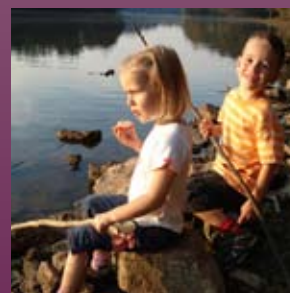




Government of South Australia

Department of Health

The State of Public and Environmental Health Report for South Australia 2005 / 2006





Government of South Australia
Department of Health

THE STATE OF PUBLIC AND ENVIRONMENTAL HEALTH

The State of Public and Environmental Health Report for South Australia 2005/2006

Department of Health
January 2007

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The State of Public and Environmental Health
Report for South Australia 2005/2006

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Preface

The State of Public Health Report is prepared annually pursuant to Section 44(3) of the Public and Environmental Health Act (1987).

Table of contents

Introduction	1
What is Public Health?	2
Who is Public Health?	3
The State of Public Health in South Australia	5
Public Health at a Glance	7
Significant Publications in 2005-2006	10
Future Directions	11
Public Health Activities in South Australia 2005/2006	12
Asbestos	12
Breastfeeding	13
Breast Cancer Screening	14
Cancer	15
Cervical Cancer Screening	16
Clandestine Drug Laboratories	17
Communicable Disease Control	18
Controlled Substances Licensing	25
Drinking Water Supplies	27
Emergency Management	29
Environmental Noise	30
Food	32
Health Impact Assessment	37
Health Inequity	38
Health Promotion through the Arts	39
Healthy Public Policy	40
Heatwave	40
Indigenous Environmental Health Worker Initiative	41
Injury	42
Insanitary Conditions	43
Mosquito Management	44
Multiple Chemical Sensitivity	45
Nutrition	45
Odours	46
Oral Health	46
Overweight and Obesity	49
Pandemic Flu Planning and Emergency Preparedness	52
Physical Activity	53
Population Research and Outcome Studies	55

Port Pirie Lead Implementation Program	61
Pregnancy Outcomes	62
Prison Health	63
Problem Gambling	66
Psychological distress	66
Public and Environmental Health Council	67
Public Health Expenditure	69
Public Health Outcomes Funding Agreement	71
Public Health Medicine	72
Refugee Health	72
Review of the Public and Environmental Health Act (1987)	73
Skin Penetration	74
Smoking and Tobacco Control	74
Wastewater Management	77

List of Figures

Figure 1:	Chrysolite, Crocidolite & Amosite Asbestos	12
Figure 2:	Clandestine drug laboratory detections, 1977-98 to 2005-06	17
Figure 3:	Typical clandestine drug laboratory	18
Figure 4:	Notified cases of confirmed measles infection by month of notification 2001-2006 inclusive	19
Figure 5:	Notified cases of meningococcal serogroup C infection, by month of notification 2001-2006 inclusive	19
Figure 6:	Notified cases of <i>L pneumophila</i> serogroup 1 infection, by month of notification 2001-2006 inclusive.	20
Figure 7:	Notified cases of pertussis, by month of notification and age-group 1996-2006 inclusive	21
Figure 8:	Notified cases of <i>Salmonella Typhimurium</i> phage type 108, by month of notification 2001-2006 inclusive	21
Figure 9:	Notified cases of <i>Salmonella Anatum</i> , by month of notification 2001-2006 inclusive	22
Figure 10:	Notified cases of <i>Salmonella Typhimurium</i> phage type 9, by month of notification 2002-2006 inclusive	22
Figure 11:	Notified cases of <i>Salmonella Typhimurium</i> phage type 135a, by month of notification 2001-2006, inclusive	23
Figure 12:	Comparison trend for number of licences issued under Pesticide Regulations and Poisons Regulations July 1986 to July 2006	26
Figure 13:	Customer tap samples free from <i>E. coli</i>	27
Figure 14:	Percentage of samples compliant with Australian Drinking Water Guidelines health parameters	27
Figure 15:	Results of the South Australian Noise Survey with regards to a) road transport and b) neighbours	31
Figure 16:	Summary of food-borne or suspected food-borne disease in SA during the period of July 2005 to June 2006	33
Figure 17:	Summary of TFA, saturated fat and total fat content of products	36
Figure 18:	Decay experience in 12 year old children 1996 – 2005 (DMFT is measure of prevalence of dental caries)	47
Figure 19:	Trends in prevalence of underweight, normal, overweight and obese BMI from 1991 to 2005	49
Figure 20:	Percentage of overweight and obese 4 year old boys and girls in South Australia in 1995 and 2003	50
Figure 21:	Prevalence of obesity, 1993 to 2005, Health Omnibus Surveys	50
Figure 22:	Physical activity in participants aged 16 and above 2004-2006	54
Figure 23:	Proportion of South Australians aged 16 years and over who were consuming the recommended number of serves of fruit (at least two) and vegetables (at least five)	56
Figure 24:	The chronic disease continuum	57
Figure 25:	Age-sex standardised prevalence of diabetes in South Australia, ages 15+	58
Figure 26:	SF-36 mean scale scores for the South Australian population aged 15 years and over, by health region	59
Figure 27:	Prevalence of SF1 responses for the South Australian population aged 18 years and over	60
Figure 28:	Percentage of children aged 0-4 with blood lead levels <10µg/dL by year of test	61
Figure 29:	Operation of household air filtration systems	62
Figure 30:	Selected SA Prison Health Services Key Performance Indicator	63
Figure 31:	Proportion of State government public health expenditure, by activity, South Australia, 2004–05	70
Figure 32:	Region of origin of cases receiving treatment for tuberculosis in 2005	73
Figure 33:	Smoking prevalence in South Australia 1991-2005	75

Introduction

The State of Public Health Report is prepared annually pursuant to Section 44(3) of the Public and Environmental Health Act (1987). It contains a report on the operation of this Act during the financial year 2005/06 and it reports on the standard of public and environmental health in the state generally.

This year the report details the scope and diversity of public health action in this state. Public health by its nature is a diverse and dispersed activity. It involves many players both within the health system and across other areas and levels of government. Whilst public health is primarily the mandated concern of several levels of government it also works through the cooperation of private providers and the non government sector as well as with the cooperation of the business sector and the participation of the broader community. Public health is the outcome of the organised effort of a society to preserve, protect and promote the health of all its people.

South Australians are very healthy. We are healthier and living longer now than we ever have before. This is no accident. It is the result of generations of effort to improve the social, economic and environmental conditions of our community.

Like the rest of Australia we have all benefited from rising levels of income and economic activity, improved sanitation, clean air and water, good food and improved housing, improved heating and cooling and access to transport, together with sustainable environmental protection and access to services and supports that help us stay active, healthy and engaged with our communities. It is this combination of factors which has improved our standard of living and has helped us achieve the best health ever.

A recent survey of South Australians (2005) showed that over 84% reported "excellent, very good or good" health while only 16% reported "fair or poor" health. Those rating themselves as having fair to poor health have shrunk by a statistically significant number since 2002. Not only are most of us in good to great health but those who are not so great are also improving. This is a good picture of health at the start of the twenty-first century. But the benefits of our collective efforts as a society are not always shared equally or equitably. In Australia and South Australia there are still groups of people who do not share in our common wealth or our common health.

The health status of Aboriginal people remains a significant community concern. The latest Australian Institute for Health and Welfare report on Australia's Health showed that on average Indigenous people die 17 years younger than other Australians. Action to improve this situation is not simply the responsibility of the health system and it is not even the responsibility of any one level of government. It is the responsibility of all governments and the broader community committed to working with Aboriginal communities to help build bridges to better health and to help build better lives for all.

Whilst South Australia's health, has, for the greater part, improved remarkably over several generations, there continues to be public health challenges. Perhaps the most important of these is the increasing rates of chronic disease. Overweight and obesity underlies many chronic diseases including cancer risk, type 2 diabetes, heart disease and osteoporosis, and are mainly caused by a combination of poor nutrition and inadequate physical activity. The rising epidemic of overweight and obesity is particularly alarming with many commentators suggesting that the next generation may be the first in recent centuries to experience shorter life expectancy than their parent's generation.

Meeting these challenges and maintaining and improving our health is not just the work of South Australia's health care system. Most of the factors which make us healthy and keep us healthy have little to do with the health care system itself. Keeping all of us as healthy as possible requires the concerted and organised efforts of society, government and the non government sector, industry and community, working together to ensure proper standards of health and safety are developed, defended and promoted. The public health activities of the Department of Health play a central role.

When thinking about our health, health care is something that all of us will need at some time, whereas public health is something that all of us need all of the time.

What is Public Health?

Public health is concerned with the health of the whole population and sub- populations within it. It seeks out patterns of illness and ill-health which are experienced by individuals and populations, and it intervenes through processes of legislation, regulation, education, advocacy, coordination and facilitation of cross sectoral action. When there is an outbreak of disease or a disturbing pattern of injuries, where there are rises in the cases of food poisoning, where there are harmful changes to the environment observed, such as spills of toxic substances, where there are emerging unexplained trends in the causes of death, illness or injury, in all of these circumstances it is there you will find public health practitioners ready to intervene and act for all of the public's health.

It is paradoxical that the more successful public health activities are the more invisible this multifaceted professional discipline becomes. When things don't go wrong, for example when there are no outbreaks of disease, no food contamination incidents, no injuries or environmental poisonings, it is easy to forget that the avoidance of disaster is the result of good planning and sustained strategic investment, rather than simple good luck. When the incidence of heart disease and pregnancy complications drops, it is not by virtue of some fortuitous accident. When a new alarm bell rings, for diabetes or obesity or a particular sort of cancer, it is due to the constant vigilance of public health workers that the attention of the public is drawn to the emerging danger.

Who is Public Health?

Public health agencies are responsible for leading community health improvement efforts and their success is reliant on effective partnerships with other government and non government agencies and consumers. A commitment to collaboration from providers and consumers establishes a sense of ownership of health and wellbeing

The National Public Health Partnership describes the total public health effort in Australia through nine core functions:

- assess analyse and communicate population health needs and community expectations;
- prevent and control communicable and non-communicable diseases and injuries through risk factor reduction, education, screening, immunisation and other interventions;
- promote and support healthy lifestyles and behaviours through action with individuals, families, communities and the wider society;
- promote develop and support healthy public policy, including legislation, regulation and fiscal measures;
- plan, fund, manage and evaluate health gain and capacity building programs designed to achieve measurable improvements in health status, and to strengthen skills, competencies, systems and infrastructure;
- strengthen communities and build social capital through consultation, participation and empowerment;
- promote, develop, support and initiate actions which ensure safe and healthy environments;
- promote, develop and support healthy growth and development throughout all life stages;
- promote, develop and support actions to improve the health status of Aboriginal and Torres Strait Islander people and other vulnerable groups.

In South Australia, these functions are performed by a number of practitioners and agencies. They include: local government; medical and other health practitioners; university teaching and research activities and regional health services in metropolitan and country South Australia. Public health functions are also performed by other government departments and agencies outside of the Department of Health including: Department of Environment and Heritage; Environment Protection Authority; Department of Families and Communities; Department of Transport Energy and Infrastructure; Office of Recreation and Sport; Arts SA; Department of Education and Children's Services; Motor Accident Commission; Primary Industries and Resources SA; SA Water and Zero waste SA.

Local government has a particularly strong role in public health, with each local council mandated as a local health authority under the Public and Environmental Health Act (1987). Local government provides an extensive range of public and environmental health services, including: food safety; school and community immunisation programs; human waste and waste water control; business inspections and health risk assessments.

Within the Department of Health there are a range of branches and units which contribute to the public health effort. The principal focus for public health effort in the Department of Health is the Directorate of Public Health within the Public Health and Clinical Coordination Division. This Directorate consists of a number of specialist units each focussing on a certain aspect of preserving, protecting and promoting public health.

These units include the:

- Applied Environmental Health Branch;
- Communicable Disease Control Branch;
- Environmental Health Centre (Port Pirie Lead Project);
- Food Policy and Programs Branch;
- Health Promotion Branch;
- Scientific Services Branch.

Other components of the Health Portfolio which contribute to the public health function include: Aboriginal Health Division; Policy and Intergovernmental Relations Division; Population Research Outcomes Studies Branch; Epidemiology Branch; Drug and Alcohol Service South Australia; BreastScreen SA; South Australian Dental Services; SA Cervix Screening Program; and community and primary health care services.

Public Health operates under various pieces of legislation, principally the Public and Environmental Health Act (1987), the Food Act (2001) South Australian Health Commission Act (1976), Controlled Substances Act (1984) and Tobacco Products Regulation Act (1997). In addition to these principal Acts there are many dozens of Acts of Parliament in South Australia which either explicitly or implicitly contribute to preserving, protecting and promoting public health.

Overseeing the work of public health in South Australia is the Public and Environmental Health Council. This Council is established under the provisions of the Public and Environmental Health Act (1987). The Public and Environmental Health Council functions include initiating and overseeing programs and activities designed to improve and promote public and environmental health.

The State of Public Health in South Australia

The Australian Institute for Health and Welfare publishes a biennial report on Australia's health. Its most recent publication in 2006 found that the health of the Australian population is continually improving. Australians are now living longer than ever before. There have been large reductions in morbidity and mortality from communicable diseases; notable improvements have also been observed for a variety of chronic diseases and injuries over the last several decades. The impact of these changes is visible in almost all segments of the population, although not uniformly.

For more details visit: www.aihw.gov.au/publications/aus/ah06/ah06.pdf.

These findings reveal a long term trend over the last century of steady and indeed dramatic improvements in health and wellbeing. A rapid scan of the health of the population over the last century underscores a shift in the causes of ill health and causes of death. Over the twentieth century there were notable successes relating to trends in mortality. They include falls in the death rates of:

- 95% for children aged four or younger, including infants;
- 96% for infectious diseases;
- 85% for stomach cancers and 80% for cervical and uterine cancers;
- close to 80% for respiratory diseases;
- over two-thirds for circulatory diseases after the mid-century epidemic;
- over 30% for male lung cancer since its peak in the 1980s;
- 70% for motor vehicle accidents since their peak in 1970.

Source: AIHW: Mortality Over the Twentieth Century: 2006

Illness and death caused by infectious diseases and diseases caused through insanitary conditions have largely been eradicated as major public health concerns. In 1907 tuberculosis was the second highest cause of death for all ages and diarrhoea was the third highest. Diarrhoea was also a principal cause of death in the 0-4 year age group.

In 1907 circulatory diseases, respiratory diseases and cancer were responsible for 42% of male deaths, while by 2000 these conditions, commonly recognized as chronic diseases, were responsible for 77% of male deaths. At the start of the twenty-first century it is estimated that chronic disease accounts for approximately 80% of the total burden of disease nationally. Strongly associated with most chronic conditions are a series of risk factors which individually or in combination provide significant causal pathways for our most common conditions. These risk factors include, smoking, overweight/obesity, lack of physical activity and poor diet. These together with the social and environmental conditions which give rise to them are all amenable to public health intervention.

Improvements in health status are fundamentally underpinned by sound and comprehensive public health measures. For example in determining the cause of the dramatic decline in deaths from acute myocardial infarction and stroke over the last 30 years, 42% of this decline has been due to improved medical and surgical treatments, and 58% is due to the reduction in risk factor, most notably smoking. Reducing smoking has been a consistent target of public health actions including tighter regulation and control as well as mass media and information campaigns.

This picture of health is mirrored in the South Australian context. South Australians are healthier than ever and living longer than ever before, though this is not uniformly shared across the population. Those factors which are causing ill health are now more likely to be non-communicable diseases due to environmental, social and lifestyle factors,

rather than the traditional public health dangers of infectious disease and insanitary conditions which dominated the health agenda early in the previous century.

The *South Australian Burden of Disease (BoD) Study* demonstrated that three disease categories, cardiovascular disease, malignant neoplasms and mental disorders were responsible for more than half the disease burden in South Australia.

In terms of premature mortality the SA BoD Study found that cardiovascular disease and malignant neoplasms account for over 60% of premature mortality in South Australia.

In terms of identification of risk factors the SA BoD study concluded that:

- tobacco is the leading risk factor and it is responsible for 9% of the burden;
- physical inactivity is the second most important risk factor overall;
- hypertension, alcohol harm and obesity are each responsible for between four and six percent of the total burden of disease.

Further information concerning health indicators of the South Australian population can be found at the following sites:

www.publichealth.gov.au/atlas_sa.html

www.health.sa.gov.au/burdenofdisease/DesktopDefault.aspx

www.health.sa.gov.au/pros/

Whilst this picture of health in South Australia is strong and positive, there still remain avoidable and preventable inequalities in health between different groups. The starkest of all examples of groups who are excluded from sharing in our community's health are Aboriginal people. On most measures of health including morbidity, premature mortality, vulnerability to infectious disease, prevalence of chronic conditions, risk of injury due to violence and accidents and poorer health at any age, Aboriginal people fare poorly when compared to the rest of the population. While the health status of Aboriginal people serves as the most dramatic illustration of avoidable and preventable ill-health other groups are also similarly affected. It has been demonstrated in the South Australian context, and validated in every comparable jurisdiction, that there is a profound and strong relationship between ill health and levels of social disadvantage. This is not the responsibility of any one government. It is the responsibility of all governments and the community more generally.

Concerted public health action, most particularly through the framework of South Australia's Strategic Plan, will continue to contribute to the long term effort to turn around these health inequalities and work towards health for all.

Public Health at a Glance

- South Australia maintained immunisation coverage above 90% for children aged 12-15 months and 24-27 months, 91% and 92.24% respectively, with both cohorts being at or above the Australian coverage.
- In 2006 the Minister for Health released *Eat Well be Active Healthy Weight Strategy for South Australia 2006-2010*. The Strategy includes preventive and management approaches and identifies priority actions at a variety of levels, including policy and program development, workforce planning, research and monitoring.
- The SA Physical Activity Strategy 2004-2008 and the subsequent Implementation and Action Plan were developed to provide a strategic and collaborative approach to addressing factors that influence physical activity. The Eat Well Be Active Healthy Weight Strategy 2006-2010 includes strategies to increase physical activity participation and create environments that foster and support opportunities for physical activity.
- Approximately 100,000 million litres of sewage is collected and treated each year by SA Water. In 2005/2006 18.1% of metropolitan and 17.23% of rural treated sewage was recycled. Recycled water schemes are regulated under the Public and Environmental Health (Waste Control) Regulations.
- The South Australian Dental Service (a part of Central Northern Adelaide Health Service) provides a range of public dentistry and oral health programs.
 - School Dental Service offers a comprehensive dental care program to all children until their 18th birthday with 87% of primary school children participating. In 2005/06 the Service examined and treated 103,773 children;
 - in 2005/06 the Community Dental Service provided 133,674 dental visits;
 - in 2005/06 the Dental Hospital provided 65,752 dental visits.
- South Australia's whole of government approach is leading the way in pandemic influenza preparedness planning. The Department of Health has been nominated by the Commonwealth to develop a national infection control DVD.
- In 2005 86% of Year 8 students received a booster vaccine for diphtheria, tetanus and whooping cough and were fully immunised for hepatitis B. Coverage for hepatitis B for the same group in Victoria is 56% and in NSW 48%. Queensland has no school program in place and can only estimate coverage, believed to be around 30%.
- The Public & Environmental Health Council initiated and developed the 'Council of the Year Award' to recognise local government authorities excelling in the area of public and environmental health. The Metropolitan Award was won by the Eastern Health Authority, recognised for its proactive approach to public and environmental health issues and its community consultation and education practices. The Eastern Health Authority includes Burnside, Campbelltown, Norwood Payneham St. Peters, Walkerville and Prospect Councils. The Regional Award was won by the Alexandrina Council that demonstrated its commitment to youth through empowering youth to take ownership of a variety of projects including health programs.
- 100 bakeries had been inspected (19% of bakeries in SA). Sixty-nine bakeries (69% of the bakeries inspected) had one or more non-compliance in the areas identified as risk factors. The total number of food businesses found to be non-compliant with the Food Act was 251.
- Public Health and Clinical Coordination within the Department of Health currently has an advanced trainee with the Australasian Faculty of Public Health Medicine trainee under the Malcolm Collings Traineeship. The Malcolm Collings Traineeship is the only

government sponsored position of its type in South Australia. The current trainee is working across a range of areas, including examining the public health benefit for vaccinating young children against influenza, and ways to reduce the risk of serious dog bites in the community.

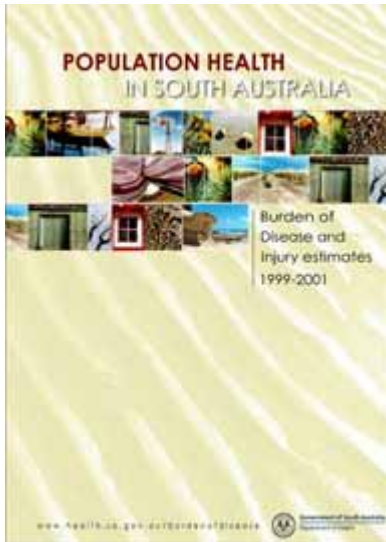
- 1517 licences were issued under the Pesticide Regulations, and 1691 were issued under the Poisons Regulations. A review of all exemptions from licensing under the Pesticide Regulations has commenced and will be completed in 2006/07.
- 224,455 doses of influenza vaccine were distributed in 2005-2006, an increase on the previous year. Almost 84% of those aged 65 years and over received annual influenza vaccination.
- In June 2006 the Australian Childhood Immunisation Register immunisation coverage for meningococcal C vaccine in SA was 84.69% for 1-5 year old children compared to the Australia coverage 83.93%. 163,436 doses of meningococcal C vaccine were distributed.
- South Australia has the highest rate of use of domestic rainwater tanks in Australia. Over 80% of the rural populations rely on rainwater tanks as their primary source of drinking water. Over 25% of Adelaide households also drink rainwater.
- A review of the Port Pirie Lead Implementation Program was finalised for the Minister in December 2005. The review's principal outcomes included a demonstration that:
 - reducing blood lead levels was essential for the viability of the city and its industry;
 - emissions from the smelter needed urgent and considerable attention;
 - a unified target-driven approach was taken to ameliorate or remediate exposure pathways to lead in the community.
- The 'ten-by-10' initiative was launched by the Minister of Health on 8th February 2006. The initiative establishes a collaborative relationship between Zinifex, Department of Health, Environment Protection Authority and the Port Pirie Regional Council with a stretch target of achieving 95% of children aged 0-4 years old with lead levels below 10µg/dL by 2010.
- Under the newly harmonised road rules in Australia, children under one year must be restrained in cars by a device appropriate to their size. Children older than one year may legally be restrained by an adult seat belt, which does not provide the same degree of protection for children as a size-appropriate restraint. About 35 Australian children die each year in vehicle crashes, and 500 are seriously injured. Voluntary use of size-appropriate restraints for children is surprisingly low, especially for children above age four. This year the Department of Health has taken a lead role in advocating nationally in support of this important opportunity for prevention.
- SA Prison Health Services in partnership with the SA Department for Correctional Services has implemented the World Health Organisation's best-practice screening tool of substance misuse.
- The Department of Health analysed the trans fatty acid (TFA) content of fast food sold by two fast food outlets in Adelaide, to compare it with a similar study in twenty other countries. The results of this pilot survey were provided to Food Standards Australia New Zealand to inform its review of the regulation of trans fatty acids in foods.
- In 2005, smoking prevalence for the South Australian population was 19.1%, which was a decline from 1990 prevalence rates of 38.5%. The 2005 rate for young people aged 15-29 years of 21.7%, is ahead of the 1% per annum decrease in prevalence that is required to meet South Australia's Strategic Plan target.
- The South Australian Integrated Mosquito Management Strategy was initiated in response to the need to promote and integrate effective, economical and

environmentally sensitive mosquito management practices throughout South Australia.

- For the 2005/2006 year 240 health impact assessments were conducted on a range of developments.
- In the 2005/2006 period, Local Government reported the following activities related to insanitary conditions under the Act:
 - 1671 complaints were received by 43 councils;
 - 70 notices were served by 24 councils requiring remediation of the insanitary condition;
 - 5 expiation notices issued.
- In the period June 2005 to June 2006 the Vaccine Distribution Centre distributed a total number of 1,406,652 doses of vaccine for all vaccination programs including the Childhood Immunisation Program.
- South Australian data from 2005 indicate that 54% of adults aged 18 years and over were overweight or obese. Men are more likely to be overweight than women, 62% compared with 47%. Obesity rates are slightly higher in women (18%) than men (17%), with those from disadvantaged areas more likely to be obese.
- Over the 14 years 1991-2005 the proportion of South Australians in the normal weight category has decreased, the proportion in the overweight and obese categories has increased and the proportion in the underweight category has remained constant.
- In South Australia the prevalence of overweight and obesity in children has increased significantly. From 1995 to 2003 the proportion of overweight or obese four year old girls increased from 13% to 22%, and the proportion of overweight or obese boys increased from 10% to 18%.
- In SA prisons 9.4% of inmates are prescribed controlled major anti-psychotic medication used for schizophrenia and chronic psychotic disorders and 24% of inmates are prescribed anti-depressants.

Significant Publications in 2005-2006

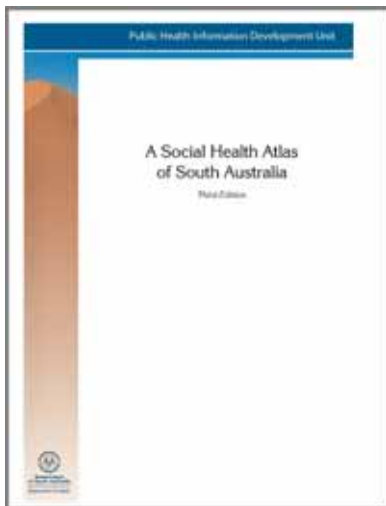
Population Health in South Australia: Burden of Disease and Injury Estimates, 1999-2001



The South Australian Burden of Disease study applied the internationally recognised methodology, used for estimating the Global Burden of Disease, to South Australian data to obtain estimates of the burden of disease and injury in this state. The report provides a comprehensive analysis of population health in South Australia. It offers information on an extensive range of conditions and risk factors that influence population health for both the whole of the state and for the health regions. The estimates provided in this report can inform broad discussions about health, health inequities, disabilities, risk factors and other public health issues. The report can be viewed at:

www.health.sa.gov.au/burdenofdisease/DesktopDefault.aspx

A Social Health Atlas of South Australia. Third edition



The third edition of A Social Health Atlas of South Australia was produced by the Public Health Information Development Unit of the University of Adelaide, funded and supported by the Department of Health. The Atlas updates the information on social, economic and health inequalities presented in previous editions. It provides an overview of health status and patterns of use of health and welfare services of the population in different areas of the state, focusing on the health regions within the context of socioeconomic status. The Atlas is an invaluable tool for health and welfare services planning. The Atlas can viewed at:

www.publichealth.gov.au/publications/a-social-health-atlas-of-south-australia-%5bthird-edition%5d.html

Future Directions

Public health in all of its forms and across all contributing partners and agencies continues to lay solid foundations for building a healthier South Australia. Public health practitioners are active participants in the development and delivery of strategies aimed at achieving the goals of South Australia's Strategic Plan. The Plan itself is a vital reference document underpinning priority setting in public health.

With the review of the Public and Environmental Health Act (1987) Public Health has the opportunity to refresh its strategic goals and directions in 2006/2007.

At the national level public health continues to evolve through a variety of structures. The National Public Health Partnership was superseded as of June 30 2006 by the Australian Health Protection Committee and the Australian Population Health Development Principal Committee, two Principal Committees of the Australian Health Ministers Advisory Council.

The new Principal Committees incorporate the following:

- The Australian Health Protection Committee broadens the membership of the Australian Health Disaster Management Policy Committee (chief health or medical officers) with the chairs of the Communicable Diseases Network Australia, the Environmental Health Committee and the Public Health Laboratory Network.
- The Australian Population Health Development Principal Committee comprises senior health development and health service officials from each jurisdiction. It incorporates the previous National Health Priority Action Council, its Expert Advisory Subcommittees, National Public Health Partnership, in particular the Chronic Disease and Injury Prevention Working Group and the National Obesity Taskforce. The Committee is chaired by Dr Tony Sherbon, Chief Executive of the South Australian Department of Health. It will coordinate national effort towards an integrated health development strategy that includes primary and secondary prevention, primary care, chronic disease and child health and wellbeing.

Public Health Activities in South Australia 2005/2006

The following section presents details on public health activities for South Australia for 2005/2006.

These activities cover the broad spectrum of public health, and are presented in alphabetical order – from asbestos to wastewater management. They are conducted by a range of public health practitioners working across all areas of Public Health.

Asbestos

The South Australian Asbestos Awareness Action Plan

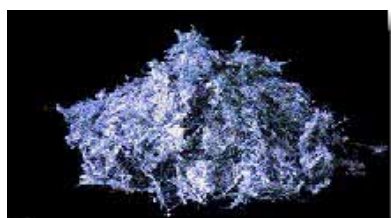
The prevalence rates of malignant mesothelioma have been increasing since 1965 and there is no firm indication of when they will start to decline. In South Australia, prevalence has been found to be above the national average. Occupational exposure accounts for 87% of these cases, 4% non-occupationally related and the remaining 9% could not be classified. In recent years it has become obvious that do-it-yourself (DIY) home renovators can be exposed to potentially high levels of asbestos fibres.

In the past, a large percentage of asbestos related public health enquiries have been directed to SafeWork SA. However, due to the large potential for non-occupational exposures to asbestos, especially by DIY renovators, both the Department of Health and local government Environmental Health Officers (EHOs) have a role and responsibility in prevention and protection of individuals from asbestos exposure.

Figure 1: Chrysotile, Crocidolite & Amosite Asbestos



Chrysotile (White asbestos)
Serpentine group



Crocidolite (Blue asbestos)
Amphibole group



Amosite (Brown asbestos)
Amphibole group

A South Australian Asbestos Awareness Action Plan is being developed which places emphasis on coordination and aims to reduce disease caused by exposure to asbestos fibres, especially in the non-occupational setting. The Action Plan outlines the commitment of government, unions, industry and the whole community to work together to ensure that all South Australians are aware of the need for safe identification, management and removal of asbestos. The Department of Health and SafeWorkSA are taking a lead role in developing the Action Plan.

Local Governments through their EHOs and the Department of Health through the Scientific Services Branch, continue to be approached by the public for information in relation to asbestos exposure in the non-occupational environment.

Currently, many of the queries directed to local government are redirected to the Scientific Services Branch due to the lack of knowledge and skills of EHOs relating to non-occupational asbestos issues. To address this situation, the Department of Health hosted a training workshop on 2 December 2005 with sixty EHOs attending.

This training was successful and generated a great deal of interest from the participants. It was evident that this first workshop 'set the scene' by providing a good introduction,

but more detailed training and clarity is required in relation to identification and management of asbestos.

Breastfeeding

Breastmilk is a high quality food and uniquely suited to provide for the nutritional needs of infants and children. The unique nutrients, enzymes, growth factors, hormones and immunological and anti-inflammatory properties of human milk reduce the risk and severity of a number of conditions including respiratory illness, otitis media, gastrointestinal tract disease, bacteraemia-meningitis, urinary tract infections, necrotising enterocolitis in premature infants, asthma, SIDS and some childhood cancers.

Evidence is increasing for the link between breastfeeding and the prevention of overweight and obesity. Breastfeeding provides many long term benefits for the mother and infant including reducing the risk of childhood obesity in the infant and accelerating post pregnancy weight loss in the mother.

Breastfeeding: what is the goal?

The National Health and Medical Research Council recommends exclusive breastfeeding for the first six months of life, with breastfeeding beyond this age continuing to benefit baby and mother. The Australian target is for 90% of infants to be breastfed at birth and 80% still being breastfed at 6 months of age.

The Children, Youth and Women's Health Service have responsibility for breastfeeding promotion across the State, through the implementation of the *SA Breastfeeding Program: Strategic and Action Plan 2006-2011*. The current objectives of the Plan are to:

- increase the capacity of hospitals, health services, health professionals and volunteer organisations to provide best practice, accurate, comprehensive, culturally appropriate breastfeeding services;
- increase community acceptance of breastfeeding.

Breastfeeding trends in South Australia

The current breastfeeding rates in SA, as in the rest of Australia, are below the national target. According to 2001 Australian data, 83% of infants were breastfeeding at discharge from hospital. At 13 weeks postpartum, 64% were breastfeeding; this fell to 49% at 25 weeks.

Breastfeeding rates have not changed from estimates in the 1995 National Health Survey. While Australia has reasonable rates at birth of breastfeeding, these levels are not maintained over time. Thus the rate of infants being breastfed at 6 months is well below the NHMRC goal of 80%. Breastfeeding rates are lower among women of low SES, young women, single mothers and women with lower levels of education.

Future Directions

There is currently no Statewide data on breastfeeding rates across South Australia. Health Promotion Branch is negotiating with Children, Youth and Women's Health Service to utilise their data for monitoring breastfeeding rates. CYWHS will conduct a survey in 2007 to establish baseline breastfeeding initiation data and provide regular reports on breastfeeding rates from the client data collected as part of the normal clinical encounters. This data will support CYWHS in the implementation of the SA Breastfeeding Strategic and Action Plan to promote and support breastfeeding.

BreastScreen SA

BreastScreen SA is the fully accredited South Australian component of BreastScreen Australia, the national breast cancer screening program for women without breast cancer symptoms or signs. BreastScreen SA is a part of the Central and Northern Adelaide Health Service.

BreastScreen SA incorporates nine screening clinics including three mobile screening units. BreastScreen SA provides free screening mammograms (breast x-rays) at two-yearly intervals, primarily for women aged 50 to 69, with the aim of reducing deaths from breast cancer in this target group, through early detection of the disease. Women over the age of 40 years are eligible to access the screening program.

From 1 July 1988 to 30 June 2006, there were 865,447 screening mammograms provided to 232,764 individual women across South Australia. From 1 January 1989 to 31 December 2005, a total of 4,472 breast cancers were diagnosed by BreastScreen SA.

Key highlights during 2005/2006

- 69,107 screening mammograms were performed;
- 4,223 new clients in the target age group were screened;
- 77.6% of the total number of women screened were in the target age group 50 to 69;
- 28.9% of the total screening mammograms provided were performed in the three mobile screening units;
- 2.7% (1,900) of women screened were recalled for assessment of a screen-detected breast abnormality;
- reduced waiting times from screening to assessment since March 2006, exceeding national targets;
- 567 fine needle aspiration biopsies and 372 core biopsies were performed;
- the second lowest cost per woman screened (the cheapest cost per women screened in Australia in the previous two financial years, although the costs between jurisdictions are not strictly comparable).

During 2005 and 2006, BreastScreen SA undertook a detailed review to determine possible strategies for addressing the declining participation rates, increasing waiting times for screening and pressure on current screening capacity. This review confirmed that the program does currently maximise its screening capacity and throughput within its available resources.

In the next reporting period, BreastScreen SA will:

- review the attraction and recruitment strategies to employ radiographers;
- develop a business case for digital mammography;
- review the program in light of the declining participation rates, increasing waiting times and flow-on effects including medico-legal risks;
- review the interpretation and implementation of the existing national policy framework.

BreastScreen SA will also work towards the commissioning of the two county mobile units and replacement of the client information system next year.

BreastScreen SA will continue to work towards achieving the National Accreditation Standards and maintain the high standards of client care and outcomes aimed at continued accreditation of the program.

Public health activity in cancer control aims to prevent new cases from occurring, identify new cases (or potential new cases) at an early stage of disease, effectively treat people with cancer, and return and maintain cancer patients to fully functional healthy lives.

The data

In 2004 there were 8190 new cases of cancer diagnosed in South Australia, while there were 3249 cancer deaths. This represented 415 additional new cases over the previous year, but 33 fewer deaths.

For the past five years there has been a trend towards stable incidence rates for males and females, but 2004 has seen an increase in prostate cancer in particular, with lesser increases in female breast and female lung cancer. The female lung cancer incidence rate this year is 30.1/100000, which is only slightly below the highest incidence rate ever recorded in South Australia in 2001, and reflects the continuing concern about female lung cancer rates in this State. The corresponding mortality rate for 2004 is 23.9/100000, which is the highest rate ever recorded. Female lung cancer mortality rates have shown a relative increase from about one-seventh of male mortality rates in 1977 to nearly one-half of male mortality rates in 2004.

Projecting forward, it is estimated that in 2007 there will be an additional 378 new cases of cancer, and 281 more deaths compared with 2004. The majority of new cases and deaths are expected to be females.

Mortality rates have shown declines in both males and females, mainly due to declines in prostate cancer deaths in males and breast cancer deaths in females.

- The most common cancers in South Australia are:
 - in males – prostate, colorectal, lung and melanoma;
 - in females – breast, colorectal, lung and melanoma.
- Emerging developments of note are:
 - the continued increase in lung cancer incidence and mortality in females as female smoking patterns continue to trend towards male smoking patterns;
 - increases in prostate cancer for men and breast cancer for women are not associated with any increase in mortality for these cancers;
 - melanoma incidence and mortality has remained static for both sexes.
- Cancer remains a disease predominantly of the older population with:
 - 0-14 year olds accounting for <1% of cancers;
 - 15-44 year olds accounting for 8% of cancers;
 - 45-64 year olds accounting for 31% of cancers;
 - 65+ year olds accounting for 61% of cancers.

What are we doing?

Public health practitioners work to prevent people from being exposed to cancer-causing substances, educating people about cancer-preventing life styles, making the public aware of important self-monitoring and clinical screening activities, and raising the awareness of cancer as everyone's responsibility.

Future Directions

The best examples of public health achievement in South Australian cancer control are:

- reduction in rate of lung cancer among males, due mainly to reduction in the proportion of the population smoking tobacco;

- reduction in cervical cancer mortality, due mainly to improved screening to identify disease, and the potential for disease, at an early stage;
- reduction in breast cancer mortality, due mainly to improved screening and promotion of high quality treatment.

In future, these and other evidence-based strategies will be employed to reduce the impact of cancer on South Australians.

Cervical Cancer Screening

The South Australian Cervix Screening Program is a partner of the National Cervical Screening Program.

The aim of the Program is to reduce the incidence of cancer of the cervix by increasing the proportion of women who are screened at two yearly intervals and by promoting high quality screening and follow-up services.

One of the main tasks of the SA Cervix Screening Program is to encourage women to have a Pap smear every two years in line with the national policy. Recruitment activities target the general population of women aged 18 to 70 years and sub-groups of the population known to be under-represented in Program participation. These include women from low socioeconomic areas, Aboriginal and Torres Strait Islander women, and women from some culturally and linguistically diverse communities.

The participation rate of women screened for cervical cancer in the target population (aged 20-69 years) was 66% in 2004/2005, the projected target for the current reporting period (2005/2006) was 68% (this data was not available at the time of the report). According to SA Cancer Registry data, the incidence of cervix cancer has fallen approximately 40% over the past 25 years with a 69% reduction in the mortality rate for the same period.

Program activities in 2005/2006:

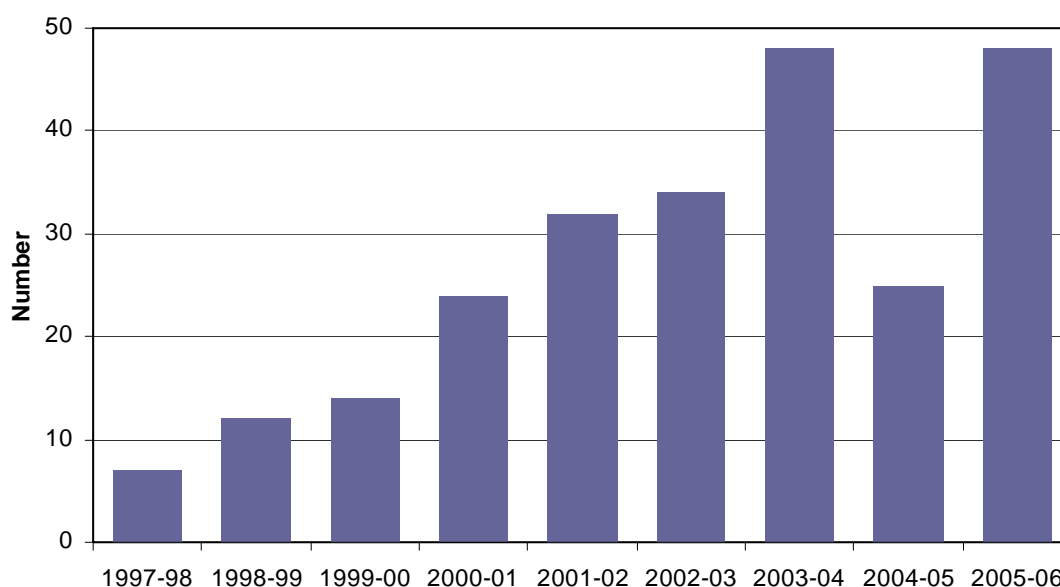
- operation of a *Reminder Register* to remind women and Pap smear providers when Pap smear testing is overdue. Currently 579,999 women are recorded on the register and in 2005 a further 160,637 smear results were added;
- an annual Statewide social marketing campaign, Pap Smear Awareness Week, which incorporates radio, television, print and ambient media and funded local promotional activities;
- a comprehensive Aboriginal & Torres Strait Islander Well Women's Program;
- a program for women from culturally and linguistically diverse communities in partnership with The Cancer Council SA. In 2006 focus group research with both German and Cambodian communities was conducted;
- a major grants program which facilitates sustainable programs in identified under-screening areas or target groups;
- development, production and dissemination of information and promotional materials. In 2006 the SA Cervix Screening Website: www.cervixscreening.sa.gov.au was comprehensively updated;
- education of health professionals via seminars and printed information including the Program's newsletter *Pap News*. A range of strategies to implement NHMRC guidelines, *Screening to Prevent Cervical Cancer: Guidelines for the Management of Asymptomatic Women with Screen Detected Abnormalities* were undertaken.

Clandestine Drug Laboratories

The manufacture of illicit drugs in Australia has been increasing since the late 1990s. In the past three years 121 clandestine drug laboratories have been found in South Australia (Figure 2), often located in homes, rental properties, motel rooms, garages, sheds and vacant buildings.

In South Australia, 32% of seized clandestine drug laboratories were located in the Adelaide metropolitan area and 53% of those were in rental properties. The majority of the laboratories found to date have been set up for the production of methamphetamine, but this could change with changing scheduling of precursor drugs.

Figure 2: Clandestine drug laboratory detections, 1977-98 to 2005-06



Source: SAPOL 2006

Clandestine drug laboratories create a number of risks to public health. Some laboratories have been found in rooms in a larger structure, such as a motel or an apartment block. Risks such as chemical leaching can have implications for the health of other residents and for the condition of the building as a whole. Both indoors and the surrounding area can be highly contaminated rendering them unsuitable for habitation. Furthermore, the manufacturing process produces large amounts of waste material. The disposal of the waste creates further risks, both to humans and the environment.

For every kilogram of pure methamphetamine produced, 5–7 kg of chemical waste is created which may have been disposed of directly onto the ground, or down drains and toilets, including septic tanks, or nearby waterways and along the roadside.

Pollutants may be spread off-site by drains and streams into densely populated urban areas or natural ecosystems with no advance warning of spillage.

The process of cleaning up has inherent risks and is a highly specialised job. The Department of Health in collaboration with SA Police and Local Government, is exploring possibilities for clandestine drug laboratories to be deemed insanitary premises and is investigating efficient and cost effective strategies to clean up premises used for clandestine laboratory activities.

Figure 3: Typical clandestine drug laboratory



The Department of Health is working in collaboration with the Commonwealth to undertake a review of the clean up of clandestine laboratories across Australia. To date no jurisdiction in Australia has a policy for cleanup procedures. The Department of Health is formulating a strategy to move forward on this issue.

Communicable Disease Control

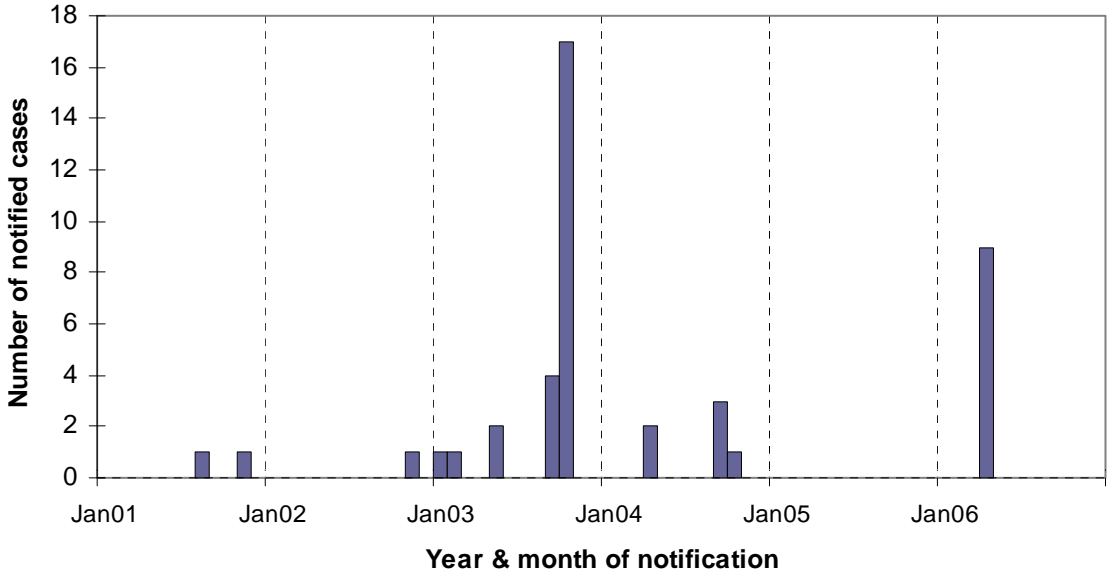
The total number of confirmed cases of notifiable diseases notified to the Communicable Disease Control Branch within the Department of Health in 2005/2006 was 12,710 compared to 10,569 in the previous year. The Department of Health has investigated information on the following reports.

Notifiable diseases

Measles Infection

Measles infection is rare in South Australia; no measles cases were reported in 2005. However, in 2006 the Communicable Disease Control Branch investigated two clusters of measles infection involving nine cases; both clusters had links outside the State. One cluster had contact with an overseas traveller. Tracing of the other cluster identified a link to an interstate measles case. The scarcity of measles infection is demonstrated in Figure 4.

Figure 4: Notified cases of confirmed measles infection by month of notification 2001-2006 inclusive



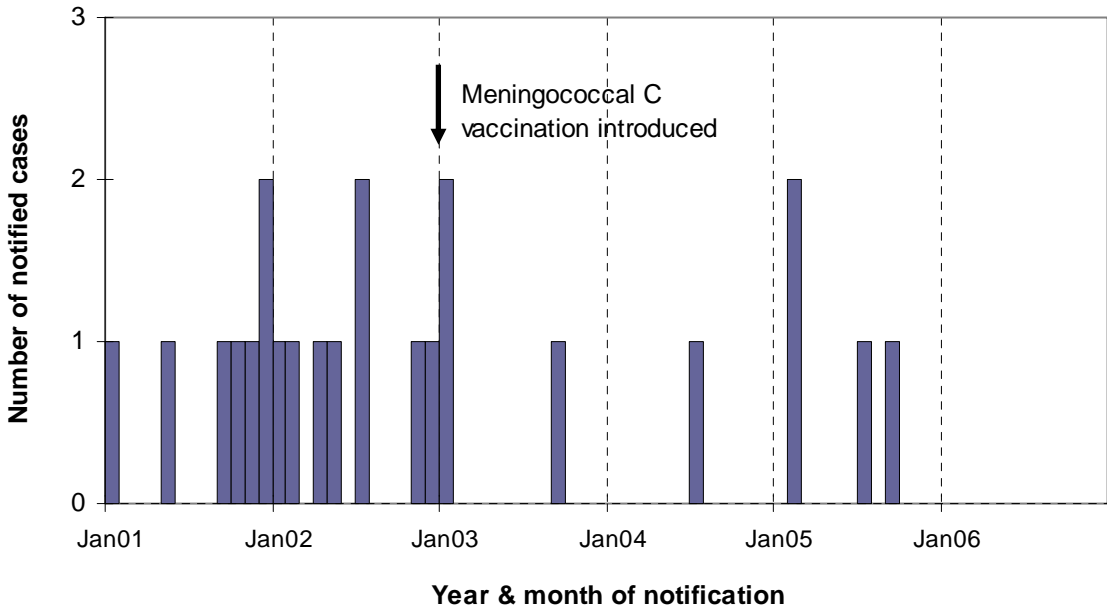
Meningococcal Infection

In 2006, 16 laboratory confirmed cases of invasive meningococcal infection have been notified to the Department of Health, compared with 26 cases in 2005. The most common subtype identified in 2006 was serogroup B (13 cases). No meningococcal infections were attributed to serogroup C, for which there is a vaccine.

Under the national guidelines, *Guidelines for the Early Clinical and Public Health Management of Meningococcal Disease in Australia, 2001*, direct contact tracing is undertaken to identify close contacts; they are offered chemoprophylaxis. All other contacts receive detailed information about the infection.

Figure 5 shows laboratory confirmed cases of meningococcal C infection over the last six years. These data suggest that the introduction of the meningococcal C vaccine in January 2003 has resulted in reduced numbers of invasive meningococcal infections by this serogroup.

Figure 5: Notified cases of meningococcal serogroup C infection, by month of notification 2001-2006 inclusive

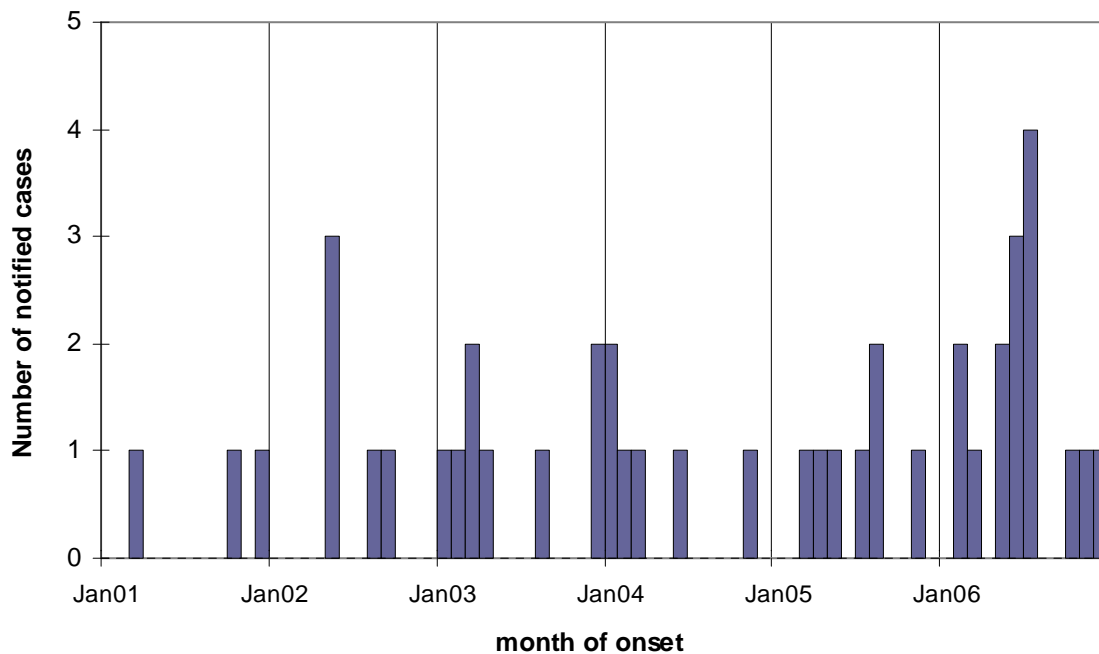


***Legionella pneumophila* serogroup 1 Infection**

Legionella pneumophila serogroup 1 may be associated with contamination of a public water source and an environmental history is elicited to investigate such cases. Fifteen laboratory confirmed cases of *L pneumophila* serogroup 1 were reported in 2006 compared with seven confirmed cases in 2005.

Each case requires an investigation by combined Department of Health branches (Communicable Disease Control, Environmental Health and Scientific Services Branches) and the relevant local council to identify and remove possible environmental sources of infection. The graph below demonstrates laboratory confirmed *L pneumophila* serogroup 1 activity during the last 6 years.

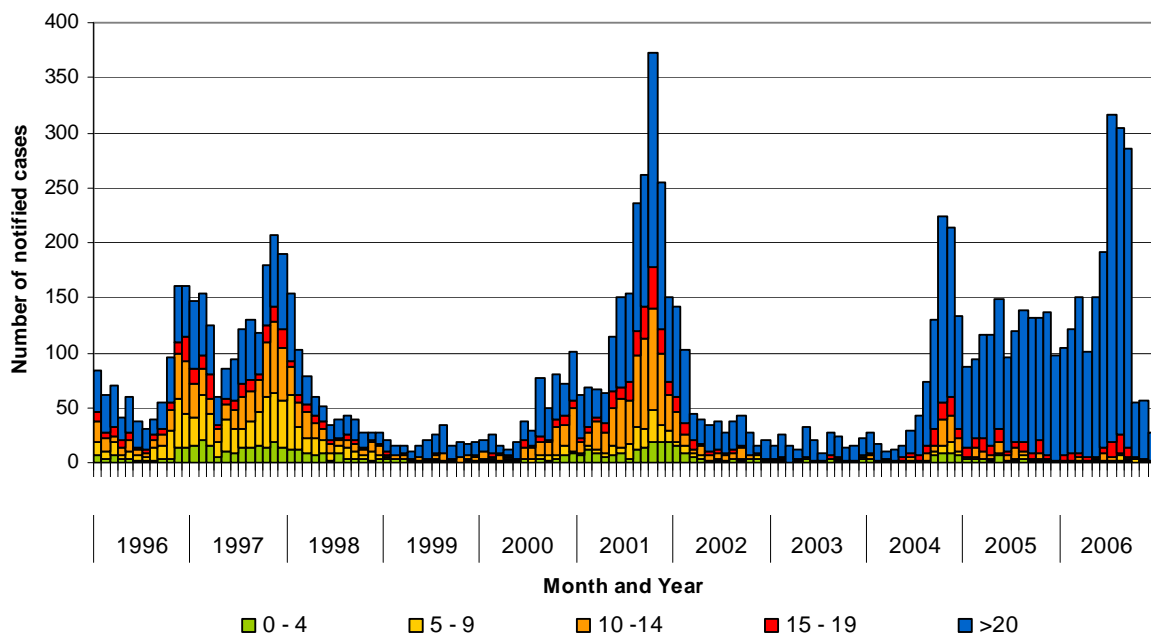
Figure 6: Notified cases of *L pneumophila* serogroup 1 infection, by month of notification 2001-2006 inclusive.



Pertussis Infection (Whooping cough)

An unusually high number of pertussis infections were reported in 2006; 2106 cases compared with 1415 in the previous year. The age range of cases was also unusual, with most infections reported in people over 20 years of age (Figure 7). Vaccination details are collected when pertussis infections are reported in children less than 7 years of age.

Figure 7: Notified cases of pertussis, by month of notification and age-group 1996-2006 inclusive



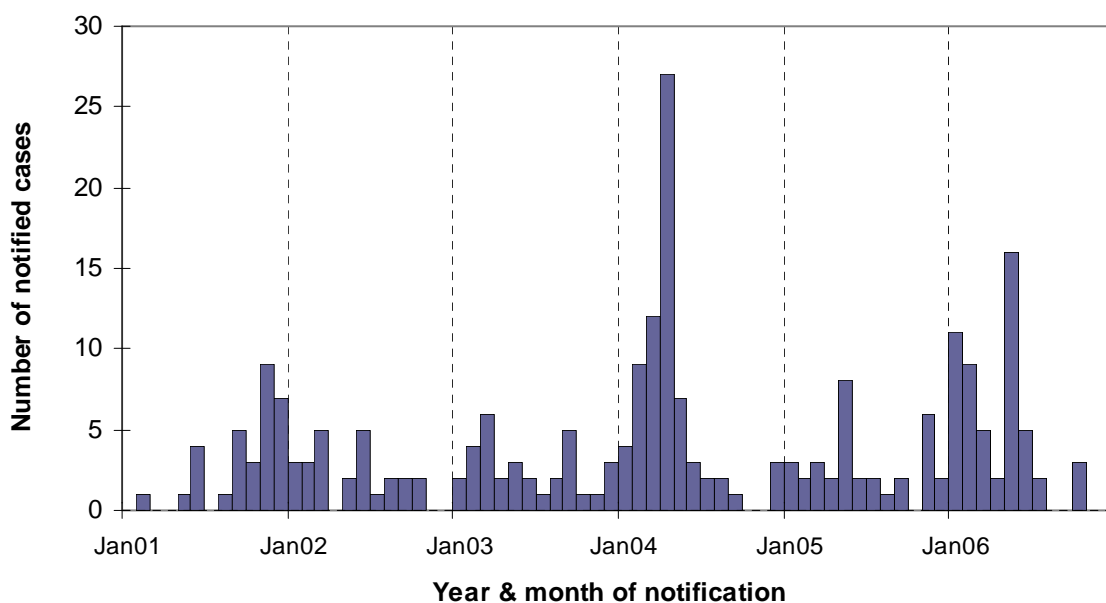
Salmonella Infection

As in previous years, the Department of Health investigated several clusters of *Salmonella* infection in 2006. 558 cases of *Salmonella* infection were notified during 2006, a small decrease on the 2005 total of 586 cases.

Salmonella infections are reported more frequently over the summer months, and investigations into four separate clusters of infection were conducted in January, February and March of 2006. Clusters of infection are identified by the presence of an identical subtype of *Salmonella*, in several people (sometimes 20 or more). Investigation requires collection of data by interview, followed by statistical analysis to identify the source of infection.

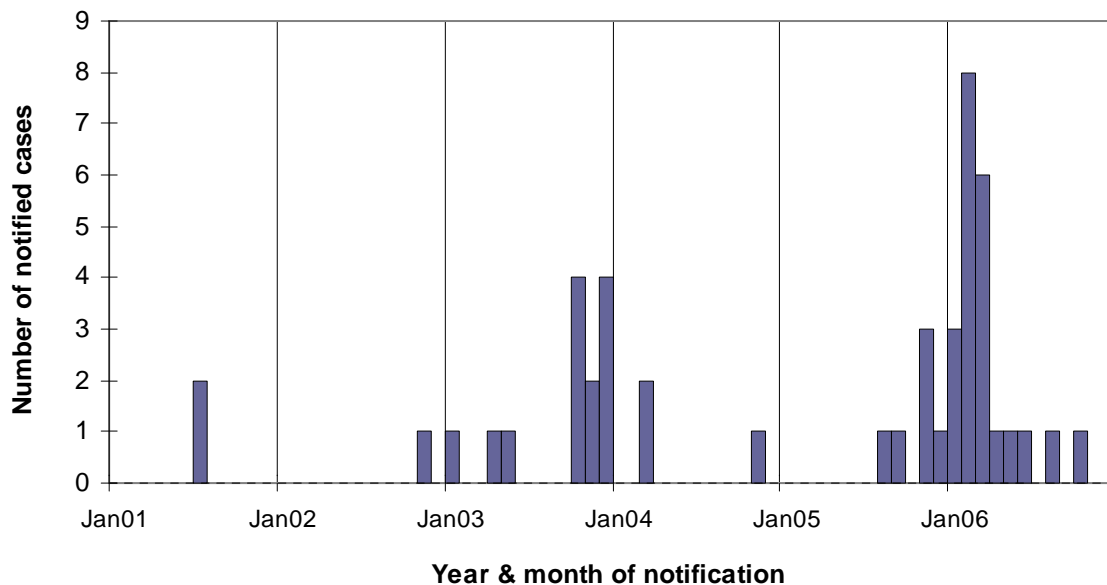
Figures 8 and 9 demonstrate the number of notifications of selected salmonella infections reported during a 6-year interval.

Figure 8: Notified cases of *Salmonella Typhimurium* phage type 108, by month of notification 2001-2006 inclusive



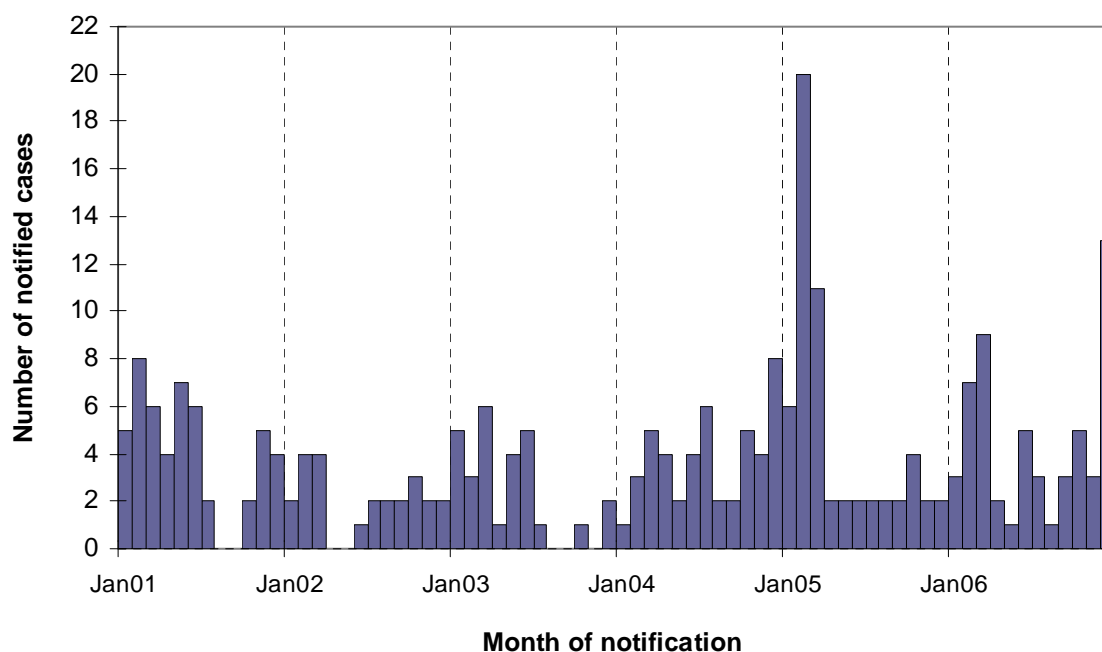
In February and March, 2006, the Department of Health combined with local government Environmental Health Officers to investigate an outbreak of *Salmonella Anatum* involving 11 reported cases of infection.

Figure 9: Notified cases of *Salmonella Anatum*, by month of notification 2001-2006 inclusive



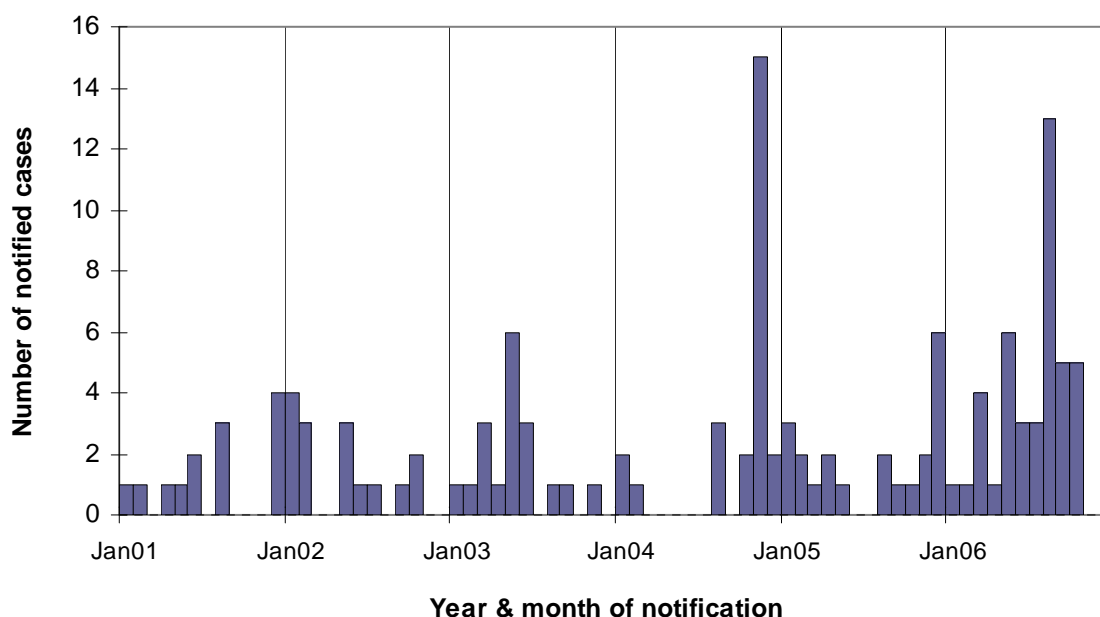
An outbreak of *Salmonella Typhimurium* phage type 9 was investigated mid-2006. Analysis of data found a statistically significant association between consumption of a particular food and gastrointestinal illness.

Figure 10: Notified cases of *Salmonella Typhimurium* phage type 9, by month of notification 2002-2006 inclusive



Increased numbers of *Salmonella Typhimurium* phage type 135a have been reported in South Australia during 2006, compared to the past five years (Figure 11). Notifications included a cluster of 21 cases investigated mid year.

Figure 11: Notified cases of *Salmonella Typhimurium* phage type 135a, by month of notification 2001-2006, inclusive



Immunisation

The Department of Health works collaboratively with Divisions of General Practice, local government and other immunisation providers to provide a high quality immunisation program for South Australians. In the period June 2005 to June 2006 the Vaccine Distribution Centre, within the South Australian Immunisation Coordination Unit, distributed a total of 1,406,652 doses of vaccine for all vaccination programs including the *Childhood Immunisation Program*.

In SA four Commonwealth-funded vaccines (diphtheria, tetanus, whooping cough and hepatitis B) are offered to Year 8 students annually through local government. SA has the highest vaccine coverage rates in Australia for this age group. In 2005 86% of Year 8 students received a booster vaccine for diphtheria, tetanus and whooping cough and are fully immunised for hepatitis B. By comparison, coverage for hepatitis B for the same group in Victoria is 56% and in NSW 48%. Queensland has no school program in place and can only estimate coverage, believed to be around 30%.

National Influenza Vaccination Program: 224,455 doses of influenza vaccine were distributed in 2005-2006, an increase on 2004-2005. Almost 84% of those aged 65 years and over received annual influenza vaccination.

With the commencement of the Health Care Worker Influenza program in 2006, there was a significant increase in health care worker influenza vaccine coverage, with 25,013 doses distributed, an increase of 9,196 doses compared to the previous year.

Childhood Immunisation Program: South Australia maintained immunisation coverage above 90% for children aged 12-15 months and 24-27 months, 91% and 92.24 % respectively, with both cohorts being at or above the Australian coverage. Despite increased promotion by the Department of Health in collaboration with Local Immunisation Coordinators in the Divisions of General Practice, the four year old coverage in SA is lower, at 82.83%. This coverage is also reflected in the Australian national coverage of 83.95%. The childhood program was extended in November 2005 to include inactivated polio delivered in combination vaccines, the introduction of varicella vaccine at 18 months of age, and for Indigenous children, hepatitis A at 18 months and 2 years of age.

National Meningococcal C Vaccination Program: In June 2006 the Australian Childhood Immunisation Register immunisation coverage for meningococcal C vaccine in SA was 84.69% for 1-5 year old children compared to the Australia coverage 83.93%.

163,436 doses of meningococcal C vaccine were distributed. The meningococcal C program, due for completion in June 2006 has been extended to June 2007. The collaborative meningococcal C program offered by Local Government through schools was completed at the end of 2005.

National Pneumococcal Vaccination Program for Older Australians: The Vaccine Distribution Centre distributed 53,550 doses of pneumococcal vaccine funded by the Australian Government for older Australians.

National Indigenous Vaccination Programs: In June 2006, South Australia's immunisation coverage for indigenous children aged 12-15 months and 24-27 months was 78.57 % and 87.31 % respectively. This coverage is low compared to the overall coverage.

School Immunisation Program: The Vaccine Distribution Centre distributed 125,468 doses of Adult hepatitis B and 58,583 doses of diphtheria, tetanus and whooping cough dTpa (Boostrix) for the School Immunisation Program. The 2005-2006 immunisation coverage for hepatitis B was 86% and dTpa (Boostrix) was also 86%. Varicella vaccine was included in the schools program at the beginning of 2006.

Sexually Transmitted Infections

This year has seen a marked increase in numbers of notified cases of gonorrhoea, chlamydia and syphilis. Except for chlamydia, which is being detected predominantly in the young heterosexual population, cases are being noted across a range of ages and sexual orientations. If these trends continue an increase in HIV infections can be predicted to follow. The data indicate that the safe sex message is not being heeded by large sectors of the population, warranting a fresh education effort.

HIV/AIDS in SA: While SA remains a state with a relatively small HIV/AIDS epidemic compared to the eastern States of Australia, the changes that have occurred there are mirrored by developments in SA: new infections, mainly through male to male sex, have increased again since 2001 after reaching a low plateau in the early to mid-1990s. The availability and success of treatments means that more people living with HIV/AIDS are living longer and healthier lives and rates of AIDS deaths are declining. Increasing new infections and decreasing death rates result in growing numbers of people living with HIV/AIDS in South Australia. In particular, the need for individual support for people living with HIV/AIDS who struggle with the personal, financial and social impact of this still-stigmatised condition has increased. In addition, a growing number of long-term survivors now present with HIV-related brain injuries and require very high-level and intensive individual care and support.

Hepatitis C Virus: It is estimated that the peak of the hepatitis C epidemic in SA occurred about 15-20 years ago, long before its existence was known. An overall estimate of 15,000-17,000 people in South Australia lives with HCV infection (1-1.5% of the population). Efforts to increase testing among populations most at risk of having contracted HCV have resulted in declining numbers of notifications of existing 'old' infections. New HCV infections are declining, but are almost exclusively acquired through sharing injecting equipment.

Hepatitis C is a slowly progressing disease; the long-term health effects are only now beginning to have an impact on the health system. While only a proportion of people infected with hepatitis C will develop severe long-term liver damage (including cirrhosis and hepatocellular carcinoma), the numbers are significant and already make up the majority of people in need of liver transplants. While a treatment for hepatitis C is now available, its success rate (between 50% and 80%) depends on the virus type. Significant side effects of this treatment mean patients are physically and emotionally affected during the 6-12 month treatment period.

Specialist Support Unit

The Specialist Support Unit within the Communicable Disease Control Branch provides medical, epidemiological, health promotion and information technology advice and expertise to support the strategic directions of the Branch.

The Unit supports OzFoodNet SA which provides epidemiological expertise within South Australia to conduct enhanced surveillance of food-borne disease and investigates large and multi-State outbreaks of food-borne disease. It also conducts special projects related to surveillance and control of food-borne disease. OzFoodNet epidemiologists are funded by specific targeted funds from the Commonwealth Department of Health and Ageing and contribute to national activities through a network of OzFoodNet epidemiologists across all state and territories.

Highlights for 2005-06:

- coordinated and assisted with the investigation of 8 food-borne or suspected food-borne outbreaks and 15 clusters of pathogens that can cause food-borne illness;
- collaborated with other states in outbreak investigations involving more than one jurisdiction;
- produced a number of resources including:
 - 'You've got what?' - a resource on infectious diseases;
 - Guidelines for the management of infectious gastroenteritis in aged care facilities;
 - resource on pneumococcal and influenza vaccination for those considered to be 'medically at risk';
- worked on the arbovirus prevention campaign *Fight the Bite* (a mosquito bite prevention campaign);
- collaborated in the development of *Guidelines for the Investigation of Food-borne Disease* for Local Government Environmental Health Officers.

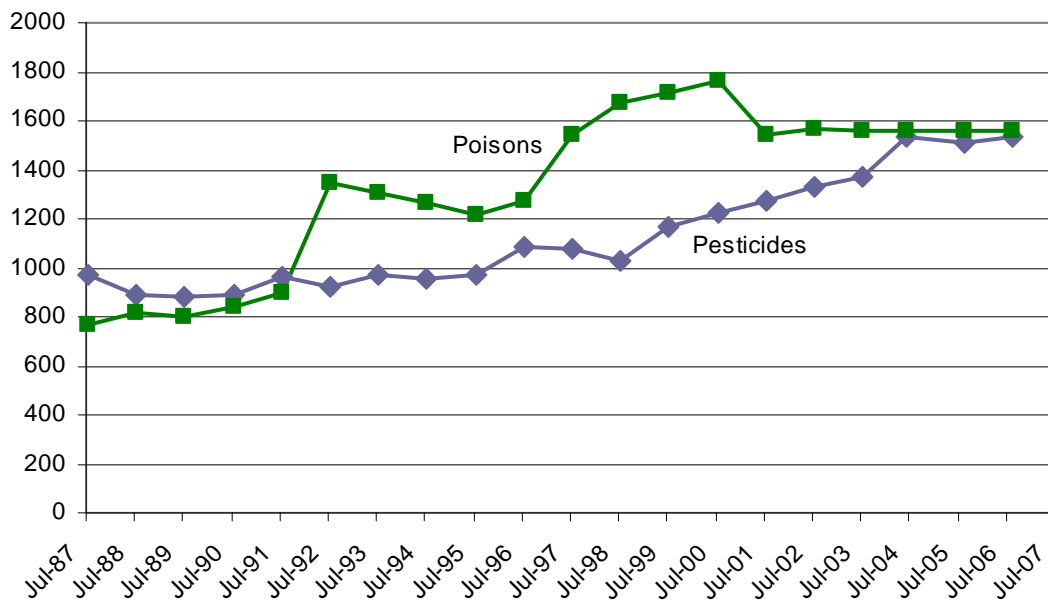
Priorities for 2006-07:

- procure and implement a replacement notifiable diseases database and outbreak management system for CDCB;
- conduct arbovirus prevention campaign;
- develop further guidelines and procedures for SA Pandemic Influenza preparedness including surveillance and laboratory guidelines;
- coordinate the *Campylobacter* study, a collaborative project (IMVS, SouthPath, PIRSA, OzFoodNet SA) examining the correlation between chicken and human *Campylobacter* isolates using molecular typing methods and antimicrobial testing;
- continue the national shiga toxin producing *E. Coli* case control study which explores risk behaviours and foods associated with sporadic (non-outbreak) cases of shiga toxin producing *E. Coli* infection;
- continue conduct of the *Salmonella* Infantis case control study.

Controlled Substances Licensing

The Controlled Substances Licensing section administers the *Controlled Substances (Poisons) Regulations 1996* (the Poisons Regulations) and *Controlled Substances (Pesticides) Regulations 2003* (the Pesticide Regulations) under the *Controlled Substances Act 1984* (the Act). The objective of the Act is to regulate or prohibit the manufacture, production, sale, supply, possession, handling or use of certain poisons, drugs, therapeutic and other substances and of certain therapeutic devices.

Figure 12: Comparison trend for number of licences issued under Pesticide Regulations and Poisons Regulations July 1986 to July 2006



Of the total 3208 licences issued during 2005/2006, 1517 licences were issued under the Pesticide Regulations and 1691 were issued under the Poisons Regulations. Figure 12 depicts the trend in the number of licences issued. Total income from licensing was \$276,931. Overall, the number of licences issued has reached a plateau. However, the number of compliance inspections and the number of pesticide licences is expected to increase on 2006/2007 due to a greater emphasis on compliance inspection.

Procedures for licence renewal have been revised due to the large number of licensees who fail to apply for renewal by the expiry date. It is anticipated the changes will improve efficiencies in issuing licences during the lead up to the four different licence expiry periods.

An important part of possession or use of controlled substance is training. Training requirements for viticulturists were reviewed in consultation with industry with the introduction of new requirements in 2005/06.

This brings viticulture pesticide operations into line with other groups within the pest control industry. Additional controls for wholesalers of Schedule 2 (Pharmacy Medicine) and Schedule 3 (Pharmacist only Medicine) products were also imposed to better define the appropriate supply of these medications.

To better inform the industry a new initiative of regular newsletters to the pesticide industry has begun. These have been well received.

A review of all exemptions from licensing under the Pesticide Regulations has commenced and will be completed in 2006/07. In consultation with the industry a new policy for issuing of exemptions will be developed.

Future Directions

Proposed activities for the next reporting period include continuation of redevelopment of the licensing database to provide increased data capture and therefore more efficient use of resources. Other planned activities include *Information Kits* for TAFE students and displays at agricultural field days. Redevelopment of web-based resources for clients is also a priority along with some minor changes to legislation to reflect current national requirements.

Drinking Water Supplies

SA Water: Drinking water is primarily regulated under the *Food Act*. In South Australia about 90% of the population is supplied by SA Water. The Department of Health and SA Water have a long standing cooperative relationship that is reflected in a Cooperative Arrangement agreement signed by the Chief Executives of both Departments.

Based on reviews undertaken by Department of Health and SA Water all supplies operated by SA Water have been classified as being of drinking water or non-drinking water quality (non-potable). SA Water provides a total of 68 water supplies throughout the State with 17 of these supplies being declared as non-potable. Non-potable supplies can be used for any purpose other than drinking and food preparation, for example, showering, garden watering, car washing and clothes washing. Residents of towns with a declared non-potable supply are advised regularly through SA Water rates notices. Publicly accessible water outlets carry signage to advise that the water is not suitable for drinking to protect visitors/tourists in the area.

Water quality in drinking water supplies is monitored through two mechanisms, regular reporting and incident reporting in accord with criteria established through the *Water/Wastewater Incident Notification and Communication Protocol*.

SA Water provides routine monthly reports summarising compliance data for all supplies. Compliance is measured against guideline values provided in the *Australian Drinking Water Guidelines*. Results are summarised in Figures 13 and 14.

Figure 13: Customer tap samples free from *E. coli*

	2004-05	2005-06
Metropolitan	99.7%	100%
Country	99.6%	99.9%

Figure 14: Percentage of samples compliant with Australian Drinking Water Guidelines health parameters

	2004-05	2005-06
Metropolitan	100%	100%
Country	99.9%	99.8%

Catalogue of small community non-SA Water supplies: In addition to the water supplies operated by SA Water there are a large number of small community supplies. A catalogue of small community non-SA Water supplies throughout the State is currently being developed. These include supplies to indigenous communities, rural and remote communities, schools and tourist facilities. Over 180 supplies have been identified to date and this number is likely to increase. The quality of these supplies will need to be assessed. A limited number may be classified as being of non-drinking water quality. In 2005/2006 three supplies were classified.

The Department of Health is working collaboratively with operators of small community water supplies, including the Department of Education and Children's Services, Aboriginal Affairs and Reconciliation Division of the Department of Premier and Cabinet and the Outback Areas Community Development Trust to ensure that supplies providing drinking water have appropriate risk management plans. The Department requires that these plans are based on application of the *Community Water Planner* or a suitable equivalent. The *Community Water Planner* is a tool for small communities to develop drinking water management plans in accord with the requirements of the Australian Drinking Water Guidelines.

Rainwater Tank Study: South Australia has the highest rate of use of domestic rainwater tanks in Australia. Over 80% of the rural populations rely on rainwater tanks as their primary source of drinking water. Over 25% of Adelaide households also drink rainwater. Previous studies have indicated that domestic tanks represent a low risk of illness. In 2006/2007 the Department of Health will collaborate with Monash University on a study to assess the health effects of drinking rainwater. The study funded by the National Health and Medical Research Council will run for 12 months with study participants completing a weekly *Health Diary* to record incidences of gastrointestinal illness. The importance of the study is further highlighted by the recent drought conditions and the demand for alternative water supplies.

Fluoridation: Fluoridation was introduced in Adelaide in 1971 and has gradually been introduced into country water supplies. Of the population supplied by SA Water, 94.7 % receive fluoridated water, 2.6% receive water containing natural levels of fluoride while 2.7% receive unfluoridated water. The only major centre without fluoridation is Mt Gambier; on the basis of a cost-benefit analysis, introduction in Mt Gambier is under consideration.

Fluoridation is identified in both the National Oral Health Plan and the draft SA Oral Health Plan as a cost effective mechanism for dental decay prevention, particularly among those who are most disadvantaged. The Department of Health supports and promotes fluoridation of water supplies.

Health Aspects of Water Quality Committee: The Governmental Standing Committee on Health Aspects of Water Quality was formed in 1981 to support communication between SA Water and the Department of Health and to provide advice to their respective Ministers on water quality matters.

The Committee has operated since that time with the Environment Protection Authority being added to membership in 1995. Its main functions include:

- government policies on health-related aspects of quality for water supplies including acceptable criteria;
- the establishment and maintenance of appropriate programs for the monitoring, assessment and reporting of health-related aspects of water quality;
- procedures for co-ordination and communication between water, environmental and health authorities, and local government;
- appropriate action on any specific aspect of water quality including monitoring, water treatment and public awareness programs.

Issues considered by the Health Aspects of Water Quality Committee in 2005/2006 include the *National Guidelines for Water Recycling*, risk management plans for recycled water schemes, water supplies in outback areas, recycled drinking water in Toowoomba, nitrosodimethylamine (a disinfection by-product), aquifer storage and recharge.

Recycled Water: Approximately 100,000 megalitres of sewage is collected and treated each year by SA Water. In 2005/2006, 18.1% of metropolitan and 17.23% of rural treated sewage was recycled.

Recycled water schemes are regulated under the *Public and Environmental Health (Waste Control) Regulations*. The Department of Health provides formal approval for recycled water schemes involving treated sewage. In addition to issuing approvals, the Department provides a consultancy for proponent, undertakes risk assessments and identifies risk management options and requirements.

The largest schemes are either operated or supplied with recycled water from the SA Water wastewater treatment plants at Bolivar, Glenelg and Christies Beach. As with the quality of drinking water supplies, recycled water quality is monitored through routine monthly reports and incident reporting. SA Water provides routine monthly reports on recycled water quality to the Department of Health.

Water Proofing Adelaide: The Water Proofing Adelaide Strategy was established as a State government initiative to set a blueprint for the management, conservation and development of Adelaide's water resources to 2025. The Department of Health has been identified as a key agency in:

- development of the National Guidelines for Water Recycling;
- development of regulation of sewer mining and greywater recycling systems.

The Department is or will be involved in associated projects:

- water proofing the South – extending the Willunga pipeline from Christies Beach Waste Water Treatment Plant into the southern suburbs (estimated saving of 1 gigalitre of water annually);
- water proofing the North – 24 stormwater projects, 2 wastewater recycling projects and an aquifer storage and recovery project (estimated saving of 30 gigalitres annually);
- using recycled water from the Glenelg Wastewater Treatment Plant to irrigate Adelaide's parklands (estimated saving of 1 gigalitre of River Murray water annually);
- extending the Virginia Pipeline Scheme (additional 3 gigalitres of recycled water used).

National Guidelines for Water Recycling: The *National Guidelines for Water Recycling* are being developed to support increased water recycling in Australia. Previous guidelines were considered to be limited in scope and were not applicable to greywater or stormwater. The Guidelines are being developed in two phases – Phase 1 deals with non-drinking water uses of treated sewage and greywater while Phase 2 addresses stormwater recycling, use of recycled water to augment drinking water supplies and managed aquifer recharge.

These guidelines are important to health departments that will be responsible for assessing health risks, identifying appropriate risk management requirements and managing public concerns. The Department of Health contributed to the development of these guidelines.

Emergency Management

The role of the Emergency Management Unit is to assist the Department of Health's response to any disaster that may occur. This involves the development of close working relationships with other agencies within South Australia and across the nation.

The training and exercising of health personnel is also a key responsibility of the Emergency Management Unit.

During 2006, the work of the Emergency Management Unit has significantly increased. Initiatives include:

Response capability of health and medical personnel to disasters: Considerable emphasis has been placed on improving the capability of health and medical personnel to respond to disasters. A wide range of training and exercise initiatives have been undertaken with a total of 98 strategic health personnel having received training.

Disaster Medical Assistance Team: Development work was commenced to establish a core group of clinicians, laboratory technicians and logistic personnel, who could be activated and brought together at short notice, to form a Disaster Medical Assistance Team to assist in the event of a State, national, or international disaster or catastrophe requiring a response from Australia.

The Department of Health held two Disaster Medical Assistance Team Training Sessions in 2006, which have helped to identify appropriate health and medical personnel who have volunteered to participate as part of a South Australian Disaster Medical Assistance Team

A Department of Health database of volunteers has been established and a pool of equipment and supplies to be issued to a Disaster Medical Assistance Team prior to deployment has been identified.

Emergency Management Website: The development of an Emergency Management web portal has been set up to provide users with up-to-date information and links for emergency management professionals. A Disaster Medical Assistance Team web page has been developed to support the Disaster Medical Assistance Team with information and links for members.

South Australian Medical Stockpile: Administrative support has been provided to establish South Australia's stockpile of medicines and equipment. The stockpile is available for a response in a disaster, emergency or a pandemic influenza outbreak.

Emergency Management Training:

- planning and scheduling assistance for Major Incident Medical Management & Support Training – 3 day course – twice a year, October 2005, March 2006;
- involvement in *Exercise Mercury*, October 2005;
- planning and scheduling assistance for health involvement in the SA Chemical, Biological, Radiological and Nuclear Incident and Emergency Management Training Course – 3 day course – twice a year, September 2005, April 2006;
- updating and continued development of Emergency Management Central Training Database;
- involvement in Exercise Eleusis Avian Influenza Exercise, November 2005;
- participation in an *Emergo-Train* Exercise at Flinders Medical Centre, August 2005;
- organisation of SA participation in 3 day Mt Macedon *Train the Trainer Emergo-Train System* course, February and March 2006.

Future Strategies

The aims of the Department of Health Emergency Management Unit for 2007 are:

- to further extend the training of health personnel, in Emergency Management and Government Radio Network;
- to provide support to the development of a generic Hospital-Based Disaster (Major Incident) Training Course that will be appropriate for hospital staff.

Environmental Noise

Environmental noise has been acknowledged by the World Health Organisation as a significant environmental risk factor for health outcomes such as noise annoyance, loss of quality of life, sleep disturbance and cardiovascular health effects.

In Europe, noise nuisance has been widely studied on a community level because it is an easy first-line indicator for stress-related unwanted noise. The noise annoyance surveys were combined with real-life noise measurements, indicating a linear exposure response relationship between the number of people annoyed and the noise levels measured. The surveys and dose-response curves are now invaluable tools for noise assessment, regulations and management within the European Union.

The South Australian Noise Survey: The European survey questions for assessment of noise annoyance were used in South Australia with a view to support future local environmental noise policy. In addition to the noise questions people were also asked about their quality of life using a special set of questions related to their health status (SF36). The questions were included into the South Australian Health Omnibus Survey.

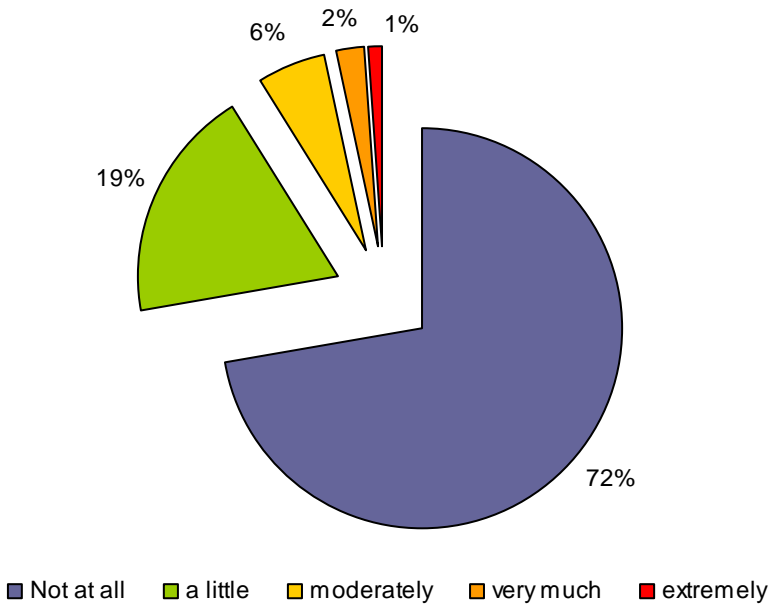
The results showed that noise from road transport was reported most often as a source of annoyance with 27.7%, followed by noise from neighbours 22.0%. The percentage of

people who were very much to extremely annoyed by road transport and neighbourhood noise, as shown in Figure 15, was relatively small in the representative sample, but equates to a sizable number of people when extrapolated to the whole of the South Australian population with 48,419 and 41,083 people, respectively.

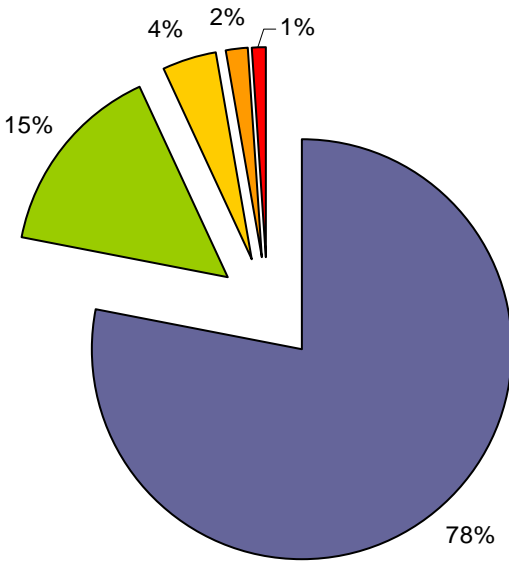
Compared to the same surveys conducted in Europe, South Australia’s environmental noise problem is not as extensive. For example in the UK, 40% were annoyed and 8% highly annoyed by road transport, compared to 28% and 3%, respectively in South Australia. In relation to noise from neighbours, 37% were annoyed and 9% highly annoyed in the UK compared to 22% and 3% respectively in South Australia. The survey also reported that in relation to road transport and neighbourhood noise all health indicators measured showed that people who feel highly effected by noise have a significantly decreased health status. Whether this is due to noise exposure or due to other reasons cannot be determined through this survey and will require further investigations.

Figure 15: Results of the South Australian Noise Survey with regards to a) road transport and b) neighbours

a) Noise from road transport



b) Noise from neighbours



The findings of this report are currently being discussed with a number of agencies in South Australia which form a noise working group. The group is led by the Environment Protection Authority and includes the Department of Health, the Department of Transport Energy and Infrastructure, Planning SA and the Adelaide City Council. The initial aim of the group is to determine the extent of the population that is exposed to noise in excess of WHO noise guidelines, using information from this survey and from noise modelling. This will lead in the short term to an extensive noise map of greater Adelaide and in the long run, to strategies providing improved noise management in South Australia.

Food

Food-borne disease investigations

The Communicable Disease Control Branch of the Department of Health conducts epidemiological investigations into food-borne disease outbreaks in conjunction with local government Environmental Health Officers and the Department of Health Food Policy and Programs Branch. The Food Policy and Programs Branch and local government Environmental Health Officers provide food technology and environmental investigation expertise, and perform environmental and food premise investigations. Primary Industry and Resources South Australia staff also assists in trace back investigations. The Food and Environmental Laboratory at the IMVS undertakes the microbiological testing of food and environmental samples.

Epidemiological and environmental information including reports of onsite visits to premises, food history questionnaires of cases, and laboratory results of stool and food samples is collated and used to provide a descriptive and analytical picture of the outbreak. Epidemiological analysis may demonstrate a statistical association between illness and the consumption of a particular food item.

Microbiological evidence can suggest an association when a very similar or identical microorganism is found in both cases and a food vehicle suspected on epidemiological grounds. The specific food vehicle or source of an outbreak is difficult to identify, as often there is no remaining food at the start of the investigation as food may have been consumed from anywhere between 1 day and up to 90 days prior to illness. Additionally, faecal samples from affected persons are not always provided for analysis.

Case Study: An outbreak investigation: Hospital setting, *Listeria monocytogenes* phage type 01

Four cases of *Listeria monocytogenes* serotype 01 notified between October and December 2005 were investigated as a cluster. Two of these cases were hospitalised in the same health care facility in metropolitan Adelaide. Molecular genetic typing of isolates from these two cases had similar patterns. Molecular genetic typing of isolates from the other two cases was different from each other and also different from the two cases described above.

Food items (including unopened smallgoods from a local manufacturer) from the health care facility kitchen tested positive for *Listeria monocytogenes* 01 and had a similar molecular genetic pattern to the two human cases associated with that facility. Samples from the meat manufacturer that supplied cold ready to eat meats to the hospital were also positive for *Listeria monocytogenes* 01 and had a similar matching molecular genetic pattern. The small goods company issued a consumer level recall for a range of ready to eat products.

The investigations undertaken in the period of July 2005 to June 2006 are summarised in Figure 16 and described in more detail below.

Figure 16: Summary of food-borne or suspected food-borne disease in SA during the period of July 2005 to June 2006

No	Month of Outbreak	Organism	People at risk	Location	Number ill	Cases positive	Transmission mode	Evidence
1	October 2005	<i>L.monocytogenes</i> serotype 01	unknown	Health Care Facilities and in the community	4	3	Cold meats	D & M
2	November 2005	<i>Campylobacter</i>	unknown	School	36	14	Unknown	D & S
3	December 2005	Norovirus	unknown	Restaurant	22	7	Unknown	D
4	January 2006	STM 108	50	Private residence	7	3	Home made dessert topping	D & M
5	February 2006	<i>Salmonella</i> Anatum	Unknown	Restaurant	12	12	Unknown	D
6	May 2006	STM 108	Unknown	Community	23	23	Ravioli	D, S & M
7	June 2006	STM 9	Unknown	Hotel/ Restaurant	4	4	Vegetable and cheese salad	D, S

These data refer to outbreaks where investigations have been substantially completed. Data is subject to revision.

M (microbiological): Identification of an organism of the same type from cases and the suspect vehicle, vehicle ingredient(s), detection of toxin in faeces or food.

D (descriptive): Other evidence, usually descriptive or local investigations indicating the suspect vehicle or mode of transmission.

S (statistical): A significant statistical association between consumption of the suspect vehicle(s) and a case: STM PT - *Salmonella* Typhimurium phage type

Food safety management

Identifying food business sector risk: The Department of Health is a member of the Food Regulation Standing Committee Risk Profiling Working Group which is charged with overseeing the development of a national framework for the identification of food business sector risk.

In December 2003 the Australia New Zealand Food Regulation Ministerial Council endorsed *Policy Guidelines on Food Safety Management in Australia: Food Safety Programs*. In endorsing the policy guidelines the Ministerial Council noted that "the key is to match the degree of risk for specific food business sectors that combinations of food type, processing, handling and clientele pose. This is where the concept of risk profiling provides the foundation for food safety management in Australia."

In April 2005, the Commonwealth Department of Health and Ageing, on behalf of the Food Regulation Standing Committee, initiated a project to develop a Business Risk Profiling Framework for Australian food business sectors. The Framework would classify business sectors into an appropriate tiered food safety risk category using a science based and transparent method. Following consultations, the Framework was released for public consultation. If approved by the Ministerial Council the Framework will provide a nationally agreed and consistent approach for government to classify business sectors on the basis of food safety risk and will assist future policy decisions on food safety management.

Introduction of Food Safety Programs: Mandatory Food Safety Plans have been agreed nationally for businesses providing food to vulnerable populations in hospitals, aged care facilities, childcare centres, via delivered meals organisations like Meals on Wheels, and proposed for caterers to the general public. A Food Safety Plan is a document that identifies a business' potential food safety hazards, identifies means of control and monitoring of controls, establishes corrective action and record keeping. The entire program is to be audited periodically by a Department of Health approved auditor. Food Standards Australia New Zealand is developing new Standards for these proposals. The proposed vulnerable population Standard was included into the Code in 2006. The proposed catering Standard is likely to be finalised in 2007.

Department of Health is working with industry and local government in preparation for the new standards. Generic Food Safety Plan templates have been developed to assist the hospital, aged care and childcare sectors to meet the proposed requirements. Department of Health has also assisted Meals on Wheels SA to develop a program for

their forty fresh cook volunteer kitchens. A template is planned for the catering sector. Department of Health is establishing the framework within which Food Safety Plans, auditing and auditors will be managed. The Department of Health will conduct the food safety audits of public hospitals and will continue to assist Meals on Wheels and other not-for-profit community based delivered meals organisations.

Assisting bakeries produce safe food – interim report: Since 1995 there have been seven food poisoning outbreaks associated with bakery products in South Australia. The foods implicated were high risk products primarily sweet bakery products with cream and custard fillings and cold set cheesecakes. There are 528 bakeries in the food business notification data base spread across 47 different council authorities. However not all of these businesses manufacture the high risk products on site.

To assist small bakeries in supplying safe food the Department of Health has collaborated with local government Environmental Health Officers to develop advice that identifies the key factors in a bakery that must be controlled to ensure food safety. Information packages were sent to the 47 council authorities in March 2006. Local council Environmental Health Officers were requested to distribute the information to bakeries, perform targeted inspections of manufacturers of high risk products and provide a brief report each quarter on inspection progress and outcomes. The first reporting date was 30 June 2006.

100 bakeries had been inspected (19%). Of these, a number were inspected more than once in the quarter for a total of 119 inspections:

- 99 Routine inspections;
- 10 Follow up inspections;
- 9 Complaint generated inspections;
- 1 Pre-opening inspection.

69 bakeries (69%) had one or more non-compliance in the areas identified as risk factors. The total number of non-compliances was 251.

Effective Administration of the Food Act

To facilitate effective administration of the Act in South Australia and implementation of food safety standards, Department of Health undertook a number of activities in 2005-2006 including:

- assisting in the clarification of the roles and responsibilities of local government and the Dairy Authority of SA, in relation to the dairy industry;
- establishing a Department of Health-Local Government Strategic Planning Working Group to set the agenda for a strategic planning day regarding Food Act administration issues;
- participating in and supporting the Food Special Interest Group of the *SA Branch of the Australian Institute of Environmental Health*.

State-wide coordination of food issues

Food Regulation Interdepartmental Committee: A Food Regulation Interdepartmental Committee was established in October 2005 to facilitate communication between relevant government organisations regarding the operation of the food regulatory scheme, food safety and policy, and compliance issues. The Interdepartmental Committee met twice in 2005/2006 and will continue to meet at least twice per year.

South Australian Meat Food Safety Advisory Committee: Department of Health is a prescribed member of the South Australian Meat Food Safety Advisory Committee. The Primary Produce (Food Safety Schemes) (Meat Food Safety Advisory Committee)

Regulations 2005 was gazetted in December 2005 to create the South Australian Meat Food Safety Advisory Committee.

Premier's Food Council Issues Group: Department of Health is a member of the Premier's Food Council Issues Group. The Food Issues Group is a whole-of-government group of senior officers who have the authority to commit the support and resources of their agencies to support implementation of the State Food Plan and to address issues raised by the Premier's Food Council. Meetings of the Food Issues Group are chaired by the Convenor of the Premier's Food Council.

Review of the *Gene Technology Act 2000* and *Gene Technology Agreement*: The Gene Technology Intergovernmental Agreement and the *Gene Technology Act 2000* (Commonwealth) required a review of the national regulatory scheme, including the operation of the Act and the structure of the Office of the Gene Technology Regulator, to begin as soon as possible after the fourth anniversary of the commencement of the Act (June 2001).

On 24 May 2005 the Gene Technology Ministerial Council released the terms of reference for the review and a call for submissions was made. Nearly 300 submissions were received and a number of key concerns about the gene technology regulatory system were identified. A South Australian whole-of-government submission was prepared for the review panel and submitted in August 2005. The SA submission can be found at:

www.health.gov.au/internet/wcms/publishing.nsf/Content/gtreview-submissions-sa.htm

This review did not discuss the pros and cons of GM crops or food. It examined the current national regulatory scheme for dealings with GMOs, which has been in existence since June 2001, and recommended changes to the Commonwealth Gene Technology Act. The final report was presented to the Gene Technology Ministerial Council and tabled in the Australian Parliament on 27 April 2006 and is available at:

www.health.gov.au/internet/wcms/publishing.nsf/Content/gtreview-report.htm

Review of the *Gene Technology Regulations 2001*: Since the commencement of the *Gene Technology Act 2000* (Act) and the Regulations in mid-2001, the Regulator has received feedback from a number of key stakeholders on how to improve the effectiveness of the Regulations and the clarity of some provisions. In response to that feedback, the Regulator has initiated a review of the Regulations as a separate and distinct process from the review of the Act.

The proposed amendments relate to technical and operational matters that will enhance the effectiveness of the Regulations and assist user compliance by making them clearer and easier to understand.

The Regulator released the draft Amendment Regulations and a comprehensive supporting information package for an extended consultation period between 21 October 2005 and 31 January 2006.

State and Territory governments, accredited organisations, the Gene Technology Technical Advisory Committee, the Gene Technology Ethics Committee, and Australian government agencies, as well as other key stakeholders, including the public, were included in the consultation process.

Monitoring compositional and labelling compliance with the Food Act

The Food Policy and Programs Branch conducts sampling surveys of various foods that are of public health concern or to confirm compliance with the composition and labelling requirements of the Code. The Branch completed a number of surveys throughout 2005/2006. Past and current surveys can be found on the Branch website at:

www.health.sa.gov.au/pehs

Surveys include:

- the assessment of acrylamide levels in carbohydrate based foods;

- the assessment of nutrition, health and related claims on food levels;
- a survey of chloramphenicol in imported crab meat;
- the percentage of 'fat free' and 'low fat' claims for yoghurt;
- compliance levels of sulphur dioxide in mince meat and sausages – interim report.

Case Study: A survey of trans fatty acids in fast food

Medical literature reports that consumption of 5g trans fatty acid (TFA) per day is related to a 25% increase in risk of heart disease. TFA is associated particularly in processed fast foods but also occurs naturally.

The Department of Health analysed the trans fatty acid (TFA) content of fast food sold by McDonalds and KFC in Adelaide, to compare it with a similar study, reported in the New England Journal of Medicine in April 2006, of fast foods in 20 other countries. In the Adelaide study, fries and chicken nuggets were purchased from 8 McDonalds outlets and 8 KFC outlets. Results of the Adelaide study are indicated below.

The results of this pilot survey have been provided to Food Standards Australia New Zealand to inform its review of the regulation of trans fatty acids in foods.

Other studies, including one by CHOICE (online 2004/05 reviewed 10/06) and the study in the New England Journal of Medicine, have identified that many fast foods with lower trans fat content had higher levels of saturated fat. However, the experience in countries, other than the USA, indicates that TFA can be largely replaced by unsaturated fats without increasing the cost or reducing the quality or availability of foods.

In line with regulation overseas, regulation in Australia could involve labelling of the TFA content of foods, as in the USA, or the establishment of a maximum allowable TFA content of foods, as in Denmark, and this will need to be coordinated at the national level.

Figure 17: Summary of TFA, saturated fat and total fat content of products

Serves	Fat profile	
	8 McDonalds outlets	8 KFC -outlets
171g fries and 160g chicken nuggets	Total TFA content is on average 4.8g with a range of 4.0g - 5.1g	Total TFA content is on average <0.4g with a range of <0.4 - <0.5g
171g fries	9% TFA as % of total fat (average 8 outlets)	<2% TFA as % of total fat (average 8 outlets)
160g chicken nuggets	11% TFA as % of total fat (average 8 outlets)	<1% TFA as % of total fat (average 8 outlets)
100g fries	17g fat and 1.7g saturated fat (average 8 outlets)	11.1g fat and 5.7g saturated fat (average 8 outlets)
100g chicken nuggets	20g fat and 3.2g saturated fat (average 8 outlets)	15.5g fat and 6.5g saturated fat (average 8 outlets)

Contributing to National Food Standards Setting

Advice to Food Standards Australia and New Zealand (FSANZ) regarding proposed amendments to the Food Standards Code: A total of 44 applications and proposals to amend the Food Standards Code were assessed by the Department of Health during the 2005/2006 financial year and advice provided to Food Standards Australia New Zealand.

Some of the issues raised in these applications/proposals included:

- country of Origin Labelling of Food;
- primary Production & Processing Standard for Poultry Meat;
- primary Production & Production for Dairy;

- review of the Novel Food Standard;
- phytosterol esters as ingredients in breakfast cereals;
- phytosterol esters as ingredients in low fat milk and yoghurt;
- formulated Beverages;
- food derived from GM Cotton;
- nutrition, Health and Related Claims;
- consideration of mandatory fortification with folic acid and iodine;
- food Safety Programs for food service to vulnerable populations;
- food Safety Programs for the producers of manufactured and fermented meats.

Department of Health representation at standards development advisory committees: FSANZ has established a number of advisory committees to provide advice regarding the development or review of Standards. In this financial year the Department of Health participated in a number of these advisory committees.

Contributing to National Food Regulation Policy Settings

The Department of Health contributed to the development of national food regulation policy through the national food regulatory scheme. Examples are:

- Food Regulation Standing Committee Working Group Reviewing the Food Standards Australia New Zealand Assessment and Approval Process;
- Food Regulation Standing Committee Sub-group on Addition to Food of Substances Other Than Vitamins and Minerals;
- National Food Policy Consultation Forum held in Adelaide in April 2006.

Strategic directions for 2006/2007

Key work priorities for the Food Policy and Programs Branch Department of Health in 2006/2007 include:

- front of pack food nutritional 'traffic light' labelling;
- strategic planning with local government, including review of the Memorandum of Understanding between the Minister for Health and the Local Government Association of SA, Inc regarding roles and responsibilities under the Food Act 2001;
- a joint Department of Health –Primary Industry Resources SA food safety work program, including review of the MOU between Department of Health and Primary Industry Resources SA 'Surveillance, Incident Response and Regulation of Food Safety in the Primary Production Sector In South Australia';
- implementation of Food Safety Plans in the vulnerable populations sector, including establishing a Food Safety and Audit Team to establish statewide systems, assist industry and local government and undertaking auditing of public hospitals and not for profit community delivered meals organisations;
- implementation of a Monitoring and Surveillance Strategy and 3 year Food Monitoring and Surveillance Plan.

Health Impact Assessment

The term 'health impact assessment' is used to describe the consideration of the health aspects of policies, programs and proposals with the aim of maximising benefit and eliminating or reducing health risks.

In addition to assessments of government policy, the health impact assessment of development proposals is a key task of Applied Environmental Health within the

Department of Health. Under the Development Regulations 1993, only crematoria are required to be referred to the Department of Health for health impact assessment (no referrals were received during the reporting period). Outside of legislative requirements, many development proposals were referred for comment to the Department of Health as health is increasingly regarded as a key driver by the Environment Protection Authority in terms of environmental protection and a key issue in urban and regional planning by staff of Planning SA.

Incorporating health impact assessment into approval processes for planning and development initiatives, provides timely, cost effective and efficient means for identifying relevant health issues early in the development process thus reducing health risks.

For the 2005/2006 year, health impact assessments were conducted on the following:

- The State Planning Strategy (Metropolitan and Outer Metropolitan volumes);
- The Better Development Plan Modules;
- 23 Local Government Plan Amendment Reports;
- 186 informally referred development applications;
- 6 major developments (Bradken Resources Foundry Expansion Kilburn, Southern Ocean Lodge Hanson Bay Kangaroo Island, BHP Billiton Olympic Dam Expansion, Ceduna Keys Marina and Community Centre, Cape Jaffa Anchorage and Mannum Waters Marina and Residential Development);
- 1 major project (Northern Expressway);
- 2 mining lease applications (Terramin's Angas Project for an underground zinc lead mine at Strathalbyn and Oxiana Ltd's Prominent Hill open cut copper gold mine).

Health Inequity

Health and wellbeing are the outcome of complex interactions of social, biological, economic and ecological environments. Evidence shows that there is a consistent relationship between health and socio economic status and between inequalities in health and mortality and morbidity. Some degree of difference or inequality in health outcome is inevitable and unavoidable. Health inequities are those differences in health status that are considered to be unnecessary and avoidable as well as unfair and unjust.

Data trends

- people from lower socio-economic backgrounds generally have poorer health outcomes than those from affluent backgrounds;
- the evidence highlights a relationship between low socio-economic backgrounds and a range of health issues including cancer, diabetes, mental health issues, child health, obesity and cardiovascular health.

Equity Action Planning

The Department of Health is engaged in Health Equity Action Planning to identify priority actions which can be implemented to improve health equity. A high level working group has been established, with membership from the Department of Health, regional health representatives and external experts and stakeholders. The following actions are being undertaken in the development of Health Equity Action Planning:

- a review of the international and national literature has identified evidence based approaches to reducing inequity;
- two Workshops have been held to review the evidence related to health inequity, with particular reference to the targets in South Australia's Strategic Plan. The aim is to

identify evidence-based equity-focused actions for implementation across the Health system;

- extensive consultation has been held with external experts, senior government representatives, and those leading action on the targets in South Australia's Strategic Plan that relate to health.

The aim of Health Equity Action Planning is to provide the health system with a consistent and proven set of methodologies and approaches aimed at improving equity. It is expected that these methodologies and approaches can be incorporated in health planning and development across the health portfolio.

Health Promotion through the Arts

The Department of Health has a Memorandum of Understanding signed with ARTS SA until June 2007 which outlines a commitment to improving the health and wellbeing of all South Australians through the arts. Sponsorship for activities that promote health initiatives and healthy lifestyles, are available under the following categories:

General sponsorships: sponsorship for arts and cultural initiatives and events, which aspire to excellence, in one or more art forms, with public outcomes that offer significant health promotion opportunities.

Community arts: supports the significant role the arts can play in building community well-being through a wide range of projects, across all art forms, that:

- achieve participation in creative activity for members of the community experiencing disadvantage due to geographic, social or economic factors;
- make a significant contribution to building stronger, more cohesive communities;
- encourage partnerships between arts and non-arts organisations;
- incorporate health promotion and provide opportunities to effect healthy changes in environments in which activities are held.

Partnerships for healthy communities: supports partnerships between the arts and human services sectors, which bring together the arts and specific disadvantaged communities to address social inclusion and community capacity building.

In 2005/2006:

- 64 organisations were provided with funding;
- 2 key health messages were promoted, positive mental health through *Positive Minds Attract* and *Healthy Lifestyles* through *be active* and *Go for 2 fruit and 5 veg*;
- all organisations promoted *We're smoke-free*;
- 30 organisations worked with the *Healthy Lifestyles* message;
- 34 organisations worked with *Positive Minds Attract*.

All organisations are implementing health promotion plans to achieve structural, educational and promotional objectives. They received Health Information Kits to assist them implement their health promotion plans:

- the structural objectives include policy development such as nutrition policies, behaviour management policies, smoke-free policies;
- the educational objectives include attending training, distributing pamphlets, holding seminars, publishing newsletter inserts;
- promotional objectives include displaying signage, publishing adverts, providing giveaways;
- each organisation is evaluated against their health promotion plan at the end of the financial year.

Healthy Public Policy

The *Ottawa Charter for Health Promotion*, a foundation document for modern public health practice, recognises the development of healthy public policy as a key strategy for promoting and protecting the community's health. Public Health in South Australia is engaged across a wide field of policy issues at the State, national and international level, designed to bring about improvements in the strategic policy, regulatory, and legislative environment.

At the international level South Australian public health practitioners have been involved with the World Health Organisation (WHO) concerning water quality and the health aspects of water desalination. Nationally there is South Australian representation on many aspects of public health, including environmental health, food standards and food safety, gene technology, chronic disease and injury prevention, mental health promotion, nutrition, prevention and control of infectious disease including sexually retransmitted diseases. At the State level public health practitioners ensure that health aspects are considered across a wide range of areas of government and community activities including, environmental protection, safe water supplies, food regulation, promotion of good nutrition and physical activity.

Heatwave

Morbidity and mortality associated with heat waves in South Australia

The recent heatwaves in Europe sparked interest in studies investigating health effects associated with thermal stress, especially as these events may be indicators of climate change. In 2003, the World Health Organisation reported the death of 14, 802 extra people during a nine day heatwave in France and excess mortality was also observed in other European countries.

There has been overall consensus that, in the course of climate change, the world average temperature will increase by 2-3% degrees centigrade by the year 2100. The latest CSIRO projections for South Australia indicate mean annual temperature increases between 0.8 to 3.5°C by the year 2070. This means that summer temperatures are likely to increase including the numbers of heat waves stretching the adaptation of the population to temperature extremes not yet experienced.

Health surveillance data from some of the European extreme heatwaves suggest that they are associated with an increase in acute morbidity and mortality, particularly in the elderly age group. In South Australia we have regular annual heatwaves, defined by three or more days of temperature above 35° C, but we do not know whether this is associated with excess risk to health. Baseline data for health risks during heatwaves would be valuable for current planning and prevention as well as for predicting the future burden due to climate change.

The Department of Health conducted a study investigating risks to health in metropolitan Adelaide associated with heatwaves utilising data on ambulance use, hospital admission and mortality. Health risk estimates were obtained by comparison of health data during heatwave episodes with rates during non-heat wave episodes controlling for trends in increases of cases over years and adjusting for season.

Temperature data showed 31 heatwaves from 1993-2006, with a mean temperature of 38° C and a maximum of 44.3° C extending over 120 days. The results for the health outcomes indicate that during heatwaves significant increases in overall ambulance use of 4% ($p < 0.001$) were observed, 20% ($p < 0.01$) for work related injuries in the 15 to 64 age group and 28% ($p = 0.02$) for respiratory events in the 5-14 age group. Significant decreases were seen in overall falls and sport related injuries.

Overall hospital admissions were increased during heatwaves by 6% ($p < 0.001$), mental health admissions by 7% ($p < 0.001$), renal admissions by 14% ($p < 0.001$) and ischemic

heart disease by 8% ($p < 0.03$) in the 65-74 age group. A significant decrease in the admission for ischemic heart disease by 10% was seen in the 75 plus age group. Mortality was generally decreased during heatwaves, even significantly in some disease categories, by 5-15%, and this was observed across the age groups. The exception is mortality due to mental health with an increase in risk of 2.6 ($p < 0.01$) in the 65-74 age-group.

These hospital admissions results in metropolitan Adelaide are consistent with evidence from international studies showing some increases during heatwaves. Overall, increased mortality was not increased during heat waves which is different to findings from studies in other countries. This possibly indicates that the population in Adelaide is currently well adapted to hot weather spells within the range of temperatures experienced between 1993 and 2006.

Indigenous Environmental Health Worker Initiative

The Department of Health has been building environmental health capacity within remote Aboriginal communities through the development of a community based Indigenous Environmental Health Worker workforce in South Australia. This project recognised that to build sustainable improvements in environmental health and environmental health management, it was necessary to design strategies with the local community based on the principles of self determination, equity and justice.

This focus proved more effective than one which simply focussed on the technical issues concerning environmental exposures and remediation in Indigenous communities.

The Indigenous Environmental Health Worker initiative was further developed during 2005/2006. Following 2004/2005 funding allocations to the communities of Mimili, Ernabella, Amata and Kalka for tools, equipment and vehicles, the Anangu Pitjantjatjara Yankunytjatjara Lands Task Force provided additional funding this year for the employment of four community-based Indigenous Environmental Health Workers. The Department of Health's Applied Environmental Health Branch committed staff to provide on the job support to each Indigenous Environmental Health Worker in his community for one week each month.

Batchelor Institute of Indigenous Tertiary Education provided the workers with vocational education at Certificate II level (Environmental Health) in one week blocks each month on the Anangu Pitjantjatjara Yankunytjatjara Lands.

Training activities undertaken by the Indigenous Environmental Health Workers included repairing defective septic tank systems, inspecting sanitary plumbing installations, assisting with waste management tasks, assessing overcrowded housing situations and participating in dog health programs.

Issues of Anangu 'job readiness' and community capacity to support and supervise local employees were constant challenges. During the second year of this project communities were obliged to recruit new Indigenous Environmental Health Workers after the initial appointees resigned from their positions. One community elected to postpone recruitment until governance and support issues had been resolved. However, despite obstacles, those participating in the initiative experienced full-time paid employment, formal education and on the job support as well as access to tools, equipment and transport.

The Indigenous Environmental Health Worker Initiative proved to be both challenging and rewarding. Because of its innovative and integrated approach, significant commitment of Departmental resources was required to maximise the community capacity building aspect of the initiative. The initiative was one of the first Indigenous Environmental Health Worker programs in Australia to provide real jobs with real wages, formal vocational education and on the job support actually delivered within the community.

Public health activity in injury control aims to prevent new cases of injury from occurring and minimise the injury severity in cases that do occur.

From just after the first year of life until middle age, injury is the biggest killer of the population. Unlike many other health issues, injury is primarily an affliction of youth. When a young person dies or sustains a disability from injury, perhaps from a motor-vehicle accident, a drowning or a suicide, the community is deprived of a potential lifetime of contribution that the young person might have made.

Injury has been considered one of the top national health priority issues since the late 1980s. Over many years, injury has been second only to cancer in overall cost to society, therefore injury prevention is a very important public health activity.

It has been calculated that if present rates of injury due to falls are left unchecked, all existing hospital bed capacity in South Australia will be taken up by elderly people recovering from a fall.

What are we doing?

Public health practitioners aim to prevent people from being exposed to injury hazards by:

- educating people about injury preventing life styles;
- helping the public recognise other important opportunities for prevention of injuries;
- raising the awareness of injury prevention as a major priority for all sectors.

Public health practitioners are also collaborating closely with specialist clinicians and ambulance services to continuously monitor and evaluate emergency management systems and patient care.

Traditionally, the health sector has played a limited role in the primary and secondary prevention of injury, preferring to be involved only in clinical trauma care. In the mid 1980s however, the South Australian Government recognised that there was a special, value-adding role in injury prevention for the public health sector. Consequently South Australia became the first jurisdiction to establish an injury surveillance system, and to dedicate other health resources specifically to injury prevention. The benefits of this investment soon became apparent, with South Australia leading the nation in implementation of:

- mandatory child restraints;
- mandatory eye-level car brake lights;
- bunk bed standards;
- exercise cycle standards;
- roadside dining guidelines;
- playground surfacing standards;
- home modification for falls prevention.

These achievements represent a small sample of innovations in public health policy which supports increased community safety.

South Australian public health practitioners continue to study world best safety practice, with a view to designing or adapting programs of prevention. Working in close collaboration with other interested parties, including local government, the SA Coroner, other state government departments, interstate colleagues, Standards Australia, and the private sector, public health practitioners are able to contribute their special data and their special safety perspective to policy development and environmental design.

Future Directions

Although South Australia has an excellent record in the advancement of public safety, more work is required. Some issues can only be approached on a national basis.

Two examples of this involve better packaging of pharmaceutical products to prevent accidental poisoning of young children, and mandatory restraint of child vehicle occupants over the age of one year, in standards-compliant, size-appropriate devices.

At present there is no Australian standard for blister packs, in which 80% of Australian tablet medications is sold. Similarly, there is no requirement for children older than one year in vehicles to use other than an adult seat belt, which is far from ideal for child-size bodies. Quite a few overseas jurisdictions have already addressed this issue, with a resulting benefit in child safety. In future, these and other evidence-based strategies will be employed to reduce the impact of injury on South Australians.

Insanitary Conditions

The *Public and Environmental Health Act 1987* (the Act) defines a premises as insanitary if it:

- a) is in a condition that gives rise to a risk to health;
- b) is so filthy or neglected that there is a risk of infestation by rodents or other pests;
- c) causes offence to the owner of any land in the vicinity;
- d) emits offensive materials or odours;
- e) is for some other reason justifiably declared as insanitary.

In the 2005/2006 period, local government reported the following activities related to insanitary conditions under the Act:

- 1,671 complaints were received by 43 councils;
- 70 notices were served by 24 councils requiring remediation of the insanitary condition;
- 5 expiation notices were issued.

The Department of Health through the Applied Environmental Health branch provides support to local government in administering the Act as it relates to insanitary conditions. The Public and Environmental Health Council hears appeals of notices served under the Act. During 2005/2006, a number of representations were made from local government to the Department of Health expressing concern with the potential to apply insanitary condition provisions to a range of newer circumstances that confront Officers with increasing frequency.

Environmental Health Officers report an increase in the proportion of insanitary conditions involving a person occupying a premises who is elderly or has mental health (for example, obsessive, compulsive hoarding) or substance abuse issues. Officers report that they can only achieve a temporary remediation of the insanitary condition arising in these circumstances and the condition tends to reoccur as the occupier does not have the capacity to maintain their property on an ongoing basis.

In recognition of this phenomenon, the Department of Health has initiated an interagency project to develop appropriate resources for local government to assist them with the management of insanitary conditions where mental health is suspected to be a contributing factor. The project, which will involve a review of other state's response to this issue, has received in-principle support from the Public and Environmental Health Council.

Department of Health staff were also involved in developing a training course targeted at Local Government Environmental Health Officers on the management of insanitary conditions in November 2005. Entitled *Beyond Insanitary – An Holistic Approach to the*

Management of Insanitary Conditions, the course addressed the issue of mental health and hoarding behaviours that may give rise to insanitary conditions.

The scope of interpretation of existing insanitary condition legislation is also a matter of debate by practitioners. Insanitary condition provisions are being proposed as a method of dealing with environmental matters (such as industrial discharges and their potential health impacts). A Department of Health working group has also been considering the application of the legislation to prevent access to and require the clean up of premises used as clandestine drug laboratories. These issues do not fit the circumstances for which the legislation was originally contemplated, but the provisions may have application as these circumstances have the potential to present a risk to health.

The matters surrounding the wider application of insanitary condition legislation are being considered as part of the review of the *Public and Environmental Health Act 1987*.

Mosquito Management

The Department of Health is involved in a number of mosquito management initiatives to reduce the incidence of mosquito borne disease and mosquito related nuisance.

Mosquito borne Ross River and Barmah Forest arboviruses (RRV and BFV respectively) notifications in South Australia over previous years suggest a general pattern of epidemics occurring every 3-4 years. RRV and BFV notifications over summer 2005/06 were the first in epidemic proportion since 2000/01. This emphasises the importance of a combination of surveillance, control of mosquito breeding sites and effective community education to reduce mosquito-related public health risks.

'Fight the Bite' campaign: The 'Fight the Bite' campaign was commenced in summer 2004/05 and continued in 2005/06. The campaign is aimed at personal and household protection against mosquitoes to prevent the spread of mosquito borne arboviruses. The 'Fight the Bite' campaign is becoming increasingly familiar in SA through the distribution of pamphlets and posters, advertisements in Messenger and Sunday Mail newspapers and a media release by the Minister for Health.

South Australian Integrated Mosquito Management Strategy: The South Australian Integrated Mosquito Management Strategy (SAIMMS) was initiated in response to the need to promote and integrate effective, economical and environmentally sensitive mosquito management practices throughout South Australia. SAIMMS was developed in collaboration with key stakeholders from local, state and federal governments. The Strategy is anticipated to be released in January 2007.

One activity under SAIMMS is the development of a predictive computer model for mosquito and arbovirus proliferation by the University of South Australia. The model is intended to provide advance warning of the combination of various conditions (including climate) that may lead to an increase in mosquito numbers and the risk of spread of mosquito borne arbovirus.

Supporting local government: Local government conducts mosquito trapping, surveillance and recording of data in known problem areas and in response to reports or complaints. The Department collates Local Government data along with data from its own trapping program. Over the summer period Local Government Environmental Health Officers, played an important role in liaison with local business and community about mosquito related health issues and distributed 'Fight the Bite' pamphlets and posters.

Riverland Arbovirus Prevention Working Group: The Riverland Arbovirus Prevention Working Group is a group comprising representatives from Riverland Local Government, the community and the Department of Health. The group's aim is to plan, develop and implement a series of strategies working towards arbovirus prevention in the Riverland region. The Riverland Arbovirus Prevention Working Group's projects include radio announcements, tourism operator education sessions and the development of an educational package for schools.

Multiple Chemical Sensitivity

At least 1% of the SA population report experiencing serious and sometimes debilitating reactions to what they perceive to be low levels of exposure to a wide range of chemicals. Multiple Chemical Sensitivity symptoms may also be related to infections, stress, and psychological profile and hence makes diagnosis very difficult.

The South Australian Parliament's Social Development Committee finalised the report into its enquiry on Multiple Chemical Sensitivity in July 2005 to which Cabinet responded in November 2005. Of the 11 main recommendations, 9 related to health, and the others related to agriculture, food and fisheries, local government, environment and conservation, industry and trade and disability services.

Two of the recommendations were supported outright, one of these being that the Department of Health establish a Multiple Chemical Sensitivity Reference Group with a brief to maintain ongoing communication and provide up-to-date information on developments in the Multiple Chemical Sensitivity debate. The Reference Group held its first meeting in 2006. Another recommendation reflected the need for a national approach to Multiple Chemical Sensitivity and the Department of Health is collaborating with counterparts in the Australian Government for a national review. A national approach is needed to establish clinical guidelines for diagnosis and management of multiple chemical sensitivities.

Nutrition

Data, Trends and Targets

Only 5% of South Australian adults are eating both the recommended number of serves of fruit and vegetables, with men less likely than women to meet the recommended daily intake of fruit or vegetables. South Australian adults who do not eat any fruit are more likely to be from an area of lower SES, while vegetable intake is not associated with SES or education level.

All Australian adults eat too much of foods outside of the five food groups. Adults aged 19-25 years consume the greatest proportion of energy from 'extra' or 'junk' foods, with more than one third (36%) of their daily energy from these foods.

Poor nutrition is a major contributor to overweight and obesity. (Refer to section on overweight and obesity page 49)

Initiatives to address poor nutrition

Eat Well South Australia aims to improve the health and wellbeing of all South Australians through improving nutrition and reducing the burden of preventable diet-related disease. The Department of Health supported a number of nutrition related initiatives including:

- funding and support for community based projects such as *Community Foodies* and the *Red Cross Breakfast Program*;
- local projects which include a strong nutrition component particularly the *Eat Well Be Active* community programs in Murray Bridge and Morphett Vale;
- settings based activities such as the *Start Right Eat Right* program which seeks to ensure healthy and safe food is provided in child care services throughout the State;
- policy initiatives eg advising on the development of healthy food in school canteens;
- *Remote Indigenous Stores and Takeaways* national project, nutrition advice into food policy reform;

- campaigns: the *Go for 2 fruit and 5 veg™* campaign, which includes television and radio, local activities, print materials and partnerships with industry and health and community organisations and the development of the breastfeeding campaign;
- support for building the capacity of the public health nutrition workforce in SA.

Key issues indicating what is required in the future

The major challenge is to increase the spread of good public health nutrition initiatives across the state and through different settings ensuring there is sufficient intensity of effort to achieve the results required.

Odours

The Department of Health has been working with the EPA, industry, local government and the community to resolve an ongoing odour problem in a north western suburb of Adelaide.

Case Study: Working with the community

In February 2006 the Department of Health investigated complaints by a community group in the north west area of Adelaide of odour from a local factory. This had been a very long-standing issue for this community.

Routinely gathered air quality data did not show any exceedances of substances the factory regularly monitored under their Environment Protection Authority licence conditions. Previous attempts to track down the odour to a specific source had proved to be difficult as the odour was not occurring during organised inspection times.

The Department of Health convened a meeting of all stakeholders: the community group, local council environmental health officer, the Environment Protection Authority, and a delegate from the factory. People with health issues related to the odour in question were advised to discuss their concerns with a public health physician.

Following the meeting a delegation, including residents, were given a tour through the factory to investigate the odour. This proved to be a successful way forward. The delegation located the odour at a specific location of the production process and this was confirmed through follow-up inspections.

As part of a renewal process for the factory's license, the Environment Protection Authority issued a condition requiring that the odour issue must be dealt with. Parallel to this process, an odour survey was conducted in two concentric circles around the factory using the local council's geographic information system of properties. This survey clearly indicated that significantly more residents in the inner circle of the factory believed that the factory was the source of odour compared to residents who lived in the outer circle. Feedback from this survey will be given to the factory and community group in the new year. The factory is currently exploring ways of sampling and fact finding around the odour source.

Oral Health

Private dental care: With the exception of children, the overwhelming majority of South Australians receive and pay for their own oral health services on a private basis. Over 80% of adults with natural teeth who received dental care in the last 12 months attended a private dental practice.

Public Dental Service: The South Australian Dental Service, a part of the Central Northern Adelaide Health Service, operates the majority of public dental services in South Australia. However, a significant amount of public dental care is purchased from the private dental sector.

The School Dental Service offers a comprehensive dental care program to all children until their 18th birthday with 87% of primary school children participating. In 2005/06 the Service examined and treated 103,773 children.

The Community Dental Service provides emergency and general dental services to adults who are the holders of a Concession Card.

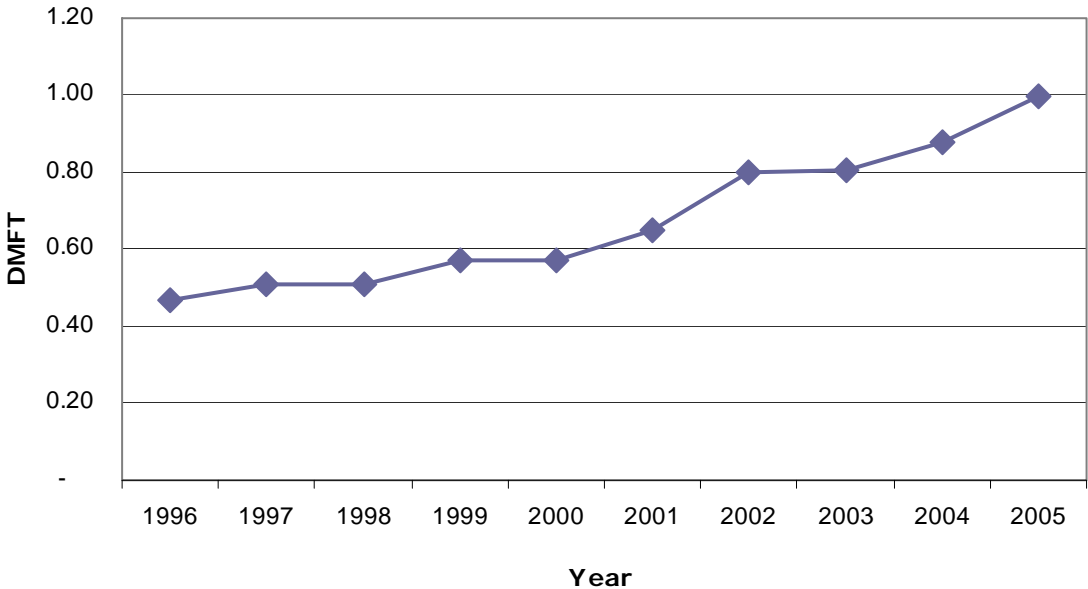
While emergency dental treatment receives priority, waiting lists apply for non emergency dental care. In 2005/06 the Service provided 133,674 dental visits.

Concession card holders with complex dental problems may receive specialist dental care, generally through the Adelaide Dental Hospital in association with the specialist training programs of The University of Adelaide. In 2005/06 the Dental Hospital provided 65,752 dental visits.

Current Oral Health status

The combination of water fluoridation, fluoride toothpaste and regular preventively focused dental care has led to major reductions in dental decay among South Australian children over the past 35 years. In more recent years, some of the gains of the previous three decades have been lost and children in all socio-economic groups are now experiencing more decay. Figure 18 shows the decay experience in 12 year old SA children 1996-2005.

Figure 18: Decay experience in 12 year old children 1996 – 2005 (DMFT is measure of prevalence of dental caries)



Children from lower socio-economic areas have approximately 40% more dental decay experience than those from more advantaged areas and children from non-English speaking backgrounds have 80% more decay experience.

Aboriginal and Torres Strait Islander children experience approximately twice as much dental caries as non-Aboriginal and Torres Strait Islander children.

There is limited information on adult oral health. However, a national survey of adult oral health was completed in 2006 and the results will be available in 2007.

The proportion of adults who have had all of their teeth extracted (edentulous) has fallen dramatically in the last 25 years. However, adult concession card holders without dental insurance are 25 times more likely to have had all their teeth extracted than high income adults with dental insurance.

In the 10 years since the loss of the Commonwealth Dental Health Program, decay experience among Concession Card holders attending public clinics in South Australia has increased by 12%, the amount of untreated decay has increased by 20%.

Aboriginal and Torres Strait Islander adults aged 25-44 years have fewer teeth with dental decay experience compared to non-Aboriginal and Torres Strait Islander

Concession Card holders attending public dental clinics. However, they have more severe periodontal disease, possibly related to the presence of systemic conditions such as diabetes.

Oral Health Trends in 2006

The decay experience in 12 year old children continued to increase from 0.95 in 2005 to 1.0 in 2006. The extra workload involved in treating this decay resulted in the average period between dental check-ups by the School Dental Service increasing from 18 months in December 2005 to 20 months by mid 2006.

Highlights of Programs in 2006

Waiting lists: Restorative dentistry (fillings etc) waiting lists for eligible adults have decreased in recent years from a peak of 49 months in 2002 to 28 months in December 2005. While waiting times remain 27 months in November 2006 they are expected to reduce to 23 months by June 2007.

Aboriginal liaison program: This program links the Aboriginal community to SA Dental Service program using an Aboriginal liaison officer. Aboriginal people identified as at risk receive priority access bypassing dental waiting lists. This program was extended from Salisbury to Port Adelaide and Noarlunga in 2006.

Oral health for Older People: This project was limited to the inner southern suburbs in 2005 but is being extended to the northern suburbs in 2006. In the southern suburbs project, older people receiving an Enhanced Primary Care assessment by their doctor also received a simple oral health screening. Eligible people identified as "at risk" received priority access to dental treatment by SA Dental Service. Independent research demonstrated significant improvements in general wellbeing and ability to go about day to day life as a result.

In the northern suburbs component, Aged Care Assessment Team members from Metropolitan Domiciliary Care are undertaking the oral health assessment and the interventions include support for the maintenance of oral hygiene as well as referral for treatment.

Dental care for people in Supported Residential Care Facilities: A pilot dental program for the estimated 1,100 residents of Supported Residential Facilities across South Australia commenced in 2004. This program screens residents and arranges for dental care to be provided in a timely fashion. The first cycle of care was completed in 2006 and residents now have preventive dental care on a regular basis, bypassing waiting lists.

Smoking Cessation: In association with QUIT SA, SA Dental Service commenced pilot programs in selected clinics in which dentists identify patients who have an interest in stopping smoking and refer them to QUIT programs.

Future Directions

In 2006 /2007 the aims are to:

- halt the increase in decay experience among young children through the commencement of a population health promotion program focusing on new parents and young children linked to early intervention through the School Dental Service;
- reduce the average period between check-ups through the School Dental Service to under 19 months by December 2007;
- complete the implementation of the Aboriginal Liaison Projects and increase the number of Aboriginal people receiving dental care through SA Dental Service by 5%;
- reduce the average waiting time for eligible adults receiving non-emergency dental care from the current 27 months to 22 months by December 2007;

- complete the implementation of the Northern “Oral Health for Older People” project in association with Metropolitan Domiciliary Care;
- embed oral health in the Chronic Disease Management and Healthy Weight Strategies in collaboration with all Regional Health Services;
- expand the Quit smoking trials to additional dental clinics.

Overweight and Obesity

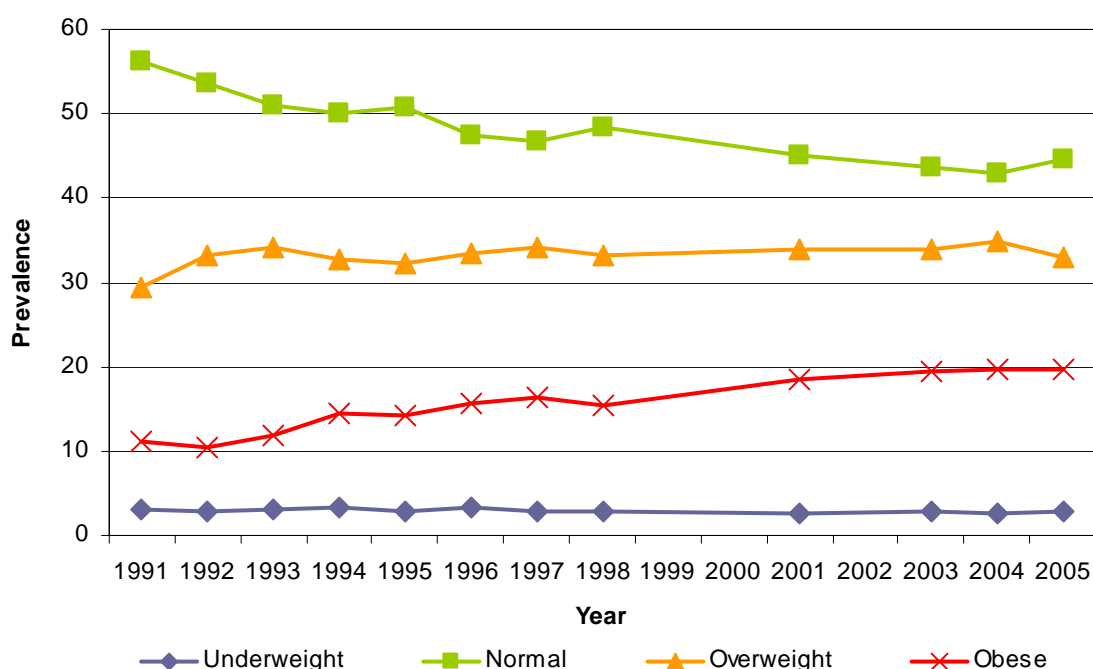
Reducing overweight and obesity is one of the targets of South Australia’s Strategic Plan, specifically ‘To reduce the percentage of South Australians who are overweight or obese by 10% within 10 years.’ The Department of Health is the designated lead agency on this target.

As in other western countries, overweight and obesity in Australia has become a major public health issue. The prevalence of overweight and obesity is increasing with over half of the adult population in South Australia now overweight or obese. This has health consequences for the individual as well as serious public health and economic consequences for the community.

South Australian data from 2005 indicate that 54% of adults aged 18 years and over were overweight or obese. Men are more likely to be overweight than women, 62% compared with 47%.

Over the 14 years 1991-2005 the proportion of South Australians in the normal weight category has decreased, the proportion in the overweight and obese categories has increased and the proportion in the underweight category has remained constant (see Figure 19).

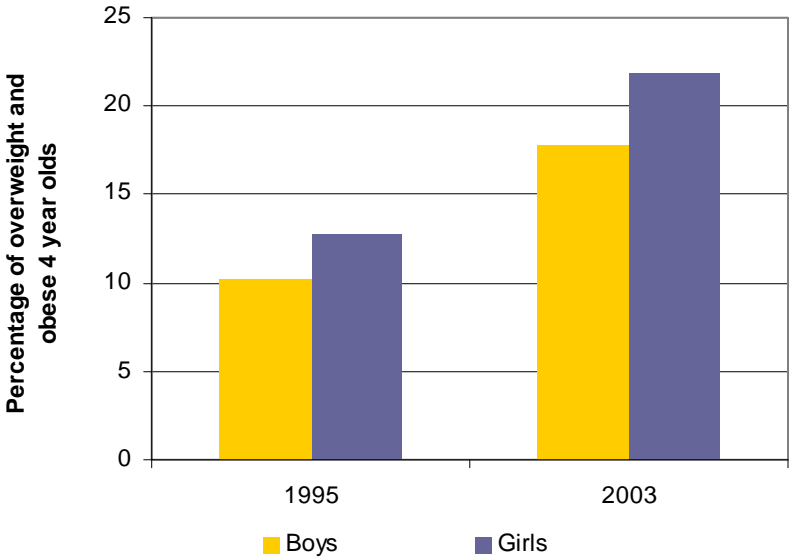
Figure 19: Trends in prevalence of underweight, normal, overweight and obese BMI from 1991 to 2005



Source: South Australian Health Omnibus Survey population, age sex standardised to 2001 census.

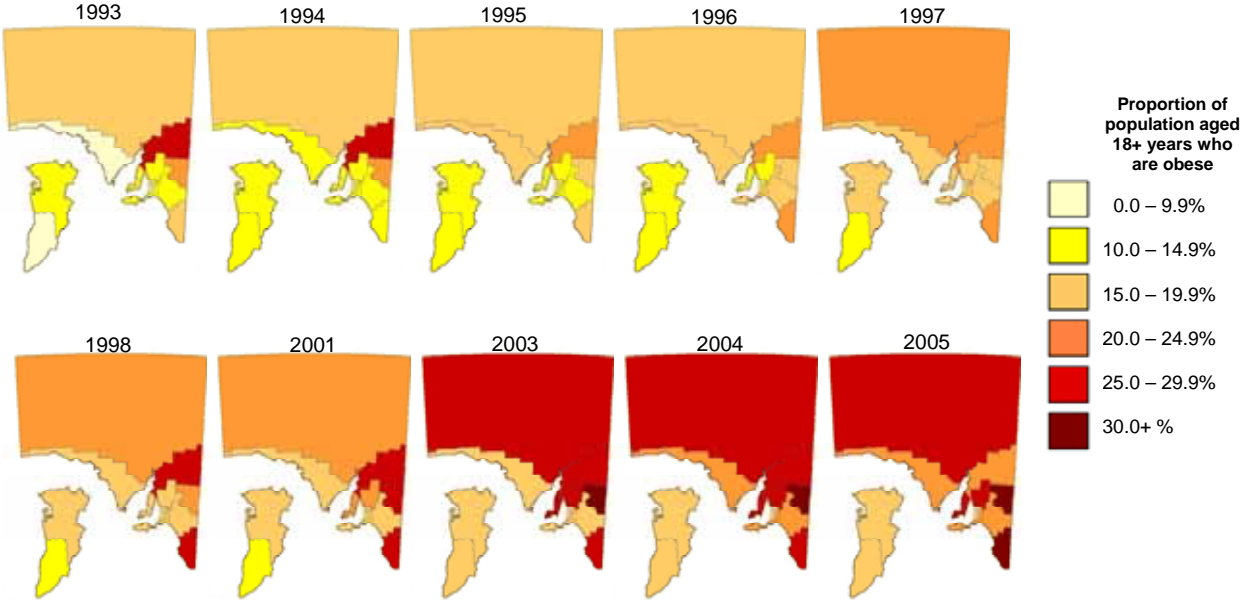
In South Australia the prevalence of overweight and obesity in children has increased significantly. From 1995 to 2003 the proportion of overweight or obese four year old girls increased from 13% to 22%, and the proportion of overweight or obese boys increased from 10% to 18% (See Figure 20). As with adults there is a link between weight and SES, with overweight and obesity greatest amongst children from families of lower

Figure 20: Percentage of overweight and obese 4 year old boys and girls in South Australia in 1995 and 2003



Health Omnibus Surveys: Findings from cumulative annual Health Omnibus Surveys (see Population Research and Outcomes Studies section page 64) have indicated that there are more overweight and obese South Australian’s now than there has been in the last 15 years. The overall prevalence of obesity among South Australians aged 18 years and over has increased from 11.6% in 1993 to 19.9% in 2005 (Figure 21).

Figure 21: Prevalence of obesity, 1993 to 2005, Health Omnibus Surveys



Research

The Nutrition Obesity Lifestyle and Environment Study is an Australian Research Council linkage grant funded investigation of obesity in the South Australian population. The partners of the research include the South Australian Department of Health, Central Northern Adelaide Health Service, Commonwealth Scientific and Industrial Research Organisation, University of Adelaide and University of South Australia.

The significant increase in the proportion of Australians obese and overweight in the last 20 years has important implications for the development of chronic disease conditions and costs to the health care system. Eight PhD candidates from a multi-disciplinary

background are working on different aspects of the obesity problem. These students are working within the areas of psychology, medicine, public health, geography, sociology and economics to explore the many facets of the obesity epidemic. They use population data from the North West Adelaide Health Study and other population studies to answer research questions related to:

- the extent to which obesity is associated with, and influenced by, socio-economic factors
- the extent to which obesity is associated with, and influenced by, environmental phenomena
- the effects of obesity on social inclusion in labour markets, housing markets and society generally
- the major risk factors of obesity in children and adults
- variations in obesity between different types of suburban communities.
- the links between obesity and physical and mental health, including chronic disease
- the policy implications for preventative interventions, treatment and environmental interventions relating to obesity.

For more information on the Nutrition Obesity Lifestyle and Environment Study visit the website: www.noblestudy.com.au

What are we doing?

The Minister for Health released *Eat Well be Active Healthy Weight Strategy for South Australia 2006-2010*. This Strategy was developed by an across government Taskforce and outlines the way forward for government and non-government organisations to work together to promote healthy weight for children, adults and families. It includes preventive and management strategies and identifies priority actions at a variety of levels, including policy and program development, workforce planning, research and monitoring.

Significant attention has been directed to this priority area through the Council of Australian Governments' Australian Better Health Initiative. The Health Promotion Branch is taking the lead in the primary prevention area and the focus of activities is on:

- increasing the capacity in the health system to deal with the issue by placing Healthy Weight Coordinators in health regions
- professional development for the education, health and Aboriginal health workforce to upskill the workforce on the issue
- specific focus on prevention and the early years of life
- extension of the Healthy Ways program in Aboriginal communities.

Future Directions

While no country has yet reduced population levels of overweight and obesity, there is evidence for where we need to be intervening. The evidence points to focusing on the following approach:

- developing a mix of strategies, that has a portfolio approach
- taking a whole of population, approach, rather than an individual focus
- focusing on policy and advocacy, as well as programs
- focusing on prevention, not management and treatment
- working in social and physical environments and settings
- taking an across sectors approach, government, non-government and the community.

This is the direction outlined in the *Eat Well be Active Healthy Weight Strategy for South Australia 2006-2010*, which is currently being implemented. The implementation is being led by the Department of Health with advice from an across government Taskforce and a key stakeholder Consultative Committee.

Pandemic Flu Planning and Emergency Preparedness

Currently the H5N1 virus (Avian Influenza) is killing large numbers of birds in many countries overseas, especially in Asia. At present the H5N1 virus is not highly transmissible to humans and there is no conclusive evidence of human to human transmission, although there have been some small family clusters of avian influenza infections, mainly in Indonesia, where people have died.

While there is cause for concern, the next pandemic strain may not arise from the H5N1 virus as a pandemic strain may derive from a genetic shift in any Influenza A virus. Governments around the world are therefore keeping track of the pandemic potential of all circulating influenza strains in humans as well as in birds.

Legislation has been implemented nationally which requires Avian Flu in humans and Pandemic Influenza to be a controlled notifiable disease.

Strategies in place

The Australian Government has produced an Australia Health Management Plan for Pandemic Influenza (AHMPPI). The South Australian Department of Health has developed a *Draft Operational Plan for Health Care Workers* which covers prevention, preparedness, response and recovery in the event of an influenza pandemic. This document is currently being amended. A draft whole of government plan has also been developed by the Department of Premier and Cabinet.

Managing an influenza pandemic will centre on containing the virus, primarily using infection control measures, until an effective vaccine has been developed and the population has been immunized. This will take a minimum of 3 – 6 months.

The Commonwealth Department of Health and Ageing has indicated that there is a major potential for 'containment' of pandemic influenza. This would delay the onset of a pandemic in Australia and would significantly reduce its impact. Preparedness at both state and commonwealth levels includes:

- airport screening to raise Pandemic Influenza awareness and start home quarantine, if necessary and quarantine of incoming passengers from affected areas
- early presentation to GPs or community flu clinics
- isolation of cases and giving them antiviral treatment
- household quarantine of well contacts and preventive (prophylaxis) antiviral treatment
- contact tracing which will need to be rapid to be effective
- social distancing (closure of schools, child care centres, sporting events, cinemas, and avoiding public transport where possible etc.)
- implementation of "1 metre rule" (keep at least 1 metre apart wherever possible eg in shops etc)
- targeted antiviral medication for health care workers in direct contact with infected persons.

Education is an essential part of the containment strategy for the whole population in order that they are familiar with basic precautions to reduce spread of the disease. This will include hand washing and, at the time of a pandemic, use of surgical masks. Those most at risk will need to be fitted with specially fitting masks (high filtration N95/P2).

Community preparedness will also include encouraging the uptake of the annual flu vaccination programs for seasonal flu. While the routine vaccination does not protect against avian flu it may reduce the health impact during a pandemic. South Australia successfully expanded the current programs in 2006 and in particular focused on the immunisation of health care workers and those at risk in the 20 – 60 age group.

Issues the Department of Health is addressing

There are a number of issues that are currently being addressed. They include:

- development of legislation to address current gaps to adequately deal with a pandemic (e.g. the power to quarantine contacts of sick people, even though these contacts do not appear to be ill)
- development of an effective communication, training and education strategy, for health care worker and GPs
- fit-testing of health care workers with special masks (N95/P2)
- developing community flu clinics
- developing hospitals' processes for managing flu patients
- improving laboratory facilities and capacity to cope with their requirements to provide rapid and accurate diagnosis of pandemic flu
- extending the health system capacity to care for patients at home
- engagement with, and appropriate use of, the private hospital sector
- developing an effective vaccination program for the State so that the entire population can be rapidly immunized when a vaccine becomes available
- stockpiling State supplies of Tamiflu, masks, goggles, gowns and gloves.

Funding for many of these items is budgeted for 2006/2007. It is of note that while considerable work remains to be done, South Australia is at the forefront of pandemic influenza preparedness planning.

Physical Activity

Regular physical activity can make a real difference to the wellbeing of the community. National Physical Activity Guidelines recommend that *adults* undertake at least 30 minutes of moderate intensity physical activity on most, preferably all days of the week. Guidelines for *children* aged 5 to 18 recommend at least 60 minutes (and up to several hours) of moderate to vigorous activity every day and limiting screen based activities for entertainment (for example, TV, computer games) to less than 2 hours per day.

The Department of Health is committed to supporting the implementation of the SA Physical Activity Strategy and improve physical activity levels. The Minister for Health is a member of the Ministerial Physical Activity Forum comprising 7 Ministers from the portfolios of Health, Recreation and Sport, Transport, Education, Planning, Families and Communities, Local Government and Tourism.

The Health Promotion Branch represents the Department of Health on the Physical Activity Council and the State Government Officers Panel (an advisory panel to the Physical Activity Council). The Department of Health is also involved in multi-sectoral advisory panels such as the *Walking School Bus*, *Strength for Life* and *Active After School Communities Program*.

In 2005/2006 The Department of Health provided grants of \$105,000 to health regions through the Be Active Community Grants. Types of activities undertaken with this grant funding include the development of local physical activity networks, physical activity programs such as tai chi courses and pedometer programs and awareness raising activities within each region.

Measuring physical activity

Physical activity levels are reported as the proportion undertaking 'sufficient' levels of physical activity. Sufficient physical activity refers to the levels of activity required to confer health benefit and for adults can be defined in two ways:

Definition 1 – achieving a minimum of 150 minutes of moderate or vigorous activity in the past week. Vigorous activity is weighted by a factor of 2 to account for the greater intensity required.

Definition 2 – same as above, however the 150 minutes of activity must be accumulated over at least five sessions in a week.

In collaboration with the Physical Activity Council and the Physical Activity Council Research Panel, the Population Research and Outcome Studies Unit in the Department of Health conducted the South Australian Physical Activity Survey in 2004, which was reported on in 2005. The report is available at:

www.beactive.com.au/publications.htm

Major findings from these reports showed that:

- the proportion of people undertaking vigorous physical activity increased from 32.1% in 1998 to 36.9% in 2004
- 53.9% of adults were sufficiently physically active to benefit their health (using definition 1)
- the most common type of leisure time activity was walking, with 74.2% of adults participating
- approximately 95,000 South Australian adults cycle on a weekly basis
- more than a third of all adults (whether or not they cycle) said that if more cycling paths and lanes were built it would encourage them to cycle more
- South Australian adults are sedentary (sitting) for an average of 51 hours per week, but being sedentary for so many hours a week does not mean that people cannot also be physically active at other times. Many people who are sufficiently physically active spend just as much time sitting as inactive people.

SA Monitoring and Surveillance Systems (a population health monitoring tool - see Population Research and Outcomes Studies below) data on physical activity for 2004 to 2006 is presented in Figure 22.

Figure 22: Physical activity in participants aged 16 and above 2004-2006

	2004	2005	2006
Sufficiently active	50.0%	50.6%	52.4%
Insufficiently active	30.5%	30.8%	30.0%
Inactive	19.5%	18.6%	17.5%
N	5751	5726	2802

A national physical activity and nutrition survey of children is currently being piloted and will commence early in 2007. The results will give a clearer picture of physical activity levels of children aged 5 to 16 years.

Strategies for the future

Increasing physical activity levels and sport participation in SA forms target T2.7 of South Australia's Strategic Plan and is a key contributing factor to target T2.6, reducing overweight and obesity. The SA Physical Activity Strategy 2004-2008 and the subsequent Implementation & Action Plan were developed to provide a strategic and collaborative approach to addressing factors that influence physical activity. The Eat Well Be Active Healthy Weight Strategy 2006-2010 (see the section on overweight and obesity earlier in this report), includes strategies to increase physical activity participation and create environments that foster and support opportunities for physical activity.

Population Research and Outcome Studies

The Population Research and Outcome Studies Unit is situated within the Health Intelligence Branch of the Policy and Intergovernment Relations Division of the South Australian Department of Health.

The Population Research and Outcome Studies unit provides high quality population health information to contribute to the improvement of health and wellbeing outcomes of the South Australian population. The core business of the Population Research and Outcome Studies is the monitoring and surveillance of population health and chronic disease epidemiology. Information obtained from population health surveys is used to inform policy, programs and health services that will promote the health and well being of the South Australian population.

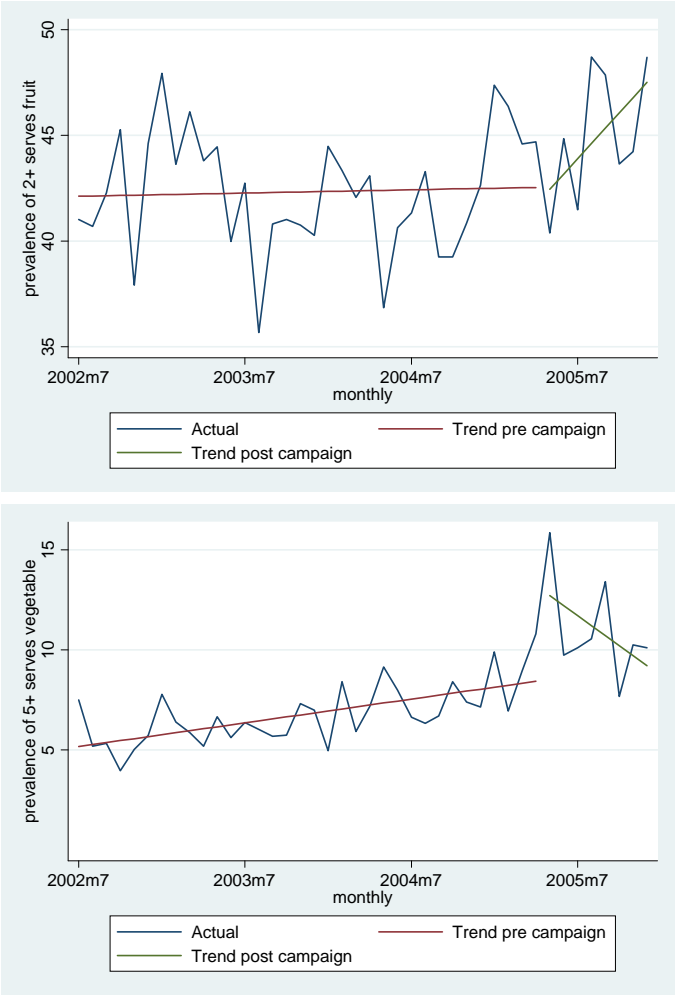
The increased prevalence of chronic, non-communicable conditions, have over taken communicable diseases as the leading causes of mortality and morbidity in developed nations such as Australia. This means that it is important to continue to monitor the prevalence and distribution of these chronic conditions in the South Australian community. Population health monitoring is a vital part of the planning and evaluation of health intervention strategies.

South Australian Monitoring and Surveillance System: The South Australian Monitoring and Surveillance System was established in 2002. The System monitors population trends in priority health and related issues including chronic conditions, risk factors, and socioeconomic determinants so that the Department of Health has appropriate, timely and valid population health information to monitor health status, respond to population changes and support planning, implementation, and evaluation of health services and programs. Interviews of a representative sample (approximately 600 people of all ages) randomly selected from the electronic white pages are undertaken every month in South Australia using Computer Assisted Telephone Interviewing technology.

South Australian Monitoring and Surveillance System data are disseminated in reports, brief reports, media, and on the Population Research and Outcome Studies website (www.dh.sa.gov.au/pehs/pros.html). This online database is updated monthly and contains information on the prevalence of chronic conditions, risk factors and their determinants.

Monitoring trends and evaluating campaigns: Trends in the prevalence of chronic conditions and risk factors, for example diabetes, arthritis, asthma, and obesity, have been available from annual Health Omnibus Survey data since the early 1990s. The South Australian Monitoring and Surveillance System however, enables more detailed trends to be monitored, for example by month, quarter or season. Times series analysis of these surveillance data collected every month also facilitates evaluation of campaigns. For example, Figure 23 shows the proportion of the South Australian population aged 16 years and over who were eating at least the recommended number of serves of vegetables (five) and fruit (two) per day, in relation to health promotion advertising campaigns introduced in April 2005.

Figure 23: Proportion of South Australians aged 16 years and over who were consuming the recommended number of serves of fruit (at least two) and vegetables (at least five)



Source: South Australian Monitoring and Surveillance System, July 2002-Dec 2005, ages 16+

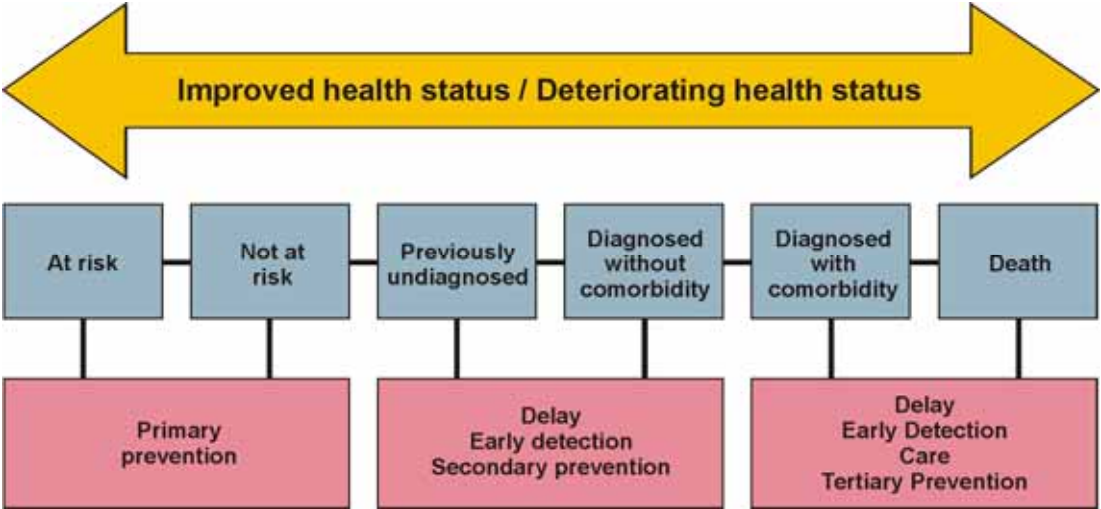
North West Adelaide Health Study: The North West Adelaide Health Study is a biomedical cohort study of a representative population sample (n=4060) of people aged 18 years and over living in the northern and western suburbs of Adelaide. The study is a collaboration between the Department of Health, regional health services, universities, health care providers, and the community.

During Stage 1 of the study (2000-2002), participants were recruited and attended the study clinic for a health examination. Stage 1 had a focus on the priority conditions of diabetes, asthma, and chronic obstructive pulmonary disease and risk factors such as smoking, obesity, physical activity, alcohol use, high blood pressure, and high cholesterol. Information was also collected in telephone and self-completed questionnaires about quality of life and health service use, and linked Medicare and Pharmaceutical Benefits Schedule data were obtained. Between May 2004 and February 2006, participants attended the clinic for their second visit. The focus of Stage 2 was expanded to include additional chronic conditions such as arthritis, osteoporosis, and cardiovascular disease.

The study has established baseline self-reported and biomedically measured information on priority health conditions and related risk factors in terms of a continuum (Figure 24), consisting of three main categories: those who were (1) at risk of these conditions; (2) previously undiagnosed with these conditions; and (3) previously diagnosed with those conditions. In addition to gaining insight into the management of chronic conditions and co-morbidities among those who have been diagnosed, identifying the additional

categories of *at risk* and *previously undiagnosed* along the continuum provides a clearer statement of disease burden and epidemiological description of target groups, and presents opportunities for effective intervention, health service usage and health policy.

Figure 24: The chronic disease continuum



Longitudinal data from Stage 2 will enable determination of incidence rates for a number of chronic diseases, and examination of changes in patterns of severity, management costs and utilisation of resources.

Further information about the North West Adelaide Health Study is available on the study website:

www.nwadelaidehealthstudy.org.au

or the Population Research Outcomes Study website:

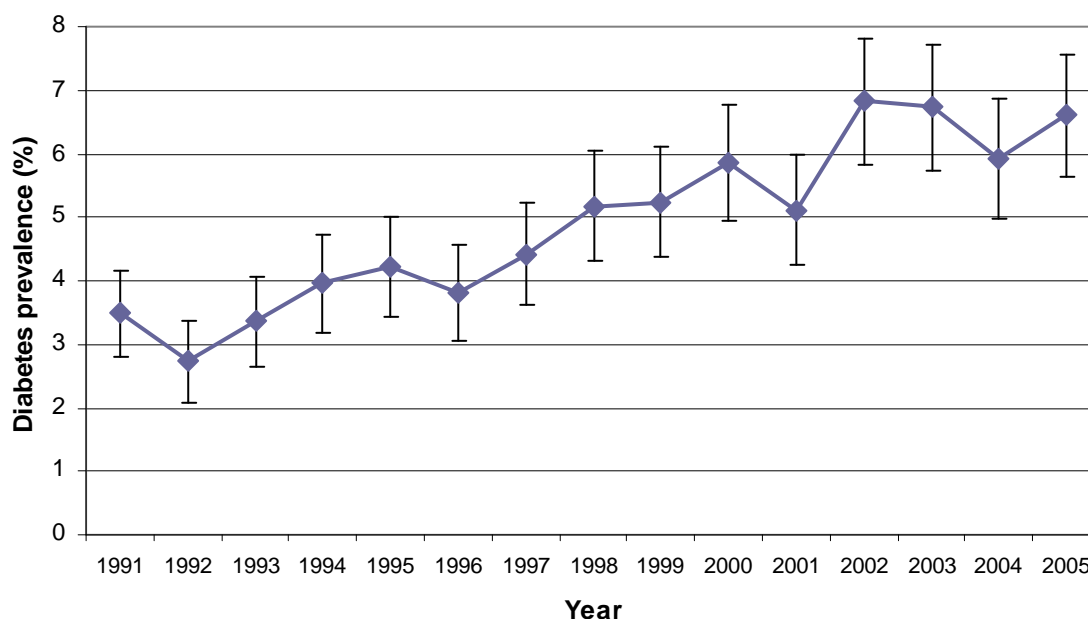
www.dh.sa.gov.au/pehs/pros.html

Diabetes: South Australian Monitoring and Surveillance System data from July 2005 to June 2006 indicate that 6.2% (95% CI 5.6 – 6.9) of the South Australian population aged 16 years and over, or approximately 75,600 people, have been told by a doctor that they have diabetes. The majority of these people have Type 2 diabetes.

The prevalence of diabetes is significantly higher among some population groups. In South Australia statistics show that diabetes prevalence is 11.9% among people living in households where annual income is \$20,000 or less, and 10.6% among people from culturally and linguistically diverse backgrounds. SAMSS data also indicate that 8.8% of Aboriginal or Torres Strait Islanders have diabetes.

Health Omnibus Survey data show that the proportion of people who have been told by a doctor that they have diabetes has significantly increased from 3.5% (95% CI 2.8-4.2) in 1991 to 6.6% (95% CI 5.6-7.6) in 2005 (Figure 25).

Figure 25: Age-sex standardised prevalence of diabetes in South Australia, ages 15+



Source: Health Omnibus Surveys 1991 to 2005

Gestational Diabetes Mellitus Recall Register: The Gestational Diabetes Mellitus Recall Register was established in South Australia in 2002 in response to the lack of systematic, long term follow up of women who have had Gestational Diabetes Mellitus. Women who have had Gestational Diabetes Mellitus are at increased risk of developing Type 2 diabetes. The Register aims to facilitate early detection of prediabetes and diabetes, allowing for earlier intervention, thus reducing diabetes-related complications and costs. A pilot project was conducted from July 2002 to June 2004 with the Diabetes Centres of The Queen Elizabeth Hospital and Ashford Hospital to determine the feasibility of establishing a *Gestational Diabetes Mellitus Recall Register* in terms of recruitment, retention over time, and encouraging women on the Register to have regular diabetes check-ups.

Following evaluation of the pilot project, the Register was expanded to include the Women's and Children's Hospital in September 2005. As at 30 June 2006, 188 women were enrolled on the Register. Other recommendations from the evaluation, including translation of the Register forms into languages other than English, and expanding the health promotion function Register are being investigated.

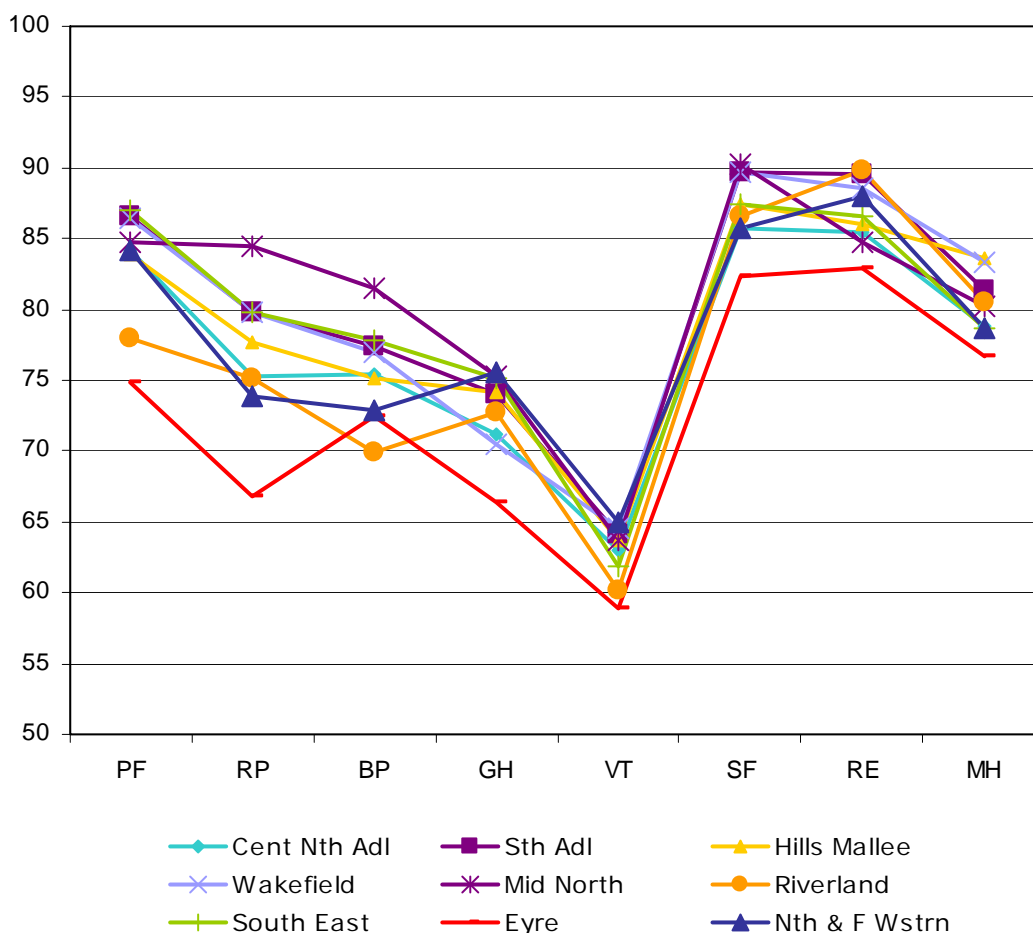
Quality of life and overall health status: A report of the quality of life of South Australians as measured by the SF-36 in the Health Omnibus Survey was released in July 2005. The SF-36 is a valid and reliable instrument and acts as a generic indicator of health status for use in population surveys. The SF-36 is comprised of 36 questions that are summarised to eight dimensions: Physical Functioning, Role Physical, Bodily Pain, General Health, Vitality, Social Functioning, Role Emotional and Mental Health.

After controlling for the effects of age and sex the following statistically significant findings were identified between the regions:

- South Australians living in the Central Northern Adelaide and Eyre regions had poorer quality of life than those living in the other regions according to all SF-36 dimensions;
- residents in the southern Adelaide region had a higher quality of life according to six of the eight SF-36 dimensions than the rest of the State;
- people living in the Hills Mallee and Wakefield regions had better quality of life as indicated by the Mental Health dimension when compared to the rest of the State;

- people living in the Mid North region had a better quality of life as measured by the Bodily Pain dimension compared to the rest of the State;
- the quality of life of people living in the Riverland and South East regions did not vary when compared to the rest of the South Australian population;
- the quality of life of people living in the Northern and far Western did not vary when compared to the rest of the South Australian population with the exception of the two dimensions. They had better quality of life score as measured by the General Health dimension and a poorer quality of life as measured by the Bodily Pain dimension (see Figure 26).

Figure 26: SF-36 mean scale scores for the South Australian population aged 15 years and over, by health region



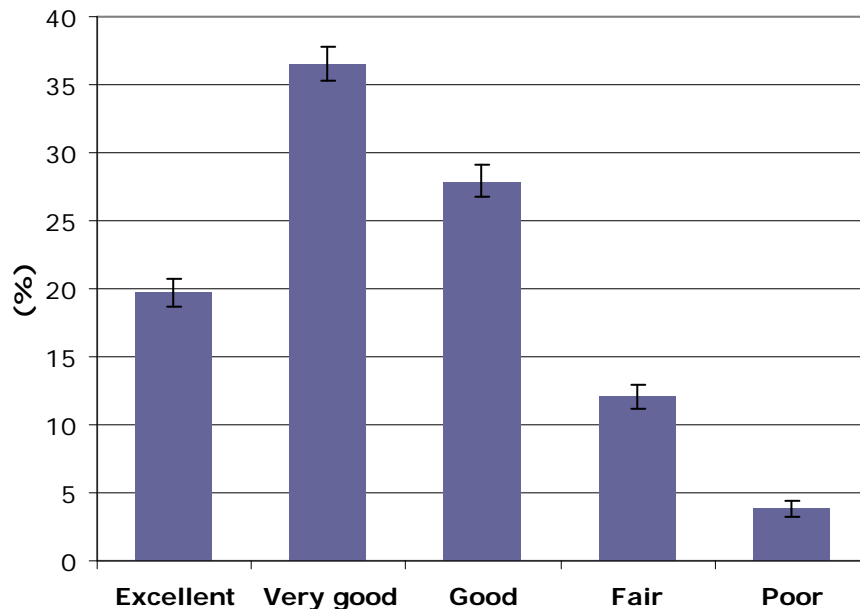
PF	Physical Functioning	VT	Vitality
RP	Role Physical	SF	Social Functioning
BP	Bodily Pain	RE	Role Emotional
GH	General Health	MH	Mental Health

Source: Health Omnibus Survey, Spring 2002

Increasingly in health surveys, a single question asking respondents to rate their general health is being used as an indication of overall health status, in addition to other questions regarding specific illnesses, conditions and risk factors. A commonly used overall health status question, referred to as the SF1, is included in South Australian Monitoring and Surveillance System. Respondents are asked "In general, would you say your health is: Excellent, Very Good, Good, Fair, or Poor?". Responses to the SF1 can be used as a general indicator of self-reported health and wellbeing. The SF1 refers to physical and mental health, as assessed by individuals, according to their own values, and has been found to be a strong indicator of future health care use and mortality.

Findings from South Australian Monitoring and Surveillance System January to December 2005 showed that 84.1% of respondents reported *Excellent, Very Good or Good* health and 15.9% reported *Fair or Poor* health. The distribution of overall health status is shown in Figure 27.

Figure 27: Prevalence of SF1 responses for the South Australian population aged 18 years and over



Source: SAMSS 2005

Patient Satisfaction (Aboriginal and Torres Strait Islander pilot): The 2005 Aboriginal and Torres Strait Islander Patient Evaluation of Hospital Services survey presented satisfaction scores for a pilot sample of 60 adult patients who identified as being of Aboriginal or Torres Strait Islander descent and received at least one night of care in the South Australian public hospital system in March 2005.

Consistent with previous Patient Evaluation of Hospital Services surveys, patients tended to have a low satisfaction with their involvement in their care and treatment. However, respondents in this survey also rated their satisfaction with the availability of care staff poorly. Aboriginal and Torres Strait Islander patients rated their satisfaction in most Areas as lower than did overnight patients. However, assessments of access and residential facilities were not significantly different between Aboriginal and Torres Strait Islander patients and overnight patients reflecting discern in identifying areas of lower satisfaction. Non-emergency admissions were significantly more satisfied with a number of Areas. No significant differences were identified between patients from rural or metropolitan residence, or based on attendance at a metropolitan or rural hospital.

Overall, eight (13.3%) patients responded that they felt they had been treated worse by hospital staff because they were Aboriginal or Torres Strait Islanders, with five of these saying they felt staff acted negatively or disrespectfully. Eighteen (30%) patients reported using the Aboriginal Hospital Liaison Service, with anecdotal complaints made about access to this service.

As a result of these findings the following recommendations are put forward:

- improve communication and information exchange between Aboriginal and Torres Strait Islander patients and service providers;
- clarify roles and expectations of Aboriginal Hospital Liaison Officers;
- improve coding of Indigenous status;

- increase the emphasis on discharge planning procedures, including ensuring the involvement of the patient.

Port Pirie Lead Implementation Program

The primary objective of the Department of Health’s Port Pirie Lead Implementation Program is to protect children from the harmful effects of lead in their environment. The program is designed to assist the local community in achieving an acceptable balance which safeguards the health of local residents, ensures the ongoing viability of the world’s largest lead smelter and promotes the sustainability of the City of Port Pirie.

The major focus of the program is to reduce household exposure for pregnant women and children below the age of five years. The Port Pirie Environmental Health Centre investigates the ongoing pathways of lead exposure, provides community education on minimising exposure and monitors exposure by providing free routine blood-lead testing for pregnant women and young children.

In 2005 the Minister for Health initiated a review of the Port Pirie Lead Implementation Program which was undertaken by a panel consisting of representatives from the Department of Health, United Wesley Care and the Southern Flinders Rangers Development Board. The review was finalised in December 2005.

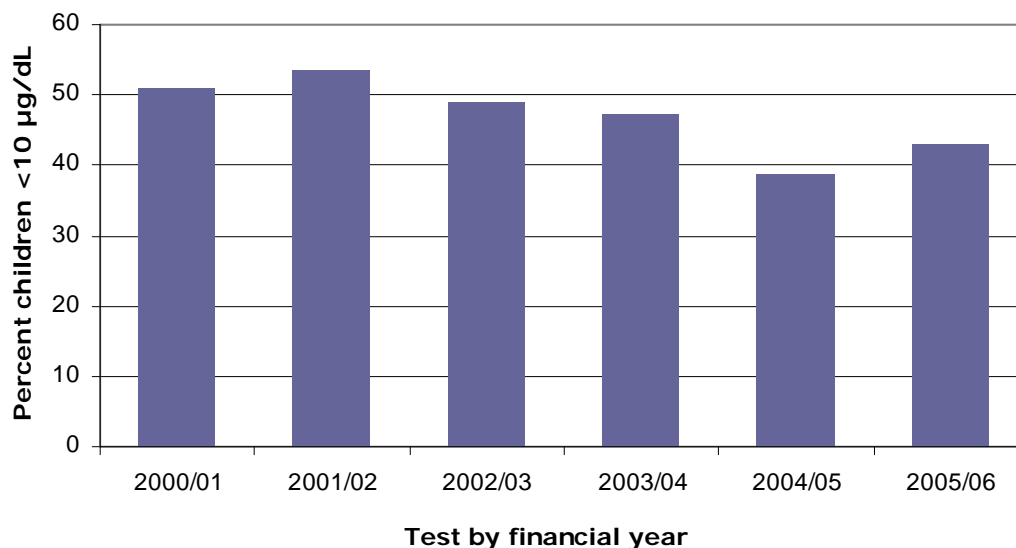
The Review’s principal outcomes included:

- reducing blood-lead levels was essential for the viability of the city and its industry;
- emissions from the smelter needed urgent and considerable attention;
- a unified target driven approach agreed to by all partners was taken to ameliorate or remediate exposure pathways to lead in the community.

‘tenby10’ Project

In February 2006 the Minister for Health, Hon John Hill launched the ‘tenby10’ initiative. The initiative establishes a collaborative relationship between Zinifex, Department of Health, Environment Protection Authority and the Port Pirie Regional Council with a stretch target of achieving blood lead levels for 95% of children aged 0-4 years old below 10 µg/dL – national goal – by 2010. Zinifex has allocated approximately \$56M as part of its significant contribution to the success of the ‘tenby10’ initiative. Figure 28 demonstrates the percentage of children in Port Pirie with blood lead levels below 10µg/dL from 2000 – 2006.

Figure 28: Percentage of children aged 0-4 with blood lead levels <10µg/dL by year of test



Future Directions

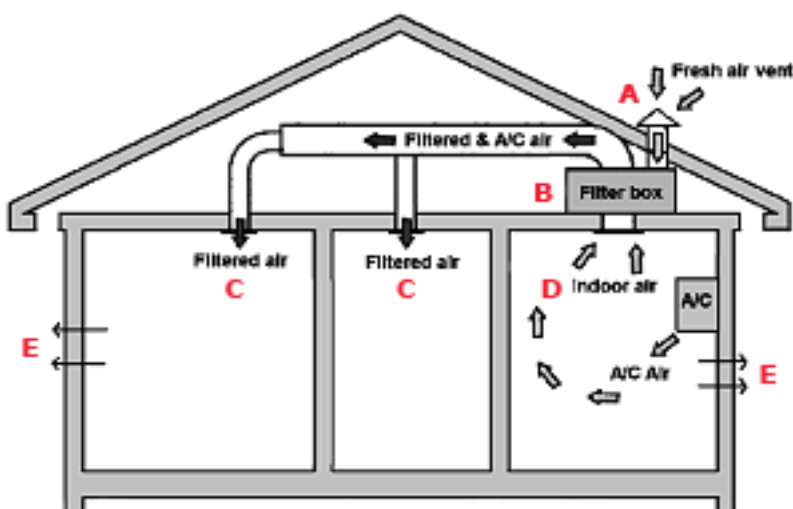
The Department of Health through the Port Pirie Investigation Group will continue to provide scientific and technical support to the Port Pirie Environmental Health Centre and as an active partner of the 'tenby10' initiative provide performance feedback by participating in the evaluation of environmental data.

The Port Pirie Investigation Group developed and tested a relatively easy to install ventilation system that maintains a slight positive pressure in the home and filters indoor air, in an unoccupied, sheet metal clad timber framed home in Port Pirie (see figure 29). The results indicate a large reduction, greater than 85%, in indoor dust may be achievable. The acceptability of the constant operation of an air filtration system in an occupied home is currently unknown and needs to be determined. A pilot project using the homes of a number of volunteers is proposed for 2006/2007.

Figure 29: Operation of household air filtration systems

Fresh air (A) is drawn into a filter box (B) mixed and filtered with air conditioned indoor air (D) and then passed to rooms inside the house where required (C).

The extra pressure from filtered fresh air passes out of cracks and gaps in windows and doors (E) stopping dusty air from entering the home through these gaps.



Pregnancy Outcomes

Monitoring the health of mothers and babies is a traditional tool contributing to the overall health of the community. A specialist unit has operated in South Australia over many years to gather pregnancy case data from a wide variety of sources, and to analyse trends according to national benchmark conventions. In January 2007 three reports will be published on pregnancy outcome in 2005:

- Annual Report of the SA Abortion Reporting Committee (to be tabled as a separate document in Parliament)
- Pregnancy Outcome in South Australia, 2005
- Maternal, Perinatal and Infant Mortality in South Australia, 2005.

These will be available on the website at:

www.health.sa.gov.au/pehs/pregnancyoutcome.htm

Throughout South Australia, in 2005, data from the Pregnancy Outcome Unit demonstrates that low birth weight (<2500grams) remains more prevalent in Aboriginal babies than in non-Aboriginal babies. Low birth weight babies made up 19.3% of all Aboriginal babies born in 2005 as opposed to 7.2% of all non-Aboriginal babies.

Regional Family (Anangu Bibi) Birthing Program (Whyalla & Port Augusta)

The Regional Family (Anangu Bibi) Birthing Program (Whyalla & Port Augusta) aims to improve the mother and baby outcomes through increased antenatal attendances, breastfeeding uptake and reduction in smoking.

This program offers Aboriginal and teenage women equitable and culturally respectful care within a primary health care approach. Antenatal and birthing services also focus on health promotion, education and early intervention.

An important aspect of this programs success is the working relationship between mainstream health and the local Aboriginal community controlled health organisations (Pika Wiya and Nunyarra). This partnership remains strong and is evident by clinics, activities and staff development being conducted across all sites.

A cultural weekend was held at Iga Warta (close to Leigh Creek) in November 2005. The weekend was attended by program midwives, Aboriginal Maternal Infant Care (AMIC) workers, Division of GP representative, Pika Wiya staff and senior members of the programs Aboriginal Women’s Advocacy group. The weekend focussed on building program’s staff understanding of Aboriginal families’ connection with the land, community and family.

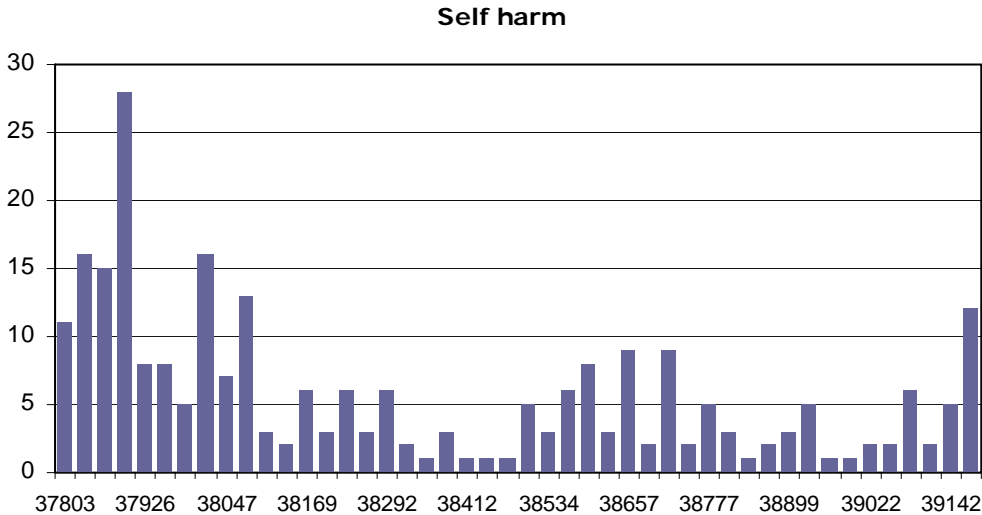
AMIC workers have commenced fortnightly study groups at Pika Wiya Learning Centre to complete Certificate 4 in Aboriginal Primary Health Care. This will result in improved career pathways towards midwifery. Additional training undertaken by AMIC staff indeed grief and loss training and SHine SA sexual health training.

52 births were recorded to June 2006. The program is averaging 8 antenatal visits per participant and 7 postnatal visits. Sixty percent of participants were breastfeeding, and 18 participants quit smoking during pregnancy.

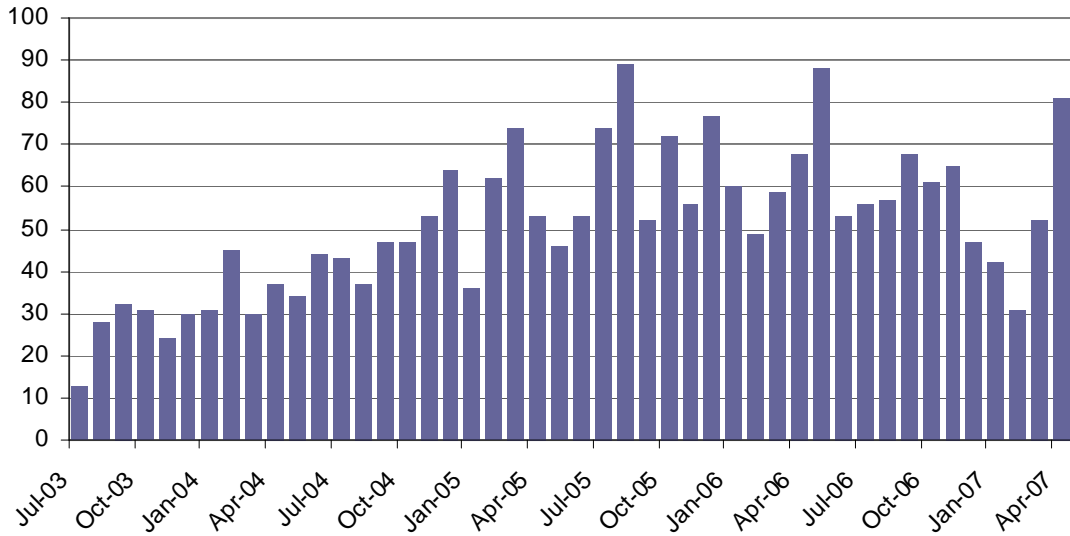
Prison Health

The SA Prison Health Service (a part of Central Northern Adelaide Health Service) provides targeted, evidence-based, primary and public health interventions to the South Australian prison population. These interventions are designed to improve the health of prisoners as well as offering effective means for the prevention and control of a number of diseases and conditions which could have an impact on the health of the general population. SA Prison Health Services collects data describing key performance indicators demonstrated in figure 30. The indicators describe interventions addressing prisoners’ complex health problems.

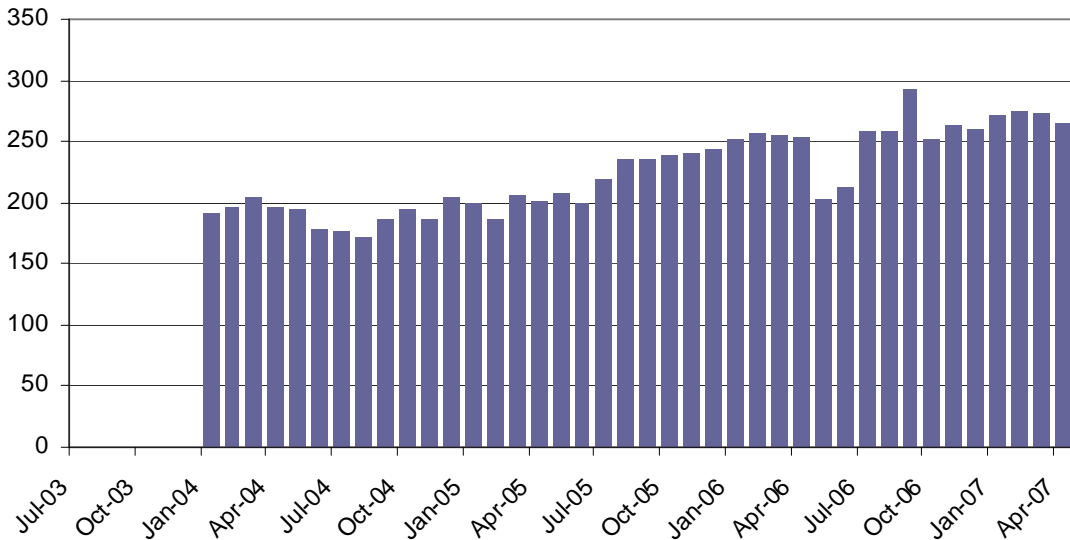
Figure 30: Selected SA Prison Health Services Key Performance Indicator



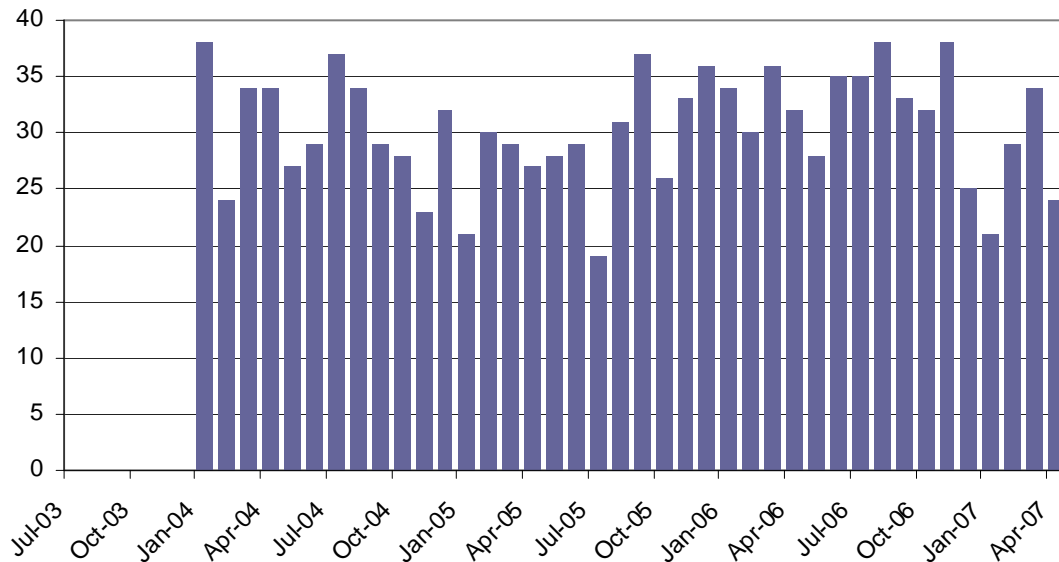
Hepatitis B immunisations



Opioid substitution Treatment Program client-months dosed



OSTP clients transferred to community



Many prisoners have unmet physical and mental health issues before they come into prison, while they are imprisoned and post-release. The crime and ill health nexus may become intergenerational without interventions. One example of stopping the offending cycle which SA Prison Health Services in partnership with the SA Department for Correctional Services has implemented is the World Health Organisation's best-practice screening tool of substance misuse.

Trends

- Daily 259 prisoners participate in the prison opioid substitution program. This recent program now enrolls a substantial proportion of the 2883 total participants in SA. Many people with addiction problems are commenced on methadone while in prison.
- 13 prisoners are being treated for chronic hepatitis C infection. In 2005 the number was only 3. Approximately 50% of all prisoners have evidence of hepatitis C infections which is related to injecting with non-sterile equipment pre-imprisonment. Without treatment, about one quarter of infected people will develop serious liver complications, requiring in some cases, liver transplantation. Hepatitis C prison treatments reduce long term, expensive ill health.
- In SA prisons 9.4% of inmates are prescribed controlled major anti-psychotic medication used for schizophrenia and chronic psychotic disorders and 24% of inmates are prescribed anti-depressants.
- Improved pathways to increase levels of psychiatric and substance misuse services are under development.
- Enhanced discharge planning processes, underpinning post-release community support to reduce recidivism are under investigation.
- 5 suicides occurred in SA prisons in 2005, in 2006 there were zero.
- In order to prevent future deaths in custody, procedures supporting information sharing between Justice and Health, while respecting patient privacy and confidentiality, are under development.

Targets: Key Issues for the future

The Prison Health Service in conjunction has identified a range of key aims, which include:

- develop a transition plan in response to the recommendations of the Prison Health Review 2005;
- modernise services including the introduction of an electronic health record;
- improve services with common care pathways for high risk people, including Aboriginal & Torres Strait Islander people;
- develop comprehensive health plans for prisoners that are transferable into community settings;
- focus on the needs of repeat offenders with high co-morbidities around ethnicity, substance misuse and mental illness;
- prepare for the possibility of pandemic influenza by reviewing infection control procedures collaboratively with Justice which will benefit prisoners, custodial staff and prison health care providers;
- work to improve service capacity and on-site facilities in partnership with the Department of Correctional Services;
- develop links across detention systems (Families SA and Department of Correctional Services) to ensure seamless health services;

- develop strong service pathways and shared responses across the client pathway in the community setting with partners including Housing SA, Aboriginal Community Controlled sector and Centrelink.

Problem Gambling

Current Status

Around 23,000 or 2.1% of South Australian adults have a gambling problem with a further 150,000 people experiencing the negative impacts of the gambling of someone close to them.

Evidence suggests that more than 90% of people with a gambling problem do not seek help through the gambling help service system. An approach which emphasises community education and prevention is therefore extremely important in raising awareness of gambling risk and harm in the general as well as vulnerable populations, and promoting help seeking behaviour.

A new Office for Problem Gambling has been established by the Department for Families and Communities to coordinate all Gamblers Rehabilitation Fund programs in South Australia, including the Gambling Community Education Program which the Health Promotion Branch has been funded to deliver since 1999. The Gambling Community Education Program will be transferred to the new Office for Problem Gambling on November 24 2006.

Strategies

Three SA strategies in place for reducing the harm associated with problem gambling are:

- **“Think of What You’re Really Gambling With” Phase Two Campaign:** A total of \$452,000 was allocated from the Gamblers Rehabilitation Fund to fund the TV, radio and print media campaign aimed at raising awareness of the risks associated with gambling. The primary target group was the general public. The campaign achieved a significant impact with 54.8% of people surveyed saying they were more aware of the risks of gambling while calls to the Gambling Helpline increased by 21%.
- **Problem Gambling SA Website:** The Department of Health’s Health Promotion Branch developed a website targeting people with a gambling problem, their families and friends to address the need for high quality information among people who do not seek help through the gambling help service system. In the period from September 2005 till 30 June 2006 the website has averaged 4,788 hits per month for a total of 43,004 hits. The website is also used extensively by gambling industry and gambling help services staff.
- **Gambling Awareness Week:** Key focus of the Gambling Awareness Week is to promote awareness of the help available for those with a gambling problem, and their families, as well as increasing awareness of risks associated with gambling. In 2006, 30 events took place across metropolitan and regional South Australia and featured a key exhibition focusing on the cultural aspects of gambling which was attended by 30,000 people.

Psychological distress

Psychological distress is one of the targets under the *Improving Wellbeing* objective in South Australia’s State Strategic Plan. The target aims to ensure the level of psychological distress is equal or lower than the Australian average within 10 years. Advocating for a population health approach has become increasingly important given the recognition that mental health and illness can result from a complex interplay of events

and conditions that take into account biological, physical, social, environmental influences.

Data

Recent data suggests that there has been a statistically significant decline in reported psychological distress in adults in South Australia from 2002-2005. However, this decrease may not be evident across all population groups. People from lower socio-economic backgrounds generally have poorer health outcomes than those from affluent backgrounds.

Strategies

Examples of two South Australian strategies in place for reducing psychological distress are:

- ***beyondblue* – the national depression initiative:** The *beyondblue* SA partnership supports early intervention programs that aim to increase prevention and awareness of depression and anxiety throughout the community. It is an across-population strategy. A total of \$1M has been allocated to *beyondblue* for the period 2005-2008 as a one-off contribution. In addition \$1.4M allocation supports the 2005-2010 Service Agreement between the SA Government and *beyondblue*.
- **Mental Health First Aid Training:** Key focus of the training is on increasing the SA communities' awareness of mental health and reducing the stigma and discrimination that is associated with it. Relationships Australia (SA) has been contracted by the Department of Health (Mental Health Unit) to provide the Mental Health First Aid (MHFA) Training Program.

Strategies for the future

Work on gathering data on 'wellness' indicators in addition to 'sickness' measures is progressing. This work will ensure that we continue to build our knowledge base on what promotes and sustains people's wellbeing.

Exploring what factors contribute to psychological wellbeing and how wellbeing can be sustained over time will require further analysis. Future work will aim to:

- improve the percentage of people reporting fair or better psychological wellbeing each year
- promote a greater focus on psychological wellbeing rather than psychological distress.

Public and Environmental Health Council

The Public and Environmental Health Council (the Council) is mandated under the Public and Environmental Health Act to initiate and oversee programs and activities designed to improve and promote public and environmental health.

Membership

The membership of the Council comprised:

- Dr Kevin Buckett - Department of Health (Presiding Member);
- Dr Nancy Cromar – Flinders University of SA;
- Mr John Coombe – Alexandrina Council;
- Ms Michaela Hobby – Australian Institute of Environmental Health;
- Dr John Cugley – Environment Protection Authority; and
- Mayor Felicity-Ann Lewis – City of Marion.

Deputy members included Dr Angela McLean, Ms Patricia Smith, Mr Bob Dunstone, Mr Michael Livori, Ms Kerin Montgomerie and Dr David Blaikie.

Summary of Key Activities of the Council for 2005/2006

Council of the Year Award - The Council initiated and developed the 'Council of the Year Award' to recognise local government authorities excelling in the area of public and environmental health. The inaugural award was presented at the Local Government Association's Annual General Meeting in March 2006. The Metropolitan Award was won by the Eastern Health Authority, which includes Burnside, Campbelltown, Norwood Payneham St. Peters, Walkerville and Prospect Councils. The Eastern Health Authority was recognised for its proactive approach to public and environmental health issues and its community consultation and education practices. The Regional Award was won by the Alexandrina Council who demonstrated its commitment to youth through empowering youth to take ownership of a variety of projects including health programs. Alexandrina Council also helped establish a regional transport service providing access for the aged, socially isolated and frail to attend medical appointments and social events. The Council also recognised the efforts and achievements of the City of Whyalla and the City of Charles Sturt.

Inequality in Health: A presentation to Council based on the Department of Health report "Inequality in South Australia" detailed specific social determinants of health and wellbeing and highlighted how differences in these determinants may lead to poor health outcomes. Council's intention is to further explore opportunities to address issues of inequality in health through public and environmental health measures.

Food Safety Arrangements - Meat Industry: Council members considered the differences in approach between Local Government and Primary Industries and Resources South Australia when investigating food complaints from the public.

Council expressed some concerns, particularly regarding how complaints were handled and the matter was referred to the Food Policy and Programs Branch of the Department of Health and to the Food Safety Special Interest Group of the Australian Institute of Environmental Health for further investigation.

Clandestine Drug Laboratories: Clandestine Drug Laboratories have emerged as a potentially significant public health issue for the community. The remediation of sites previously used as Clandestine Drug Laboratories contaminated with chemicals (eg rental properties) requires an interagency response. The Council considered this issue and members supported the concept that the Department of Health provides advice and leadership to Local Government on the decontamination of premises used as Clandestine Drug Laboratories. Council is to monitor the progress of this issue into the future.

Review of the Public and Environmental Health Act 1987: The Council is an active participant in this legislative review.

Environmental Health Workforce: The Council continued its role in monitoring current and emerging issues facing the Environmental Health workforce in South Australia. The Council is acutely aware of the shortage of authorised officers in regional areas and received a number of requests for the appointment of non-qualified officers for these areas. The Council did not support the appointment of non-qualified officers and continues to actively seek alternative measures to address this shortfall. One program proposed is the establishing of local government regional bodies to provide health services to a number of council areas.

Review of Department of Health Codes, Guidelines and Factsheets: The Council received updates on the progress of the several Departmental codes, guidelines and factsheets. Codes reviewed included the *Onsite Wastewater Systems* and *Connections to Reticulated Community Wastewater Systems* codes. Council also endorsed a variety of documents including the *Guidelines on the Public Health Standards of Practice for Hairdressing* and the Tick and Household Mould Fact Sheets. These documents have been developed in response to increased enquiries received by the Department of Health.

Communicable Disease: Council was made aware of a number of issues pertaining to communicable disease, including: pandemic influenza, increased incidence of mosquito borne arboviruses, cases of *Rickettsial Spotted Fever* occurring outside of the traditional geographic range of the disease and cases of *Listeria* infection that attracted media interest. Members of the Council were briefed on two significant matters involving the quality of potable water supplies.

In addition to the above, Council received information on other programs and initiatives including the SA Cervix Screening Program and the Indigenous Environmental Health Worker (IEHW) Program.

Appeals under the Public and Environmental Health Act

The reporting period saw four appeals lodged with Council against enforcement notices served by Local Government under the Public and Environmental Health Act. Two of these appeals were heard and two appeals were withdrawn (one as a result of the notice being revoked by the issuing authority). Those heard were issued using the "Control of Offensive Activities" provisions of the Act. The first appeal related to the inadequate operation, maintenance and microbiological sampling of a cooling tower which gave rise to the potential for *Legionella* colonisation. The second appeal related to a land owner's practice of feeding cattle putrescible vegetable matter that decomposed and caused a nuisance through the creation of odours and attraction of flies. The Review Committee dismissed the appeal for both cases and upheld the Notices subject to slight alteration.

Public Health Expenditure

South Australia, as part of a national agreement with the Australian Government, provides the Australian Institute of Health and Welfare with expenditure reports for public health. Due to national recording standards these reports do not capture the full scope of public health activity such as is represented in this report. The data nevertheless provides some significant information on public health expenditure levels.

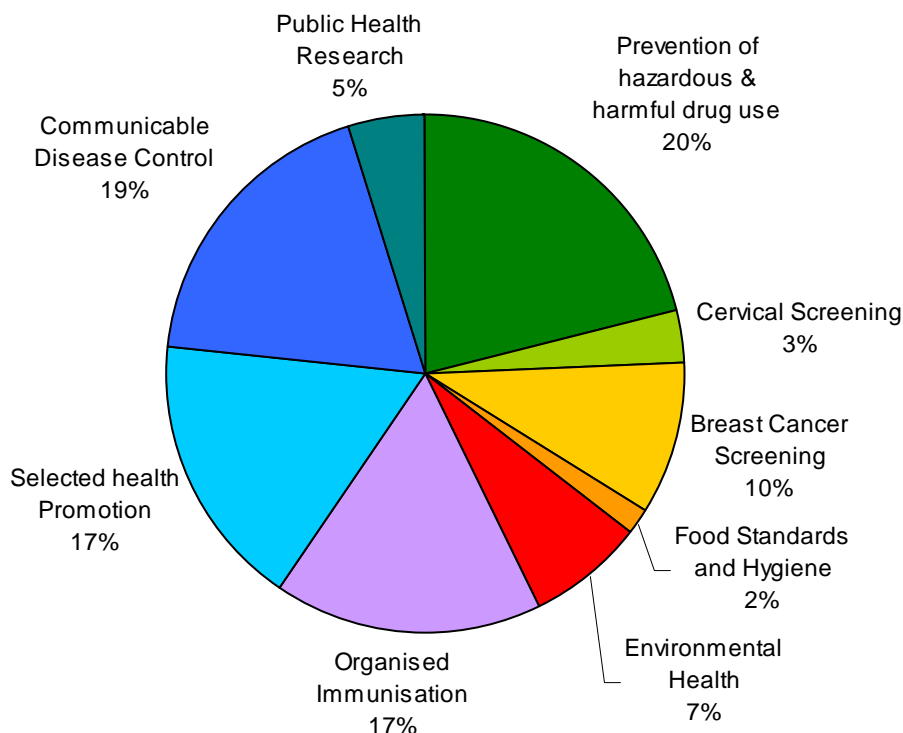
Total public health expenditure by the Department of Health in 2004–05 (which is the latest full year that figures are available) was estimated, in current price terms, at \$81.1 million, up \$2.1 million or 2.7% on the previous financial year (Figure 31). The increase in spending was largely due to an increase in expenditure on Prevention of hazardous and harmful drug use (up \$2.6 million).

In 2004–05, approximately 74% of the expenditure was directed towards four health activities (Figure 31):

- prevention of hazardous and harmful drug use (21.2%)
- communicable disease control (18.7%)
- selected health promotion (17.1%)
- organised immunisation (16.6%).

Figure 31: Proportion of State government public health expenditure, by activity, South Australia, 2004–05

Total public health expenditure \$81.1M



Expenditure on ‘public health related activities’

Total expenditure on ‘Public health-related activities’ in 2004–05 was estimated at \$82.3 million, up approximately \$14.8 million or 21.9% on the previous year.

The major programs included as ‘Public health-related activities’ for 2004–05 were:

- dental health services, including the school dental screening program (\$50.1 million)
- primary health care programs providing generic health service provision, as well as projects relating to migrant health, women’s health, youth health, Aboriginal health and violence and abuse (\$16 million)
- alcohol and other drug treatment and welfare-related programs (\$7.6 million).

Public Health Expenditure - Local Government

The Public and Environmental Health Act (1987) identifies local government as local health authorities responsible for the maintenance of proper standards of public and environmental health in their areas.

Local councils report to the Public and Environmental Health Council on activities they have undertaken in each year. These reports can be found on the Department of Health’s website:

www.dh.sa.gov.au/pehs/pub-env-health-council.htm

Local governments also report to the Australian Bureau of Statistics on overall expenditure. The most recent full year figures available are for 2004-05. South Australian local governments report spending \$28 million on health services which, on a per capita basis, is slightly above the national average.

Public Health Outcomes Funding Agreement

Public Health Outcome Funding Agreements are bilateral funding agreements between the Commonwealth and each state and territory, providing broadbanded and specific purpose funding for a range of public health programs.

The Commonwealth provides funds to states through Public Health Outcome Funding Agreements to achieve public health outcomes, and are underpinned by the following principles: equity and access, including to the ATSI population, best practice, participation and partnership, commitment to infrastructure; and integration with primary health care. Under the Public Health Outcome Funding Agreements, the state and territory governments are required to report annually against a range of outcome-based performance indicators.

The current Public Health Outcome Funding Agreement is for five years 2004-2005 to 2008-2009 – with programs funded in three specified public health priority areas:

- communicable diseases (ie blood borne and sexually transmissible infections and reproductive health)
- health risk factors (ie tobacco and alcohol misuse programs); and
- cancer screening (ie breast and cervical screening).

The Agreement also provides funding to implement programs in:

- women's health;
- alternative birthing;
- female genital mutilation services;
- programs under the National Drug Strategy.

Programs in South Australia which currently receive Public Health Outcome Funding Agreement funding include:

- BreastScreen SA;
- SA Cervix Screening Program;
- Shine SA;
- Drug and Alcohol Services SA;
- HIV/AIDS;
- National Women's Health Program;
- Female Genital Mutilation Education Program.

Future directions for Public Health Outcome Funding Agreement in SA include the development of explicit criteria for programs to receive funding under the Agreement.

These criteria need to reflect the principles underpinning the Agreement outlined above, as well as clearly indicate the achievement of public health outcomes as they relate to the three specified public health priorities.

The development and implementation of the criteria will involve consultation with current Public Health Outcome Funding Agreement programs as well as more broadly with programs across public health. At the same time efforts will be made to streamline administrative, monitoring and reporting arrangements for Public Health Outcome Funding Agreement to ensure efficiency and effectiveness.

More details of South Australia's Public Health Outcome Funding Agreement can be found on the Department of Health and Ageing website at:

www.health.gov.au/internet/wcms/publishing.nsf/Content/Agreements-1

Public Health Medicine

Public Health Medicine brings specialist public health medical support to a large range of work being undertaken by the Department of Health. Work over the last year has included the health effects of climate change, investigation of a variety of environmental medical concerns, planning the management of mass deaths in the community from pandemic influenza, communicable disease control, liaison with the wider medical community in relation to environmental medical concerns and co-ordination of the population health articles in the monthly Australian Medical Association Medic SA monthly magazine.

Public Health Medicine also provides expertise in risk communication and offers a range of educational opportunities for undergraduate medical and other health science students, to help build capacity in a range of public health fields.

Public Health and Clinical Coordination within the Department of Health currently has an advanced trainee with the Australasian Faculty of Public Health Medicine trainee under (the Malcolm Collings Traineeship). The Malcolm Collings Traineeship is the only government sponsored position of its type in South Australia and provides medical officers with advanced training in Public Health medicine across the broad range of disciplines within public health. The traineeship provides an excellent opportunity for development of public health medicine in South Australia. The current trainee is working across a range of areas, including examining the public health benefit for vaccinating young children against influenza, and ways to reduce the risk of serious dog bites in the community.

Refugee Health

In 2005 there were over 700 refugee arrivals to South Australia. The ratio of males to females was equal, while over half (56%) were aged less than 18 years.

Nearly 75% of arrivals were of African origin, with the majority of these African arrivals coming from Sudan, Liberia and Rwanda. The remaining arrivals were mainly of Afghan origin.

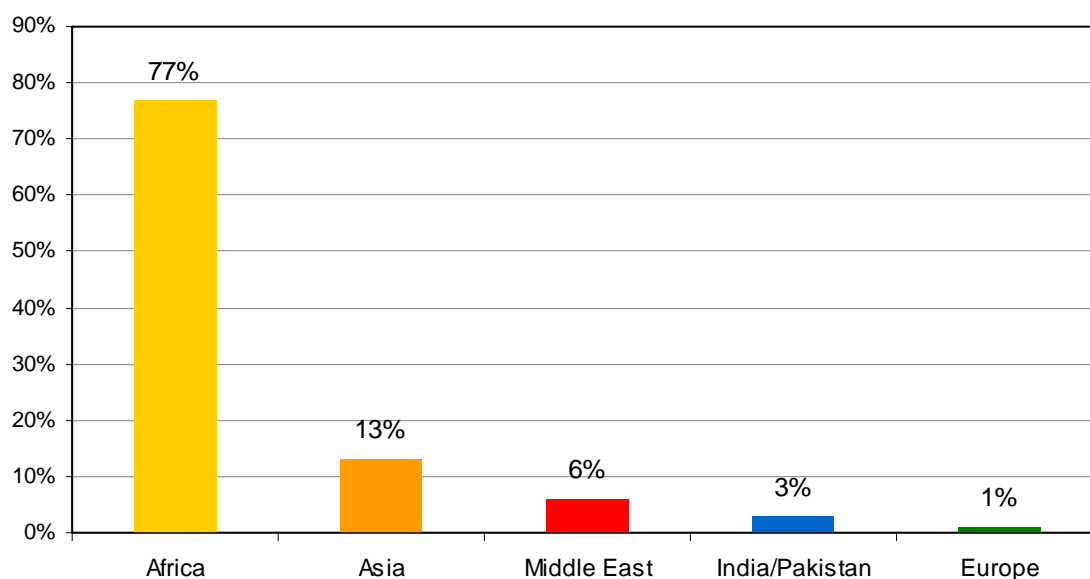
The origin of humanitarian entrants varies based on the current international political climate. In 2006 the focus is on refugees from Congo, Burundi, Liberia, Uzbekistan and Burma.

Particular public health issues related to settlement of refugees is the monitoring and treatment of a range of infectious conditions including:

- **Schistosomiasis** (a parasitic worm that lives in water and enters via the skin). This was detected in 18-38% of refugees who underwent health screening
- **Intestinal parasites** including strongyloides, giardia, hookworms, entamoeba histolytica and an assortment of tapeworms. This was detected in 10-33% of refugees who underwent health screening
- **Malaria**. There were a total of 33 notifications for P. falciparum malaria in 2005. Of these, 29 cases were likely refugees (all African) based on available notification data. Source of infections included 11 in Liberia, 7 in Uganda and 4 in Burundi.
- **Hepatitis B Infection** rates seen in refugee specific health clinics in Australia range from 8.3%-m 20%. Of the population of carriers of hepatitis B in South Australia, 31% indicated an African location as their country of birth
- **Tuberculosis**. World wide tuberculosis is a significant problem with one-third of the world's population currently infected with the TB bacillus. Refugee populations are at high risk for acquiring TB. There are a number of reasons for this, including:
 - many come from countries with a high incidence and the likelihood of having acquired latent infection prior to migration

- the conditions of camps, with poor sanitation and overcrowding increase the risk of acquiring an infection
- the socioeconomic stresses associated with resettlement can contribute to the progression of latent to active disease.

Figure 32: Region of origin of cases receiving treatment for tuberculosis in 2005



Source: SA Tuberculosis Service

In February 2006 a Refugee Health Planning Day was conducted by Relationships Australia SA and funded by the Department of Health. The purpose of the day was to facilitate discussion between groups of stakeholders involved in the provision of health and settlement services to refugee and newly arrived communities. This was the first time such an event had been conducted in South Australia and a key priority was to ensure that canvassing and mapping of issues and responses would be as comprehensive and inclusive as possible.

Review of the Public and Environmental Health Act (1987)

The Public and Environmental Health Act is the centrepiece of public health law in South Australia. As part of the Government's Platform for Government, a commitment was given to strengthen and modernise South Australia's public health infrastructure and to modernise public health legislation.

The Review commenced in May 2006 and is incorporating the work of a partial review of the Act undertaken in 2000.

The Review is being conducted in a manner congruent with the Memorandum of Understanding between the State Government and Local Government in South Australia. This agreement establishes clear protocols and processes for consultation for matters which have direct bearing on the functions of Local Government. The Public and Environmental Health Act (1987) defines the public and environmental health role of Local Government and establishes a partnership between Local Government and the State Government.

As part of the Review options for developing this and related partnerships will be further explored in the light of current and future public and environmental health issues.

The goal of the Review is to develop modern public health legislation which:

- establishes clear goals and objectives for public health

- identifies sound principles for the conduct of public health activities
- provides for streamlined and efficient assessment of public health issues
- allows for the development of efficient and effective public health policies programs and strategies
- develops a comprehensive framework for public health planning and reporting at the local, regional and state level
- ensures that public health preparedness in this State has a sound legislative foundation
- provides for the development of partnerships for public health across state and local government agencies and the community and non government sectors.

The Review will undertake a consultation process during 2006-2007 and a draft bill will be prepared for final consultation during this period.

Skin Penetration

Skin penetration activities constitute a risk for the transmission of blood borne infections and as such are subject to the provisions of the *Public and Environmental Health Act 1987*. Skin penetration activities include piercing, tattooing and other cosmetic procedures.

Due to the constantly evolving nature of practices in skin penetration, the Environmental Services section undertook a review of the *Guidelines on the Public Health Standards of Practice for Hairdressing*. The revised guidelines were released in April 2006 and reflect current infection control procedures with a particular focus on the cleaning of equipment and hygiene.

New skin penetration procedures are being introduced into South Australian skin penetration businesses under the banner of 'body modification'. Body modification is the deliberate altering of the human body for non-medical/aesthetic reasons. Body modification activities range from ear piercing and tattooing to more invasive procedures including tongue splitting, branding, scarification and insertion under the skin of silicon or metal implants. Demand for the more invasive procedures is on the rise throughout the western world and Adelaide body artists are increasingly interested in performing such procedures. Branding, scarification and implants carry a substantial risk of serious infection because of the 'surgical' nature of these procedures. The Department of Health is currently investigating an appropriate policy response to these body modification procedures that minimises harm.

Smoking and Tobacco Control

South Australia's Strategic Plan set a goal to "reduce smoking prevalence in young people by 10% over 10 years". This target requires a 10% reduction in cigarette smoking by young people aged 15 to 29 years within ten years. The target was set in 2002 when smoking prevalence for 15-29 year olds was 27.3%.

Drug and Alcohol Services South Australia is the designated lead agency on this target. Along with this target, reduction targets for adults, homes, cars and workplaces have been incorporated into the *South Australian Tobacco Control Strategy 2005-2010*.

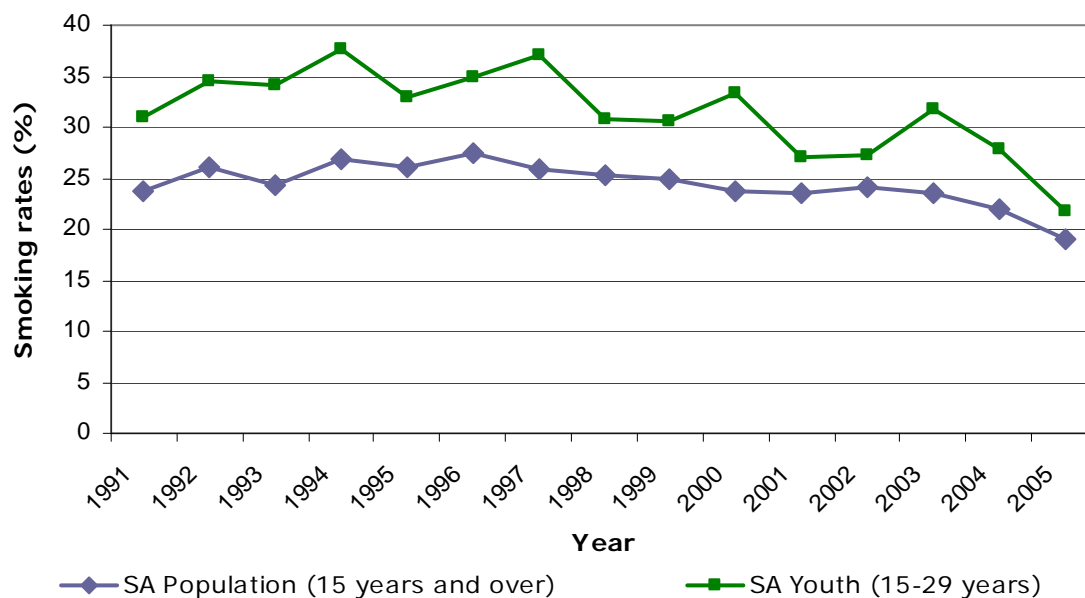
Data

In 2005, smoking prevalence for the South Australian population was 19.1%, which was a decline from 1990 prevalence rates of 38.5%. Other rates for 2005 were as follows: 21.2% males, 17.1% for females, 21.7% for young people aged 15-29 years. The 2005 youth rate is ahead of the 1% per annum decrease in prevalence that is required to meet *South Australia's Strategic Plan* target.

Tobacco smoking prevalence is decreasing but not to the same extent within some population groups, such as Aboriginal people and those living with a mental illness. Indigenous smoking rates for people aged 18 years and over indicate that 52.9% were daily smokers in 2004/05.

Health Omnibus data for 2005 showed that 29.2% of individuals who were receiving treatment for anxiety, depression or any other mental health condition were smokers.

Figure 33: Smoking prevalence in South Australia 1991-2005



Source: Tobacco Control Research and Evaluation, April 2006

Current directions

The *South Australian Tobacco Control Strategy 2005-2010*, which was released for implementation by the Minister for Mental Health and Substance Abuse in 2005, laid out initiatives for the five year period.

The Strategy outlines the way forward for government and non-government organisations to work together to reduce tobacco smoking prevalence. It was developed by the Ministerial Reference Group on Tobacco and is based on best practice tobacco control. Prior to its release, it was the subject of extensive consultation with relevant stakeholders.

In particular, the Strategy aims to reduce smoking prevalence and exposure in the South Australian population generally with special effort focusing on reducing harm caused by tobacco in three priority groups: young people, people living with mental illness and Aboriginal people.

The seven strategy areas that constitute best practice tobacco control are as follows:

- **Strategy Area 1:** Reduce smoking using a framework that addresses the social determinants of health
- **Strategy Area 2:** Smoke-free legislation, regulations and policies
- **Strategy Area 3:** Regulation to minimise commercial conduct that promotes tobacco products; advertising/promotion; product toxicity; active surveillance and enforcement
- **Strategy Area 4:** Knowledge about the health effects of smoking and community support for tobacco control
- **Strategy Area 5:** Mass media led quit promotions
- **Strategy Area 6:** Cessation support and relapse prevention
- **Strategy Area 7:** Research, evaluation and monitoring.

The South Australian Government is committed to reducing the prevalence of tobacco among all South Australians. To achieve this, the Government has funded targeted public awareness campaigns; made changes to legislation, including reducing the number of public places where people can legally smoke; and provided grants for innovative approaches to help reduce tobacco consumption in communities with a high smoking prevalence.

Achievements in 2006

Initiatives were enacted during 2006 that contributed to a decrease in smoking prevalence. They included the following:

- legislative changes such as banning fruit-flavoured cigarettes and split packets. Tobacco Merchant's Licence fees have been increased to \$200 per year from 1 January 2007;
- regular monitoring and enforcement of smoking regulations including running controlled purchase operations to check retailer compliance with the laws relating to the sale of tobacco products to minors and inspections of licensed facilities to ensure compliance with the smoke-free bans;
- assistance to over 11,000 people per year by the Quitline;
- media campaigns on television such as: "ECHO", "Every cigarette is doing you damage...", "You should have been there", "amputation" and "mouth cancer";
- the trial of the alternative treatment program using Nicotine Replacement Therapy trial which involves subsidies on nicotine patches or lozenges for high-risk populations;
- community participation in high prevalence groups (e.g. young people, Aboriginal communities and people with a mental illness) to develop activities to reduce tobacco smoking;
- smoking intervention activities for pregnant women and new mothers.

Future directions

Over the forthcoming year, there will be a continuing focus on policy and legislative reforms to reduce tobacco smoking prevalence. They include the following:

- a total ban on smoking in indoor liquor licensed hospitality venues will come into effect from 1st November 2007
- restrictions on the point of sale displays in retail outlets will commence on 1st November 2007
- a final evaluation of the Nicotine Replacement Therapy trial will be undertaken
- continued work on reducing smoking on hospital campuses and on encouraging and supporting pregnant women and their partners to stop smoking
- increased surveillance on tobacco companies to ensure compliance with current legislative marketing restrictions at youth events such as raves, nightclubs and concerts
- continued implementation of initiatives outlined in the *South Australian Tobacco Control Strategy 2005-2010*

The Tobacco Surveillance Section of the Applied Environmental Health Branch is responsible for the enforcement of the *Tobacco Products Regulation Act 1997*. The Section's activities include inspections of tobacco retailers and licensed premises, controlled purchasing operations (for sales to minors) and provision of advice and promotional materials to businesses and the community on tobacco enforcement issues.

During 2005/2006, a total of 93 expiation notices were issued for the following offences against the Act:

- 51 sales to minors
- 4 Retail outlets for failure to display prescribed notices for the sale of tobacco to under 18
- 24 members of the public for smoking in an enclosed area
- 4 owner/managers responsible for allowing member of the public to smoke in an enclosed area
- 10 failure to display non-smoking signage in the prescribed manner to designated non-smoking area.

A new computer based Tobacco Surveillance and Licensing System was established to improve the administration of the 2800 tobacco retailer licences issued by the Section. The licensing system will provide the capability to manage all aspects of tobacco surveillance related to premises including complaints, licensing and results of inspections.

Wastewater Management

The historical role of wastewater management within public health goes as far back as 1901. Traditionally, the 'seppos' (technical officers dealing with septic tanks) carried out inspection work and enforced standards for installing and maintaining on-site systems throughout the State, until as late as 1995.

In the early 1960s, it became clear that other strategies needed to be in place to cater for areas with poor soil drainage. The "common effluent drainage" schemes (later to be called *Septic Tank Effluent Drainage Schemes*) were created first in areas such as Pinnaroo and Tea Tree Gully, followed by other country towns. There are now over 160 such schemes throughout the State. As a result of this leadership, South Australia has pioneered septic tank effluent drainage schemes and is now seen as one of the best solutions to wastewater for small communities around the world.

The Department of Health through the Wastewater Management Section (Applied Environmental Health Branch) together with local government, administers matters relating to wastewater for the 400,000 South Australians not connected to SA Water sewer infrastructure. Functions include:

- administration of legislation relating to onsite and non SA Water communal wastewater systems. The Department of Health has recently completed the revision of legislation relating to these systems to ensure it keeps pace with new technologies. Two new Codes (The Onsite Wastewater Systems Code and The Standard for Connection to A Reticulated Community Wastewater System) have been formulated together with a revision of the current Waste Control Regulations;
- approval of all infrastructure associated with communal wastewater systems outside of those administered by SA Water. South Australia presently has over 160 septic tank effluent disposal (STED) schemes and a small number of private sewers. The Department of Health assesses all installation applications for these schemes as well as extensions to existing systems. In the year 2005/2006 the section processed over 40 applications for new collection, treatment and reuse schemes to serve entire towns as well as extensions to existing communal systems;
- product approval for all pre-manufactured wastewater systems offered for sale in SA including onsite wastewater treatment systems, greywater systems and septic tanks. 19 new products were approved for use in South Australia for the 2005 -2006 period;
- approval for all reclaimed water reuse schemes throughout the state including sewer mining projects and irrigation of parklands and recreational reserves;
- approval of all 'alternative' systems for on site wastewater disposal/ reuse. To enable innovation and progress in the area of wastewater collection treatment and disposal, the section assesses all systems which do not comply with current prescribed codes.

This allows developers and homeowners to avail themselves of alternative technologies with individual assessment being carried out by the section on these systems. Over 30 alternative systems were approved last year;

- support to the public, local government and other government departments relating to matters concerning wastewater disposal. With the onset of the drought, the Department of Health has provided information to the public and stakeholders on the health impact of greywater reuse including fact sheet production and telephone advice.