW, including *Healthy People 2005*, and identifies key issues that must be tackled to meet the challenges arising from the changing profile of our community, increasing prevalence of chronic conditions and the persistent threat of existing, novel and re-emergent infectious diseases.

NSW Health provides quality population health services for the people of NSW, yet these services are under significant and increasing pressure, in common with health systems around the world. The challenges confronting population health in NSW include: an ageing population, increasing health differentials, rising levels of potentially preventable chronic disease, controlling infectious diseases and responding to newly emerging diseases and the continuing threat of pandemic influenza.

NSW Health has engaged with population health teams, consumers and the community, as well as other stakeholders, to ensure that decision-making, and the development of this population health plan is in accord with NSW Health policy and responsive to the health needs of the community.

Healthy People NSW provides strategic directions for population health in NSW, which are achievable and sustainable. It also sets the direction for Area Health Service future planning to realise the goals of population health.

I look forward to the successful implementation of the strategic directions outlined in this plan for it is only through a steadfast and sustained commitment to population health that we will achieve better health for all the population of New South Wales.



Dr Denise Robinson
Chief Health Officer
Deputy Director-General, Population Health

Contents

Section One

Introduction	4
Scope of the plan	4
The planning context	5
Investing in population health	5
Achievements in population health	6
The challenges ahead	7
Equity in health	7
The framework	8
Vision	9
The population health approach	10

Section Two

Priorities for action and enablers to achieve them	11
P1 Assess the health of populations	11
P1.1 Monitor health	11
P1.2 Assess health inequities	11
P2 Protect from threats to health	12
P2.1 Prepare for threats to health	12
P2.2 Respond to threats to health	13
P3 Promote health and prevent disease, disability and injury	14
P3.1 Implement strategies to promote health and wellbeing	14
P3.2 Create environments that promote health and wellbeing	17
P3.3 Implement strategies that prevent disability and injury	19

E1 Ensure Population Health Capability	20
E1.1 Develop and maintain the population health workforce	20
E1.2 Develop and Maintain Population Health Infrastructure	21
E1.3 Build Population Health Partnerships	22
E2 Build the Evidence Base for Population Health	23
E2.1 Conduct Population Health Research	23
E2.2 Evaluate Population Health Interventions and Disseminate Findings	24

Section Three

Future Directions	25
Reinvestment in population health	25

Section Four

Performance Management	27
Monitoring and Reporting	27
Targets	27

Section Five

References	29
Appendix	31
Acknowledgements	31
Supporting Documents	31

Introduction

Scope of the plan

Healthy People NSW sets the platform for population health action in NSW over the coming years and ensures that those interventions that bestow the highest benefits on our population, and which address health differentials are implemented. The plan builds on existing population health efforts in NSW, including *Healthy People 2005*,¹ *Healthy People 2006*,² and identifies key issues that must be tackled to meet the challenges arising from the changing profile of our community, increasing prevalence of chronic conditions and the persistent threat of existing, novel and re-emergent infectious diseases.

Healthy People NSW focuses on health and wellbeing through approaches that focus on populations. Effective population health practice implements evidence-based strategies, best practice and quality improvement approaches alongside governance and accountability mechanisms. Activities focus on the factors that influence health, from healthy public policy and supportive environments to personal health skills. Most importantly, population health has an “upstream” focus on prevention and wellness. The following is a widely used metaphor that describes this focus.

A group of people is out for a stroll beside a river. Suddenly they notice people in the water, being swept downstream. Horrified, they begin helping individuals out of the water to safety. But still more people come floating downstream.

Finally, one of the group goes upstream to find out why those people are in the water in the first place, and do something about that. He tries to deal with the problem at its source, not just as it develops.

Providing direct services – pulling those people out of the river – is crucial, but just as critical is dealing with the underlying causes of human need and the public and private strategies to meet them, or looking upstream at the conditions that put the people into the river in the first place.

Interior Health Authority of Canada ³

This upstream focus on prevention is recognised as one of the top priorities for the NSW Government. The *State Plan: A New Direction for NSW*⁴ calls for “embedding the principle of prevention and early intervention into government service delivery in NSW” (State Plan Priority F4). The *NSW State Health Plan 2006–2010*⁵ aims to “Make prevention everybody’s business” (NSW State Health Plan Strategic Priority 1). As the State Health Plan notes, the familiar saying that “prevention is better than cure” is strongly supported by clinical evidence. But putting prevention into practice is not easy and benefits are not always immediately apparent. It will require a sustained response from all levels of government, and supporting efforts by individuals, families and communities.

Population health services provide a front-line response to both acute and chronic conditions. Activities include the regulatory role of public health, such as the monitoring and enforcement of public health legislation, and clinical service delivery such as immunisation and programs for HIV/AIDS and sexually transmitted infections. Ensuring health system preparedness for pandemics is vital, and programs such as tobacco control, obesity prevention, communicable disease control and mental health require immediate action to address the significant burden of disease, disability and injury on individuals, families, communities and the health system.

This plan describes how prevention activities will contribute to improving the health of the population in the coming years. This includes actions for the following important health issues as described in the State Health Plan:

- Health improvement
- Re-investment in prevention
- Immunisation
- Communicable disease control
- Child health and wellbeing
- Mental health
- Chronic disease prevention
- Tobacco control
- Drugs and alcohol

- HIV/AIDS, hepatitis and sexually transmissible infections
- Oral health
- Healthy ageing
- Urban planning
- Environmental health

The planning context

In 2006, the NSW Government released the *State Plan: A New Direction for NSW* that outlined clear directions across NSW and recognised the importance of early intervention and prevention in reducing morbidity and mortality as well as the need to address disadvantage in our communities. Early in 2007, the NSW Department of Health released the State Health Plan for the whole health system and reflected the priorities in the State Plan.

Healthy People NSW focuses on health and wellbeing and has been developed through extensive consultation to ensure appropriate incorporation of priorities developed by key groups working towards improving the health of the NSW population, including the NSW Population Health Priority Taskforce and the Senior Executive Advisory Board. The Plan incorporates the priorities of the NSW Government's *State Plan: A New Direction for NSW* and the *NSW State Health Plan 2006–2010*.

Healthy People NSW prescribes the major population health programs that will be undertaken in NSW over the next five years and beyond. It also provides a prioritised set of initiatives aimed at the process of re-directing the focus of the health system to and align with the objectives outlined in the State Plan and the State Health Plan, that is, a shift in focus to primary prevention.

This Plan does not attempt to describe every initiative and action required to achieve our vision, nor will it pre-determine the complete range of strategies required at the Area Health Service or local level. Rather, it has been developed to provide State-wide focus on the primary functions and priority areas to address the challenges facing population health services in the next five years.

Investing in population health

Why a population health approach makes sound health and economic sense

The Australian Government and all State and Territory Governments recognise the importance of investing in prevention and early intervention demonstrated in various

Plans and highlighted in the 2006 Australian Better Health Initiative: "Evidence has shown that lifestyle interventions can prevent or delay the onset of chronic diseases such as diabetes. Many of these diseases can be effectively prevented or their impact".⁶ This Council of Australian Governments initiative funds a combination of population health and primary health approaches.

There is evidence that appropriate levels of investment in population health can substantially improve health outcomes and reduce health care costs even in the short term, especially in the area of tobacco control, as well as providing longer term benefits.^{7,8,9} The NSW Futures Planning 2025 papers¹⁰ concur, noting that widespread implementation of effective and affordable prevention programs can save lives, reduce medical care costs and ensure greater sustainability of the NSW health system.

Reducing Tobacco consumption provides one such example. The Australian Government estimated the total benefits due to lower tobacco consumption in 1998 alone were \$12.3 billion.¹¹ In NSW the annual social costs of tobacco in 1998/99 were estimated to be \$1.8 million in direct costs and \$4.8 million in indirect costs.¹² There are also wider economic benefits for society including less workplace absenteeism due to smoking related disease, less harm from passive smoking in public places and a reduction in costs related to cleaning up after smokers.¹³

Falls injury prevention in older adults is another area in which cost-benefits have been clearly established. The estimated cost of injury in NSW in 1998–1999 was approximately \$1.2 billion in direct health system costs and \$2.4 billion in mortality and morbidity costs valued as disability adjusted life years.¹⁴ Furthermore, there are good evidence-based programs that can be implemented to redress the issue. The *Stay on Your Feet* program conducted in northern NSW resulted in a 20 per cent reduction in falls-related hospital admissions in people aged over 60.¹⁵ An economic evaluation of the program demonstrated an overall benefit to cost ratio of 20.6:1.¹⁶

The economic and population health effectiveness of the **needle and syringe program** has also been demonstrated overwhelmingly. The *Return on Investment in Needle and Syringe Programs* in Australia study found that since the introduction of the program in 1988, to the year 2000, approximately 25,000 HIV infections were estimated to have been prevented among injecting drug users, and by 2009 it is projected that approximately 4,500 deaths will have been prevented. This has generated savings of \$7,025 million in treatment costs, and a gain of 588,000 life years.¹⁷

In summary: The cost-effectiveness of prevention

For every AU\$1 spent on:

- Reducing tobacco consumption there is a direct health care saving of \$2¹¹
- Reducing falls in the community there is a direct health care saving of \$20.6¹⁶.
- Providing the needle and syringe program there is a direct health care saving of \$51.2.¹⁷

For every US\$1 spent on:

- Water fluoridation there is US\$38 saved in dental restorative treatment costs.¹⁸
- Preconception care programs for women with diabetes, preventing birth defects among their offspring can save US\$1.86.¹⁸

Making smarter choices in population health about the investments we make

The NSW State Health Plan directs that NSW Health should “Make smart choices about the costs and benefits of health services” (Strategic Direction 5). This applies across the board and includes population health programs and interventions. Better evidence is required to make these choices. Not all population health investments are cost-effective and many have not been sufficiently evaluated. Whilst economic gain would certainly never be seen as the only justification for investment in prevention, a better understanding of both the effectiveness and cost-benefits of population health programs is nevertheless essential to aid future evidence-based planning.

As well as determining *where* to invest, smarter choices need to be made regarding *how much* to invest. Prevention strategies in Australia appear likely to suffer from “investment failure” rather than “program failure”.¹⁹ That is, although evidence-based strategies exist they may not be implemented with the necessary intensity or duration to deliver their full potential in health and economic outcomes.

Smarter population health choices will require consideration not only the evidence of effectiveness and cost-benefit, but also considerations of the minimum threshold required to achieve returns on that investment. This may require rationalising population health activities to fewer but bigger evidence-based programs.

Technical work undertaken by Australia’s National Obesity Task Force found that in the government sector,

total combined efforts across nutrition, physical activity and obesity amounted to an investment of less than AU\$1.00 per capita (assuming whole population as a denominator). Experience with tobacco control has shown that the absolute minimum level of investment is a per capita level of investment above AU\$4.00.¹⁹

Achievements in population health

NSW has a proud record of achievement in population health spanning the last century. This achievement has often been gained in partnership with other agencies including local government and general practitioners. Technological improvements outside the field of health have also resulted in improved health outcomes, for example the refrigeration of food has played an important role in reducing gastrointestinal diseases, improving nutrition and allowing nitrates to be removed from foods, which resulted in a dramatic fall in the incidence of stomach cancer.

Key achievements include:

- **Life expectancy at birth continues to increase:** In 2004, life expectancy at birth was 78.9 years for males and 83.7 years for females – an increase of 12.1 years in men and 10 years in women since 1970.
- **Smoking** in NSW has declined by 52 per cent in men and 33 per cent in women since 1985. By 2005, one in five (20 per cent) NSW residents were current smokers (22 per cent of males and 17 per cent of females).
- Death rates from **cardiovascular disease** have more than halved since 1982 as a result of legislative changes and behavioural improvements relating to smoking and nutrition, and improved medical treatment and follow-up care.
- The percentage of the population engaging in **risky drinking behaviour** has decreased from 42 per cent in 1997 to 32 per cent in 2005.
- **Breast cancer mortality rates** have declined by 22 per cent in the last ten years. During the last two years 363,369 women have participated in breast screening.
- **Cervical cancer rates** have declined by 52 per cent in the last ten years. 90 per cent of women have had a Pap test in the last five years and 60 per cent in the last two years.
- **Rates of premature birth for Aboriginal women** at targeted locations fell from 20 per cent to 11 per cent between 2001–2003.

- **Rates of immunisation** are almost 88 per cent for Aboriginal one-year-olds, and 91 per cent for non-Aboriginal one-year-olds, resulting in a reduction in vaccine preventable diseases. Deaths in Australia from vaccine preventable diseases have declined by more than 99 per cent, despite the Australian population increasing 2.8-fold.
- **NSW suicide rates** have reduced from 15.1 per 100,000 people in 1997 to 8.6 in 2004.
- **HIV infection rates** have stabilised during a period in which comparable interstate and overseas jurisdictions have reported significant increases.

Source: *Health of the people of NSW: Report of the Chief Health Officer, 2006* 23

The challenges ahead

Despite the achievements, new threats and challenges continue to emerge. Responding to these challenges will require population health professionals and the programs that they oversee to constantly adapt, build on existing success, explore new solutions and focus on best practices. The following trends and challenges^{10, 23} must be carefully considered as part of thinking about the future for population health services in NSW.

- **The population is growing:** Most of the expansion is expected to occur along the coast rather than inland. In 2026 the NSW population is projected to reach 8.0 million.
- **The population is ageing.** People aged 65 years and older will represent an increasing proportion of the population, rising from 13.6 per cent in 2006 to around 20 per cent in 2026.
- **Demand for health services is increasing.** Demand for health services (as well as for other human services and informal care) is increasing partly because older people tend to use more health and community services, even the people who remain healthy well into their older years.
- **Technology could improve access.** New information and communication technologies offer potential to improve consumer's access to health information and services, as well as boosting operating efficiency, but will this require timely investment
- **Health gains are being shared unequally.** There have been steady improvements over a number of decades in the overall health status of NSW residents. However, there is also a persistent gap between the most and least disadvantaged in our society despite

ongoing efforts to address this. The life expectancy of Aboriginal people is still on average 17 years less than for non-Aboriginal people, and rural residents have a shorter average life expectancy than people living in urban NSW.

- **There will be a growing number of people with chronic conditions.** Lifestyle changes, together with significant improvements in survival rates from heart attacks, strokes and cancers are contributing to a rising demand for services to treat the growing number of people with chronic conditions (complex, long lasting conditions such as cardiovascular disease, diabetes, schizophrenia and osteoarthritis with result from an interplay of behavioural, genetic and other factors). In 2026, the number of people in NSW with diabetes could be as many as 838,000, up from 303,000 in 2001.

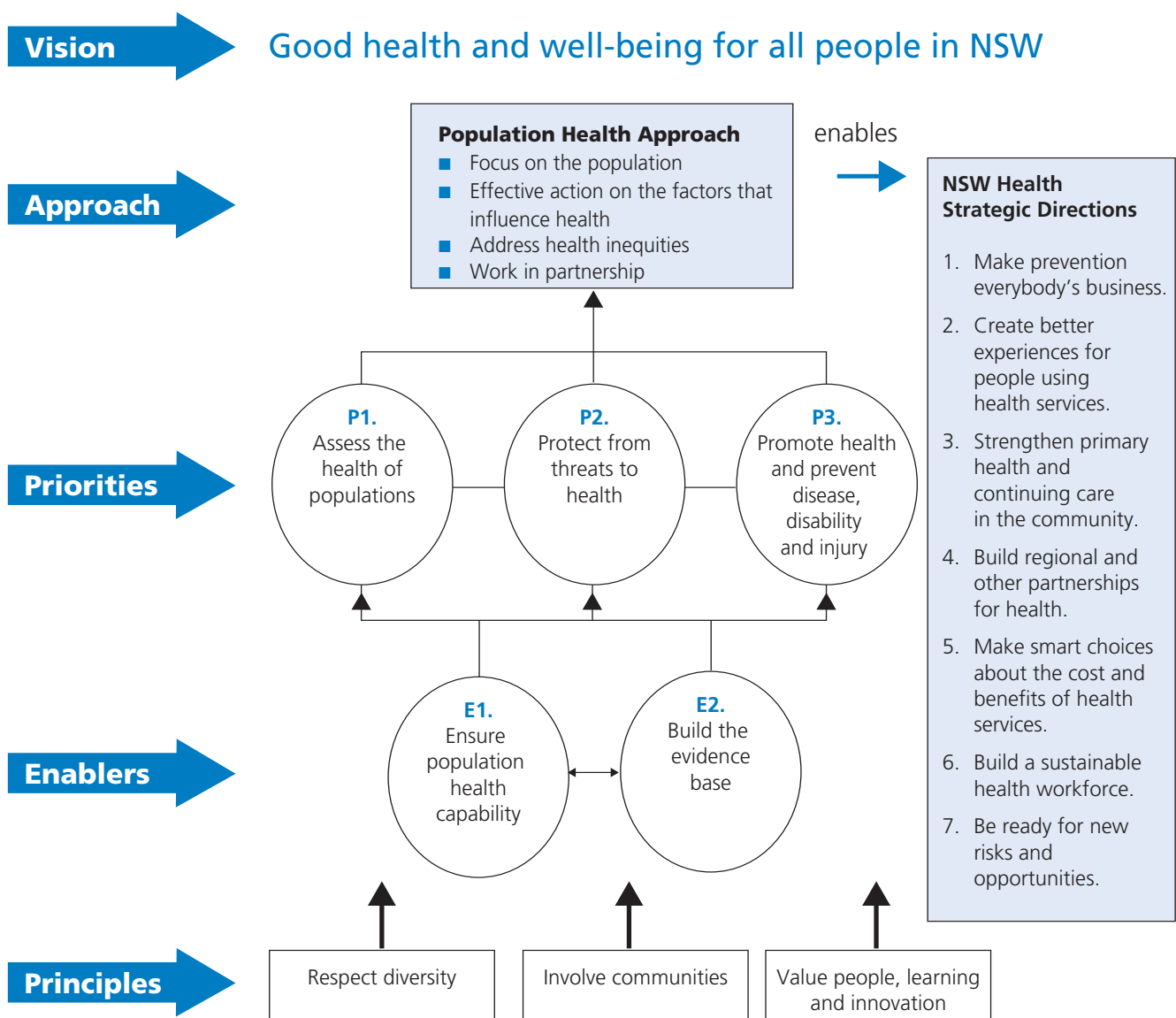
Equity in health

Despite significant health gains for many people in NSW, not everyone has shared these health gains. Aboriginal people, for example, tend to have higher levels of health risk, poorer health, and a shorter life expectancy than non-Aboriginal people. Other people likely to have poorer health outcomes include people living in rural and remote communities. Much of the difference between those people with the best and worst health is linked to social and economic inequities including factors such as where we live, how much we earn and how long we stayed at school.²¹ The differences also reflect health risk behaviours and use of preventive health services.²²

Whilst continuing to focus on protecting, maintaining and improving the health and wellbeing of all NSW residents, NSW Health will direct its efforts to reducing this "health gap". Working together with other service providers and government agencies, the implementation of all programs in this plan will ensure that addressing the health gap is a fundamental aspect of all initiatives. Narrowing the health gap will not only improve the lives of the people who have experienced avoidable illness and disease, it will also help to contain rising demand for health services, which is placing continuing pressure on the health system and the finite resources available.²²

Whilst population health takes a "universal approach" to protecting and promoting the health of our population, it is essential that some programs target those people living in our communities who are most at risk.

The framework



Adapted from the NPHP 24

Vision

In New South Wales, we want to build on our successes in improving health and wellbeing of the population and focus our efforts to combat the causes of illness, injury and infectious and chronic diseases such as tobacco smoking, risky alcohol consumption, lack of physical activity, unsafe sex and falls.

We need to focus not just on the behaviour of individuals and communities, but also on creating supportive environments and conditions for health. Our society is complex and interrelated. Changing patterns of life, work and leisure have a significant impact on health. Our natural environment and the way in which our cities and towns are planned and built also have an enormous impact on our lives and our health. Supporting the design and planning processes of towns and cities to be healthier, to promote physical activity, to provide safe environments, and to minimise their “human ecological footprints” is essential for a healthy future.

The focus of this Plan is based around the fundamental concepts of the Ottawa Charter,²⁵ which remain as important today as they were in 1986 when first agreed to internationally. These concepts are to: build healthy public policy; create supportive environments; strengthen community action; develop personal skills and reorient health services.

Creating good health and well being for all people in NSW is not something the health system can do on its own. It is a job for the public and private sectors, non-government organisations, industry, schools, communities, families and individuals. In 2010 and beyond we want to see strong partnerships between health and other government agencies, local government, industry and communities, and the universal use of the best evidence available for decision-making.

Our vision is:

Good health and wellbeing for all people in NSW

Our priorities are to:

1. Protect from threats to health
2. Promote health and prevent disease, disability and injury
3. Assess the health of populations.

To achieve our vision we will apply a population health approach to:

- Deliver sustained, effective and comprehensive programs to promote health and prevent infectious and chronic disease and injury.
- Provide greater emphasis on creating environments that promote health.
- Prepare, respond and control threats to health.

To deliver on our vision we will:

- Deliver best-available population health practice identified in this Plan,
- Work in partnership with the public and private sector, non-government organisations and communities
- Report on the targets and strategies in this Plan (refer to the Performance Management section).

The population health approach

To achieve our vision for good health and well-being for all people in NSW, we will implement action and make decisions based on the population health approach, which includes the following important aspects. Please refer to Figure 2 to see these in context of the plan framework.

Focus on the population

Aims to improve the overall health status of the community. Concentrates on the circumstances and conditions that influence health of all members of the community across the lifecycle. Recognises that integrated multi-level strategies may be required for population health gain.

Effective action on the factors that influence health

Gives priority to preventing ill health and promoting wellbeing. Enhances healthy years of life. Identifies and addresses the underlying conditions that affect health, ie social determinants, environmental and behavioural factors. Anticipates the future and invests in long-term health gains. Aims to achieve maximum health gain for resources invested. Works towards sustainable communities supported by sustainable services. Aims to use the best evidence for decision-making and to continually improve knowledge base underpinning population health practice. Develops healthy public

policy with key partners.

Address health inequities

Aims to reduce differences in health status between groups in the community. Responds to special needs of groups whose health is poorer, as measured by key indicators. Gives priority to ensuring equitable access to population health services for all individuals and communities. Recognises the inequitable burden of disease and injury in Aboriginal Communities. Allocates resources to address health inequities.

Work in partnership

Recognises that many factors that influence health are outside the direct control of the health system. Understands that action is required which involves multiple sectors and agencies, non-government organisations and all levels of government. Ensures that communities are partners in work undertaken. Addresses community capacity and priorities. Enhances strong partnerships both within the health system (primary health and acute services) and externally to protect and promote health.

This approach is underpinned by three important principles. Please refer to Figure 2 to see these in context of the plan framework.

Respect diversity

Respects and values diversity as a strength and asset in our communities, in our partner organisations, and within our own health services and staff. Views cultural diversity to encompass differences based on race, ethnicity, language, religion, value and belief systems, disability, class, sexuality, gender, age and educational background.

Understands that diversity should be considered in the design and delivery of health services and programs.

Involve communities

Recognises that prevention is carried out “by and with people, not on or to people”.²⁰ Understands that involving communities will build their capacity and empowerment, and ultimately improve health services and health outcomes.

Value people, learning and innovation

Recognises the vital role played by skilled and dedicated health professionals. Understands the need to ensure that our workforce has adequate training and professional learning and capacity building opportunities. Recognises the importance of innovation to find new solutions to the challenges ahead, and to be ready for new risks and opportunities that we may encounter.

Priorities for action and enablers to achieve them

P1 Assess the health of populations

P1.1 Monitor health

The challenges ahead

Members of the public, health policy makers and practitioners all want to know about the health of the population, and whether it is improving over time. They want information about how health services are performing, and whether we are allocating our health care dollars in ways that produce the greatest health gains.

Active and ongoing monitoring of health status and of potential risks to health allows early identification of emerging trends and issues, and assessment of the success of new services and programs as these are rolled out.

NSW has the richest collection of large population health datasets of all Australian states. Advances in information technology and analytic techniques can be harnessed to make the best use of these information resources for informing efforts to improve population health.

Current actions

Biennial Report of the Chief Health Officer on the health of the people of NSW which reports key health trends and emerging issues.

NSW Health Survey Program, which has provided continuous monitoring of health status and health risk factors in the NSW population since 1997.

System for **real-time surveillance** of presentations for acute health conditions, including influenza, injuries and drug- and alcohol-related conditions, in 32 emergency departments across the state

What we will do

- P1.1.1 Develop a Web-based geographical information system to support emergency response.
- P1.1.2 Expand the Public Health Real Time Emergency Department Surveillance System (PHREDSS) to 50 emergency departments.

- P1.1.3 Incorporate new methods for automated detection of anomalies and generation of alerts into PHREDSS.
- P1.1.4 Add modules to the NSW Health Survey that address emerging health issues, including pandemic influenza, recycled water and healthy urban environments.
- P1.1.5 Update the online edition of the Report of the Chief Health Officer as new data become available, and expand its content to include new indicators, new information sources and new analytic techniques.
- P1.1.6 Establish and support in partnership the Centre for Health Record Linkage Centre.
- P1.1.7 Publish NSW Health Survey data for people who speak a language other than English.

P1.2 Assess health inequities

The challenges ahead

The health gains in NSW over the past several decades have not been equally shared across the entire population.²² Socio-economic disadvantage is associated with higher rates of death and illness, and higher levels of risk factors such smoking, inadequate physical activity and poor diet. Other health inequities are associated with aboriginality, region of residence, country of birth, and gender.

In 2004, NSW Health implemented the Health and Equity Statement "In All Fairness".²⁶ It aims to address health inequities through the development of specific policies and programs to address these, and through working with other agencies to improve social cohesion and other aspects of community life. Monitoring health inequalities, and how these change over time, is fundamental to evaluating the success of these initiatives. It is also needed to assess the (sometimes unanticipated) impacts of other health and social programs, and of large-scale social and economic changes, on inequities in health.

Current actions

Four Steps Towards Equity: A Tool for Health Promotion Practice was developed to provide a series of questions and prompts to challenge and assist practitioners and managers to consider and integrate equity into their core work practice.

Health Impact Assessment (HIA): The Third Phase of the NSW HIA project is underway. The project has supported 15 HIAs to be undertaken in NSW and trained 82 people in the methodology.

What we will do

- P1.2.1 Trial the Four Steps Towards Equity: A Tool for Health Promotion Practice³² in Area Health Services with the aim of capturing the utility of such tools, identifying changes in practice and making appropriate improvement modifications.
- P1.2.2 Implement the key findings and recommendations of the trial to embed best practice models into appropriate policies and systems at the Area Health Service and state level.
- P1.2.3 Update the online edition of the Report of the Chief Health Officer on the Health of the People of NSW to report new indicators of inequities in health, and to monitor progress in addressing these.
- P1.2.4 Area Health Services to develop epidemiological profiles of health inequities of their regions.
- P1.2.5 Implement equity focussed Health Impact Assessments as relevant.

P2 Protect from threats to health

P2.1 Prepare for threats to health

The challenges ahead

NSW Health must prepare for both novel and re-emerging threats to health.

Bio-preparedness

Pandemics are epidemics of disease that occur on a worldwide scale. History tells us that influenza pandemics can be expected to occur every 10 to 50 years and it is almost certain that they will continue to occur.²⁷ In recent years several severe new infectious respiratory diseases have emerged that threaten the health of the

community, including severe acute respiratory syndrome (SARS) and avian influenza.

Climate change

Global warming will inevitably place greater stress on the environment in which we live and create new or exacerbate existing hazards. Increases in ozone events, greater demands on scarcer water resources and more frequent extreme temperature events are all examples of hazards that the Health sector may need to respond to. Communities will need to adapt to heat stress and protect their more vulnerable members including older people, the young and those with pre existing diseases.

Current actions

NSW Health **Interim Influenza Pandemic Action Plan** has been developed to prevent or delay the arrival of pandemic influenza in NSW.

Human health impacts of climate change adaptation project

This project will develop public health programs and policies to reduce the inevitable burden of disease from climate change. The project includes research and investigation of the important combined effects on human health of high temperatures and air pollution.

What we will do

Bio-preparedness

- P2.1.1 Roll out programs to build preparedness for pandemic influenza and other public health emergencies.
- P2.1.2 Purchase additional personal protective equipment for health staff.
- P2.1.3 Conduct public health emergency exercises across NSW and participate in national exercises.
- P2.1.4 Develop a system for improved communications during a public health emergency.
- P2.1.5 Maintain a dedicated Bio-preparedness Unit within NSW Health.
- P2.1.6 Create twenty-three new positions in the Department of Health, Area Health Services, and the Ambulance service of NSW to progress preparedness for public health emergencies.
- P2.1.7 Development of AHS influenza pandemic action plans.

Climate change

- P2.1.8 Develop an Adaptive Strategy enabling NSW Health to respond to the impacts of climate change.
- P2.1.9 Develop Area level heat wave response plans.
- P2.1.10 Formulate a strategy for vulnerable rural communities to adapt to the impacts of climate change.
- P2.1.11 Advise on effective implementation of recycled water guidelines to ensure long-term water security.

P2.2 Respond to threats to health

The challenges ahead

Communicable diseases. Many communicable diseases are preventable, through a range of measures that include the provision of potable water, safe food handling, immunisation, education, infection control procedures, hygiene, safe sex and safe injecting. Communicable disease control is a core function of the Area Health Services via public health units. Surveillance of key communicable diseases through notifications by doctors, hospitals and laboratories is the foundation of disease control. Epidemiological investigation of disease outbreaks detected through surveillance provides an evidence-base for developing immediate interventions to control the disease from further spreading, and prevention policies to prevent future outbreaks.

HIV/AIDS, sexually transmissible infections, and hepatitis C. There has been a considerable expansion of funded sexual health services across the state over the past two decades. Intensive effort in prevention activities and health promotion has succeeded in delivering a decline in HIV notifications since 2003. However, rates remain at unacceptably high levels. The NSW focus on prevention of transmission of blood-borne viruses through the introduction and expansion of the needle and syringe programs has resulted in rates of HIV among injecting drug users remaining at less than 5 per cent. HCV notifications continue to decline and the infection is largely confined to current or former injecting drug users. However, participation in treatment – for which there is a 50-90 per cent cure rate – remains unacceptably low at approximately 1 per cent per annum. The pool of chronically infected people continues to grow, posing a significant future burden for the health system in terms of liver cancer and cirrhosis unless there are substantial increases in the uptake of treatment.

Immunisation is recognised as a simple, safe, cost-efficient and effective way of protecting against vaccine preventable diseases. High participation in vaccination programs is critical, as immunisation not only protects individuals but also others in the community. The National Immunisation Program Schedule is the recommended Australian Government funded vaccine plan by age group. In NSW, childhood vaccination coverage for a range of diseases is comparable to or better than most developed countries – currently 90 per cent of children aged 12–15 months are fully immunised compared with 91 per cent of Australian children.²⁷ However, incidents such as the 2006 outbreak of measles – believed to have been associated entirely with imported cases; and cyclical epidemics of pertussis in some age groups indicate that there is significant progress that can be made to maximise coverage.

People aged 65 years and older are at high risk from influenza and pneumococcal disease and their complications. The Australian Government funds programs that are managed by NSW Health to provide free vaccine for older Australians. In 2005, 75 per cent of adults aged over 65 years were vaccinated against influenza, compared with 47 per cent of adults who were vaccinated against pneumococcal disease in the period from 2000–2005.²⁹

Environmental health. Area Health Services' Public Health Units have core environmental health responsibilities and regulatory functions under the *Public Health Act* and its relevant regulations and the *Tobacco Act*. These functions include ensuring that water cooling towers and warm water systems are managed to minimise Legionella contamination, compliance of businesses with safe skin penetration practices, drinking water quality, proper maintenance of public swimming pools and tobacco control. In addition to these mandated legislative roles there is a growing need to proactively manage broader environmental issues that have the potential to impact adversely upon health. Health input into Environmental Assessments of major developments, assessment of risks associated with contaminated sites and ensuring recycled water initiatives are implemented safely are examples of issues that require considerable ongoing investment.

Aboriginal Health. Some remote Aboriginal communities have the highest incidence of invasive pneumococcal disease in the world. The National Aboriginal Pneumococcal and Influenza Immunisation Program provides free influenza and pneumococcal vaccine for Aboriginal people aged over 50 years and

those aged 15 to 49 years who are at high risk from these diseases and their complications.

Current actions

Air pollution health alerts are issued in liaison with the Department of Environment and Conservation to assist susceptible people, such as people with asthma, to avoid or reduce the adverse health impact of high air pollution days.

Surveillance for over 50 communicable diseases. Investigating and controlling outbreaks, notably: a resurgence of measles, legionnaires disease, pertussis, salmonellosis, influenza, cryptosporidiosis, and multi-drug resistant tuberculosis.

NSW School-based Adolescent Vaccination Program offers 'catch-up' varicella and hepatitis B vaccines to year 7 students.

What we will do

Control communicable diseases

- P2.2.1 Develop epidemiological skills and resources in Area Health Services.
- P2.2.2 Track and contain multi-drug resistant tuberculosis carefully.
- P2.2.3 Develop a new Notifiable Diseases Database, including electronic notification from laboratories, and implement this statewide.

Reduce HIV, sexually transmissible infections (STIs), and hepatitis C

- P2.2.4 Implement the *NSW HIV/AIDS, STI and Hepatitis C Strategies 2006–2009* targeting community awareness, increased use of condoms, increased testing within priority groups, and appropriate uptake of treatment.
- P2.2.5 Implement strategies to respond to HIV/AIDS, STIs and hepatitis C within Aboriginal communities, in partnership with the Aboriginal Health and Medical Research Council
- P2.2.6 Implement the revised AIDS Program Resource Distribution Formula.

Address environmental threats

- P2.2.7 Advocate for the introduction of a strengthened Public Health Act that adequately addresses current public health risks, clearly defines the responsibilities of the different tiers of government, and facilitates prompt and effective action to limit public health risk.

- P2.2.8 Ensure that safe recycled water initiatives are commonplace.
- P2.2.9 Ensure that health is one of the primary considerations when assessing new infrastructure and developments.
- P2.2.10 Work with other agencies to ensure sustainable infrastructure for safe water and sewage provision in all Aboriginal communities.
- P2.2.11 Ensure access for public health units to databases on hazardous facilities and chemical hazards.
- P2.2.12 Improve access to and use of air pollution health alerts for the community.
- P2.2.13 Ensure appropriate health risk assessments are undertaken.

Increase immunisation rates

- P2.2.14 Develop and implement child and adult vaccination interventions to increase immunisation rates particularly among high-risk groups
- P2.2.15 Implement the national human papilloma virus (HPV) vaccination program for eligible females in NSW.

Aboriginal health improvement

- P2.2.16 Implement the *NSW HIV/AIDS, STI and Hepatitis C Strategies: Implementation Plan for Aboriginal People 2006–2009*.
- P2.2.17 Implement strategies to increase immunisation coverage for Aboriginal children so that it is equal to coverage for non-Aboriginal children.

P3 Promote health and prevent disease, disability and injury

P3.1 Implement strategies to promote health and wellbeing

The challenges ahead

The promotion of health and prevention of disease requires a wide range of strategies to promote health and wellbeing. These include the major risk factors for chronic disease (smoking, nutrition, alcohol and physical activity), illicit drug use, mental health and oral health promotion. A focus on the social determinants of health is a vital step in addressing the health inequities in potentially preventable morbidity and mortality.²²

Aboriginal People have a lower life expectancy and bear a significant burden of disease; higher rates of chronic disease risk factors and deaths; higher rates of hospitalisations and deaths from injuries.²³

Prevention of **chronic disease** requires action to address the common risk factors such as tobacco smoking, physical inactivity, inadequate vegetable and fruit consumption, illicit drug use and harmful alcohol consumption. If the potential for preventing these chronic diseases is not harnessed effectively, it is projected that treatment costs for people in NSW with diabetes, cardio-vascular disease, cancers and musculoskeletal conditions will rise from to \$6.1 billion by 2020–02.⁹ The total social costs of tobacco smoking in NSW in 1998–99 were conservatively estimated to be \$6.6 billion in that year.¹²

The level of **overweight and obesity** among Australian children more than doubled between 1985 and 1995. In 2004, almost a quarter of children and young people (5–16 years) were overweight or obese and at least half of NSW adults are outside the healthy weight range. If current trends continue by 2025 half of the children and young people in NSW will be overweight or obese. Being overweight or obese has both negative physical, social and mental wellbeing consequences including the increased risk of chronic diseases, such as diabetes and cardiovascular diseases.

Tobacco use (including passive smoking) remains the leading cause of morbidity and mortality in the State, causing more than 6,500 deaths and over 55,500 hospitalisations in 2004.

Risky and high risk drinking caused an estimated 31,132 deaths in Australia between 1992 and 2001. Between 1989–90 and 2002–03 there was a 23 per cent increase in hospitalisations attributable to alcohol.³⁰

Oral Health. In 2000–2001 Australian's spent \$3.37 billion dollars on dental care, although the two major dental diseases – dental caries and periodontal disease – are largely preventable.

Illicit drugs are associated with around 1,000 deaths per year in Australia; typically among young persons, resulting in a large number of years of life lost due to premature mortality. When combined with years lived with disability, illicit drug use is estimated to have accounted for almost 2 per cent of the total burden of disease in Australia in 1996.³¹

Mental health problems and disorders are among the greatest causes of disability, diminished quality of life, social marginalisation, reduced social participation and

productivity. People with mental illness and disorders are more likely to have poor physical health than their counterparts, but are less likely to receive effective treatment. Currently, NSW has over 1.1 million people living with mental disorders – an estimated 250,000 children and adolescents (aged 0–17 years), 760,000 adults (aged 18–64 years) and 120,000 older people (aged 65 and over). Mental disorders are estimated to account for 60 per cent of all “years lived with a disability” for people aged 15–34 years. The level of mental health problems and disorders in the community is rising. Reasons for this change are complex and poorly understood but may include broad social changes, increasing work and financial demands, changes in social supports and social capital, increasing inequality, and changes in patterns of drug use. Levels of acuity of mental illness are also increasing.

Current actions

The **Hunter New England Kids Healthy Eating and Physical Activity Program** represents a substantial investment (\$7.5 million over 5 years) in childhood obesity prevention (0–15 years) within a specific geographical area. It is Australia's largest ever obesity prevention trial and provides a unique opportunity to build evidence for policy and practice that can be implemented throughout NSW.

What we will do

Many of the strategies listed here will be delivered through the Live Life Well initiative.

Chronic disease prevention

- P3.1.1 Implement the NSW commitments within the four-year Australian Better Health Initiative, which includes an additional \$20.1m of NSW State Government funding. The initiative has a strong focus on disease prevention and promoting healthy lifestyles, through social marketing campaigns supported by complementary Area Health Service and non-government organisation initiatives (\$6.5m over 4 years), expansion of health prevention programs (\$5.6m over 4 years) and the development of services supporting early detection of lifestyle risks and chronic disease (\$8m over 4 years).
- P3.1.2 Pilot community-based diabetes prevention strategies including intensive lifestyle interventions for those at high risk (ie pre-diabetes).

- P3.1.3 Develop and implement a model for chronic disease risk management in Community Health using Community Health Information Management Enterprise (CHIME).
- P3.1.4 Enhance chronic disease risk factor management in General Practice through the use of 'Lifescrits'.

Obesity prevention

- P3.1.5 Implement coordinated programs, services and infrastructure across the priority areas of schools, community, parents and childcare promoting healthy weight through increasing physical activity and encouraging healthy eating habits. This approach will be with governments, industry and the community working together. This will include:
- Social marketing of healthy lifestyles to educate and motivate.
 - Risk factor management programs delivered in the primary health care setting to empower individuals to self-manage their health.
 - Strategies to improve the food supply.
 - Promotion of physical activity through healthy urban design.

Tobacco control and cessation

- P3.1.6 Implement strategies on: smoking cessation, reducing exposure to environmental tobacco smoke, marketing and promotion, availability and supply of tobacco products, research, monitoring and evaluation.³²
- P3.1.7 Provide additional targeted programs to support populations with high smoking prevalence to quit smoking.

Aboriginal health improvement

- P3.1.8 Fund the Aboriginal Vascular Health Program to increase access to and use of culturally appropriate services by Aboriginal people with or at risk of vascular disease.
- P3.1.9 Target antenatal programs and provide training and support to midwives and Aboriginal Health workers.
- P3.1.10 Evaluate the effectiveness of targeted programs for early childhood, up to four years of age.
- P3.1.11 Implement the NSW screening program to identify children with repetitive episodes and chronic Otitis Media.

- P3.1.12 Enhance early detection and management of chronic disease in Aboriginal communities, through programs like the well-person health check.

Oral health promotion

- P3.1.13 Enhance oral health by an extra \$40 million over the period to 2010, delivering an increased focus on prevention, health promotion and early intervention initiatives through greater population coverage by fluoridated water, and more effective oral health promotion programs.

Reduce alcohol misuse

- P3.1.14 Build on the Alcohol Linking Program across the state to reduce alcohol-related harm.
- P3.1.15 Implement coordinated programs and services that are equitable, culturally appropriate and evidence-based. The approach to tackling alcohol misuse is across government and includes partnerships with industry, the non-government and community sectors. This will include:
- Prevention and health education approaches to raise awareness of the risks posed by excessive alcohol consumption.
 - A focus on increasing the capacity and competency of the drug and alcohol workforce.
 - A focus on tackling co-morbid mental health and alcohol issues.

Reduce illicit drug use

- P3.1.16 Implement coordinated programs and services that are equitable, culturally appropriate and evidence based. The approach to tackling illicit drug use is across government and includes partnerships with the non-government and community sectors. This will include:
- Prevention and health education approaches to raise awareness of the risks posed by illicit drug misuse and information on harm reduction approaches.
 - A focus on increasing the capacity and competency of the drug and alcohol workforce.
 - A focus on monitoring illicit drug trends and responding to emerging patterns of use, for example the recent upsurge in problematic use of methamphetamine.
 - A focus on tackling co-morbid mental health and illicit drug issues.

Mental health promotion

- P3.1.17 Develop a strategic approach for consistent mental health promotion, prevention and early intervention across NSW for all age groups, sectors and service settings. This will include:
- Further development of programs to increase community awareness and mental health literacy.
 - Increasing information in the community regarding mental illness/disorders to reduce the stigma associated with mental illness and disorders and assist their early identification.
 - Promotion of programs that develop resilience, particularly in children and young people, and for families and carers through initiatives such as School-Link and Children of Parents with a mental illness (COPMI).
 - Intervening early in the onset of mental illness and disorder, for example through appropriate service models for young people and relapse prevention planning.

Early intervention

- P3.1.18 Implement relevant aspects of the whole of government policy framework on early intervention, as identified by the State Health Plan. Expand health services to allow us to become involved with families and individuals at the earliest stage of health problems developing, with follow up support where required. This will result in:
- Improved antenatal care, home visiting, parenting support, breastfeeding support, childhood health and development surveillance and early childhood education.
 - Expanded access to antenatal care and primary maternity services in early pregnancy for women with complex social, lifestyle and medical care needs.
 - Investigate options to increase the availability of midwifery services.
 - Early detection screening for breast, cervical and bowel cancer, and inflammation of middle ear in Aboriginal children.
- P3.1.19 Ensure access to prevention and curative health services for humanitarian refugees that are consistent with their level of health need.

Focus on the social determinants of health

- P3.1.20 Ensure that all population health services undertake appropriate planning measures to address equity issues (such as equity-based Health Impact Assessments for all programs and the use of tools such as the *Four Steps Towards Equity*).²⁶
- P3.1.21 Work with other government and non-government agencies to develop and implement strategies to address the social determinants of health, including:
- Education
 - Employment and income
 - Housing and urban environments.

P3.2 Create environments that promote health and wellbeing

The challenges ahead

Urban design. The way we design our towns and cities has been shown to have an impact on health.^{33, 34} The increasing burden of chronic disease has partly been linked to increasing urbanisation. Creating an environment that supports health is the key to reducing rates of death and disability from chronic disease.³⁵ Urban form characteristics associated with impacts on health include: mixed land use, housing mix and density, footpaths and cycle ways, street connectivity and design and transport infrastructure systems.³⁶ There is a need for inter-agency work in this area and a specific role for planning instruments that adequately protect communities against environmental hazards such as local air and noise pollution and promote healthy activity and easy access to nutritious food.

Smoke-free public places. There is conclusive evidence that exposure to environmental tobacco smoke in enclosed areas is harmful to health. In 2004, the *Smoke-free Environment Act* was amended to ban smoking in all indoor areas of licensed venues by July 2007. In order to assist proprietors and patrons adjust to the smoke-free requirements of 2007, a gradual extension of non-smoking areas in licensed venues is occurring over a two-year period.

The **fluoridation of water supplies** has long been recognised as an effective method of preventing dental caries and a major factor responsible for the decline in disease during the latter half of the 20th century.³⁶ Water fluoridation is a key population health strategy. While more than 90 per cent of the NSW population has

access to fluoridated water, less than 60 per cent of rural towns and cities have an optimal level of fluoride in their water supplies. On average, in non-fluoridated rural areas, 0–4 year-old children have 3 to 4 times the frequency of hospital admissions for dental care compared with rural children from fluoridated areas.²³

The **Aboriginal Housing for Health Program** is part of the Two Ways Together initiative. Housing for Health is a component of the Aboriginal Community Development Program that identifies and addresses problems in a house that affect the safety and health of its occupants. The Program addresses immediate life threatening dangers, (such as electrical, sewage and structural safety issues) as well as safe and healthy living practices (such as hygiene, nutrition and overcrowding and prioritising repairs and maintenance).

The **NSW Collaborative Centre for Aboriginal Health Promotion** was established in 2003 to provide a strategic approach to Aboriginal Health Promotion through leadership, coordination of key areas, capacity building, better practice, workforce development, partnerships, safety promotion and information systems for Aboriginal health promotion at the state level.

Transport. Public transport was one of the most commented-on issues during consultation for the NSW State Plan. Strategies have been proposed to improve public transport and increase its utilisation. Community feedback also stressed the importance of equitable and accessible transport options in rural areas, notably in relation to improving access to health services. Although health is not the lead agency in this area, there are substantial health benefits to be gained through improved public transport in both urban and rural areas, as well as active transport alternatives such as cycling and walking.

Current actions

The **Smoke-Free South West New South Wales** project was a partnership between The Cancer Council NSW and the Greater Southern Area Health Promotion Unit. This project had three focus areas to increase the number of smoke-free homes and cars in the Wagga Wagga region:

- Aboriginal Youth Focus
- Resources and training
- Awareness.

Blacktown Aboriginal Safety Promotion Program has established effective partnerships for developing a pool of Aboriginal and non-Aboriginal workers to address identified safety needs of the local Aboriginal Community. The program, which is led by SWAHS, has a growing number of partners including Housing, Roads and Traffic Authority, Fire Brigade, Police, Racing and Gaming, Kidsafe, Gilgai Aboriginal Centre, Rotary, and private businesses. The program won the 2006 Aboriginal Health Awards category 'Working together to make a difference'.

What we will do

Support healthy urban planning

- P3.2.1 Provide greater input into local and state planning decisions to create and strengthen healthy communities to maximise opportunities for human health gain.
- P3.2.2 Implement health impact and risk assessments widely across NSW as a tool to strengthen health input into planning decisions.
- P3.2.3 Advocate for building environments that create healthy and safe communities.
- P3.2.4 Develop partnerships with other local agencies involved in urban planning to promote health.

Promote smoke free public places

- P3.2.5 Implement comprehensive tobacco control policies, including banning advertising and smoke-free legislation.
- P3.2.6 Support people entering hospitals to quit smoking through smoking cessation programs and nicotine replacement therapy.

Increase fluoridation of water supplies

- P3.2.7 Increase the proportion of councils/shires in rural areas receiving fluoridated water through implementation of the water fluoridation and teeth-for-health strategies.

Aboriginal health improvement

- P3.2.8 Deliver the Housing for Health Program, in partnership with the Department of Aboriginal Affairs, in 8–10 communities per annum to improve housing safety.
- P3.2.9 Work with other agencies and organisations to ensure sustainable water and sewage infrastructure in all Aboriginal communities.
- P3.2.10 Support the NSW Collaborative Centre for Aboriginal Health Promotion.

Support healthy transport options

- P3.2.11 Support State Plan initiatives relating to a high quality transport system and promoting active transport alternatives such as walking and cycling.

P3.3 Implement strategies that prevent disability and injury

The challenges ahead

Injuries are responsible for a large burden of ill health and suffering in our community, and are generally preventable. Injury (including poisoning) is the leading cause of death for people aged 1–44 years in NSW, and is the second leading cause of hospitalisation in NSW.²³

Fall injuries are more likely to deprive older people of their independence and quality of life than any other condition, chronic or otherwise. In NSW the total lifetime cost of falls in 1998–99 was estimated at \$644 million.¹⁴ With an ageing population, fall-related injury is increasingly likely to place stress on the health system. Left unchecked, the cost is conservatively expected to double by 2050.³⁶ Fall-related injuries are preventable and there is good evidence about effective strategies. Rates of injury among Aboriginal people are substantially higher than other people in NSW.²³

Alcohol intoxication contributes to a large number of intentional and unintentional injuries such as motor vehicle crashes and violence.²⁹ Strategies that reduce the prevalence of drinking to excess, such as promoting the responsible service of alcohol, can help reduce this burden.³⁷

Suicide is a complex issue with no single cause or a simple solution. The latest Australian Bureau of Statistics data reports 587 suicide deaths in NSW in 2004. This represents a rate of 8.6 per 100,000 persons – the lowest in 25 years. Suicide prevention requires a multifactorial approach that includes appropriate population based prevention strategies.

Current actions

The Northern Sydney/Central Coast Area Health Service **Stay on Your Feet** program aims to help older people prevent falls by promoting participation in regular physical activity and other falls risk prevention strategies. The program is being run in collaboration with local general practitioners, the Department of Housing, local councils and other government agencies.

What we will do

Fall injury prevention

- P3.3.1 Deliver community-based falls prevention interventions for the over 55s age group, with an emphasis on increasing levels of physical activity that improve balance.
- P3.3.2 Each Area Health Service will implement a locally developed plan to reduce injuries from falls in the community and in acute-care settings.
- P3.3.3 Develop local initiatives in partnership with GPs to increase uptake of prevention services.

Reduce injuries among Aboriginal people

- P3.3.4 Implement programs targeted at reducing injury among Aboriginal communities.

Reduce alcohol-related injury

- P3.3.5 Build on the Alcohol Linking Program across the State to reduce alcohol-related harm including interpersonal violence.

Suicide prevention

- P3.3.6 Work in partnership with other government agencies and non-government organisations to reduce suicide deaths particularly amongst high risk groups such as young people, men and people with mental illness.
- P3.3.7 Enhance health workers' capacity to assess and manage suicide risk.

- P3.3.8 Continue the implementation of the Integrated Perinatal and Infant Care (IPC) initiative for universal assessment of women during antenatal and postnatal period to identify women, infants and their families who have psychosocial difficulties that increase the risk of poor physical and mental health outcomes, and offer appropriate care and support in response.
- P3.3.9 Build on early intervention initiatives for young people with mental health problems.

E1 Ensure Population Health Capability

E1.1 Develop and maintain the population health workforce

The challenges ahead

This section refers to those workers whose primary functions relate to the activities identified in the scope of this Plan. This workforce may or may not sit within the population health organisational structure, eg, a Division of Population Health. Links and partnerships with the workforce outside the direct influence of Population Health Divisions or organisational structures are a critical factor to the success of program interventions and reductions in duplication of effort. Regardless of where the workforce sits organisationally, maintaining and developing the skills of this diverse group is essential in enabling effective and coordinated population efforts.

The delivery of quality population health services relies on the availability of sufficient numbers of appropriately skilled staff working where they are needed. A coordinated and collaborative approach to strengthening the existing workforce is required, involving universities, government and non-government sectors. The population health workforce must always have the expertise to be able to adapt both sudden and more slowly emerging situations that change society and potentially provide opportunities or pose threats to health.

NSW Population Health Networks provide an excellent vehicle for developing leadership and advocacy in population health. The role of the networks are important as they contribute to state-wide strategic planning and policy development, better practice principles and quality practices at the ground level that facilitates communication between the Department of Health and the Area Health Services.

Maintaining the population health workforce will require deliberate strategies that foster a supportive and flexible environment and utilises effective performance management techniques that are essential aspects of retaining the workforce.

Current actions

NSW Public Health Officer and Biostatistical Officer Training programs, which build workforce skills and capacity to respond to acute health issues.

South Eastern Sydney Illawarra Area Health Service's **Aboriginal Population Health Work-integrated Learning Scholarship**.

The **Aboriginal Environmental Health Officer Trainee Program** has produced six fully qualified indigenous environmental health officers who have graduated from the Program. It currently funds positions for trainees in eight public health units across the state.

The **NSW Workforce Development Program** is a statewide service, auspiced by SESIAHS, which aims to foster the growth of a skilled and valued workforce through the provision of a range of workforce and management development strategies and projects for workers in hepatitis, HIV and sexual health across NSW.

The **NSW Health Promotion Workforce Development Network Group** brings together representatives from all Area Health Services to work in partnership on practical workforce development strategies.

What we will do

Increase the number of Aboriginal people in the population health workforce

- E1.1.1 Increase Aboriginal employment, professional learning, cadetships and career development opportunities within population health.
- E1.1.2 Facilitate the development of strategic partnerships between agencies and Aboriginal organisations and communities, to build an environment that affirms and respects Aboriginal heritage and cultural values.

Deliver training via communication technology

- E1.1.3 Supply NSW Telehealth Initiative Funded Projects to deliver health worker training in:

- a. Prevent falls and harm from falls in older people;
- b. Assist and support smokers to quit, using the NSW Smoking Cessation Program; and
- c. Enhance service delivery to rural and remote refugee populations.

E1.1.4 Develop web-conferencing as the preferred training tool for software training and for dissemination of research findings to rural areas.

Maximise the functions and operations of the Population Health Networks

E1.1.5 Facilitate effective population health networks that contribute to strategic planning and policy development, improve best practice principles and facilitate communication between the Department of Health and the Area Health Services.

Professional development of existing workforce

E1.1.6 Develop and implement problem-based learning.

E1.1.7 Implement complementary workforce development strategies, such as mentoring, problem based learning exercises; performance management and other non-accredited training are examples of local supportive strategies.

E1.1.8 Develop an Environmental Health Workforce development strategy to respond to the changing nature of demands that environmental health issues are placing upon the health sector.

E1.1.9 Develop the skills of the population health workforce to work with Local Government by facilitating training on the role and structure of the sector, and practical means to work together.

E1.1.10 Deliver the program **Evidence Based Practice in Health Promotion** as part of Area Health Services' continuing professional development program.

E1.1.11 Develop partnerships with appropriate Registered Training Organisations that will facilitate training for Certificate IV in Population Health across NSW with particular emphasis on rural areas.

E1.1.12 Expand and implement the Bug Breakfast seminar model to reflect all issues relevant to the entire population health workforce.

E1.1.13 Ensure that all staff in designated population health positions have an understanding of the issues of health inequities, including practical strategies to address them

E1.2 Develop and Maintain Population Health Infrastructure

The challenges ahead

A strong infrastructure is essential if the population health workforce is to meet the challenges of the 21st century and is able to respond to acute and chronic threats to the health of the NSW population.⁴⁰

Public health laboratories are a cornerstone support of effective public health responses to ongoing and emerging chemical and biological hazards.

The infrastructure necessary to develop and maintain the population health workforce is characterised by:

- An organisational culture that supports evidence based practice and healthy public policy;
- Electronic access to information;
- Financial support to access professional development opportunities;
- A planned approach to the identification of training needs and supportive strategies to meet these needs; and
- Leaders and the development of the next generation of leaders in population health

It is essential that these characteristics permutate across the state and exist at a number of different levels of the organisational structure so that the population health workforce is able to access the necessary infrastructure to support on-going work and training needs.

Current actions

Round 1 of the **Capacity Building Infrastructure Grants** (CBIG) program provided to organisations conducting research in the fields of public health, health services and primary care that addressed specific priorities for NSW Health.

Funding of **reference laboratories** to maintain expert capacity in water analysis, Legionella identification and entomology.

What we will do

Build Infrastructure

- E1.2.1 Administer Rounds 2 and 3 of the Capacity Building Infrastructure Grants (CBIG) program for organisations conducting research in the fields of public health, health services and primary care that addresses specific priorities for NSW Health.
- E1.2.2 Fund continued research to support effective action through research centres at Universities across NSW.
- E1.2.3 Establish a statewide Sexually Transmissible Infections Programs Unit.

Roll-out Communication Technology

- E1.2.4 Develop access to video-conferencing infrastructure, through AHS audits of present equipment and grants from Telehealth to ensure that it is possible to develop new training and mentoring methods across regional and remote NSW.

Knowledge Management

- E1.2.5 Participate in the NSW Health review of libraries, to ensure libraries and CIAP contain population health information.
- E1.2.6 Increase the number of statewide clearinghouses to facilitate the dissemination and application of information about effective population health programs to the population health workforce.

E1.3 Build Population Health Partnerships

The challenges ahead

Many of the factors that impact on health are outside the direct influence of the health sector. Evidence suggests that partnerships across sectors, disciplines, between communities, non-government and government agencies and with the private sector are successful in tackling the broader determinants in health and wellbeing in a sustainable manner.

Partnerships are developed through the building of relationships, understanding and making explicit the dynamics that exist between organisations and people and by developing durable structures to ensure that all those involved in the partnership have a voice. If we are to bring about change to improve population health in NSW it is important that mechanisms are developed to

share responsibility and authority for change across all sectors. It is important to acknowledge that this is something that takes work and requires resources to ensure we are successful.

Current actions

The **Public Health in Local Government: Results of Local Government Public Health Survey** provides key findings of population health activities undertaken by local councils in NSW.

The **Healthy Local Government Grants Program** was a NSW Health funded program in 2006. Over \$480,000 was provided to local councils to deliver health-promoting activities at a local level.

The **Aboriginal Sexual Health Advisory Committee** brings together Aboriginal Community Controlled Health Organisations, AH&MRC, AHS, key HIV and hepatitis C NGOs and a range of clinical and professional associations.

What we will do

- E1.3.1 Develop strategic partnerships between agencies and Aboriginal organisations and communities, to build an environment that affirms and respects Aboriginal heritage and cultural values.
- E1.3.2 Identify areas of collaboration with the Local Government Strategic Liaison Group, which includes members of the Department of Local Government, Local Government and Shire Associations, NSW Health and professional associations.
- E1.3.3 Work cooperatively with the Local Government and Shires Associations of NSW (LGSA) to promote 'best practice' health promotion and health protection issues.
- E1.3.4 Work with Divisions of General Practice, Aged Care Facilities and Aboriginal Community Controlled Health Organisations to increase uptake of influenza and pneumococcal vaccine and prevention of chronic disease risk factors.
- E1.3.5 Support a range of specialist interagency networks, such as the NSW Culturally and Linguistically Diverse Populations HIV Interagency and the Metropolitan Gay Men's HIV Prevention Interagency in order to enhance collaboration and the building of local and

regional partnerships to address HIV and STI issues within key populations.

- E1.3.6 Work with the Department of Education and Training, through the interdepartmental Sexual Health Steering Committee, to ensure professional development support is available to teachers in implementing appropriate sexual health education across NSW Schools.
- E1.3.7 Maintain and enhance a collaborative working relationship with a range of organisations including (but not limited to) government and non-government agencies, local government, Aboriginal Community Controlled Health Organisations, industry, universities and the Department of Environment and Conservation.
- E1.3.8 Establish partnerships at a state, regional and local level enhanced and coupled with the development of resources that support best practice, such as guidelines on Health Impact Assessment in Local Government.
- E1.3.9 Provide a coordinated health approach to regional social plans.
- E1.3.10 Strengthen partnerships with drug and alcohol non-government organisations.

E2 Build the Evidence Base for Population Health

E2.1 Conduct Population Health Research

The challenges ahead

Research discoveries have extended and enhanced our lives, reduced the burden of many diseases, and are changing the shape, and costs, of health care. Advances in genomics, bioinformatics, stem-cell technology and therapeutic vaccines will revolutionise clinical practice over the coming decades. It is essential that research investment also be directed towards developing new population health interventions, to understanding the contextual factors that influence the success of such interventions in real-world settings, and to evaluating the relative costs and effectiveness of the competing claimants for the health dollar. The most effective use of our resources for population health research is to direct these towards building research capacity in areas that have the greatest potential to contribute to improvements in population health, and where NSW has an opportunity to become a national or world leader.

For the purpose of this Plan, the term 'research' includes, knowledge development, creation, synthesis and transfer for the primary purpose of informing population health policy and program decision-making. Bringing about change based on evidence is not straightforward, as there are many gaps in the evidence base and often where there is evidence of effectiveness, information is not available as it is 'grey' literature. There is an ongoing need for evidence generation and dissemination and for supporting those working in population health to change policy and practice where evidence of effectiveness is clear.

Current actions

The **45 and Up Study** is the largest follow-up health study ever conducted in the Southern Hemisphere. The Study will help us better understand what contributes to healthy ageing, including ways to improve prevention of common health conditions. The Sax Institute in partnership with The Cancer Council NSW and the NSW Division of the National Heart Foundation of Australia is conducting the study.

NSW Health funds and supports a range of behavioural and social research activities within key populations, such as the **Sexually Transmissible Infections and Blood Borne Viruses in Aboriginal Communities Survey** and the biannual **Sydney Gay Community Periodic Surveys**.

What we will do

Build the evidence

- E2.1.1 Support the Sax Institute and its collaborative programs, including the 45 and Up Study, the "Evidence Check", to increase the use of evidence to inform NSW Health policies, the Coalition for Research to Improve Aboriginal Health and the Diabetes Research Partnerships.
- E2.1.2 Establish and operate the collaborative Centre for Health Record Linkage to boost capacity for research into the quality and outcomes of NSW Health programs and services.
- E2.1.4 Continue to work with research Centres based in the University sector and financially supported by NSW Health to deliver evidence in line with NSW Health priority areas.

Fund Demonstration Grants

- E2.1.4 Fund Area Health Services to conduct rigorously designed health promotion intervention studies in chronic disease prevention priority areas.

Conduct Increased economic evaluations

- E2.1.5 Collaborate with the Cancer Institute NSW and the Sax Institute in a Costing and Health Economic Evaluation Program (CHEEP), which will develop and communicate evidence about the cost-effectiveness of population health interventions.

E2.2 Evaluate Population Health Interventions and Disseminate Findings

The challenges ahead

To be effective, population health policy and practice must be a learning process, which involves finding out from experience what works and what doesn't, and making sure that others can learn from it too.

Systematic assessment of policies, programs and projects helps to improve the design and delivery of current and future policies, reinforces the use of evidence in policymaking, assists in resource allocation and enhances accountability.

The National Public Health Partnership provides a useful schema for evaluating population health evidence. The Schema takes account of the diversity of public health interventions, the different evaluations that are conducted in public health settings, and the importance of contextual factors in public health research and practice.

For evidence to inform policy and practice research findings must be disseminated to key stakeholders in a timely and useable manner.

Current actions

A recent randomized controlled trial conducted in Sydney South West AHS funded under the **NSW Health Promotion Demonstration Research Grants Scheme** found that a relatively simple community based program of an introductory one hour per week tai chi program over 16 weeks reduces risk of falling by 35 per cent in people aged 60 years and over living independently in the community.

What we will do

- E2.2.1 Promote the use of the Public Health Bulletin to disseminate the findings of population health evaluations.
- E2.2.2 Resource the development of workforce capacity to undertake evaluation and disseminate findings to the population health workforce.

- E2.2.3 Collaborate with the Cancer Institute NSW and the Sax Institute in a Costing and Health Economic Evaluation Program (CHEEP), which will undertake rigorous economic evaluation of current programs, and build ongoing capacity to do this work in NSW.

- E2.2.4 Increase the use of planned dissemination strategies, including support for implementation, and evaluate the effectiveness of these strategies.

- E2.2.5 Fund the Sax Institute to develop tools to support the development of evidence-based policy.

SECTION THREE

Future directions

Both the NSW State Plan (Priority F4) and the NSW State Health Plan (Strategic Direction 1) call for the principles of prevention and early detection to be embedded into government service delivery across NSW.

Population Health Services across NSW provide leadership in the field of promoting health and wellbeing and disease and injury prevention: in partnership with other clinical services, all levels of government, other agencies and non-government organisations. These Services are well placed to respond to the challenges ahead.

While *Healthy People NSW* sets out the goals and actions to which NSW Health is committed in the short term, in the medium term the following population health strategies will strengthen prevention and early detection in the State. These strategies will be linked to an integrated approach with primary and community health services, in particular.

In the future NSW Health will:

- Achieve the necessary threshold of investment for effective primary prevention.
- Redirect funds each year for the next ten years from within the NSW health budget to population health activities. This would result in increased investment in large-scale programs (refer to Section below).
- Provide leadership across all levels of NSW Health to ensure there is a greater emphasis on prevention efforts and realignment of investment. Leadership will be required to foster effective partnerships with other Lead Agencies to create the healthy public policy required to deliver the outcomes of this plan, the State Health Plan and the State Plan.
- Support changes to systems and structures to “hardwire” primary prevention into the system.
- Increase emphasis across Area Health Services on embedding primary prevention and early intervention into core activities and across clinical streams.
- Harness technology to develop tools, including web based tools, to support the population health workforce, including increasing access to data and information to support planning, evaluation and research.

Reinvestment in population health

If reinvestment were agreed to for population health, NSW Health would fund a priority project to develop a principled ranked list of programs based on impact, best-available evidence, minimum and optimal level of investment, return on investment, time frame and other factors.

In the mean time the extensive consultation process undertaken to deliver this plan identified potential areas for future investments, recognising there are *many* health issues that require attention.

The priority areas identified in the consultation were then linked to existing evidence-based programs and current pilot projects (note: these are *potential interventions only* and there are other programs available). While these interventions build on existing work, strengthened investment would provide the intensity needed to have significant health impacts at the population level. A staged approach will be needed to significantly increase the efforts in these area; not all programs can be implemented at once.

The interventions have been aligned to the NSW State Plan and the NSW State Health Plan; they are not listed in any order. (See following page.)

Intervention	State Plan (SP)/ State Health Plan (SHP)	Evidence of effectiveness/ cost effectiveness	Linkages to existing programs
Promoting health and well-being in Aboriginal communities			
Enhance tobacco control activities and holistic cessation programs.	SP – Priority F1 SHP – Strategic direction 1 and 4	The evidence for tobacco cessation programs in non-Aboriginal communities is excellent (tobacco plan) and the harms associated with tobacco use in Aboriginal people is well reported. ²³	A training program for Aboriginal health workers commenced in NSW in 2007 linked to the SmokeCheck program.
Enhance early detection of chronic disease. ■ Partnership for Aboriginal Care ■ Well Person's Health Check	SP – Priority F1, F5 and S2 SHP – Strategic direction 1, 3 and 4	Early detection of chronic diseases has proven effectiveness. ⁴¹ Evaluation findings of the implementation of pilot programs in NSW will inform our understanding of the effectiveness of these initiatives.	These programs have been piloted and could be considered for statewide implementation with sufficient investment.
Supporting and promoting healthy environments			
Ensure urban planning maximises opportunities for human health gain, eg. ■ 'Designing places for active living' project ■ 'Healthy urban planning' project	SP – Priority S3 and E SHP – Strategic direction 1 and 4	There is a strong body of evidence on the effects of the physical environment on physical activity ⁴² although limited evidence on the effects on nutrition and obesity. There has been little research to date on the effect of interventions that influence the built environment on health outcomes.	Linkages exist with many NSW Government strategies and policies and with the work of the Premier's Council for Active Living (PCAL).
Healthy ageing			
Deliver community-based falls prevention interventions for the over 55's, emphasis on increased physical activity. ■ 'Stay On Your Feet' ■ 'Make a move'	SHP – Strategic direction 1	Community based falls prevention programs have been demonstrated to reduce hospital admissions. ⁴³	These programs are at the centre of the NSW Health management policy to reduce fall injury among older people, 2003–2007.
Child health and wellbeing*			
Deliver programs to Establishing healthy eating habits in childhood and adolescence.	SP – Priority S3 SHP – Strategic direction 1	There is good evidence of effectiveness of school-based interventions to promote healthy weight and prevent weight gain. ⁴⁴	Links to programs implemented through the <i>Health Promotion in Schools Framework</i> . ⁴⁵
Enhance targeted antenatal care, home visiting and early childhood education for low-income families.	SP – Priority S3 and F1 SHP – Strategic direction 1, 3 and 4	Antenatal care, home visiting and early childhood literacy programs have been found to have positive effects on rates of low birth weight, prematurity, breast-feeding, immunisation, literacy and child abuse. ⁴⁶	<i>Families First. The NSW Aboriginal Maternal and Infant Health Strategy</i> ⁴⁷ was piloted in several areas and could be considered for statewide implementation with sufficient investment.
Preventing chronic disease			
Program to improve oral health including social marketing campaigns and increased access to fluoridated water in rural areas. ■ Teeth for life program	SP – Priority S3 and E1 SHP – Strategic direction 1 and 4	The World Health Organization ⁴⁸ concludes that community water fluoridation is one of the most cost-effective means of delivering fluoride to a large number of individuals	Current work being done by the Centre for Oral Health and the Centre for Environmental Health, in partnership with local government.
Community-based diabetes prevention strategies including intensive lifestyle interventions for those at high risk.	SP – Priority S3 and F5 SHP – Strategic direction 1 and 4	There is evidence that community based support for risk factor modification is effective. Lifestyle prescription programs in Australia ⁴⁹ and the <i>Green Prescription Program</i> in New Zealand ⁵⁰ demonstrated that there is some potential for such interventions to influence patient behaviour.	An intensive lifestyle program currently being piloted and could be considered for statewide implementation with sufficient investment.

+ In partnership with the Aboriginal Community Controlled Health Organisations

* Including collaborative links with primary health settings such as General Practitioners.

Performance management

Monitoring and reporting

The NSW Population Health Reference Group will be responsible for overall monitoring and review and reporting to the Chief Health Officer. This is an existing group with senior population health representatives from the Department and the Area Health Services.

Regular reports on progress against this plan will be prepared by the NSW Population Health Reference Group for the Chief Health Officer and Deputy Director-General, Population Health. In turn, reports will be provided to the Director-General, NSW Health, and the NSW Minister for Health, and feed into the existing management structures of the Health Care Advisory Council (HCAC) and the Senior Executive Advisory Board (SEAB).

The tools to monitor implementation of this Strategy are already in existence and are:

- NSW Government State Plan and Priority Development Plans
- Area Performance Agreements
- Population Health Service Level Agreements

Notes:

1. The Population Health Priority Taskforce (PHPT) will be responsible for monitoring those aspects of this plan that are identified in their Work Plan. The PHPT Work Plan 2006–2008 includes the “Top 10” strategies identified by the taskforce to focus their activity over the next two years.
2. Implementation of the proposed NSW Population Health Standards across NSW will enhance reporting.
3. Some targets in these Agreements relate to programs outside the direct responsibility of Population Health Services but have been included due to the links identified in this Plan.
4. There is currently some inconsistency in the tools listed above. A stronger performance management process including sound targets and measures is recommended. This work is currently underway.

Targets

To reduce any duplication processes in target setting, the relevant population health indicators within the existing reporting tools listed previously have been extracted and are detailed below.

The development of new indicators sitting outside current reporting mechanisms and existing standard data collections was not deemed suitable for the purposes of this Plan. Where no current NSW targets exist for strategies in this Plan, then Program reports with process indicators will be reviewed by the NSW Population Health Reference Group.

It should be noted that the State Plan and the State Health Plan indicators align with these below, with the exception of childhood obesity, where considerations are currently underway to look at standard data collection.

NSW Health Dashboard Indicators

NSW Health has established a set of standard key system performance indicators referred to as the Dashboard indicators. In the domain of population health these indicators include the following (on page 28).

Chronic disease factors: per cent of population aged 16 years and older reporting chronic disease risk factors

	1998	2002	2003	2004	2005	Target
Alcohol risk drinking behaviour	43.2	34.7	35.6	35.3	32.1	▼
Smoking daily or occasionally	23.7	21.5	22.3	20.9	20.1	▼
Overweight or obese (BMI 25 or above)	42.0	45.9	48.4	48.4	49.9	↔
Obesity (30 or above)	12.0	14.5	16.0	15.4	16.7	↔
Physical activity	47.9	47.2	44.7	52.3	51.9	▲
Vegetables (RDI-5 or more serves)	7.9	7.5	9.8	8.2	7.4	▲
Vegetables (3 or more serves)	15.1	17.9	18.0	16.9	18.4	▲
Fruit (RDI)	43.5	44.8	45.9	45.8	51.2	▲

Fall injuries: Age standardised hospital separation rate per 100,000 population for people aged 65 years and over

	1999–2000	2000–01	2001–02	2002–03	2003–04	Target
Males	1849	1823	1817	1808	1961	↔
Females	2725	2726	2765	2634	2862	↔

Adult immunisation: per cent of people aged 65 years and over immunised against:

	1997	1998	2002	2003	2004	Target
Influenza	57.1	63.3	75.2	76.0	76.0	▲
Pneumococcal Disease	n/a	n/a	38.6	47.1	47.4	▲

Infant immunisation: per cent of infants aged 12 to 15 months, fully immunised

	2001–02	2002–03	2003–04	2004–05	2005–06	Target
NSW total	91	91	91	91	90	▲

Potentially avoidable hospital admissions

	2000–01	2001–02	2002–03	2003–04	2004–05	Target
Vaccine preventable conditions (including measles, pertussis and influenza)	90.4	77.4	72.7	72.7	63.4	▼
Chronic conditions (including angina, diabetes complications and COPD)	1258	1224	1175	1177	1178	▼
Acute conditions (including dental conditions, ENT and kidney infections)	794	801	815	833	815	▼

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Appendix

Acknowledgements

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The consultation process for Healthy People NSW included feedback from:

- NSW Health Executive
- NSW Health Centre for Epidemiology and Research
- NSW Health Centre for Chronic Disease Prevention and Health Advancement
- NSW Health Centre for Health Protection
- NSW Health Centre for Oral Health
- NSW Health Centre for Aboriginal Health
- NSW Health Primary and Community Partnerships
- NSW Health Centre for Drug and Alcohol
- NSW Health Centre for Mental Health
- All Area Health Services in New South Wales
- Local Government
- University and research institutions in NSW
- A range of non-government organisations with interests in population health

Supporting Documents

The following documents will support the implementation and monitoring of this plan. Copies of the documents are available from the NSW Health Centre for Epidemiology and Research or can be downloaded from the URLs provided.

- **State Plan: A New Direction for NSW**
Available from <http://www.nsw.gov.au/stateplan/>
- **The NSW State Health Plan**
Available from the NSW Health website www.health.nsw.gov.au
- **New Directions for Population Health Gain in New South Wales: The Population Health Priority Taskforce Work Plan June 2006 – June 2008**
This work plan includes the “Top 10” strategies that were identified by the taskforce in 2006, to be the focus of their activity for 2006–2008. These include strategies addressing obesity, chronic disease prevention, Aboriginal health, early intervention, injury prevention, responsible service of alcohol, urban planning and oral health.
- **Healthy People NSW: The Challenges Ahead**
This document provides more a more detailed overview of the challenges described earlier in this plan. It includes a range of health statistics and projections for each of the issues raised.
- **Mapping Healthy People NSW against the NSW State Health Plan 2006–2010**
To support implementation and monitoring, this document maps the priorities and enablers listed in this plan against those from the State Health Plan, with a specific focus on Strategic Direction 1: Make prevention everybody’s business.
- **Live Life Well**
A website that offers basic information and tools to start making healthier changes
<http://www.livelifewell.nsw.gov.au/>

