# PERFORMANCE

# How we compare

The NSW health system has been subject to pressures of increasing demand, population growth and population ageing in recent years. Despite these pressures, the health of the people of NSW not only compares favorably with the rest of the world, but continues to improve with each passing year. This echoes the sustained momentum of system redesign which is leading to improvements in the quality and efficiency of the public health system.

Comparisons with other states and territories, and other countries with similar health systems is an effective way to benchmark the NSW public health system. National and international results in key health indicators provide the signs we need to ensure we are providing a range of services that are comparable with the best in the world.

This section provides an overview of results for key health indicators recognised internationally as reliable and objective methods for measuring health and health services. The most recent international data has been sourced from The Organisation for Economic Co-operation and Development (OECD) and the World Health Organization (WHO). Interstate data has been sourced from the Australian Institute of Health and Welfare (AIHW) and the Australian Bureau of Statistics (ABS).

Information on a variety of indicators is included, covering:

- Life expectancy at birth – international and state/territory comparisons
- Infant mortality - international and state/territory comparisons
- Death rates - state/territory comparisons
- Health expenditure - international and state/territory comparisons
- Selected hospital activity data – state/territory comparisons

While organisations such as the OECD and WHO endeavor to standardise published health measures and results, information users must always exhibit caution in drawing comparisons between countries. Even though it may appear that countries are using the same health indicators, there may be hidden variations in their construction and countries may be using different inputs, have different definitions of the indicator or have varying degrees of coverage of what they are measuring.

It should also be remembered that countries make choices about how they fund their health systems, the mix of public and private funding, the level of health insurance coverage, and the availability of health professionals to provide health services. These choices impact on the range of services provided and the financial resources allocated to health. Although in this section we only compare Australia with a select group of OECD countries, where social and economic structures are similar, there will always be differences in some of the social determinants of health, such as living and working conditions, that are beyond the ability of health service providers to directly influence.

Care should also be taken when comparing states and territories, because each state and territory governs its own public health system and each has a unique geographic and demographic make up that inevitably creates differences between systems. This particularly relates to the proportion of Indigenous persons in the population which affects the overall health outcomes. Indigenous people have a lower life expectancy, experience disability at a higher rate and have a reduced quality of life due to ill health than non-indigenous Australians.

Some states and territories also have different proportions of people living in rural and remote communities than NSW and their health services are designed differently to account for these variations. Finally, it is important to note when comparing state and territory health data that the degree of coverage of the data may differ. Problems with data capture often mean that not all activity can be reported in official statistics.

## Life expectancy at birth

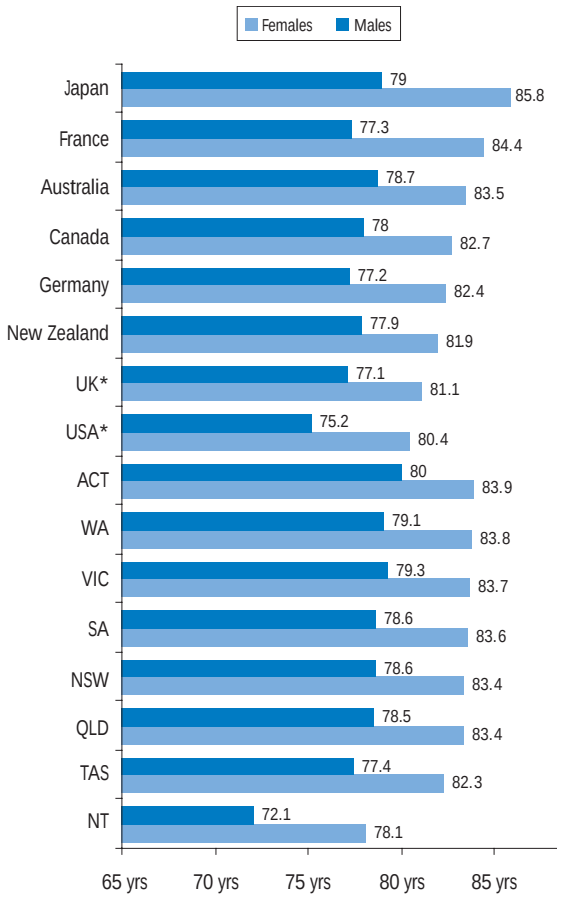
Life expectancy at birth measures the average number of years a newborn can expect to live if the existing mortality patterns remain during the individual's lifetime. Life expectancy has long been used as an indicator to reflect the level of mortality experienced by a population and is often used as an objective summary measure of a population's health. There are many



influences upon the life expectancy of a population, including socio-economic factors such as level of income or education, environmental issues such as pollution and water supply, as well as health-related behaviours, such as smoking and alcohol consumption.

Chart 1 shows the NSW and Australian rates of life expectancy compared with other states and territories, and selected OECD countries.

Chart 1: Life expectancy at birth (years) for selected OECD countries and Australian states and territories (2006)




Source: OECD Health Data, 2008 and ABS Life Tables, 2006
*The US, UK and Canada = 2005 data

Australia's life expectancy at birth for those born in 2006 was 83.5 years for females and 78.7 for males. Australia has had a continual increase in life expectancy since the early twentieth century and Australians currently have one of the best life expectancy rates amongst OECD countries and in fact, the world.

Life expectancy at birth in 2006 in NSW was on par with the Australian average at 83.4 years for females and 78.6 years for males. NSW life expectancy is longer than a number of countries including New Zealand, Canada, Germany, the US and the UK for both males and females. Like the national rate, NSW continues to improve year-on-year.

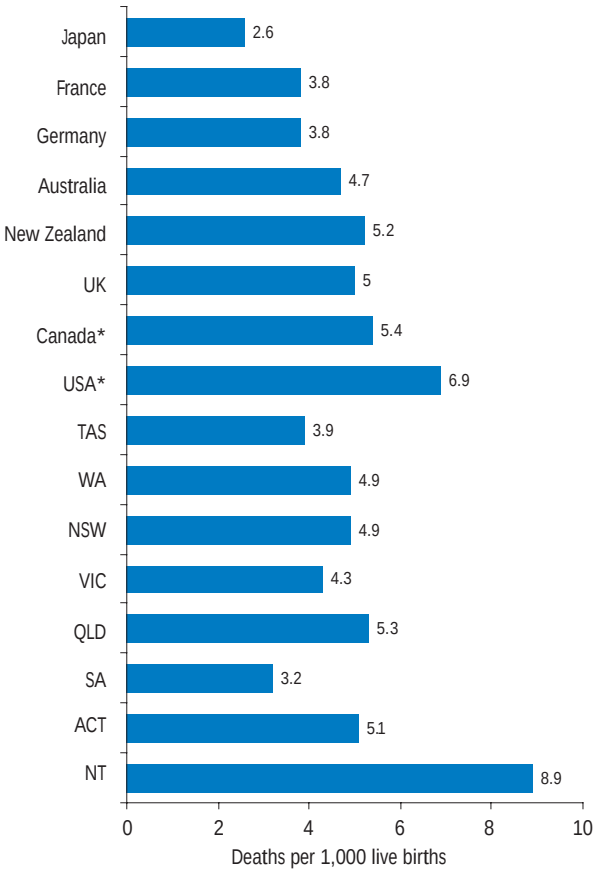
## Infant mortality

Infant mortality is another indicator used to compare the health and well being of populations across and within countries. The infant mortality rate refers to the number of deaths of infants (children less than one year old) per 1,000 live births in any given year. Like life expectancy at birth, it is internationally recognised as an indicator of population health and is often used in understanding an area's state of health development. In the past, infant mortality claimed a large percentage of children born, but the rates have significantly declined in modern times, mainly due to improvements in basic health care and advances in medical technology.

In industrialised countries today, infant mortality is a good indicator of the quality of antenatal care, the effectiveness of obstetric services and the quality of infant care in the hospital and in the community as well as being an indicator of maternal health.

Chart 2 (on the following page) shows the latest OECD data on infant mortality alongside state and territory rates from the ABS.

Chart 2: Infant mortality rates for selected OECD countries and Australian states and territories, 2006




Source: OECD Health Data, 2008 and ABS Death Australia, 2006
*The US and Canada = 2005 data

Australia has seen a slight decrease in the infant mortality rate in 2006 (4.7) compared to 2005 (5.0). Slight fluctuations in the year-on-year rate are not uncommon however, and the rate continues to decline long term. Like life expectancy at birth, Australia has a better infant mortality rate than New Zealand, Canada, the UK and the US.

At 4.9, the infant mortality rate in 2006 in NSW was slightly higher than the Australian rate. Although the NSW rate was up slightly on 2005, like the overall Australian rate, it has been steadily declining in recent decades.

# Death Rates

In Australia, the standardised death rate in 2006 was 7.3 deaths per 1,000 for males and 4.9 for females. This represents a significant improvement from 1996 when the death rate was 9.9 and 6.2 respectively.

The NSW standardised death rate in 2006 is marginally above that of the Australian total for both males and females, which is similar to the 1996 results. Substantial reductions have taken place across all states and territories during this 10 year period.

Table 1: Standardised death rates per 1,000 people, 1996 and 2006

| STATE/ TERRITORY | 1996 | | 2006 | |
|---|---|---|---|---|
| | MALES | FEMALES | MALES | FEMALES |
| NSW | 9.9 | 6.2 | 7.4 | 5.0 |
| VIC | 9.7 | 6.1 | 7.1 | 4.9 |
| QLD | 9.9 | 6.2 | 7.3 | 4.9 |
| SA | 9.7 | 6.1 | 7.3 | 5.0 |
| WA | 9.9 | 6.1 | 7.2 | 4.7 |
| TAS | 11.0 | 6.9 | 8.2 | 5.6 |
| NT | 12.0 | 8.0 | 9.8 | 7.4 |
| ACT | 9.5 | 6.0 | 6.4 | 4.8 |
| AUSTRALIA | 9.9 | 6.2 | 7.3 | 4.9 |

Source: ABS Deaths Australia 2006

# Health Expenditure

Comparing health expenditure as a proportion of Gross Domestic Product (GDP) between countries is a commonly used economic measure in health. This measures a nation's or state's spending on health goods, services and capital investment as a proportion of overall economic activity. It is however susceptible to movements in GDP or health expenditure causing instability in the health–GDP ratio. Health expenditure per capita is an alternative measure that allows comparisons without the misleading effect of GDP movements and population changes.

Table 2: Health expenditure for selected OECD countries, 2006

| | TOTAL EXPENDITURE ON HEALTH AS A PROPORTION OF GDP | GOVT EXPENDITURE ON HEALTH AS A PROPORTION OF TOTAL HEALTH EXPENDITURE | PER CAPITA TOTAL HEALTH EXPENDITURE AT AVERAGE EXCHANGE RATE (A$) |
|---|---|---|---|
| Australia | 8.7 | 67.7 | 4,383 |
| Canada | 10.0 | 70.4 | 5,186 |
| France | 11.1 | 79.7 | 4,863 |
| Germany | 10.6 | 76.9 | 4,753 |
| New Zealand | 9.3 | 77.8 | 3,452 |
| UK | 8.4 | 87.3 | 3,892 |
| US | 15.3 | 45.8 | 9,467 |

Source: Health expenditure Australia 2006-07, AIHW 2008

Table 3: Average health expenditure per capita current prices, 2003-04 to 2006-07 (A$)

| STATE/ TERRITORY | 2003/04 | 2004/05 | 2005/06 | 2006/07 | AVERAGE ANNUAL GROWTH RATE BETWEEN 2003/04 AND 2006/07 (%) |
|---|---|---|---|---|---|
| NSW | 3,919 | 4,075 | 4,111 | 4,225 | 2.5 |
| VIC | 3,865 | 4,026 | 4,066 | 4,156 | 2.4 |
| QLD | 3,564 | 3,668 | 3,821 | 4,025 | 4.1 |
| SA | 3,902 | 4,061 | 4,041 | 4,212 | 2.6 |
| WA | 3,998 | 4,153 | 4,198 | 4,267 | 2.2 |
| TAS | 3,603 | 3,699 | 3,826 | 3,988 | 3.4 |
| ACT | - | - | - | - | - |
| NT | 4,716 | 4,894 | 5,105 | 5,282 | 3.8 |
| AUSTRALIA | 3,850 | 3,996 | 4,054 | 4,185 | 2.8 |

'Expenditure' includes Government funded (including the Australian Government), health insurance, injury compensation and 'out-of-pocket' expenditure.
ACT per capita figures are not calculated since these numbers include a substantial number of expenditures for NSW residents (i.e. the ACT population is not an appropriate denominator)
Source: AIHW, Health Expenditure Australia 2006-07, Australian Institute of Health and Welfare 2008.

Although a comparison of Australia's health expenditure with other OECD countries gives us an indication of the relative efforts being made to meet the need for health goods and services in countries with similar economic and social structures, caution is recommended in the interpretation of results, given that differences may exist between countries in terms of what is included as health expenditure. Table 2 shows the latest available data (2006) for both the per capita and GDP percentage of both total health expenditure and government health expenditure between selected OECD countries.

The total expenditure on health in Australia as a percentage of GDP was 8.7% in 2006, which is lower than a number of other countries listed. Australia's health to GDP ratio has been steadily increasing over the last decade, with GDP growing by 6.7% p.a., however health has had a higher expenditure growth of 8.4% p.a. over the same period resulting in an increase in the health to GDP ratio during the period.

Of the selected countries shown, Australia has the second lowest government proportion of total health expenditure (67.7%). One of the reasons for this is Australia's growing private health sector compared with other countries. The US, well known for its large private health sector, has only a 45% government contribution to health spending. Australia spent A$4,383 per capita on health in 2006, less than Canada, France, Germany and the US, but more than New Zealand, and the UK.

Table 3 shows health expenditure within Australia's states and territories over the most recent four years.

Health expenditure in states and territories is influenced by the different health priorities of their Governments. Priorities, and hence policies, will be influenced by the socio-economic makeup of a population, the proportion of indigenous people and remoteness issues, which all influence health expenditure levels and distribution decisions.

Per person, an average of $4,225 was spent on health in NSW in 2006/07. While this is slightly higher than the Australian average, the average annual growth rate in per capita spending since 2003/04 (2.5%) was slightly less than the Australian average (2.8%).

While broad comparisons can be made between states and territories, caution must be exercised when comparing results. Although the AIHW applies consistent methods to its calculations, there may be data quality differences from one jurisdiction to another. It is also important to bear in mind when considering per capita figures that the costs of interstate patients are often included whereas the population (the denominator) is the resident population of the state or territory.

## Hospital Activity

This section provides a selection of AIHW data related to public hospital activity by state and territory. When making comparisons in activity between states and territories, keep in mind that public hospitals vary considerably in size, services available and the degree of specialisation.

Generally, public hospitals provide an array of health services from urgent and life-threatening care in emergency departments to elective surgery aimed at improving quality of life. However, a large city hospital provides different functions and operates differently to a small rural hospital that may serve a much smaller but more geographically spread population. The geographical and demographic make-up of a state or territory will be reflected in its hospital types and activity.

NSW has the largest number of hospitals of any state or territory and also has the greatest number of hospital beds, reflecting its higher population. NSW has a higher provision of public hospital beds per head of population than the national average however, which in part reflects the relatively low provision of services by the private sector in this state. The number of admissions per head of population is below the national rate, however the level of non-admitted patient services is well above that of other states.

Table 4: Selected activity measures by state & territory, 2006/07*

| ACTIVITY MEASURE | NSW | VIC | QLD | WA | SA | TAS | ACT | NT | AUSTRALIA |
|---|---|---|---|---|---|---|---|---|---|
| Public acute hospital beds per 1,000 population | 2.7 | 2.4 | 2.4 | 2.6 | 2.9 | 2.6 | 2.3 | 2.8 | 2.6 |
| Total public hospital beds per 1,000 population | 2.9 | 2.4 | 2.5 | 2.7 | 3.1 | 2.8 | 2.3 | 2.8 | 2.7 |
| Public acute hospital admissions per 1,000 population | 204.4 | 246.6 | 190.1 | 217.7 | 231.5 | 187.5 | 244.8 | 480.1 | 218.0 |
| Total public hospital admissions per 1,000 population | 206.0 | 246.7 | 190.2 | 218.4 | 232.6 | 188.5 | 244.8 | 480.1 | 218.8 |
| Total public hospital admissions (000s) | 1,462 | 1,314 | 785 | 451 | 391 | 97 | 76 | 86 | 4,661 |
| Emergency department occasions of service (000s) | 2,304 | 1,468 | 1,382 | 727 | 516 | 125 | 96 | 123 | 6,741 |
| Surgical admissions from the elective waiting list (000s) | 202 | 132 | 108 | 49 | 37 | 14 | 9 | 6 | 557 |
| Surgical admissions from the elective waiting list per 1,000 population | 29.4 | 25.5 | 26.1 | 23.5 | 23.6 | 28.8 | 27.7 | 27.8 | 26.7 |
| Non-admitted occasions of service (000s)** | 17,981 | 5,800 | 8,566 | 3,940 | 1,624 | 798 | 396 | 295 | 39,400 |

*Caution is needed in comparing activity data due to the differences between states and territories in the coverage of data captured, particularly in the case of emergency department numbers.

**Non-admitted occasions of service include: dialysis, pathology, radiology & organ imaging, endoscopy & related procedures, other medical/surgical/obstetric, mental health, alcohol & drug, dental, pharmacy, Allied Health, community health, district nursing and other outreach.

Source: AIHW, Australian hospital statistics 2006-07

NSW accounts for over 45% of non-admitted patient services. This in part is attributed to policies that aim to provide the right care to people in the right place. For example, many clinical services previously requiring admission to hospital are now being provided in alternative settings. This is not only better for the patient, but a more appropriate use of health resources.

NSW provided more elective surgery than any other state or territory, and at 29.4 admissions per 1,000, had the highest elective surgical admission rate. This reflects the targeted activity undertaken in this area to reduce the number of people with extended waiting time for surgery. As a result, the waiting times for patients on the surgical waiting list continue to decline.

NSW has experienced an increase in emergency department occasions of service, a trend that has been seen throughout Australia in recent years. There were over two million presentations to emergency departments in 2006/07. Despite this increase, NSW performance in key indicators such as Triage waiting time and Emergency Access Performance continues to improve.

## Summary

Information from the most recent OECD and WHO publications confirms that Australia can claim one of the best performing health systems in the world. In some of the major indicators of health status including life expectancy and infant mortality, Australia compares favourably with other countries with similar health systems within the developed world. The country's health outcome achievements are possible through continued increases to health spending, including spending focused on health promotion and illness prevention.

NSW boasts the country's largest population and hence the largest health system. The state continues to perform on par, and often above average, compared with the overall Australian performance and thereby can also claim international recognition for its health system. Excellent results have been achieved through the success of a multitude of different initiatives in recent years. Resources continue to be directed towards enhancing the health of the community in strategies around illness prevention, mental health and Indigenous health to name just a few.

The state's achievements compared with international results are particularly significant in light of the growing demand for health services and continual population pressures in the state.

# NSW State Health Plan



The State Health Plan guides the development of the NSW public health system towards 2010 and beyond. It sets out the strategic directions for NSW Health, which reflect the priorities in the NSW Government's State Plan and the priorities in the Council of Australian Governments' national health reform agenda. The Plan draws on extensive research and consultation with consumers, health professionals and other stakeholders undertaken to develop the longer-term strategic directions for NSW Health in the *Future Directions for Health in NSW - Towards 2025*.

It also draws on the Health Care Advisory Council - the peak community and clinical advisory body advising the Government on health care issues - and the Health Priority Taskforces, which advise on policy and service improvements in high priority areas.

## Why have a State Health Plan?

There have been major health gains for people in NSW over the last 20 years. However like health systems in other states and developed nations, the NSW health system faces significant challenges in the years ahead, including:

- Increasing numbers of people with chronic health conditions.
- An ageing population driving up demand for health services.
- Rising community expectations of health services.
- A worldwide shortage of skilled health workers.
- Increasing incidence of people with mental health problems.
- Advances in medical technologies are expensive.

These challenges are placing increasing pressure on the public health system and driving up health costs. The State Health Plan addresses the challenges using the seven Strategic Directions identified during consultation for the *Future Directions for Health in NSW – Towards 2025.*

## Seven Strategic Directions

The Strategic Directions identify our health priorities to 2010 and are reflected in planning processes at all levels.

### 1. Make prevention everybody's business

This requires new strategies for health promotion and illness prevention, supported by structural changes such as legislation, regulation and environmental changes. Prevention is being embedded into NSW Health's service delivery.

### 2. Create better experiences for people using health services

Providing patients with ready access to satisfactory journeys through health services means ensuring they continue to be high quality, appropriate, safe, available when and where needed and coordinated to meet each individual's needs.

### 3. Strengthen primary health and continuing care in the community

This will help people to access most of the health care they need through an integrated network of primary and community health services, which will lead to improved health outcomes.

### 4. Build regional and other partnerships for health

By engaging more effectively with other government and non-government agencies, clinicians and the broader community, we will provide a more integrated approach to planning, funding and delivering health and other human services to local communities and regions.

### 5. Make smart choices about the costs and benefits of health services

As health costs continue to rise we need to make the most effective use of the finite resources available. Costs must be managed efficiently based on evidence of what works and health impact.

### 6. Build a sustainable health workforce

Delivery of quality health services depends on having adequate numbers of skilled staff working where required. Addressing the shortfall in the supply of health professionals and ensuring an even distribution of staff around the state are key priorities.

### 7. Be ready for new risks and opportunities

The NSW health system is a large, complex system that must continually adapt in a dynamic environment to meet the community's changing health needs. The system must be quick to respond to new issues and capable of sustaining itself in the face of external pressures.

The following pages reflect work undertaken over the 2007/08 financial year to address these Strategic Directions.

# Strategic Direction 1

## MAKE PREVENTION EVERYBODY'S BUSINESS

The saying 'prevention is better than cure' is supported by clinical evidence. Reducing risk factors such as smoking, obesity, risky alcohol use and stress requires strong will and sustained action by individuals, families, communities and governments. Similar effort is needed to promote good nutrition, physical activity, healthy environments and supportive relationships.

Improving health and preventing illness requires greater effort and investment while we continue to treat chronic illness effectively. New health promotion and illness prevention strategies are needed. Life expectancy in NSW is among the highest in the world, yet many people still die prematurely. Unhealthy lifestyles are linked to many of these deaths.

## Improved health through reduced obesity

Childhood overweight and obesity is a serious health problem which is increasing at an alarming rate. NSW Health wants to hold the rate of childhood obesity to the 2004 level of 25% by 2010, and reduce it to 22% by 2016.

### Live Life Well @ School (LLW@S)

Commenced in May 2008, LLW@S provides a professional learning opportunity for staff in NSW Government primary schools to further develop quality nutrition and physical education programs. A joint initiative with NSW Department of Education and Training, LLW@S is being implemented over 2008-2011 and already over 130 schools are participating. Many other schools are registering for the next phase.

Key components include:

- Four days of professional learning workshops
- Support for schools through newsletters, email groups, video conferencing and network/cluster meetings
- Advice and support regarding the implementation of programs and policy such as Get skilled: Get active, Live Outside the Box, Crunch and Sip and Fresh Tastes @ School
- Advice and support regarding the development and implementation of an action plan (action research approach);
- A resource kit containing a variety of materials and ideas to engage the whole school community.

### The Go for 2&5® fruit and vegetable campaign

In partnership with the Cancer Institute NSW, a second phase of the Go for 2&5® fruit and vegetable campaign was held in Autumn 2008 targeting adults 20-50 years who buy food, prepare meals and influence consumption. This follows a promising evaluation of the 2007 phase, which demonstrated improvement in the proportion of adults and children eating the recommended amounts of fruit and vegetables.

### Munch and Move

Munch and Move, a joint initiative with NSW Department of Community Services and The University of Sydney, is a fun, games-based program for NSW preschools which supports the healthy development of young children by promoting physical activity, healthy eating and reduced small screen time (TV, DVD, and computers). The program includes face to face training and practical resources, information and ideas, as well as contact with local-level health professionals. The Program has created great interest within NSW and other States and Territories.

## Improved health through reduced smoking

NSW Health aims to continue reducing smoking rates by 1% p.a. to 2010, then by 0.5% p.a. to 2016. The aim is to exceed this target for the Aboriginal population where smoking rates are higher than within the general population.

The percentage of people aged 16 years and over who smoke 'daily' or 'occasionally' has decreased from 24.0% in 1997 to 18.6% in 2007. The percentage of Aboriginal persons aged 16 years and over in NSW who smoke 'daily' or 'occasionally' has significantly improved from 43.2% in 2002-2005 to 29.4% in 2006/07. These results meet the targets set out in the NSW State Plan.



### Smoke free environments

Since 2 July 2007 the Smoke-free Environment Act 2000 bans smoking in all enclosed public places (with the exception of the private 'high roller' gaming areas of the casino). There has been a phased approach over past years to implement this ban to allow licensed premises and the community time to prepare for the transition.

In April 2008, the Premier released *Protecting Children from Tobacco: A NSW Government Discussion Paper on the Next Steps to Reduce Tobacco-Related Harm*. The discussion paper was prepared to engage the community on possible reforms to prevent the uptake of smoking by young people and prevent harm to children and young people from involuntary exposure to environmental tobacco smoke. The paper was supported with a community consultation process - almost 12,000 submissions were received – and a public forum.

### SmokeCheck

SmokeCheck workshops build the skills of Aboriginal health workers to implement smoking cessation programs. A joint partnership with the Cancer Institute NSW, training is delivered by the Australian Centre for Health Promotion, University of Sydney. Culturally appropriate resources including a training manual and health worker handbook support the training. Since its launch a year ago, over 50 workshops have been conducted across Area Health Services involving over 400 staff, half of whom identify as being Aboriginal and/or Tories Strait Islander.

## Improved health through reduced illicit drug use and risk drinking

NSW Health aims to keep illicit drug use in NSW to below 15% of the population.

### Community Drug Action Teams Grants - CDATS

CDATs are coalitions of Government, non-Government and community volunteers delivering targeted prevention projects, such as drug and alcohol free events for young people and their families, weekend-away camps for at-risk Indigenous young people, community information forums, and knowledge and skill building workshops. Currently there are around 80 CDATs in NSW.

In 2007/08, grants to CDATs increased from $50,000 to $300,000, funding 141 projects. CDATs received $183,830 in other government grants, resources and in-kind donations that supplement their activities.

A once-off allocation of $400,000 was provided for projects tackling risky drinking behaviours. A total $399,300 was approved for 48 projects that included a two-day forum on alcohol issues for Aboriginal people in Western NSW, a number of secondary supply awareness projects, education and information forums and resources for culturally and linguistically diverse communities.

### Drug Action Week

Drug Action Week is an annual awareness raising opportunity for drug and alcohol issues. In 2007, it occurred between 23 and 28 June. The key message was 'Alcohol Is a Drug Too'. Across NSW, CDATs organised 37 events including sporting activities, community information and education forums and launches.

### Save-a-mate Alcohol and Other Drug Program

The next four-year phase of Save-A-Mate Alcohol and Other Drug (SAM AOD) Program commenced in October 2007. It provides education and first aid training for the families and carers of drug and alcohol users to help them prevent, recognise and respond appropriately to overdose emergencies.

By end 2007, there were 22 (CPR accredited) SAM AOD Emerg-encies courses delivered to 220 participants; five (unaccredited short course) SAM AOD Emergencies Workshops delivered to 50 participants; four peer education workshops delivered to 40 participants, and three youth oriented festivals attended.

# Improved survival rates and quality of life for people with potentially fatal or chronic illness

While Australians are living longer and, in many cases, healthier lives, the numbers of people with chronic disease is growing. Potentially avoidable deaths are those attributed to conditions considered preventable through health promotion, screening and early intervention, as well as medical treatment.

NSW Health aims to reduce the number of potentially avoidable deaths for people aged under 75 years to 150 per 100,000 population by 2016.

### Hepatitis C

The Review of Hepatitis C Treatment and Care Services was completed. It describes current arrangements for provision of treatment and care, and recommends strategies to increase access, including building the capacity of ambulatory care services and strengthening a shared care model between specialist services and General Practice.

Funding for hepatitis C treatment and care services increased significantly from 2006/07 to 2007/08.

### HIV/AIDS

An HIV/AIDS Supported Accommodation Plan 2007-2010 was finalised to provide a statewide policy framework to meet the independent living needs of people with HIV/AIDS. It includes centralised coordination of assessment and intake across services, more efficient and flexible use of resources, and equitable access.

# Improved dental health

NSW Health aims to increase the proportion of five year old children without dental decay from 70% in 2000, to 77% in 2010.

### Oral Health Survey

The first statewide, randomised oral health survey of NSW school children was conducted in 2007. Approximately 8,000 children aged from five to 12 years had a standard dental examination. The percentage of children without dental decay was 59.7% of 5-6 year olds and 63.9% of 11-12 year olds.

# Reduced vaccine preventable conditions through increased immunisation

### Childhood immunisation

NSW maintained high immunisation coverage rates of children fully immunised at 12 months (92%) and age two (93%). For Aboriginal children, 89% of children were fully immunised at l2 months and 91% at two years of age.

### Adolescent Vaccination Program

The NSW Adolescent Vaccination Program continues to provide hepatitis B and Varicella vaccines to year seven school students. The National Human Papillomavirus (HPV) School-based Vaccination Program continued in all NSW high schools offering HPV vaccine to female students aged 12 to 18 years.

### Adult immunisation

A policy was implemented to promote the occupational assessment, screening and vaccination of health care workers to assist Area Health Services meet occupational health and safety obligations and duty of care to staff, clients and other users of health service premises. An enhanced hepatitis B vaccination program was introduced offering protection to at-risk adults in the community.

# Other Highlights

### Aboriginal environmental health: Housing for health project

A lack of housing maintenance in some Aboriginal communities contributes to poor health outcomes for residents. In partnership with the NSW Government's Department of Aboriginal Affairs, and with the participation of the Aboriginal Housing Office and the Commonwealth Department of Families Communities and Indigenous Affairs, NSW Health is involved in two projects which improve living conditions in Aboriginal communities - 'Housing for Health' and 'Fixing Houses for Better Health'.

In 2007/08, projects were completed in 246 houses and 7,455 items that relate to improved safety and health in those homes were fixed, benefitting 919 people. Of 246 houses which were resurveyed for health and safety after work had been completed in previous years, significant improvements were recorded for connections to power and waste services, electrical and gas safety, flushing toilets, fire safety, washing facilities, laundry facilities, and working drains.

Approximately $2 million has been committed for four years to June 2009 to both projects.

## Revised Child Health Screening and Surveillance Program

Following a review of the Personal Health Record (PHR) in 2006/07, new developmental screening and surveillance tools have been adopted. The Parent Evaluation of Developmental Status is now included into the PHR for every health check from the age of six months to four years, and is the recommended primary developmental screening tool.

The Ages and Stages Questionnaires, including the Ages and Stages Questionnaires: Social / Emotional, are being used as the secondary screening tool. This supports the clinicians' skills and knowledge of child health development, and aims to improve quality and standardisation of child health screening and surveillance.

## Statewide Eyesight Preschooler Screening (StEPS)

The StEPS program is a scientifically based universal vision screening program for four year olds to identify problems early so treatment outcomes are optimised. Vision screening equipment has been purchased and distribution to Area Health Services commenced. StEPS Coordinators are being appointed and training packages rolled out.

## Statewide Audit of Induction of Labour

An audit on induction and augmentation of labour which arose from concerns about the variation in practice in the administration of Syntocinon, was undertaken by the Maternal and Perinatal Health Priority Taskforce. Results will inform policy development to achieve uniform safe practice.

## Communicable diseases

Plans were finalised for the redesign and roll-out of a new NSW Notifiable Diseases Database to capture quality information about the public health management of notifiable diseases and better support a coordinated public health response to both isolated cases and outbreaks.

New processes were developed for communicating information about outbreaks within the public health network and with key stakeholders such as general practitioners using broadcast facsimile. New processes for tracing contacts of cases that have recently travelled on aircraft were also developed.

Communicable Diseases Branch coordinated public health responses to a number of outbreaks in 2007/08, including;

- several outbreaks of measles and outbreaks of gastroenteritis within institutions
- an outbreak of salmonella paratyphi bioser java that occurred in children exposed to contaminated sand in a playground
- a case of Streptococcus suis infection in a person who works with pigs
- a case of Murray Valley encephalitis in rural NSW.

NSW Health was responsible for public health planning and response for the APEC meeting in September 2007 and World Youth Day 2008.

## School-link

School-Link, a collaborative initiative with Department of Education and Training, aims to improve the mental health of children and young people. In 2007/08, 34 training sessions around co-existing mental disorders and problematic substance use in adolescents were delivered to around 1,000 school counsellors and mental health workers.

An evaluation showed 96% of participants said the training would help them deliver a better service; 98% said the course met their needs and 97% said they would recommend the course to a colleague.

## Air Quality Index

In liaison with the Department of Environment and Conservation, the Environmental Health Branch has updated the air pollution health alert system, and improved its accessibility.

The Air Quality Index (AQI) reports daily air quality, indicating how clean or polluted the air is, the associated health effects and the impact on sensitive groups.

It is a quick and easy tool that advises the public of:

- Air pollution levels in their community
- Tomorrow's air quality forecast - to help plan the day
- Who is at risk from air pollution
- Simple steps to take to reduce exposure to pollutants

By providing the public with precautionary information, the risk of adverse health effects from high air pollution is reduced.

From mid-2008, health alerts will be delivered at 4pm for the following day to the public for days when the forecasted AQI is poor, very poor or hazardous via web pages, SMS and other media.

Health alert messages are tailored to the level of risk, particularly for ozone (for individuals with compromised lung function) and fine particles (for individuals with lung and heart disease), with ability to target messages to at-risk groups. The messages can be viewed on NSW Health's and the Department of Environment and Conservation websites.

# Obesity

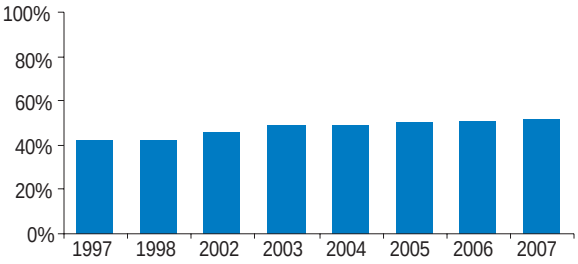
## Desired outcome

Prevent further increases in levels of adult obesity.

## Context

Being overweight or obese increases the risk of a range of health problems, including cardiovascular disease, high blood pressure, type 2 diabetes, breast cancer, gallstones, degenerative joint disease, obstructive sleep apnoea and impaired psychosocial functioning.

Overweight/obesity in persons aged 16 years and over (%)




Source: NSW Population Health Survey, Centre for Epidemiology and Research

## Interpretation

Consistent with national and international trends, the prevalence of overweight or obesity has risen from 41.8% in 1997 to 51.7% in 2007. This increase has occurred in both males and females.

In 2007, more males (58.8%) than females (44.7%) were overweight or obese. More rural residents (57.2%) than urban residents (49.2%) were overweight or obese.

## Related policies and programs

The NSW Health Obesity Strategy includes: social marketing to promote the importance of healthy eating and physical activity; establishment of a NSW Get Healthy Information and Coaching Service; establishment of an Obesity Prevention Research Centre; and specialised multidisciplinary medical and surgical clinics.

# Childhood obesity

## Desired outcome

No further increases until 2010, then reduce levels by 2016.

## Context

Childhood overweight and obesity is a serious health problem. There has been an alarming increase in the rate of children who are overweight or obese in Australia. One in five children in NSW aged 7 to 15 years are either overweight or obese. Children and young people who are obese have a greater chance of being obese adults. Overweight and obese people are at greater risk of weight related ill-health.

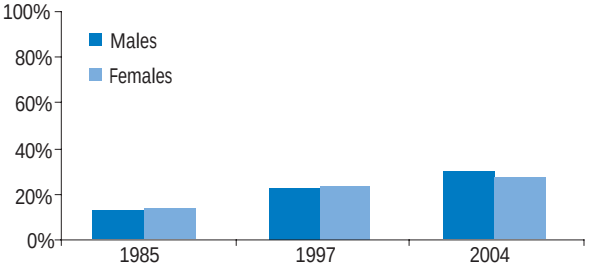
## Interpretation

The prevalence is rising rapidly. In boys, the prevalence of overweight and obesity increased from 10.8% to 26.1% between 1985 and 2004 across all school years and from 12.0% to 23.7% in girls in the same period.

## Related policies and programs

In 2008, a physical activity and healthy eating program, Live Life Well@School was launched in NSW Government primary schools targeting students 5 to 12 years of age. A healthy eating, physical activity and small screen recreation program known as Munch and Move is being delivered in preschools and long day care centres.

Children overweight or obese – children aged 7–16 yrs (%)




Source: NSW Schools Physical Activity and Nutrition Survey 2004

# Illicit drug use

## Desired outcome

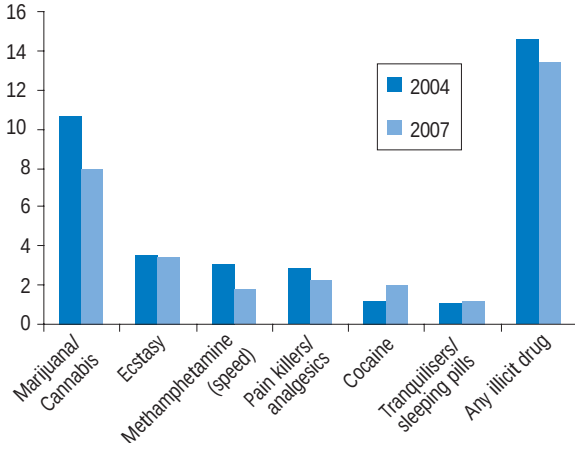
Maintain and improve the health of the population by holding illicit drug use in NSW to below 15% of the population.

## Context

Illicit drug use carries serious health risks. The provision of evidence based treatment services by Area Health Services and non-government organisations enables individuals to address those health risks and cease or reduce illicit drug use.

Strong prevention, promotion and community development programs at local level are as important as effective treatment to improving health outcomes in relation to the effects of illicit drug use.

Recent (in the past 12 months) illicit drug use in NSW – proportion of the population aged 14 years and over (%)




Source: Australian Institute of Health and Welfare 2008, 2007 National Drug Strategy Household Survey, States and Territory Supplement

## Interpretation

In NSW in 2007, cannabis was the most frequently used illicit drug among people over the age of 14 years (8%). Other illicit drugs were used by less than 4% of the population. The use of illicit drugs was 13.4% across the whole population. Compared with 2004, there were reductions in overall illicit drug use, marijuana, pain-killers and amphetamines but increases in tranquilisers and cocaine. The same trends were seen in national rates of illicit drug use.

## Related policies and programs

Under the State Plan, the Government renewed its commitment to tackling illicit drug use – building on the progress made since the 1999 Drug Summit and committing to holding illicit drug use below 15%. NSW Health is the lead agency for coordinating an evidence-based approach across Government and works in partnership with a range of other agencies to implement programs encompassing prevention, education, treatment and law enforcement.

In addition to treatment and new approaches such as the Cannabis Treatment Clinics, Stimulant Treatment Program and Consultation Liaison specialists in emergency departments, prevention and community education strategies have been put in place including 80 Community Drug Action Teams to institute local solutions, a Club Drugs Campaign targeting young people, extension of the Heroin Overdose Strategy to all drugs, and new child protection safeguards under the Opioid Treatment Program.

# Smoking

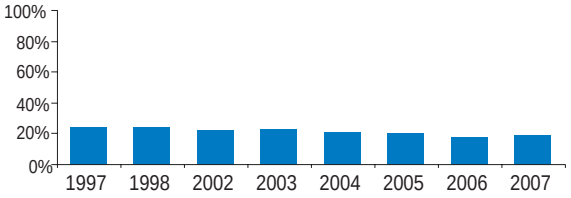
## Desired outcome

Reduced proportion of the population who smoke in NSW.

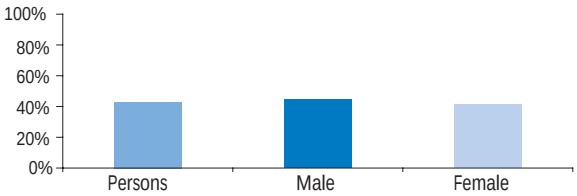
## Context

Smoking is responsible for many diseases including cancers, respiratory and cardiovascular diseases, making it the leading cause of death and illness in NSW. The burden of illness resulting from smoking is greater for Aboriginal adults than the general population.

Smoking daily or occasional - persons aged 16 years and over, NSW (%)




Smoking daily or occasional, Aboriginal persons NSW, 2002–2005 (%)




Source: NSW Population Health Survey, Centre for Epidemiology and Research

## Interpretation

Since 1997, the prevalence of current smoking among NSW adults has decreased from 24.0% to 18.6% in 2007. A higher proportion of Aboriginal adults are current smokers, compared with adults in the general population. The percentage of smoke-free households has increased significantly, from 69.7% in 1997 to 88.2% in 2007.

## Related policies or programs

The NSW Tobacco Action Plan 2005–2009 sets out the NSW Government's commitment to the prevention and reduction of tobacco-related harm. The six focus areas are: smoking cessation activities; reducing exposure to environmental tobacco smoke; reducing the marketing and promotion of tobacco products; reducing the availability and supply of tobacco products; supporting and improving the capacity of NSW Health to implement and enhance tobacco control activities in NSW; and undertaking research programs to inform tobacco control efforts.

# Risk drinking

## Desired outcome

Reduced total risk drinking.

## Context

Alcohol has both acute (rapid and short but severe) and chronic (long lasting and recurrent) effects on health. Too much alcohol consumption is harmful, affecting the health and wellbeing of others through alcohol-related violence and road trauma, increased crime and social problems.

## Interpretation

Since 1997, there has been a decrease in the percentage of persons over the age of 16 years reporting any risk drinking behaviour, from 42.3% to 31.9% in 2007. This decrease was greater in males than in females. Risk drinking behaviour is more common among rural adults than urban adults. Alcohol risk drinking behaviour includes consuming on average, more than four (if male) or two (if female) standard drinks per day.

# Potentially avoidable deaths

## Desired outcome

Increased life expectancy.

## Context

Potentially avoidable deaths are those attributed to conditions that are considered preventable through health promotion, health screening and early intervention, as well as medical treatment. A potentially avoidable death (before age 75 years) provides a measure that is more sensitive to the direct impacts of health system interventions than all premature deaths.

## Interpretation

The rate of potentially avoidable premature deaths has declined over the period 1998 to 2006. There has been a slight increase in the rate for Aboriginal persons in 2006 compared to the previous year, however the long term trend shows a decline. The causes of avoidable deaths can be further divided into those that may be prevented through 'primary', 'secondary', and 'tertiary' interventions.

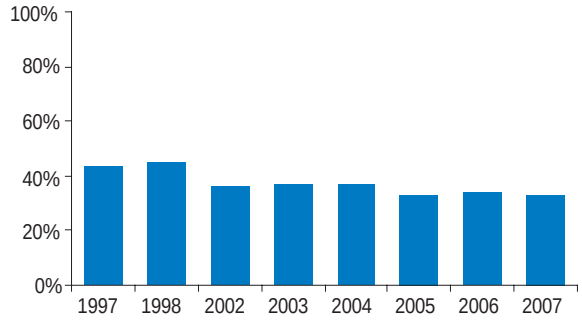
## Related policies and programs

Under the State Plan, the Government renewed its commitment to tackling risk drinking – building on the progress made since the 2003 NSW Summit on Alcohol Abuse. The Government's State Plan commitment to reduce risk drinking to below 25% by 2012 demonstrates that promoting a responsible drinking culture is a key priority.

NSW Health is the lead agency for coordinating this work across Government and works in partnership with a range of other agencies to implement programs encompassing prevention, education, treatment and law enforcement.

In addition to the provision of treatment, key prevention and community education strategies include a new Responsible Drinking Education Campaign aimed at reducing public drunkenness, the "Play Now, Act Now" creative arts festival aimed at raising awareness of responsible use of alcohol, and the "Controlled Drinking by Correspondence" program which targets high-risk drinkers.

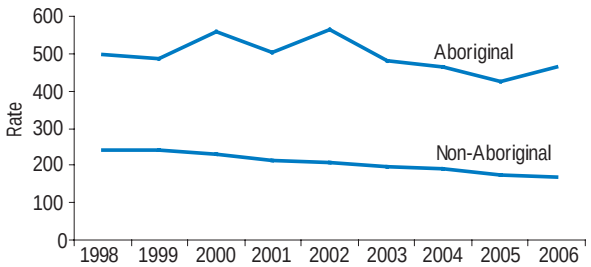
Alcohol – risk drinking behaviour, persons aged 16 years and over (%)




Source NSW Population Health Survey, Centre for Epidemiology and Research

Primary interventions are aimed at preventing a condition developing, eg through risk factor modification such as reducing smoking rates. Secondary interventions detect or respond to a condition early in its progression, such as screening programs for cancer. Tertiary treat an active condition to reduce severity and prolong life eg heart revascularisation procedures.

Potentially avoidable deaths – persons aged <75 yrs (age adjusted rate per 100,000 population)




Source: ABS Mortality data and population estimates (HOIST), Centre for Epidemiology and Research, NSW Department of Health

## Related policies and programs

Strategies for interventions are in the NSW State Plan. These include improved access to rehabilitation for chronic disease (containing self-management support and/or case management), advanced care planning, enhanced carer support, essential information technology support for community based services, focused health research and prevention programs to tackle childhood and adult obesity.

Policies that underpin these strategies are:

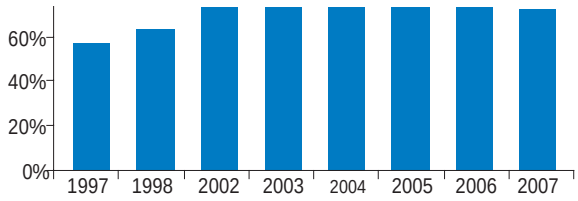
- NSW Chronic Disease Strategy 2006–2009
- NSW Tobacco Action Plan 2005-2009
- NSW Health Rehabilitation for Chronic Disease PD 2006_107
- NSW Health Aboriginal Chronic Conditions Area Health Service Standards PD 2005_588
- NSW Cancer Plan 2007–10 developed by the NSW Cancer Institute

# Adult immunisation

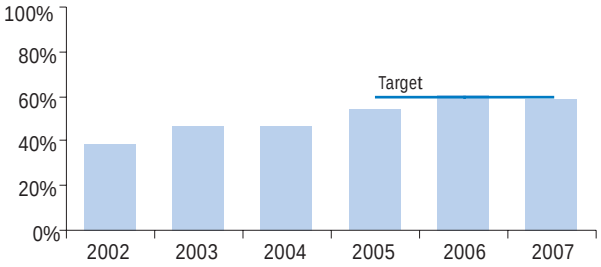
## Desired outcome

Reduced illness and death from vaccine preventable diseases in adults.

Influenza – People aged 65 years and over vaccinated in the last 12 months (%)




Pneumococcal disease – People aged 65 years and over vaccinated in the last 5 years (%)




Source: NSW Population Health Survey, Centre for Epidemiology and Research

## Context

Vaccination against influenza and pneumococcal disease is recommended by the National Health and Medical Research Council (NHMRC) and provided free for people aged 65 years and over, Aboriginal people aged 50 and over and those aged 15–49 years with chronic ill health.

## Interpretation

There has been a significant increase in the proportion of adults aged 65 years and over vaccinated against influenza, from 57.1% in 1997 to 72.8% in 2007. In this group there has been a significant increase in pneumococcal vaccination in the last five years, from 38.6% in 2002 to 59.1% in 2007.

## Related policies and programs

- NSW Immunisation Strategy 2008–2011 highlights improving adult vaccination as a Key Result Area.
- National Influenza and Pneumococcal Vaccination program.
- Recurrent funding is provided to Area Health Services to implement adult vaccination initiatives that improve coverage to achieve national target levels.

# Children fully immunised at one year

## Desired outcome

Reduced illness and death from vaccine preventable diseases in children.

## Context

Although there has been substantial progress in reducing the incidence of vaccine preventable disease in NSW, the challenge is ongoing to ensure optimal coverage of childhood immunisation.

## Interpretation

The Australian Childhood Immunisation Register was established in 1996. Data from the Register provide information on the immunisation status of all children under seven years of age. Data for NSW indicate that at the end of June 2008, 91.3% of children aged 12 to less than 15 months were fully immunised.

It is acknowledged that this data may be underestimated by approximately 3% due to children being vaccinated late.

## Related policies and programs

Recurrent funding is provided to Area Health Services to implement the NSW Immunisation Strategy 2008–2011.

Policies that underpin these strategies are:

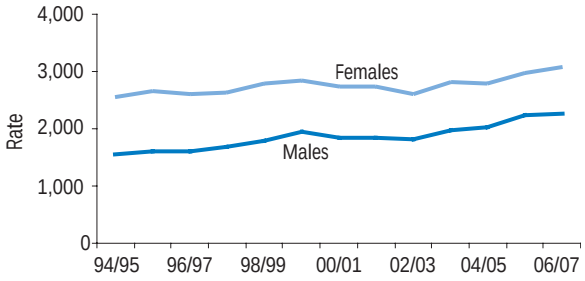
- NSW Chronic Disease Strategy 2006–2009

# Fall injury hospitalisations

## Desired outcome

Reduce injuries and hospitalisations from fall-related injury in people aged 65 years and over.

Fall injuries – hospitalisations for people aged 65 years and over (age adjusted hospital separation rate per 100,000 population)




Source: NSW Inpatient Statistics Collection and ABS population estimates (HOIST), Centre for Epidemiology and Research, NSW Department of Health

## Context

Falls are one of the most common causes of injury-related preventable hospitalisations for people aged 65 years and over in NSW and also one of the most expensive. Older people are more susceptible to falls for reasons including reduced strength and balance, chronic illness and medication use.

One quarter of people aged over 65 years living in the community report falling at least once in a year. Effective strategies to prevent fall-related injuries include:

- Preventing risk factors through promotion of appropriate physical activity and nutrition throughout life
- Promoting the identification and management of falls risk factors amongst those older people at immediate risk of falls
- Promoting environments that reduce the risk of falls and fall injury.

## Interpretation

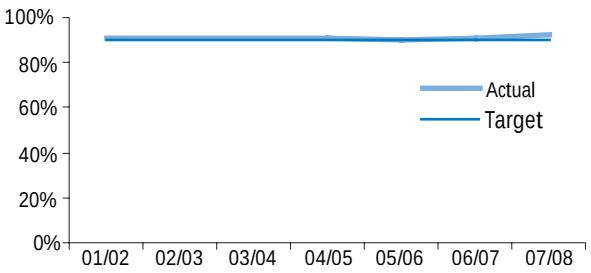
Over the past decade, the rate of hospitalisation for fall injury in older people has been increasing for both men and women. These rates may be affected by both the actual rate of fall injury and other factors such as hospital admission practices.

## Related policies and programs

The Management Policy to Reduce Fall Injury Among Older People: 2003-2007 has come to the end of its intended lifespan. Area Health Services continue to implement actions based on the Policy throughout the reporting period. A revised strategy, based on recent evidence and a comprehensive evaluation of the Policy, is under development.

- NSW Tobacco Action Plan 2005-2009
- NSW Health Rehabilitation for Chronic Disease PD 2006_107
- NSW Health Aboriginal Chronic Conditions Area Health Service Standards PD 2005_588
- NSW Cancer Plan 2007–10 developed by the NSW Cancer Institute.

Children fully immunised at one year (%)




Source: Australian Childhood Immunisation Register

Note: The data may underestimate actual vaccination rates by around three percentage points due to children being vaccinated late or to delays by service providers forwarding information to the Register. Therefore although the Commonwealth target is 94%, the NSW target has been set at >90% to account for this discrepancy.

# Strategic Direction 2

## CREATE BETTER EXPERIENCES FOR PEOPLE USING HEALTH SERVICES

We can create better experiences for people using public health services by ensuring services are of high quality, appropriate, safe, available when and where needed, and coordinated to meet individual needs. We strive for a health system that provides ready access to health services, and keeps patients and their carers informed and involved in decisions.

## Improved access to emergency departments

In 2007/08 1,961,602 people attended one of the 72 electronic reporting emergency departments (EDs) in NSW. The performance in four of the five triage categories remained above national benchmarks with Triage 3 (within 30 minutes) improved and just below target.

### Medical Assessment Units

Sixteen Medical Assessment Units opened, improving patient flow by providing alternatives to treatment in emergency departments. The aged and chronically ill benefitted through rapid assessment, diagnosis and treatment by senior clinicians.

### Early Pregnancy Units

NSW Government is implementing a comprehensive range of new and enhanced services to improve early pregnancy care. Women with early pregnancy problems, such as lower abdominal pain and bleeding in the first 20 weeks of pregnancy, who present to an emergency department, but do not need urgent medical attention, will receive rapid assessment and advice from new Early Pregnancy Units co-located within selected high-volume emergency departments.

Since January 2008, eight new Early Pregnancy Units have been opened to improve the care of pregnant women, bringing the total to 19 across NSW. A further three will open in 2008.

Funding of $880,000 was allocated to develop antenatal clinics in over 40 rural locations, with the aim of providing public antenatal care in all public maternity services in NSW.

## Rural Critical Care Services

Major developments in the implementation of Rural Critical Care Services in Area Health Services included:

- commencement of the 24/7 Resource Centre in Orange and implementation of video conference services to pilot sites at Mudgee, Walgett, Dubbo and Broken Hill hospitals.
- Commencement of the 24/7 Resource Centres in Wagga Wagga and Albury, and implementation of video conference services to 20 outlying emergency departments.

## Improved access to elective surgery

NSW aims to provide surgery to all patients within the national benchmark of 100% within 30 days or 12 months depending on the clinical condition.

### Predictable Surgery Program

There was an improvement in the percentage of patients treated within their clinical priority timeframe in Category 1 (admission required within 30 days) and Category 2 (admission within 90 days). Improvements in the percentage of Category 3 (admission within 365 days) patients treated within their clinical priority timeframe continued to be maintained. In June 2008, NSW recorded its lowest ever numbers of long wait patients. All Area Health Services reported an increase in surgical operations performed.

## Increased satisfaction with health services

NSW Health is committed to improving "customer satisfaction" with NSW public health services. Customers are defined as patients and their carers. Among the ways we are working to understand and improve patient and carer experience are:

- an annual patient survey
- talking to recent patients and carers about their experience

- supporting service improvement through the Clinical Services Redesign Program and knowledge sharing

In 2007/08, the first annual patient survey was conducted with around 75,000 responses from patients in nine different health service categories: inpatients, day only patients, outpatients, non-admitted emergency patients, community health clients, adult rehabilitation services, mental health inpatients, and those receiving cancer treatments. The survey is to be conducted every year for three years.

To gain an understanding of recent patient and carer's experiences, a program was established to collect their stories. These stories complement the survey data.

## Ensuring high quality care

### Open Disclosure

Open disclosure refers to the frank discussion with a patient and their support person about an incident that may have resulted in harm or injury to the patient.

A number of initiatives were undertaken following the release of the revised NSW Open Disclosure Policy and Guidelines in 2007. These included education sessions for staff to help them feel more confident in conducting sensitive conversations with patients and families. An online Open Disclosure e-learning module was launched in February 2008. Local guidelines, procedures and tools from health services are shared via the website which also help improve staff confidence with open disclosure.

### Reducing Clinical Incidents

The Safety Alert Broadcasting System (SABS) provides early warnings about safety issues and indicates who is responsible for them. In 2007/2008, there were four early alerts that arose specifically from incidents notified in the Incident Information Management System (IIMS).

A "Between the flags" project was commenced by the CEC in response to a number of incidents where the recognition and management of a patient whose condition unexpectedly and rapidly becomes worse in a hospital ward was recognised as a contributing factor to many incidents. Following completion of the pilot project, the CEC will make recommendations to the Department for statewide implementation.

A pilot co-design program in three hospital emergency departments is engaging patients, carers and staff to identify priorities for improvement and co-design solutions to enhance the experience for all.

### Healthcare associated infections (HAI)

Reduced incidence and careful management of healthcare associated infections remains a priority for the Department. Health services are implementing and building on previous strategies to prevent patient acquisition of healthcare associated infections.

Recent initiatives include a new policy on the prevention and management of multi-resistant organisms. Hand hygiene and environmental cleaning policies were revised and tools developed to support their implementation. An improved healthcare associated infections website for health service staff was established. Monitoring of healthcare associated infections was simplified to ensure more accurate and timely data.

### Correct Site etc/Patient ID

Incorrect procedures, though low in frequency, provide insight into system failures that allow them to happen. Specialist clinical groups in surgery, radiology, nuclear medicine, radiation oncology and oral health have developed new systems to address these incidents. These systems included a revised policy with greater emphasis on non-surgical areas and clinical-area specific safety toolkits. These tools make it easier for staff to follow appropriate process and reduce incidents of incorrect procedures.

# Other highlights

## Investment in mental health services

The NSW Government provided a record $1.05 billion in funding for mental health services in the 2007-08 budget, an increase of $105 million, or almost 11%, on the 2006-07 Budget, and almost three times the allocation of $356 million provided in 1994-95.

Mental health services now account for approximately 8.4% of the total NSW Health Budget, compared to 6.7% in 1994-95.

The Third Drug Budget received $269.6 million, of which NSW Health was allocated $192.6 million over four years (2007/08 – 2010/11). with $48.5 million allocated for 2007/08. This funds drug and alcohol treatment services, prevention and community action, coordination, monitoring and performance management, Justice Health and the trial of the Medically Supervised Injecting Centre.

## Implementation of the Mental Health Act 2007

NSW Health played a key role in the implementation of the new Mental Health Act 2007. This Act is the law which provides for the treatment of people with mental illness in hospitals and the community. It aims to protect the rights of people with mental illness or mental disorder, while ensuring they have access to appropriate care. The new Act was proclaimed by Parliament in November 2007 following extensive consultation with stakeholders. It involves changes to the transport of patients and introduces the concept of a primary carer for mentally ill persons. In addition, it replaces the 'gazetted hospitals' and 'health care agencies' with the concept of declared mental health facilities to provide a more flexible approach to patient care.

## My Health Record Evaluation

My Health Record is a patient-held record developed as part of the Department's Chronic Care Program to improve communication between health service clients and multiple care providers, and to enhance disease self-management. It was updated to increase its suitability for mental health service consumers.

Following a pilot program, an evaluation revealed consumers and service providers using My Health Record felt more empowered and better able to be proactive with service providers.

My Health Record and the Summary and Distribution Protocol are available through local health centres and services, and on the Department's website.

## Multicultural Mental Health Plan 2007-2012

The Minister for Health and the Minister Assisting the Minister for Health recently endorsed the NSW Multicultural Mental Health Plan 2007-2012, the strategic statewide policy and service delivery framework for improving mental health in NSW of people from Culturally and Linguistically Diverse (CALD) communities.

Five key strategies are identified in the Plan:

- Integrated policies that guide informed and data driven planning processes
- Renewing a focus on education, prevention and early intervention
- Delivering culturally inclusive and responsive mental health services
- Enhancing cultural competencies in mental health service delivery
- Promoting culturally inclusive research, evaluation and innovation

## Whatever info guide

The "Whatever Info Guide" is an interactive guide for young people aged 12 to 16 years who experience a mental health problem and are admitted to a paediatric unit. It provides information about the ward and what to expect while in hospital, and helps young people plan for their discharge.

It also helps staff caring for young people to actively work with patients in collaborative treatment planning.

## Treating Eating Disorders

A statewide eating disorder coordinator advises and responds to needs and opportunities in the development of comprehensive services for the treatment of eating disorders. Funding has been provided for four area coordinators.

Training, telemedicine support and education workshops have been offered to multidisciplinary health workers to build a statewide network.

Two landmark pilot Eating Disorder Day Programs have been developed for implementation in the Central Coast and RPA Hospital. Funding was provided for 16 intensive treatment places for eating disorders. It is widely recognised that day programs offer a cost-effective intensive dose of treatment as compared to inpatient services. An ongoing evaluation of the benefits of these programs is being conducted.

## Eating Disorders Toolkit

The Eating Disorders Toolkit was published - a practice-based manual to assist health professionals in applying best-practice principles for adolescents receiving treatment in non-specialist inpatient settings. It has been distributed for use in paediatric, mental health and general inpatient settings, including rural and regional hospitals.

## The Emerging Area of Comorbidity – Co-Exist NSW

Co-Exist NSW is a statewide service for people from culturally and linguistically diverse (CALD) communities and their families, who have concurrent substance use and mental health problems. It is managed by the Transcultural Mental Health Centre (TMHC) and is a member of the Diversity Health Institute (DHI).

Since establishment, Co-Exist has provided assessment and consultation to 224 clients from 39 language groups. It currently has the capacity to provide confidential counselling services in 110 languages at locations across NSW. In addition, training was provided for 48 sessional bilingual counsellors. An information strategy was coordinated for 31 CALD communities (including the provision of 31 translated resources). Three symposia were held on increasing awareness on comorbidity issues within CALD communities with over 300 participants.

## Stimulant Treatment Program

NSW Health continued to fund two clinics under its Stimulant Treatment Program with $300,000 per clinic per annum. The clinics provide primarily counselling treatment for stimulant, mainly methamphetamine (ice), users. A preliminary evaluation conducted on clients during the first six months of operation has indicated success in reducing stimulant use, and significant improvements in the clients' levels of distress, mental health, psychotic symptoms and commission of crime.

## Cannabis Clinics

The NSW Government committed $1.1 million in 2007/08 for the continued operation of four cannabis clinics in Parramatta, Sutherland, the Central West and the Central Coast. Two new clinics have been funded. The North Coast Area Health Service's cannabis clinic was opened in May 2008 and provides a flexible outreach model with specialist cannabis clinicians based in Tweed Heads, Lismore and Kempsey. The Hunter New England Area Health Service's cannabis clinic will open in the second half of 2008.

The clinics provide clinical interventions and treatment to dependent cannabis users with complex needs, in particular clients with mental health issues.

## The third NSW Dementia Action Plan

The NSW Dementia Action Plan 2007-2009, released in October 2007, will contribute to improving the quality of life for people living with dementia, their carers and their families. The Department led development of the plan, and will implement its strategies in partnership with the Department of Ageing, Disability and Home Care, with service providers, Alzheimer's Australia NSW and other key non-government organisations.

## Mandatory Reporting

The Medical Practice Act 2008 was amended to strengthen the medical complaints handling and disciplinary process arising from reviews of cases in 2007/08, and introduces a system of mandatory reporting of serious misconduct.

## Assisted Reproductive Technology Act 2007

The Assisted Reproductive Technology Act 2007 was passed to regulate the provision of assisted reproductive technology. It sets standards relating to the provision of treatment, ensuring that individuals have control over the use of their genetic material. It prohibits the commercialisation of human reproduction and ensures that individuals born as a result of donor sperm or eggs have access to information relating to their genetic parents.

## Helping children and young people: the GP Resource Kit

Two NSW Health funded services, the NSW Centre for the Advancement of Adolescent Health (CAAH) and Transcultural Mental Health Centre (TMHC) have developed a GP Resource kit to assist GPs in providing quality health care to young people. The Kit is a practical and valuable resource that outlines the skills needed for working with young people and their families, and addresses the developmental, cultural and environmental factors that influence their health status.

## Transport for Health program

Patient access to health services is being improved through The Transport for Health program. All non-emergency health-related transport services are being integrated into one multifaceted program.

The *Isolated Patient Travel and Accommodation Assistance Scheme Administration Manual and Guidelines for Medical Practitioners and Specialists* have been completed and distributed, providing the operational tools for Area Health Service staff to deliver the Transport for Health program.

# Emergency department triage – cases treated within benchmark times

## Desired outcome

Treatment of emergency department patients within timeframes appropriate to their clinical urgency, resulting in improved survival, quality of life and patient satisfaction.

## Context

Timely treatment is critical to emergency care. Triage aims to ensure that patients are treated in a timeframe appropriate to their clinical urgency, so that patients presenting to the emergency department are seen on the basis of their need for medical and nursing care and classified into one of five triage categories. Good management of emergency department resources and workloads, as well as utilisation review, delivers timely provision of emergency care.

## Interpretation

Emergency department activity in the busiest metropolitan and regional NSW public hospitals continues to rise: in 2007/08 ambulance transports to hospitals were up 6.3%, emergency department attendances were up 5% (to 2,417.818) compared to 2006/07, admissions through the emergency department were up 2.9% to 404,565 over the same period.

Emergency departments always give priority to the most life threatening cases and NSW hospitals continue to treat 100% of the most seriously ill (Triage 1) within the National Benchmark of treatment within a designated two minute timeframe.

For those patients classified as triage category 2 or 'imminently life threatening' the performance in treating patients within 10 minutes in 2007/08 was three percentage points above the Australasian College for Emergency Medicine's target level. For those patients classified as triage category 3 or 'potentially life threatening' the performance in treating patients within 30 minutes in the year ending June 2008 was the same as the previous year, despite the substantial increase in patient numbers.

In 2007/08 over 75% of Triage 4 or 'potentially serious' patients had treatment commenced within 60 minutes, above the 70% benchmark set by the Australasian College of Emergency Medicine.

## Related policies and programs

A number of initiatives were implemented in emergency departments and hospital wards across the state to improve the timeliness of access to treatment. Fast Track Zones were implemented in over 25 emergency departments to ensure that less complex patients who have traditionally waited for long periods are cared for quickly but safely. These Fast Track Zones use skilled staff such as nurse practitioners and advanced practice nurses. Emergency Medicine Units in 14 NSW emergency departments provide a place adjacent to emergency departments where patients who need a longer period of care or observation can stay without occupying emergency department beds. This allows for much more efficient processing of new patients as they arrive.

Short Stay Units in a number of hospitals cater for patients who need shorter periods of admission to a specialty unit. This allows for more efficient processing of new patients as they arrive in the emergency department.

Through the set up of 16 Medical Assessment Units (MAU) within selected facilities, more rapid access has been created

# Ambulance response time

## Desired outcome

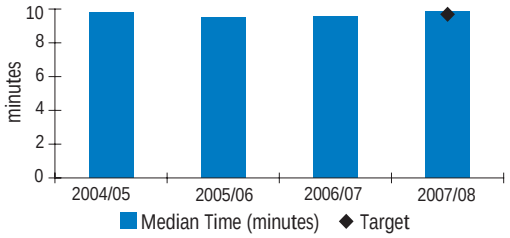
Ambulance response times that are appropriate for cases requiring urgent pre-hospital treatment and transport, resulting in improved survival, quality of life and patient satisfaction.

## Context

Timeliness of treatment is a critical dimension of emergency care for certain conditions. Ambulance Emergency Response Time is the period between when a '000' emergency call is received and the time the first ambulance resource arrives at the scene in a life threatening case.

In Australia, the 50th percentile response time is a key measure.

Ambulance response times – potentially life threatening cases – 50th percentile response time (minutes)



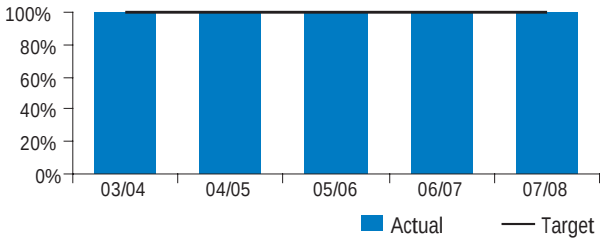

Source: NSW Ambulance Service, CAD System

for more complex, chronic, non critical patients who have traditionally waited for care in emergency departments. These MAUs provide access to senior physicians and multi-disciplinary care teams who provide timely assessment and activation of treatment, with a plan for discharge to supported community care usually within 48 hours. MAUs are now establishing mechanisms to provide access to these types of patients being referred for non critical care assessment from general practitioners. Additionally the MAUs are providing a venue for patients to return to for follow-up after discharge where an assessment and review has been requested, rather than patients to the emergency department.

Patient Flow Units have been established in many hospitals to better coordinate the logistics of moving patients between the emergency department and the ward or operating theatre and between hospitals as required, therefore freeing up beds for newly arrived patients.

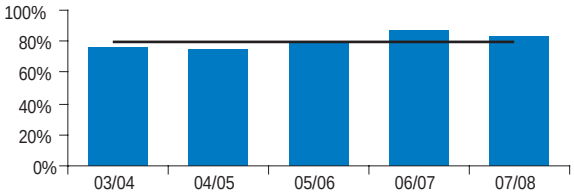
Eleven new Early Pregnancy Units (EPUs) treat women presenting to EDs with problems associated with early pregnancy. In addition to existing services, this brings the total to 22 functional units.

Triage 1: treated within 2 minutes (%)

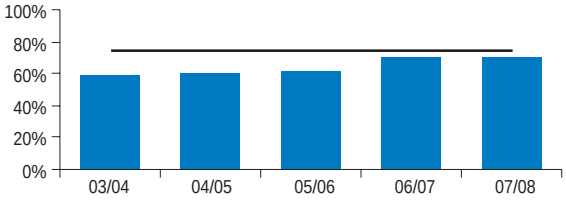



source: Emergency Department Information System

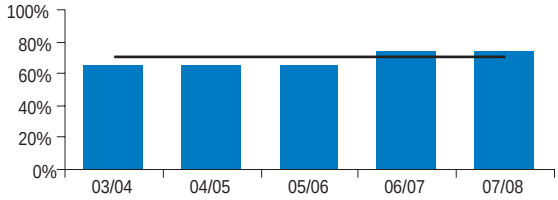
Triage 2: treated within 10 minutes (%)



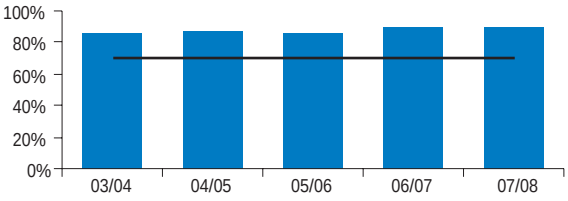

Triage 3: treated within 30 minutes (%)




Triage 4: treated within 60 minutes (%)




Triage 5: treated within 120 minutes (%)




## Interpretation

In 2007/08 the 50th percentile (median) response time for potentially life threatening cases was 9.85 minutes for NSW and 9.70 minutes for the Sydney metropolitan area. The result was achieved in the context of a 5.9% increase in demand in the year. Average daily demand for ambulance services has grown by 11.4% over the last two years and demand increased by 21% since 2002/03.

Note that from May 2005 emergency response performance is reported for '000' cases determined as 'emergency' (immediate response under lights and sirens – incident is potentially life threatening) under the medical prioritised dispatch system. This brings NSW in line with all other Australian jurisdictions. Prior to May 2005, response performance was reported for all '000' calls. Therefore response times since May 2005 are not comparable with those prior.

## Related policies and programs

Emergency and non-emergency response times reflect significant increases in demand for ambulance services in 2007/08 during which Ambulance transports increased by 6.4%. The Clinical Assessment and Referral Program and Extended Care Paramedics were introduced during the year to reduce unnecessary hospital emergency department presentation.

# Off stretcher time

### Desired outcome

Timely transfer of patients from ambulance to hospital emergency departments, resulting in improved survival, quality of life and patient satisfaction, as well as improved ambulance operational efficiency.

### Context

Timeliness of treatment is a critical dimension of emergency care. Better coordination between ambulance services and emergency departments allows patients to receive treatment more quickly.

Delays in hospitals impact on ambulance operational efficiency.

### Interpretation

The time taken for the transfer of patients arriving by ambulances to emergency departments has been a challenge. In 2007/08, the percentage of ambulance patients offloaded within 30 minutes in NSW was 76%. Demand for ambulance services increased by 5.6% and ambulance transports increased by 6.1% on the previous year.

### Related policies and programs

The refined emergency department network access system in the Sydney metropolitan, Central Coast and lower Hunter regions aims to get the right patient to the right hospital for the right treatment each time. The automated Ambulance Clinical Services Matrix software ensures that hospital destination options for ambulance officers are those hospitals with the clinical services appropriate to treat the patient. It also

# Emergency admission performance

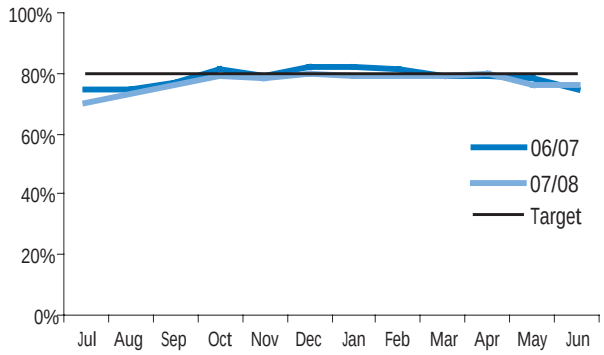
### Desired outcome

Timely admission from the emergency department for patients requiring inpatient treatment resulting in improved patient satisfaction and availability of services for other patients.

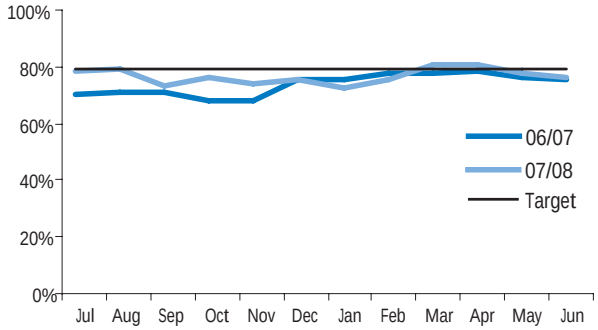
### Context

Patient satisfaction is improved with reduced waiting time for admission from the emergency department to a hospital ward, intensive care unit bed or operating theatre. Also, emergency department services are freed up for other patients.

Emergency admission performance, patients transferred to an inpatient bed within eight hours (%): Overall




Emergency admission performance, patients transferred to an inpatient bed within eight hours (%): Mental Health




Source: Emergency Department Information System

### Interpretation

The percentage of patients who waited less than eight hours in an emergency department for an inpatient hospital bed was 77% in 2007/08. While proving a challenge, performance has stabilised at above 75% in the last three years. EAP for patients being treated for mental health issues improved during 2007/08 to 77%, up from 74% in 06/07.

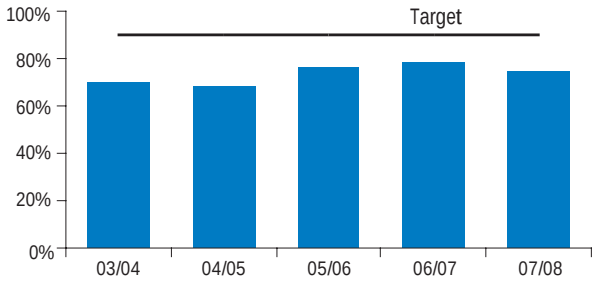
The challenges in EAP are being addressed through careful planning, the setting of clear targets in the State Plan and the

takes into account the estimated time of arrival at the nearest hospital, the number of ambulances currently at those hospitals and the optimum number of ambulances those hospitals can manage within capacity.

Hospitals are attempting to reduce off-stretcher time by ensuring better patient flow through the whole hospital by implementing robust demand management plans and by improving patient flow systems through the Clinical Services Redesign Program. Patient flow units have been established in many hospitals to better coordinate logistics of patient movement between emergency department and ward or operating theatre, and between hospitals, thus freeing up beds for newly arrived patients.

The provision of more robust community support for patients following discharge has seen a reduction in length of stay leading to improved access to inpatients beds and the ability for ambulance offloads within the emergency department.

Off stretcher time – transfer of care to the emergency department < 30 minutes from ambulance arrival (%)




Source: NSW Ambulance Service, CAD System

allocation of funding and support for initiatives across health facilities. Examples include the implementation of Home for Older People Earlier (HOPE) with Medical Assessment Units established at selected facilities; increased capacity in community support services, including COMPACKs; Community Acute/ Post Acute Care Services (CAPACs) and the Rehabilitation for Chronic Disease Policy.

## Related policies and programs

Demand management plans are designed to keep people moving through the emergency department proactively by monitoring and anticipating patient activity and making appropriate plans to access inpatient beds with limited delay.

Surge beds are those that can be activated at short notice to meet demand. Activating extra beds for emergency admission is an important component of the demand management plan.

Patient flow units are responsible for implementing demand management plans through the management of surge beds, balancing capacity on an hour-to-hour basis and facilitating effective discharge of patients back to the community.

Older Persons' Evaluation, Assessment and Review Units: a number of hospitals have recognised the need to actively manage older people who present to emergency departments. These units, staffed by specialist geriatric staff, provide improved, more coordinated care for older patients. They have been shown to reduce the total length of stay in hospital.

Psychiatric Emergency Care Centres for mental health patients presenting at EDs provide improved, more coordinated care from specialist psychiatric staff. Funding has been provided for nine centres in metropolitan Sydney, with a further 26 new beds announced in the new direction for mental health five year funding package.

The funding and introduction of Medical Assessment Units (MAUs) and after-hours GP clinics at some of our busiest hospitals are further strategies to reduce the burden on EDs.

Each Area Health Service has been funded to create a Clinical Services Redesign Unit that utilises business process reengineering methodology to improve health systems and create better patient focused care.

# Elective Surgery

## Desired outcome

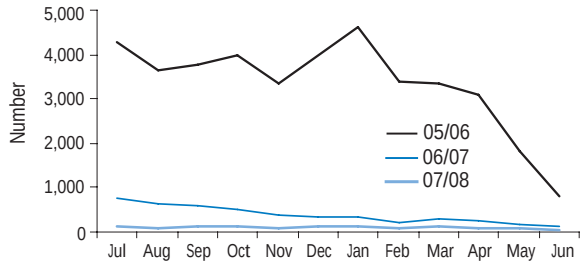
Timely treatment of booked surgical patients, resulting in improved clinical outcomes, quality of life and convenience for patients.

## Context

Long wait and overdue patients are those who have not received treatment within the recommended timeframes. The numbers and proportions of long wait and overdue patients represent measures of hospital performance in the provision of elective care.

Better management of hospital services helps patients avoid excessive waits for booked treatment. Improved quality of life may be achieved more quickly, as well as patient satisfaction and community confidence in the health system.

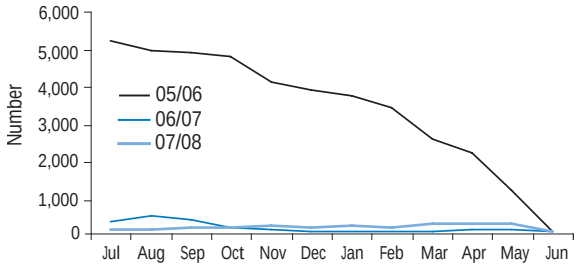
Urgency Category 1 > 30 days (Overdues) (number)



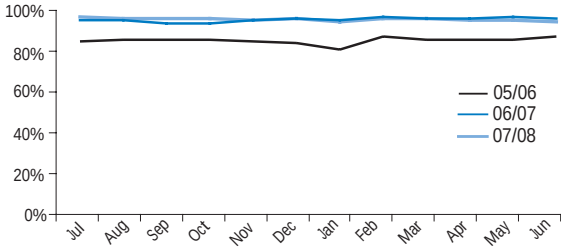

## Interpretation

From July 2005 to June 2008, Category 1 overdue patients has reduced from 4,260 to 30, and the number of long wait patients has decreased from 5,187 to 40. The proportion of patients admitted within the recommended timeframe has been at or slightly above 95% over the past two years.

All Urgency Categories >12 months (Long waits) (number)




Elective surgery patients admitted on time:
Category 1 (urgent) - within 30 days (%)




# Cancellations of planned surgery

## Desired outcome

To effectively reduce surgery cancellations on the day of planned surgery of the patients from the surgical waiting list and provide greater certainty for patient care.

## Context

The effective management of surgical lists minimises cancellations on a day of surgery and ensures patient flow and predictable access. Cancellations should only occur occasionally, e.g. an acute change in patients' medical condition.

## Interpretation

The proportion of cancellations of planned surgery has decreased slightly from 4.5% in 2006/07 to 4.1% in 2007/08, above the new 2007/08 target.

Cancellations on the day of surgery include all patient and facility reasons.

## Related policies and programs

- Sustainable Access Program
- Clinical Services Redesign Program
- Predictable Surgery Program
- Waiting Time and Elective Patient Management Policy (March 2006)
- Pre Procedure Preparation Toolkit (December 2007)

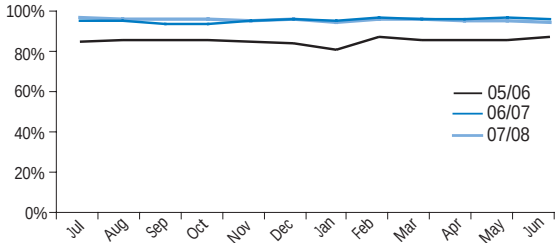
Oprovides clear directions to Area Health Services on waiting list management including specific directions on avoiding cancellations and the escalation of decision making on cancellations to senior executive. In December 2007, the Pre-

## Related policies and programs

- Sustainable Access Program
- Clinical Services Redesign Program
- Predictable Surgery Program
- Waiting Time and Elective Patient Management Policy
- Extended Day Only Admission Policy
- Surgical Activity During Christmas New Year Period Policy

The Waiting Time and Elective Patient Management Policy (March 2006) provides clear direction to Area Health Services on appropriate categorisation of patients and offering of alternative options to ensure patients are treated in a clinically appropriate timeframe. The Extended Day Only Admission policy (August 2007) provides Area Health Services with direction on the diagnosis related groups that should be considered as an extended day only admission.

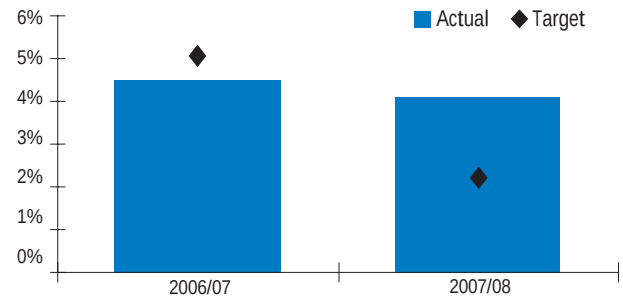
Elective surgery patients admitted on time: Category 3 (non-urgent) - within 12 months (%)




Source: WLCOS

Procedure Preparation Toolkit was published. This Toolkit aims to ensure the best possible care is provided to patients presenting for surgery. It provides a service framework to optimise pre-procedure processes for patient assessment and preparation, thus preventing cancellations due to inadequate preparation for surgery.

Cancellations of planned surgery on the date of surgery (%)




# Patient experience

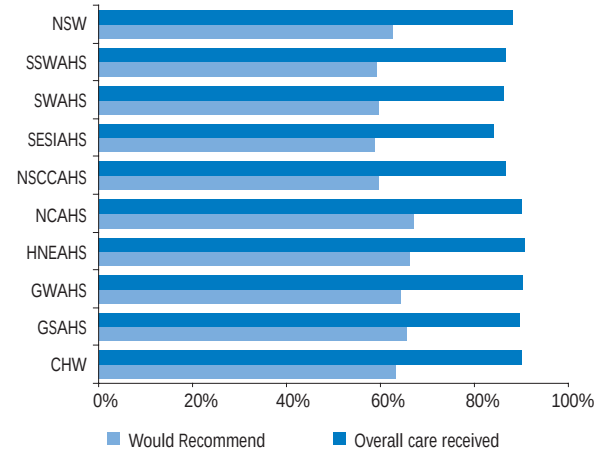
## Desired outcome

Increased satisfaction with health services.

## Context

Health services should be of good clinical quality and result in a satisfactory experience of the "patient journey". In 2007 NSW Health conducted the first statewide Patient Survey to gain information from patients about their experience with health care services. The survey is one of several strategies to gain a complete picture of patient and carer experience, to feedback to service improvement.

Patient experience following treatment (%)




Source: NSW Health Patient Survey 2007

## Interpretation

The majority rated overall care as good/very good/excellent (88%) and 62.5% would definitely recommend the health service to friends and family. There was little difference in overall care rating between Area Health Services, the range being between 91% and 84%.

Among the eight categories of patients surveyed NSW Health performed well for community health (96%), day only inpatients (94%), pediatric inpatients (93%) and outpatients (91%). It performed less well for non admitted emergency patients (82%) and mental health inpatients (64%).

## Related policies and programs

- Sustainable Access Program
- Clinical Service Redesign Program

## All unplanned/unexpected re-admissions

### Desired outcome

Minimal unplanned/unexpected re-admissions, resulting in improved clinical outcomes, quality of life, convenience and patient satisfaction.

### Context

Unplanned and unexpected re-admissions to a hospital may reflect less than optimal patient management. Patients might be re-admitted unexpectedly if the initial care or treatment was ineffective or unsatisfactory, or if post-discharge planning was inadequate. Whilst improvements can be made to reduce re-admission rates, unplanned re-admissions cannot be fully eliminated. Improved quality and safety of treatment reduces unplanned events.

### Interpretation

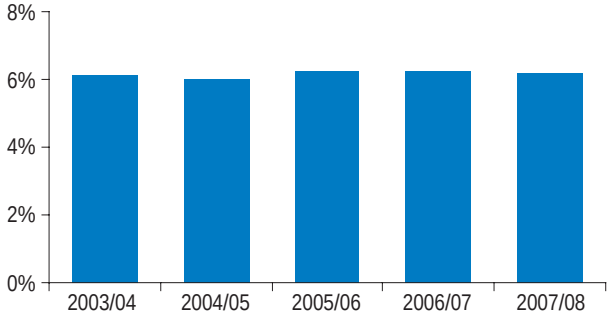
Statewide the annual re-admission rate has been consistent over the period 2003/04 to 2007/08.

The annual re-admission rate varying between 6.0% in 2004/05 and 6.2% in 2005/06 and 2006/07.

### Related policies and programs

The strategies employed by NSW Health include improving the patient journey, robust discharge planning, access to outpatient services and optimal community support. The development of key strategies providing more robust community support links through ComPacks and integrated Aged Care services provides the opportunity to manage non acute re-admissions to health facilities. Medical Assessment Units also provide earlier definitive assessment from a multidisciplinary team, providing linkages to allied health assessments and treatments which transverse the patient journey from the acute facility back into the community.

All unplanned/unexpected re-admissions within 28 days of separation




## Sentinel events

### Desired outcome

Reduction of sentinel events, resulting in improved clinical outcomes, quality of life and patient satisfaction.

### Context

Sentinel events are incidents agreed as key indicators of system problems by all States and Territories and defined by the former Australian Council for Safety and Quality in Healthcare as 'events in which death or serious harm to a patient has occurred' (Safety and Quality Council Sentinel Events Fact Sheet).

### Interpretation

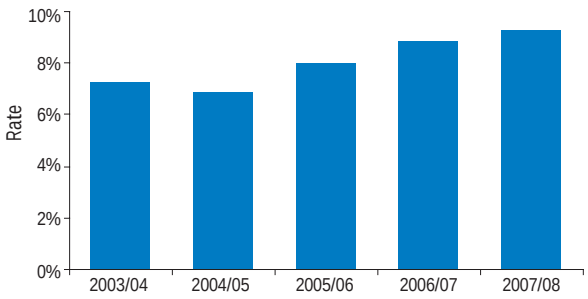
During 2007/08, NSW Health recorded and acted upon 583 sentinel events across the health system. This is a small increase in the rate of serious clinical incidents reported compared with 2005/06 financial year. This rise is a result of the modification of the Severity Assessment Code definitions to include radiology and diagnostic incidents, since 2005/06.

An increase in numbers does not equate to poor safety performance. In fact, a safe organisational culture encourages reporting as a means of learning and improvement. The number of incidents reported may continue to increase as confidence in the reporting system grows.

### Related policies and programs

NSW Health has built on the groundwork of the Patient Safety and Clinical Quality Program through the identification of priority areas and targets for action that will result in significant improvements in patient safety. Targeted areas include a sustained reduction in serious incidents related to falls, and elimination of avoidable incidents due to incorrect procedures and patient misidentification.

Sentinel events (rate per 100,000 bed days)




Source: SAC1 Clinical RIBS/HIE

# Deaths as a result of a fall in hospital

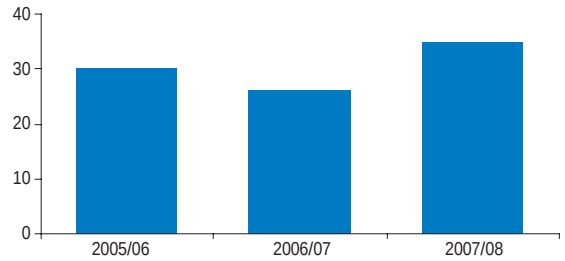
## Desired outcome

Reduce deaths as a direct result of a fall in hospital.

## Context

Falls are a leading cause of injury in hospitals. The implementation of the NSW fall prevention program will improve the identification and management of risk factors for a fall injury in hospitals thereby reducing fall rates. Factors associated with the risk of a fall in the hospital setting may differ from those in the community.

Deaths as a result of falls in hospitals (number)




Source: TRIM/Quality and Safety Branch RIB/RCA Database

## Interpretation

Fall related injury in hospital happens mostly with older people with chronic conditions, impaired mobility, confusion, and/or taking multiple medications. The hospital environment unfamiliar to older people can also be a contributing factor.

There were 35 falls reported to the Department in 2007/08 that appear to have resulted in a patient death. It can be difficult to determine the precise cause of falls due to factors such as frailty, deteriorating health status and the hospital environment. Caution is advised in drawing definitive conclusions due to statistical variability associated with the small number of incidents.

## Related policies and programs

The NSW Falls Prevention Program jointly sponsored by the Clinical Excellence Commission and NSW Health aims to assist health staff to reduce fall injury in hospitals by implementing falls prevention practice and responsive clinical care.

- Statewide support for the implementation of the Australian Safety and Quality in Health Care Council

# Incorrect procedures

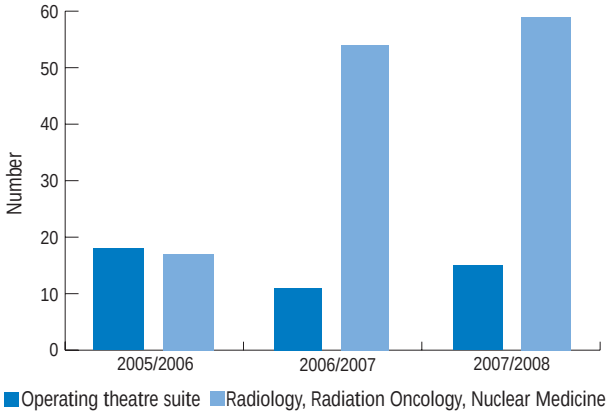
## Desired outcome

Elimination of incorrect procedures resulting in improved clinical outcomes, quality of life and patient satisfaction.

## Context

Incorrect procedures, though low in frequency, provide insight into system failures. Health studies indicate implementation of correct patient/site/procedure policies can eliminate such incidents.

Incorrect procedures - Operating theatre suite and Radiology, Radiation Oncology, Nuclear Medicine (number)




Source: TRIM/Quality & Safety Branch RIB/RCA Database

## Interpretation

There was an increase in the number of incorrect patient, procedure and site incidents notified in 2007/08. This is consistent with international findings from the World Health Organization which is monitoring implementation of the correct patient, procedure, site universal protocol, and is due to increased awareness from the implementation of the protocol. Specialist clinical groups in surgery, radiology, nuclear medicine, radiation oncology and oral health have developed systems to address these incidents including a revised policy with greater emphasis on non-surgical areas, and safety toolkits specific to different clinical areas. These systems may have enhanced awareness of incidents leading to increased reporting.

## Related policies and programs

Patient Identification – Correct Patient, Correct Procedure, Correct Site Policy PD2007_079. Other relevant policies include: the NSW Patient Safety and Clinical Quality Program PD2005_608; the NSW Patient Safety and Clinical Quality Program – Implementation Plan; PD2005_ 609; and the Incident Management Policy PD2007_061.

# Healthcare associated bloodstream infections

## Desired outcome

Improved patient safety and clinical outcomes through sustained reduction in the incidence of healthcare associated bloodstream infections.

## Context

Healthcare associated infections (HAI) are a major issue in the quality and safety of healthcare. These infections prolong hospital admissions, create more work for clinicians and can cause significant harm to patients, some of whom die as a result. In Australia it has been estimated that there may be as many as 200,000 healthcare associated infections, contributing to 7,000 deaths each year.

Currently, there is no systematic Australia wide approach to the measurement of patient harm caused by or associated with healthcare associated infection. A comprehensive statewide data collection process is being developed as part of the healthcare associated infection prevention program. Since January 2008, the NSW Department of Health has collected monthly infection rates for ICU Central Line Associated Bloodstream (CLAB) Infections and Staphylococcus aureus bloodstream infection (SA BSI). Central lines are intravenous catheters inserted into large veins and used to deliver treatments such as antibiotics. Preventing infection associated with these lines has been the subject of much research.

The Central Line Associated Bacteraemia in Intensive Care Units project (CLAB ICU) is a statewide initiative aimed at improving patient outcomes by reducing CLAB in ICUs. It began in March 2007 and is overseen by the Intensive Care Coordination and Monitoring Unit (ICCMU) and the Clinical Excellence Commission, with the cooperation of the NSW Health Quality and Safety Branch.

Research undertaken in the United States by Pronovost et al provides evidence that CLAB infections can be reduced by "bundling" a range of sterile procedures. The CLAB team canvassed NSW intensive care units participating in the project and found that existing techniques for central line insertion were inconsistent and subject to individual preferences and biases. Few units had established credentialing processes to ensure sterile insertion procedures.

The CLAB project is addressing this issue using a 'top down bottom up' collaborative methodology based on a quality improvement program which has been successfully implemented in the United States. Components of the project include:

- development of a safe central line insertion policy and insertion checklist to monitor compliance with policy
- engaging multidisciplinary teams and conducting monthly teleconferences to discuss progress
- development of e-learning tools to support standard education and training
- monthly reporting of infection rates and compliance with the central line insertion policy.

As data is gathered and becomes meaningful, comparisons can be made between one reporting period and the next, and between health facilities. Effective surveillance systems provide timely information to hospital managers and clinicians to promote interventional actions that will improve patient safety and clinical quality. The value of surveillance as part of a hospital infection control program is supported by international and national evidence.

## Interpretation

In Australia, reportedly more than 3,500 intravenous central venous catheter related blood stream infections occur annually, with the number of these infections occurring at a rate of 23 per 1,000 catheter days. A directly attributable mortality for all central venous catheter related blood stream infections is reported as 12%.

Preliminary NSW Health data suggests a longer average length of stay (LOS) for ICU patients with infection. Based on ICU separations for ICD-10 codes A41.0, A41.1 and A41.2 (codes for Septicaemia due to staphylococcus), the average LOS for ICU patients with these infections in 2004/05 was 22.0 days, compared with 13.2 days for all ICU patients. This data also revealed a gradual increase in the average LOS for ICU patients with these infections over time (increased from 20.1 days in 2002/03 to 22.0 days in 2004/05).

Thirty six ICUs across NSW are now promoting a collaborative approach to change. Data has been collected over 9,400 central insertions. There has been a significant reduction from previously reported results in this area. For the period July 2007 to September 2008 there were 2.8 infections per 1000 line days. This is a significant improvement from the data produced a few years ago.