# **NSW HEALTH**

# New South Wales Population Health Survey

# 2007 Report on adult health















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State Health Publication No: HSP 080193 ISBN 978 1 74187 280 4

### suggested citation:

Centre for Epidemiology and Research. 2007 Report on Adult Health from the New South Wales Population Health Survey. Sydney: NSW Department of Health, 2008.

further copies of this publication can be downloaded from the

New South Wales Health Survey Program website : www.health.nsw.gov.au/publichealth/surveys/index.asp

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# Foreword

I am pleased to present the 2007 Report on Adult Health from the New South Wales Population Health Survey, which provides information on health behaviours, health status, access to health services, and social capital, for adults aged 16 years and over.

In 2007, data for the New South Wales Population Health Survey were collected from February to December.

After describing the survey methods, this report presents information on health behaviours including: alcohol and cannabis, environmental health (water quality), gambling, immunisation (influenza and pneumococcal), injury prevention (fire safety in the home and first aid for burns and scalds), nutrition, physical activity, sexual health, smoking (including passive smoking), and sun protection. This is followed by a chapter on health status including: self-rated health, asthma, diabetes or high blood glucose, mental health (psychological distress), oral health, overweight and obesity, and family health history. Next there is a chapter on health services including: health service use and access, private health insurance, difficulties getting health care, emergency department presentations, hospital admissions, general practitioner services, public dental services, and community health centres. Finally, there is a chapter on social capital.

These indicators are presented in graphical form (in the PDF and HTML versions) and in graphical and tabular form (in the HTML version). For each indicator, where data are available, the report includes a bar chart of the indicator by age group, a bar chart of the indicator by socioeconomic status, a 'hi-lo' chart of the indicator by area health service, and a line chart of trend by sex. In the HTML version, the table below the chart presents further information. Both the PDF and HTML versions can be obtained from the New South Wales Population Health Survey website at www.health.nsw.gov.au/publichealth/surveys/index.asp.

This is a descriptive report and there is a wealth of other information in the survey dataset that may be of specific interest. For these reasons we encourage as many people as possible to analyse the data further. For further analysis within a health area, data can be accessed through the Health Outcomes Information Statistical Toolkit (HOIST). For further analysis among health areas or at a statewide level, a data request needs to be lodged with the NSW Department of Health.

Comments on the New South Wales Population Health Survey are welcome.

I thank all the individuals and organisations who contributed their time and expertise to assist in the development and conduct of the Survey in 2007.

Chand R. Heal

Kerry Chant Acting Chief Health Officer and Deputy Director-General, Population Health November 2008

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# Introduction

In 2007, the NSW Department of Health, in conjunction with the 8 area health services, completed the sixth year of the New South Wales Population Health Survey, an ongoing survey of the health of people of New South Wales using computer assisted telephone interviewing (CATI). The main aims of the survey are to: provide detailed information on the health of the people of New South Wales, and to support the planning and implementation and evaluation of health services and programs in New South Wales.

Prior to the introduction of the continuous survey in 2002, the Centre for Epidemiology and Research conducted adult health surveys in 1997 and 1998, an older people's health survey in 1999, and a child health survey in 2001. The reporting plan for the continuous survey includes an annual report on adult health for the whole state and annual reports on adult health for selected indicators by area health service.

This 2007 Report on Adult Health from the New South Wales Population Health Survey reports the health of residents aged 16 years and over.

The content of the survey was developed by the NSW Health Survey Program in consultation with key stakeholders, area health services, other government departments, and a range of experts. The survey included: questions used in previous surveys, new questions developed specifically for 2007, and questions developed specifically for some of the area health services. All new questions not previously used were submitted to the NSW Health Population and Health Services Research Ethics Committee for approval prior to use. New questions were also field-tested prior to inclusion in the survey. The instrument was translated into 5 languages: Arabic, Chinese, Greek, Italian and Vietnamese.

Interviews were carried out continuously between February and December. The target population for the adult report was all New South Wales residents aged 16 years and over living in households with private telephones. Households were sampled using list-assisted random digit dialling. When a household was contacted, one person was randomly selected for interview. Information for the report was collected on 13,178 adults.

# **Health behaviours**

Health behaviours contribute to premature mortality and morbidity. Adult health behaviours measured in 2007 include alcohol and cannabis consumption, environmental health (water quality), immunisation (influenza and pneumococcal), injury prevention (fire prevention in the home, first aid, and burns and scalds), nutrition, physical activity (adequate physical activity and neighbourhood facilities), sexual health, and smoking (including passive smoking).

Just under one-third of adults (31.9 per cent) engaged in any risk drinking behaviour. A higher proportion of males, young adults, and adults in rural health areas engaged in any risk drinking behaviour. There was no difference by level of socioeconomic disadvantage.

Just over 8 in 10 adults (83.8 per cent) used a public water supply as their usual source of drinking water. A lower proportion of adults aged 16-24 years, in the fourth or second most disadvantaged quintile, and in the rural health areas, used a public water supply as their usual source of drinking water. A higher proportion of adults aged 75 years and over, in the first or least disadvantaged quintile, and in the urban health areas, used a public water supply as their usual source of drinking water.

Just under three-quarters of adults aged 65 years and over (72.8 per cent) were immunised against influenza in the last 12 months. There was no difference between males and females, by level of socioeconomic disadvantage, or between urban health areas and rural health areas. Just under 6 in 10 adults aged 65 years and over (59.1 per cent) were immunised against pneumococcal disease in the last 5 years. There was no difference between males and females, or by level of socioeconomic disadvantage. A higher proportion of adults aged 65 years and over in rural health areas than urban health areas were vaccinated against pneumococcal disease in the last 5 years.

Just over 9 in 10 adults (92.9 per cent) had a smoke alarm or detector installed in their home. A higher proportion of adults aged 35-44 years and 75 years and over had a smoke alarm or detector installed in their home. There was no difference by level of socioeconomic disadvantage, or between urban health areas and rural health areas. Just under three-quarters of adults (73.4 per cent) had no home escape plan. Just under

2 in 10 adults (17.2 per cent) had a burn or scald in the last 12 months. There was no difference between males and females, by level of socioeconomic disadvantage, or between rural health areas and urban health areas.

Just over one-half (54.4 per cent) of adults consumed the recommended number of serves of fruit each day (2 serves or more), 10.7 per cent consumed the recommended number of serves of vegetables each day (5 serves or more), 76.3 per cent consumed bread once a day or more, 16.1 per cent consumed pasta or rice or noodles or other cooked cereals once a day or more, 68.0 per cent consumed breakfast cereal 2 times a week or more, 43.6 per cent consumed red meat less than 3 times a week, 45.7 per cent consumed low or reduced fat or skim milk, 27.5 per cent rarely or never consumed fried potatoes, 44.2 per cent rarely or never consumed potato crisps or salty snacks, 77.7 per cent consumed processed meat products less than 3 times a week, 61.1 per cent consumed 2 cups or less of soft drinks or cordials or sports drinks a week, and 37.9 per cent rarely or never consumed fast foods. Just under 1 in 20 adults (4.4 per cent) ran out of food and could not afford to buy more on at least 1 occasion in the previous 12 months.

Just over one-half of adults (54.8 per cent) undertook adequate levels of physical activity (a total of 150 minutes per week on 5 separate occasions). More males than females undertook adequate levels of physical activity. Overall, 2.2 per cent of adults had no access to neighbourhood facilities to encourage physical activity. Among those adults with access to neighbourhood facilities, 46.4 per cent used them weekly or more. A lower proportion of females than males used neighbourhood facilities weekly or more. A higher proportion of adults in the first or least disadvantaged quintile, and a lower proportion of adults in the fifth or most disadvantaged quintile, used neighbourhood facilities weekly or more. A lower proportion of adults in the fifth or most disadvantaged quintile, used neighbourhood facilities weekly or more. A lower proportion of adults in the fifth or most disadvantaged quintile, used neighbourhood facilities weekly or more.

Among adults aged 16-70 years, 3.1 per cent practised unsafe sex. A lower proportion of females than males practised unsafe sex. There was no difference by level of socioeconomic disadvantage, or between rural health areas and urban health areas.

Just under 2 in 10 adults (18.6 per cent) were current smokers (that is, daily or occasional smokers). A higher proportion of males than females were current smokers. Current smoking increased with socioeconomic disadvantage. There was no difference between urban health areas and rural health areas. Overall, 88.2 per cent of adults lived in smoke-free homes. The proportion of smoke-free homes decreased as socioeconomic disadvantage increased. Overall, 87.6 per cent of adults had smoke-free cars. The proportion of smoke-free cars decreased as socioeconomic disadvantage increased as socioeconomic disadvantage increased. Overall, 87.6 per cent of adults had smoke-free cars. The proportion of smoke-free cars decreased as socioeconomic disadvantage increased. Overall, 36.9 per cent of adults would be more likely, and 5.8 per cent of adults would be less likely, to frequent hotels or licensed premises if there was a total ban on smoking. Overall, 40.6 per cent of adults would be more likely, and 5.8 per cent of adults would be more likely, and 5.8 per cent of adults would be more likely, and 5.8 per cent of adults would be more likely, and 5.8 per cent of adults would be more likely, and 5.8 per cent of adults would be more likely, and 5.8 per cent of adults would be more likely, and 5.8 per cent of adults would be more likely.

Among adults who go to local sporting areas, 62.6 per cent found it easy to find shade. Among adults who go to local outdoor public swimming pools, 73.3 per cent found it easy to find shade. Among adults who go to local public parks, 77.6 per cent found it easy to find shade.

# Health status

In 2007, the New South Wales Population Health Survey collected information from adults on a range of health indicators including: self-rated health, asthma, diabetes or high blood glucose, mental health (psychological distress), oral health, overweight and obesity, and family health history.

Overall, just over 8 in 10 adults (81.0 per cent) rated their health as excellent, very good, or good.

Just over 1 in 10 adults (10.5 per cent) had current asthma. More females than males had current asthma.

Overall, 7.1 per cent of adults had diabetes or high blood glucose. The prevalence increased with age. There was no difference by level of socioeconomic disadvantage.

Overall, 12.1 per cent of adults had high or very high levels of psychological distress. The proportion was higher in females than males, and increased by level of socioeconomic disadvantage. There was no difference between urban health areas and rural health areas.

Overall, 56.0 per cent of adults visited a dental professional less than 12 months ago. The proportion was higher in females than males, and lower in rural health areas than urban health areas. The proportion decreased by level of socioeconomic disadvantage. Overall, 5.1 per cent of adults had all their natural teeth missing. The proportion was higher in females than males, and higher in rural health areas than urban health areas. The proportion health areas than urban health areas than urban health areas. The proportion was higher in females than males, and higher in rural health areas than urban health areas. The proportion increased by level of socioeconomic disadvantage. Overall, 8.5 per cent of adults

agreed with having their water supply fluoridated.

Using height and weight to classify Body Mass Index (BMI), just over one-half of adults (51.7 per cent) were either overweight or obese. More males than females were overweight or obese. Overall, 18.0 per cent adults were obese. There was no difference between males and females.

# Health service use and access

In 2007, the New South Wales Population Health Survey collected information on health services used, private health insurance, difficulties getting health care, emergency department presentations, hospital admissions, general practitioner services, public dental services, and community health centres.

Overall, 14.1 per cent were admitted to hospital for at least 1 night, 15.5 per cent presented to an emergency department, 7.8 per cent attended a community health centre, 5.1 per cent attended a public dental service or hospital, and 83.2 per cent visited a general practitioner.

Overall, 55.1 per cent of adults were covered by private health insurance.

Overall, excluding those who did not need health care, 17.0 per cent of adults had difficulties getting health care. The proportion increased by level of socioeconomic disadvantage. The proportion was lower in males than females, and higher in rural health areas than urban health areas. The main difficulties were: waiting time for an appointment with a general practitioner, shortage of general practitioners in area, difficulty in accessing specialists, cost of health services, quality of treatment, shortage of health services, transport issues, waiting time in emergency departments, and waiting time for dental services.

Overall, 15.5 per cent of adults presented to an emergency department in the last 12 months. Of these, 79.4 per cent rated the care received as excellent, very good, or good.

Overall, 14.1 per cent of adults had been admitted to hospital in the last 12 months. Of these, 89.6 per cent rated the care received as excellent, very good, or good.

Overall, 83.2 per cent of adults visited a general practitioner in the last 12 months. Of these, 93.3 per cent rated the care received at their last visit as excellent, very good, or good. Overall, 28.3 per cent of adults visited a general practitioner in the last 2 weeks.

Overall, 5.1 per cent of adults attended a public dental service in the last 12 months. Of these, 87.0 per cent rated the care received as excellent, very good, or good.

Overall, 7.8 per cent of adults attended a community health centre in the last 12 months.

# Social capital

The term social capital refers to the relationships and conventions that shape social networks, foster trust, and facilitate cooperation for mutual benefit. In 2007, the New South Wales Population Health Survey included questions on social reciprocity and neighbourhood connection, feelings of trust and safety, participation in the local community, and building harmonious communities.

Overall, 37.7 per cent of adults helped out at a local group or organisation in the last 3 months.

Overall, 70.7 per cent agreed that most people could be trusted, 71.1 per cent felt safe walking down their street after dark, with more males than females feeling safe, and 76.4 per cent felt their area had a reputation for being safe.

Overall, 62.3 per cent of adults visited neighbours in the last week, 80.9 per cent ran into friends and acquaintances when shopping in their local area, and 73.2 per cent said they would feel sad if they had to leave their neighbourhood.

Overall, 60.4 per cent of adults took part in sport or physical activities. A higher proportion of males than females took part in sport or physical activities. A higher proportion of adults in the first or least disadvantaged quintile, and a lower proportion of adults in the fifth or most disadvantaged quintile, took part in sport or physical activities in the last 12 months. A lower proportion of adults in rural health areas than urban health areas took part in sport or physical activities.

Overall, 57.9 per cent of adults participated in a recreational, cultural, community or special interest group, or church or religious activities. There was no difference between males and females. There was no difference by level of socioeconomic disadvantage, or between rural health areas and urban health areas.

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# Introduction

In 2007, the NSW Department of Health, in conjunction with the 8 area health services, completed the sixth year of the New South Wales Population Health Survey, an ongoing survey of the health of people of New South Wales using computer assisted telephone interviewing (CATI). The main aims of the survey are to provide detailed information on the health of the people of New South Wales, and to support the planning, implementation, and evaluation of health services and programs in New South Wales.

Prior to the introduction of the continuous survey in 2002, the Centre for Epidemiology and Research conducted adult health surveys in 1997 and 1998, an older people's health survey in 1999, and a child health survey in 2001. The reporting plan for the continuous survey includes an annual report on adult health for the whole state and annual reports on adult health for selected indicators by area health service.

This section describes the methods used for the 2007 Report on Adult Health from the New South Wales Population Health Survey, which reports the health of residents aged 16 years and over.

# **New South Wales Population Health Survey**

### Survey instrument

The survey instrument for the New South Wales Population Health Survey was developed by the Health Survey Program in consultation with key stakeholders, area health services, other government departments, and a range of experts.

The survey instrument included: questions used in previous surveys, new questions developed specifically for 2007, and questions developed specifically for some area health services. All questions not previously used were submitted to the NSW Health Population and Health Services Research Ethics Committee for approval prior to use. New questions were also field tested prior to inclusion in the survey. The survey instrument was translated into 5 languages: Arabic, Chinese, Greek, Italian and Vietnamese.

# Survey sample

In 2007, the target population for the New South Wales Population Health Survey was all residents living in households with private telephones. The target sample comprised approximately 1,500 people in each of the 8 area health services (a total sample of 12,000).

The sampling frame was developed as follows. Records from the Australia on Disk electronic white pages (phone book) were geo-coded using MapInfo mapping software.[1,2] The geo-coded telephone numbers were assigned to statistical local areas and area health services. The proportion of numbers for each telephone prefix by area health service was calculated. All prefixes were expanded with suffixes ranging from 0000 to 9999. The resulting list was then matched back to the electronic phone book. All numbers that matched numbers in the electronic phone book were flagged and the number was assigned to the relevant geo-coded area health service. Unlisted numbers were assigned to the area health service containing the greatest proportion of numbers with that prefix. Numbers were then filtered to eliminate contiguous unused blocks of greater than 10 numbers. The remaining numbers were then checked against the business numbers in the electronic phone book to eliminate business numbers. Finally, numbers were randomly sorted.

Households were contacted using random digit dialling. One person from the household was randomly selected for inclusion in the survey.

### Interviews

In 2007, interviews were carried out continuously between February and December. Selected households with addresses in the electronic phone book were sent a letter describing the aims and methods of the survey 2 weeks prior to initial attempts at telephone contact. An 1800 freecall contact number was provided for potential respondents to verify the authenticity of the survey and to ask any questions regarding the survey. Trained interviewers at the Health Survey Program CATI facility carried out interviews. Up to 7 calls were made to establish initial contact with a household, and 5 calls were made in order to contact a selected

respondent.

### Call outcomes and response rates

In total, 16,046 interviews were conducted, with at least 1,550 interviews in each area health service and 13,178 with adults aged 16 years or over. The overall response rate was 63.6 per cent (completed interviews divided by completed interviews and refusals).

# Data analysis

For analysis, the survey sample was weighted to adjust for differences in the probabilities of selection among subjects. These differences were due to the varying number of people living in each household, the number of residential telephone connections for the household, and the varying sampling fraction in each health area.

Post-stratification weights were used to reduce the effect of differing non-response rates among males and females and different age groups on the survey estimates. These weights were adjusted for differences between the age and sex structure of the survey sample and the Australian Bureau of Statistics 2007 mid-year population estimates (excluding residents of institutions) for each area health service. Further information on the weighting process is provided elsewhere.[3]

Call and interview data were manipulated and analysed using SAS version 8.02.[4] The SURVEYMEANS procedure in SAS was used to analyse the data and calculate point estimates and 95 per cent confidence intervals for the estimates. The SURVEYMEANS procedure calculates standard errors adjusted for the design effect factor or DEFF (the variance for a non-random sample divided by the variance for a simple random sample). It uses the Taylor expansion method to estimate sampling errors of estimators based on the stratified random sample.[4]

The 95 per cent confidence interval provides a range of values that should contain the actual value 95 per cent of the time. In general, a wider confidence interval reflects less certainty in the estimate for that indicator. The width of the confidence interval relates to the differing sample size for each indicator. A wider confidence interval reflects less certainty in the estimate. If confidence intervals do not overlap then the observed estimates are significantly different. If confidence intervals overlap slightly the observed estimates may be significantly different but further testing needs to be done to establish that significance.[4] For a pairwise comparison of subgroup estimates, the p-value for a two-tailed test was calculated using the normal distribution probability function PROBNORM in SAS, assuming approximate normal distribution for the estimated difference.

# The K10 measure of psychological distress

In 2007, the K10 scale was included in the New South Wales Population Health Survey as a measure of psychological distress.<sup>[5,6]</sup> The K10 is a 10-item questionnaire intended to yield a global measure of psychological distress. It includes questions about the level of anxiety and depressive symptoms in the most recent 4-week period. For each question, there is a 5-level response scale based on the amount of time (from none of the time through to all the time) during a 4-week period that the person experienced the particular problem.

When scoring responses to the questionnaire, between 1 and 5 points were assigned to each symptom with a value of 1 indicating that the person experiences the problem none of the time and 5 indicating all of the time. It follows that the total K10 score for each person ranges from 10 points (that is, all responses are none of the time) through to 50 (all responses are all of the time.[7]

The K10 scores calculated for the New South Wales Population Health Survey are a combination of actual and imputed scores. Where a respondent answered all 10 questions, the K10 score was simply the sum of the individual scores for each question. Where the respondent answered 9 questions, the score for the missing question was imputed as the mean score of the 9 answered questions.

# Indices of geographic remoteness and socioeconomic disadvantage: ARIA and SEIFA

The Accessibility-Remoteness Index of Australia Plus (ARIA+) is the standard Australian Bureau of Statistics (ABS) endorsed measure of remoteness.[8] It is derived using the road distances from populated localities to the nearest service centres across Australia. For each locality, the accessibility to services is expressed as a continuous measure from 0 (high accessibility) to 15 (high remoteness) and grouped into 5 categories: major cities, inner regional, outer regional, remote, and very remote. Because of small numbers in the remote and very remote categories, these categories have been combined in the analysis.

The Socio-Economic Indexes for Areas (SEIFA) describe the socioeconomic aspects of geographical areas in Australia, using a number of underlying variables such as family and household characteristics, personal educational qualifications, and occupation.<sup>[9]</sup> The SEIFA index used to provide breakdowns of the New South Wales Population Health Survey data in 2007 is the Index of Relative Socio-Economic Disadvantage. This index is calculated on attributes such as low income and educational attainment, high unemployment, and people working in unskilled occupations. The SEIFA index values are grouped into 5 quintiles, with quintile 1 being the least disadvantaged and quintile 5 being the most disadvantaged.

Both the ARIA+ and SEIFA indexes were assigned to the results of the New South Wales Population Health Survey in 2007 based on respondents' postcode of residence. Rates for each SEIFA quintile were calculated for several health indicators included in this report to enable socioeconomic comparisons.

# Definition of urban and rural

In this report, the term urban means the respondent lived in 1 of the 4 area health services designated as metropolitan: Northern Sydney & Central Coast, South Eastern Sydney and Illawarra, Sydney South West, and Sydney West. The term rural means the respondent lived in 1 of the 4 area health services designated as rural: Greater Southern, Greater Western, Hunter & New England, and North Coast.

# Nutrition

Adequate fruit and vegetable consumption is defined in the Australian Guide to Healthy Eating, the Dietary Guidelines for Children and Adolescents, and the Dietary Guidelines for Australian Adults. Recommended amounts vary with age. For adolescents up to age 18 years, at least 3 serves of fruit and at least 4 serves of vegetables are recommended. From 18 years, it is recommended that adults eat at least 4-5 serves of vegetables per day, depending on age, and at least 2 serves of fruit per day. The 'Go for 2 & 5' fruit and vegetable campaign provides a simplified message that has been used as the basis for comparison in this survey.[10-12]

The Dietary Guidelines for Australian Adults state that people should limit the consumption of saturated fats, and choose foods that are low in salt, without making any specific recommendations.[11] However the National Food and Nutrition Monitoring and Surveillance Project recommends monitoring the percentage of the population that rarely or never eats fried potatoes, rarely or never eats salty snacks, and consumes meat products less than 3 times a week.[13]

The Dietary Guidelines for Australians recommends serves of cereals (including breads, rice, pasta, and noodles) based on age, sex, and individual circumstances.[14] For ease of respondent recall, the National Food and Nutrition Monitoring and Surveillance Project recommends breaking the cereals category into sub-categories: that is, collecting the frequency of consuming breads, cooked cereals, and breakfast cereals.[13] Thus the National Food and Nutrition Monitoring and Surveillance Project recommends comparing those who consume bread daily or more; rice, pasta, noodles, or other cooked cereals daily or more; and breakfast cereals 2 or more times a week, with those who do not.

The New South Wales Population Health Survey includes a dietary questionnaire on usual consumption of fruit and vegetables, breads and cereals (including pasta, rice and noodles), type of milk consumed (including low fat, reduced fat, and skim milk), selected foods high in fats (fried potatoes, potato crisps and salty snacks, and processed meats), red meat (excluding pork or ham), soft drinks, fast foods, knowledge of recommended servings of fruit and vegetables, and food insecurity.[13] Several of these questions were validated using the 1995 National Nutrition Survey and the Tasmanian Dietary Key Indicators Study. The validated questions were found to be reliable for relative ranking of intake between respondents but not for measuring a respondent's number of serves; however, they are still useful for ongoing comparitive monitoring.[15]

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### Outcomes of telephone calls, Completed interviews and response rates by area health service

Outcome	Number of telephone numbers			
Unable to contact	16391			
Not connected	35864			
Business/institution telephone	7576			
Fax number	5996			
Household not in NSW or holiday house	698			
Respondent away for duration of survey	1312			
Respondents confused or deaf	1434			
Non-translated language	2275			
Refusal	9164			
Complete	16046			
Total	96756			

Note: Estimates are based on 6,990 respondents in NSW. For this indicator 494 (6.60%) were not stated (Don't know or Refused) in NSW. Operational data for the survey were downloaded using SAWTOOTH WinCati version 4.1. The data included the following information for each attempted 'telephone' number, including connected and non-connected numbers: the number dialled; the number of attempts of dialling to that number; the starting and ending time for each dialling attempt to the number; whether or not the number is listed in the Electronic White Pages; and whether the number dialled has led to a completed interview, or no answer, or a refusal, or a non-connected number; and households not eligible).

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Completed interviews and response rates by area health service, NSW, 2007

Health Area	Adult respondents	Child respondents	Total respondents	Response rate (%)
Sydney South West	1662	379	2041	60.2
South Eastern Sydney & Illawarra	1596	316	1912	58.5
Sydney West	1639	470	2109	61
Northern Sydney & Central Coast	1666	357	2023	63.8
Hunter & New England	1683	344	2027	66.3
North Coast	1769	337	2106	67.2
Greater Southern	1611	325	1936	65.6
Greater Western	1552	340	1892	68
NSW	13178	2868	16046	63.6

- Note: Operational data for the survey were downloaded using SAWTOOTH WinCati version 4.1. Response rates were calculated as the number of completed interviews and number of refusals.
- Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Completed interviews by language, NSW, 2007

Language	Number of respondents
English	15598
Arabic	72
Chinese	167
Greek	56
Italian	86
Vietnamese	67
All	16046

Note: Operational data for the survey were downloaded using SAWTOOTH WinCati version 4.1.

02.50

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# **Representativeness of sample**

In 2007, adult males were under-represented in the New South Wales Population Health Survey, making up 41.1 per cent of the survey sample, compared with 49.7 per cent of the overall residential population of New South Wales. Conversely, females were over-represented, making up 58.9 per cent of the survey sample, compared with 50.3 per cent of the overall residential population of New South Wales. Males aged 54 years or younger and females aged 44 years and under were under-represented in the sample, while males aged 55 years or over and females aged 45 years and over were over-represented in the sample. Comparisons of the distribution of the survey sample and that of the overall residential population are shown in the table 'Survey sample size and New South Wales population by age group and sex'. After weighting, the age and sex distribution of the survey sample reflected that of the overall residential population of New South Wales.

Aboriginal people comprised 1.8 per cent of the survey sample, which is slightly lower than their representation in the overall residential population of New South Wales (2.1 per cent), and people born in Australia comprised 71.0 per cent of the survey sample, which is slightly higher than their representation in the overall residential population of New South Wales (69.0 per cent), according to the 2006 Census.[1]

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	Survey sample (unweighted)						NSW population June 2007					
	Ma	les	Fem	ales	Persons		Males		Females		Persons	
Age Group	n	%	n	%	n	%	n	%	n	%	n	%
0-4	454	2.8	428	2.7	882	5.5	220899	3.2	209237	3.1	430136	6.3
5-9	441	2.7	401	2.5	842	5.2	224156	3.3	213651	3.1	437807	6.4
10-14	468	2.9	448	2.8	916	5.7	232327	3.4	220838	3.2	453165	6.7
15-19	355	2.2	385	2.4	740	4.6	234950	3.5	223673	3.3	458622	6.7
20-24	221	1.4	293	1.8	514	3.2	238212	3.5	231854	3.4	470065	6.9
25-29	220	1.4	346	2.2	566	3.5	235697	3.5	234722	3.5	470419	6.9
30-34	243	1.5	426	2.7	669	4.2	245147	3.6	248505	3.7	493652	7.3
35-39	270	1.7	443	2.8	713	4.4	245430	3.6	250851	3.7	496281	7.3
40-44	354	2.2	534	3.3	888	5.5	248908	3.7	251322	3.7	500230	7.4
45-49	445	2.8	647	4	1092	6.8	244248	3.6	248280	3.7	492528	7.2
50-54	495	3.1	783	4.9	1278	8	223568	3.3	226652	3.3	450220	6.6
55-59	530	3.3	871	5.4	1401	8.7	207817	3.1	208151	3.1	415969	6.1
60-64	566	3.5	857	5.3	1423	8.9	171235	2.5	171298	2.5	342533	5
65-69	486	3	762	4.7	1248	7.8	130720	1.9	134559	2	265278	3.9
70-74	419	2.6	664	4.1	1083	6.7	102846	1.5	112001	1.6	214846	3.2
75-79	329	2.1	586	3.7	915	5.7	82930	1.2	98711	1.5	181641	2.7
80+	295	1.8	581	3.6	876	5.5	88327	1.3	139612	2.1	227938	3.4
All	6591	41.1	9455	58.9	16046	100	3377417	49.7	3423915	50.3	6801332	100

### Survey sample size and NSW population by age group and sex, NSW, 2007

Note:

Source:

Table compares the survey sample with the Australian Bureau of Statistics 2007 mid-year population estimates (excluding residents of institutions)

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Age distribution of unweighted survey sample versus NSW population: Females, NSW, 2007

Note: Graph compares the survey sample with the Australian Bureau of Statistics 2007 mid-year population estimates (excluding residents of institutions) Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Age distribution of unweighted survey sample versus NSW population: Males, NSW, 2007

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 Note:
 Graph compares the survey sample with the Australian Bureau of Statistics 2007 mid-year population estimates (excluding residents of institutions)

 Source:
 New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Socioeconomic Index (SEIFA) quintile, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 13,020 respondents in NSW. For this indicator 158 (1.20%) were not stated (Don't know or Refused) in NSW. The Socio-Economic Indexes for Areas (SEIFA) describe the socioeconomic aspects of geographical areas in Australia, using a number of underlying variables such as family and household characteristics, personal educational qualifications, and occupation. The SEIFA index used to provide breakdowns of the New South Wales Population Health Survey data in 2007 is the Index of Relative Socio-Economic Disadvantage. This index is calculated on attributes such as low income and educational attainment, high unemployment, and people working in unskilled occupations. The SEIFA index values are grouped into 5 quintiles, with quintile one being the least disadvantaged and quintile 5 being the most disadvantaged.

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Accessibility-Remoteness Index of Australia Plus (ARIA+), persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 13,022 respondents in NSW. For this indicator 156 (1.18%) were not stated (Don't know or Refused) in NSW. The Accessibility-Remoteness Index of Australia Plus (ARIA+) is the standard Australian Bureau of Statistics endorsed measure of remoteness. It is derived using the road distances from populated localities to the nearest service centres across Australia. ARIA+ is grouped into 5 categories: major cities, inner regional, outer regional, remote, and very remote, using postcodes from survey respondents. Because of small numbers in the remote and very remote categories, these categories have been combined in the analysis.
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Survey conducted in languages other than English, persons aged 16 years and over, NSW, 2007



Estimates are based on 13,178 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. Recorded language of interview. New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note: Source:

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Estimates are based on 13,128 respondents in NSW. For this indicator 50 (0.38%) were not stated (Don't know or Refused) in NSW. The question used was: Are you of Note: Aboriginal and/or Torres Strait Islander origin? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

### Country of birth, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 13,143 respondents in NSW. For this indicator 35 (0.27%) were not stated (Don't know or Refused) in NSW. The question used was: In which country were you born?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Parents' country of birth, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 11,309 respondents in NSW. For this indicator 99 (0.87%) were not stated (Don't know or Refused) in NSW. The questions used were: In which country were you born? In which country was you mother born? and In which country was you father born?

Languages other than English spoken at home, persons who speak a language other than English aged 16 years and over, NSW, 2007



Note: Estimates are based on 1,303 respondents in NSW. For this indicator 11 (0.84%) were not stated (Don't know or Refused) in NSW. The question used was: Do you usually speak a language other than English at home?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 13,099 respondents in NSW. For this indicator 62 (0.47%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last week, which of the following best describes your employment status? Worked for payment or profit, worked for payment/profit but absent on paid leave, holidays, on strike/stood down, unpaid work in a family business, other unpaid work or did not have a job? and Were you actively looking for work in the last week?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Currently receive a pension or benefit, persons aged 65 years and over, NSW, 2007



Note: Estimates are based on 4,087 respondents in NSW. For this indicator 35 (0.85%) were not stated (Don't know or Refused) in NSW. The question used was: Do you currently receive a pension, allowance or benefit?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Household structure, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 13,139 respondents in NSW. For this indicator 39 (0.30%) were not stated (Don't know or Refused) in NSW. The question used was: Besides yourself, who else lives in your household? Respondents could mention more than 1 response. Percentages may total more than 100%.
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Formal marital status, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 13,122 respondents in NSW. For this indicator 56 (0.42%) were not stated (Don't know or Refused) in NSW. The question used was: What is your current formal marital status?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Household income, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 10,913 respondents in NSW. For this indicator 2,265 (17.19%) were not stated (Don't know or Refused) in NSW. The question used was: Before tax is taken out, which of the following ranges best describes your household's approximate income from all sources over the last 12 months?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Number of children aged 0-5 years in the household, persons aged 16 years and over, NSW, 2007

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 13,178 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The question used was: And how many of these people in the household are children under 16 years of age? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Estimates are based on 13,178 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The question used was: Can you Note: please tell me how many children under 6 years of age live in this household?



### Number of people aged 65 years and over in the household, persons aged 16 years and over, NSW, 2007

Estimates are based on 13,178 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The question used was: Can you please tell me how hmany people aged 65 years old or over live in this household? Note: Source:

Estimates are based on 13.178 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW please tell me how hmany people aged 65 years old or over live in this household? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Health behaviours

Health behaviours directly influence preventable morbidity and mortality throughout adulthood. This section reports on alcohol and cannabis, environmental health (water quality), gambling, immunisation (influenza and pneumococcal), injury prevention (fire safety in the home, first aid, burns and scalds), nutrition, physical activity, sexual health, smoking (including passive smoking), and sun protection.

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# Introduction

Excessive alcohol consumption is associated with a variety of adverse health consequences including cirrhosis of the liver, mental illness, several types of cancer, pancreatitis, and fetal growth retardation. Adverse social effects include aggressive behaviour, family disruption, and reduced productivity. In general, higher levels of consumption are associated with higher levels of harm; however, high rates of harm have been found among low to moderate drinkers on the occasions they drink to intoxication. In Australia, alcohol is second only to tobacco as a cause of preventable morbidity and mortality. The NSW Health Drug and Alcohol Plan 2006-2010 outlines the NSW Government's commitment to reducing the problems caused by alcohol use. The Australian Alcohol Guidelines, published in 2001 by the National Health and Medical Research Council and the Department of Health and Ageing, are being reviewed but were current at the time of writing this report.[1-4]

Any risk drinking behaviour was defined as per Guideline 1 of the current Australian Alcohol Guidelines, as 1 or more of the following: consuming alcohol every day, consuming on average more than 4 if male or 2 if female standard drinks per day, or consuming more than 6 if male or 4 if female standard drinks on any occasion in the last 4 weeks. High risk alcohol drinking was categorised into low risk (having consumed up to 6 standard drinks on any 1 day if male, or up to 4 drinks if female); risky (having consumed 7-10 standard drinks on any 1 day if male, and 5-6 if female); and high risk (having consumed 11 or more standard drinks in any 1 day if male, and 7 or more if female), as per Guideline 1 of the current Australian Alcohol Guidelines.[4]

Priority S3 of the State Plan outlines the NSW Government's commitment to improving health through reduced illicit drug use as well as risk drinking.<sup>[5]</sup> In response to this commitment, the New South Wales Population Health Survey now monitors cannabis consumption among adults aged 16-34 years.

In 2007, the New South Wales Population Health Survey asked respondents: How often do you usually drink alcohol? On a day when you drink alcohol, how many standard drinks do you usually have? In the last 4 weeks how often have you had more than 4 [if male] or 2 [if female] drinks in a day? In the last 4 weeks how often have you had 7-10 [if male] or 5-6 [if female] drinks in a day? In the last 4 weeks, how often have you had 11 or more [if male] or 7 or more [if female] drinks in a day? Respondents aged 16-34 years were also asked: Which of the following best describes your cannabis smoking status: smoke daily, smoke occasionally, do not smoke now but used to, have tried it a few times but never smoked regularly, or have never smoked cannabis?

# Results

# Any risk drinking behaviour

In 2007, just under one-third of adults (31.9 per cent) engaged in any risk drinking behaviour. A significantly higher proportion of males (37.2 per cent) than females (27.0 per cent) engaged in any risk drinking behaviour.

A significantly higher proportion of males aged 16-24 years (49.1 per cent) engaged in any risk drinking behaviour, and a significantly lower proportion of males aged 65-74 years (29.7 per cent) and 75 years and over (29.3 per cent), engaged in any risk drinking behaviour, compared with the overall adult male population. A significantly higher proportion of females aged 16-24 years (41.8 per cent), and a significantly lower proportion of females aged 16-24 years (15.5 per cent), and 75 years and over (15.4 per cent) engaged in any risk drinking behaviour, compared with the overall adult female population.

There was no significant difference in any risk drinking behaviour among quintiles of socioeconomic disadvantage.

A significantly higher proportion of adults in the rural health areas (37.0 per cent) compared with urban health areas (29.6 per cent) engaged in any risk drinking behaviour. A significantly higher proportion of adults in the North Coast (38.4 per cent) and Greater Southern (39.1 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West Area Health Service (25.1 per cent), engaged in any risk drinking behaviour, compared with the overall adult population.

There has been a significant decrease in the proportion of adults reporting any risk drinking behaviour between 1997 (42.3 per cent) and 2007 (31.9 per cent). The decrease was significant in both males (50.6 per cent to 37.2 per cent) and females (34.3 per cent to 27.0 per cent).

# High risk alcohol drinking: Binge drinking

In 2007, just under one-tenth of adults (8.9 per cent) engaged in high risk drinking behaviour. A significantly higher proportion of males (11.3 per cent) than females (6.7 per cent) engaged in high risk drinking behaviour.

A significantly higher proportion of males aged 16-24 years (21.7 per cent), and a significantly lower proportion of males aged 55-64 years (6.6 per cent), 65-74 years (2.5 per cent), and 75 years and over (0.2 per cent), engaged in high risk drinking behaviour, compared with the overall adult male population. A significantly higher proportion of females aged 16-24 years (15.9 per cent), and a significantly lower proportion of females aged 45-54 years (4.7 per cent), 55-64 years (2.0 per cent), 65-74 years (0.4 per cent), and 75 years and over (0.2 per cent), engaged in high risk drinking behaviour, compared with the overall adult male population.

There was no significant difference in high risk drinking behaviour among quintiles of socioeconomic disadvantage.

A significantly higher proportion of adults in the rural health areas (10.7 per cent) compared with urban health areas (8.1 per cent) engaged in high risk drinking behaviour. There was no significant difference in high risk drinking behaviour among health areas.

There has been a significant decrease in the proportion of adults reporting high risk drinking behaviour between 2002 (14.7 per cent) and 2007 (8.9 per cent). This decrease was significant in both males (16.8 per cent to 11.3 per cent) and females (12.1 per cent to 6.7 per cent).

# Cannabis consumption

In 2007, just over one-twentieth of adults aged 16-34 years (5.3 per cent) currently smoked cannabis. There was no significant difference between males and females or among quintiles of socioeconomic disadvantage.

A significantly higher proportion of adults aged 16-34 years in the rural health areas (8.8 per cent) compared with urban health areas (3.6 per cent) currently smoked cannabis. A significantly higher proportion of adults aged 16-34 years in the North Coast Area Health Service (12.8 per cent), and a significantly lower proportion of adults aged 16-34 years in the South Eastern Sydney & Illawarra (1.5 per cent) and Sydney West (1.0 per cent) Area Health Services, currently smoked cannabis, compared with the overall adult population aged 16-34 years.

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### Alcohol drinking by risk, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,359 respondents in NSW. For this indicator 83 (1.12%) were not stated (Don't know or Refused) in NSW. The questions used were: How often do you usually drink alcohol? In the last 4 weeks have you had more than [2 if female/4 if male] drinks in a day? In the last 4 weeks how often have you had [7-10 if male/5-6 if female] drinks in a day? In the last 4 weeks how often have you had [11 or more if male/7 or more if female] drinks in a day? Based on the NHMRC Australian Alcohol Guidelines.

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Risk alcohol drinking by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,359 respondents in NSW. For this indicator 83 (1.12%) were not stated (Don't know or Refused) in NSW. The indicator includes those who exceed Guideline 1 of the current NHMRC Australian Alcohol Guidelines, as 1 or more of the following: consuming alcohol every day, consuming on average more than [4 if male/2 if female] standard drinks, consuming more than [6 if male/4 if female] on any 1 occasion or day. The questions used to define the indicator were: How often do you usually drink alcohol? On a day when you drink alcohol, how many standard drinks do you usually have? In the last 4 weeks have you had more than [7-10 if male/5-6 if female] drinks in a day? In the last 4 weeks how often have you had [11+ if male/7+ if female] drinks in a day? The questions used to define the 1997 and 1998 indicator were: How often do you have an alcoholic drink of any kind? On a day when you have alcoholic drinks, how many standard drinks do you usually have? In the last 4 weeks have you usually have? On the last occasion you have more than [4 if male/2 if female] drinks in a day? The questions used to define the 1997 and 1998 indicator were: How often do you have an alcoholic drink of any kind? On a day when you have alcoholic drinks, how many standard drinks do you usually have? On the last occasion you had more than [4 if male/2 if female] drinks in a day, how many drinks did you actually have?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Risk alcohol drinking by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007







### Risk alcohol drinking by area health service, persons aged 16 years and over, NSW, 2007

Estimates are based on 7,359 respondents in NSW. For this indicator 83 (1.12%) were not stated (Don't know or Refused) in NSW. The indicator includes those who Note: exceed Guideline 1 of the current NHMRC Australian Alcohol Guidelines, as 1 or more of the following: consuming alcohol every day, consuming on average more than [4 if male/1 if female] standard drinks, consuming more than [6 if male/4 if female] on any 1 occasion or day. The questions used to define the indicator were: How often do you usually drink alcohol? On a day when you drink alcohol, how many standard drinks do you usually have? In the last 4 weeks have you had more than [7-10 if male/5-6 if female] drinks in a day? In the last 4 weeks how often have you had [11+ if male/7+ if female] drinks in a day? The questions used to define the 1997 and 1998 indicator were: How often do you have an alcoholic drink of any kind? On a day when you have alcoholic drinks, how many standard drinks do you usually have? On the last occasion you had more than [4 if male/2 if female] drinks in a day, how many drinks did you actually have? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.









### High risk alcohol drinking by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,359 respondents in NSW. For this indicator 83 (1.12%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consume alcohol and have had [11 or more if male/7 or more if female] drinks in a day. The questions used to define the indicator were: How often do you usually drink alcohol? In the last 4 weeks how often have you had [11 or more if male/7 or more if female] drinks in a day? Based on the NHMRC Australian Alcohol Guidelines.
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



# High risk alcohol drinking by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,359 respondents in NSW. For this indicator 83 (1.12%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consume alcohol and have had [11 or more if male/7 or more if female] drinks in a day. The questions used to define the indicator were: How often do you usually drink alcohol? In the last 4 weeks how often have you had [11 or more if male/7 or more if female] drinks in a day? Based on the NHMRC Australian Alcohol Guidelines.
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### High risk alcohol drinking by area health service, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,359 respondents in NSW. For this indicator 83 (1.12%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consume alcohol and have had [11 or more if male/7 or more if female] drinks in a day. The questions used to define the indicator were: How often do you usually drink alcohol? In the last 4 weeks how often have you had [11 or more if male/7 or more if female] drinks in a day? Based on the NHMRC Australian Alcohol Guidelines.
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on the following numbers of respondents for NSW: 2002 (9,094), 2003 (9,427), 2004 (6,574), 2005 (11,457), 2006 (7,883), 2007 (7,359). The indicator includes those who consume alcohol and have had [11 or more if male/7 or more if female] drinks in a day. The questions used to define the indicator were: How often do you usually drink alcohol? In the last 4 weeks how often have you had [11 or more if male/7 or more if female] drinks in a day? Based on the NHMRC Australian Alcohol Guidelines.

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Current cannabis smoking by age, persons aged 16 to 34 years, NSW, 2007

Note: Estimates are based on 530 respondents in NSW. For this indicator 4 (0.75%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoked cannabis daily or occasionally. The question used to define the indicator was: Which of the following best describes your smoking status: Smoke daily, Smoke occasionally, Do not smoke now, but I used to, I have tried it a few times but never smoked regularly, or I have never smoked?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Current cannabis smoking by socioeconomic disadvantage, persons aged 16 to 34 years, NSW, 2007



Note: Estimates are based on 530 respondents in NSW. For this indicator 4 (0.75%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoked cannabis daily or occasionally. The question used to define the indicator was: Which of the following best describes your smoking status: Smoke daily, Smoke occasionally, Do not smoke now, but I used to, I have tried it a few times but never smoked regularly, or I have never smoked?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Current cannabis smoking by area health service, persons aged 16 to 34 years, NSW, 2007



Note: Estimates are based on 530 respondents in NSW. For this indicator 4 (0.75%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoked cannabis daily or occasionally. The question used to define the indicator was: Which of the following best describes your smoking status: Smoke daily, Smoke occasionally, Do not smoke now, but I used to, I have tried it a few times but never smoked regularly, or I have never smoked?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.
# Introduction

Safe and good quality drinking water is essential to sustain life; also, drinking water should be aesthetically pleasing. Guidance on what constitutes safe and good quality drinking water is provided by the 2004 Australian Drinking Water Guidelines. These guidelines are intended for use by the Australian community, including all agencies with responsibilities associated with the supply of drinking water: catchment and water resource managers, drinking water suppliers, water regulators, and health authorities.[1]

Water recycling is an increasing part of the water management cycle and many states are committed to increasing targets for water recycling in years to come. Although there are differing views, researchers and health authorities say it is possible to recycle water to the relevant standard for whatever use the water is required, be it irrigation, horticulture, agriculture, household use, or drinking water.[2]

Wastewater has been recycled and used in Australian towns and cities for decades, but usually for watering recreational facilities such as parks and golf courses. Researchers and water authorities in Australia say there is no scientific or health reason that, if treated properly, recycled wastewater cannot safely be used as drinking water. However, recycling effluent for drinking water is an emotive issue that needs to be considered.[2]

In 2007, the New South Wales Population Health Survey asked respondents: What is your normal source of drinking water? Do you treat your water before drinking? Those who obtained their drinking water from a public water supply were asked an additional question: How do you treat your water? Which of the following uses of treated wastewater or sewage do you support: maintenance of water levels in rivers and waterways, watering of public parks and gardens, to increase drinking water supply in reservoirs, crop irrigation, none?

# Results

## Source of drinking water

Overall, in 2007, 83.8 per cent of adults used a public water supply as their usual source of drinking water. The next most prevalent sources of drinking water were bottled water (6.9 per cent) and rain water (6.9 per cent). Of those whose usual source of drinking water was a public water supply, 62.0 per cent did not treat their drinking water, while 35.9 per cent reported they either filtered (24.6 per cent) or boiled (10.4 per cent) or filtered and boiled (0.9 per cent) their water before drinking.

A significantly lower proportion of adults aged 16-24 years (79.2 per cent), and a significantly higher proportion of adults aged 75 years and over (88.2 per cent), used a public water supply as their usual source of drinking water, compared with the overall adult population. A significantly higher proportion of adults in the first or least disadvantaged quintile (91.8 per cent), and a significantly lower proportion of adults in the fourth or second most disadvantaged quintile (77.4 per cent), used a public water supply as their usual source of drinking water, compared with the overall adult population.

A significantly higher proportion of adults in urban health areas (89.6 per cent) than rural health areas (70.5 per cent) used a public water supply as their usual source of drinking water. A significantly higher proportion of adults in the Sydney South West (90.4 per cent), South Eastern Sydney & Illawarra (89.4 per cent), and Northern Sydney & Central Coast (91.6 per cent) Area Health Services, and a significantly lower proportion of adults in the Hunter & New England (78.0 per cent), North Coast (68.7 per cent), Greater Southern (70.4 per cent), and Greater Western (52.7 per cent) Area Health Services, used a public water supply as their usual source of drinking water, compared with the overall adult population.

There has been a significant increase in the proportion of adults obtaining their drinking water from a public water supply between 2002 (80.9 per cent) and 2007 (83.8 per cent).

## Re-use of treated effluent water

Overall, in 2007, 97.5 per cent of adults supported the re-use of treated effluent water. There was no significant difference between males and females, or among age groups. A significantly higher proportion of adults in the first or least disadvantaged quintile (99.0 per cent) supported the re-use of treated effluent water, compared with the overall adult population.

There was no significant difference between adults in urban areas or rural areas. A significantly higher proportion of adults in the South Eastern Sydney & Illawarra (98.7 per cent), Northern Sydney & Central Coast (98.7 per cent), and Greater Western (98.6 per cent) Area Health Services, supported the re-use of treated effluent water, compared with the overall adult population.

# References

- 1. National Health and Medical Research Council. Australian Drinking Water Guidelines. Canberra: National Health and Medical Research Council, 2004. Available online at www.nhmrc.gov.au/publications/synopses/eh19syn.htm (accessed 4 September 2008).
- 2. Australian Academy of Science. Nova Science in the News. Making Every Drop Count. Canberra: Australian Academy of Science, 2006. Available online at www.science.org.au/nova/095/095key.htm

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## Usual source of drinking water, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,486 respondents in NSW. For this indicator 16 (0.21%) were not stated (Don't know or Refused) in NSW. The question used was: What is your normal source of drinking water?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



## Type of water treatment, persons who treat their public water aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,020 respondents in NSW. For this indicator 9 (0.13%) were not stated (Don't know or Refused) in NSW. The questions used were: What is your normal source of drinking water? Do you treat your water before drinking? If Yes How do you treat your water?



## Use public water as usual source of water by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,486 respondents in NSW. For this indicator 16 (0.21%) were not stated (Don't know or Refused) in NSW. The indicator includes those who use public water as their usual source of drinking water. The question used to define the indicator was: What is your normal source of drinking water? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Use public water as usual source of water by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

 Note:
 Estimates are based on 7,486 respondents in NSW. For this indicator 16 (0.21%) were not stated (Don't know or Refused) in NSW. The indicator includes those who use public water as their usual source of drinking water. The question used to define the indicator was: What is your normal source of drinking water?

 Source:
 New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Use public water as usual source of water by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,486 respondents in NSW. For this indicator 16 (0.21%) were not stated (Don't know or Refused) in NSW. The indicator includes those who use public water as their usual source of drinking water. The question used to define the indicator was: What is your normal source of drinking water? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Use public water as usual source of water by year, persons aged 16 years and over, NSW, 2002-2007



Note: Estimates are based on the following numbers of respondents for NSW: 2002 (3,759), 2003 (13,005), 2005 (11,462), 2006 (7,939), 2007 (7,486). The indicator includes those who use public water as their usual source of drinking water. The question used to define the indicator was: What is your normal source of drinking water? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



#### Support re-use of treated effluent water by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 6,990 respondents in NSW. For this indicator 494 (6.60%) were not stated (Don't know or Refused) in NSW. The questions used were: Thinking now about treated wastewater. Which of the following uses of treated wastewater or sewage do you support? Maintenance of water levels in rivers and waterways, watering of public parks and gardens, to increase drinking water supply in reservoirs, crop irrigation, none?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Support re-use of treated effluent water by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Estimates are based on 6,990 respondents in NSW. For this indicator 494 (6.60%) were not stated (Don't know or Refused) in NSW. The questions used were: Thinking Note: now about treated wastewater. Which of the following uses of treated wastewater or sewage do you support? Maintenance of water levels in rivers and waterways, watering of public parks and gardens, to increase drinking water supply in reservoirs, crop irrigation, none?

Support re-use of treated effluent water by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 6,990 respondents in NSW. For this indicator 494 (6.60%) were not stated (Don't know or Refused) in NSW. The questions used were: Thinking now about treated wastewater. Which of the following uses of treated wastewater or sewage do you support? Maintenance of water levels in rivers and waterways, watering of public parks and gardens, to increase drinking water supply in reservoirs, crop irrigation, none? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note:

Source:



#### Supported uses of treated effluent water, persons aged 16 years and over, NSW, 2007

Estimates are based on 6,990 respondents in NSW. For this indicator 494 (6.60%) were not stated (Don't know or Refused) in NSW. The questions used were: Thinking Note: now about treated wastewater. Which of the following uses of treated wastewater or sewage do you support? Maintenance of water levels in rivers and waterways, watering of public parks and gardens, to increase drinking water supply in reservoirs, crop irrigation, none? Respondents could mention more than 1 response. Percentages may total more than 100%

# Introduction

The gambling industry is big business in Australia, with Australians losing \$15 billion on gambling in 2007. The industry has grown substantially in the last 20 years, following the widespread introduction and legalisation of casinos and gaming machines. The proportion of disposable household income directed towards gambling has escalated, as has the amount of taxation revenue provided to governments from gambling. A number of parallels have been drawn between gambling and alcohol, as both are legal for adults, heavily marketed, strongly regulated, provide substantial tax revenue, can be viewed as entertainment, and are deemed a matter of personal responsibility.[1]

In 2007 the New South Wales Population Health Survey asked respondents: In the last 12 months have you undertaken any forms of gambling? In the last 12 months have you bet more than you can afford to lose? In the last 12 months have you felt you might have a gambling problem? Has anyone in your immediate family ever had a gambling problem? Jate estima

# Results

## Gambled in the last 12 months

Overall, in 2007, 44.8 per cent of adults gambled in the last 12 months. A significantly higher proportion of males (51.6 per cent) than females (38.1 per cent) gambled in the last 12 months. Among males, a significantly lower proportion of those aged 65-74 years (44.5 per cent) and 75 years and over (44.8 per cent) gambled in the last 12 months, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 55-64 years (43.5 per cent), and a significantly lower proportion of those aged 16-24 years (26.3 per cent), gambled in the last 12 months, compared with the overall adult female population.

A significantly lower proportion of adults in the fifth or most disadvantaged quintile (41.0 per cent) gambled in the last 12 months. A significantly higher proportion of adults in rural health areas (50.1 per cent) than urban health areas (42.6 per cent) gambled in the last 12 months. A significantly higher proportion of adults in the Hunter & New England (51.5 per cent), North Coast (49.1 per cent), and Greater Western (51.0 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West Area Health Service (40.0 per cent), gambled in the last 12 months, compared with the overall adult population.

## Bet more than could afford to lose

Overall, in 2007, among adults who gambled in the last 12 months, 4.8 per cent always or often or sometimes bet more than they could afford to lose. There was no significant difference between males and females. A significantly lower proportion of adults aged 75 years and over (1.6 per cent) always or often or sometimes bet more than they could afford to lose. A significantly lower proportion of adults in the first or least disadvantaged quintile (2.6 per cent) always or often or sometimes bet more than they could afford to lose. There was no significant difference between urban health areas or rural health areas, or among health areas.

# Self-perception of gambling problem

Overall, in 2007, among adults who gambled in the last 12 months, 4.4 per cent felt they might have a gambling problem. There was no significant difference between males and females. A significantly lower proportion of adults aged 75 years and over (0.6 per cent) felt they might have a gambling problem. There was no significant difference among quintiles of disadvantage, between urban health areas or rural health areas, or among health areas.

## Ever had a problem gambler in their immediate family

Overall, in 2007, 10.4 per cent of adults ever had a problem gambler in their immediate family. A significantly lower proportion of adults aged 75 years and over (8.0 per cent) ever had a problem gambler in the immediate family. A significantly lower proportion of adults in the first or least disadvantaged quintile (7.8 per cent) ever had a problem gambler in the immediate family. There was no significant difference between urban health areas or rural health areas, or among health areas.

# References

1. Drabsch T. *The Economic and Social Implications of Gambling: Background Paper 09/2003.* Sydney: Parliament of New South Wales, 2008. Available online at www.parliament.nsw.gov.au (accessed 4 September 2008).

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## Gambled in the last 12 months by age, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,520 respondents in NSW. For this indicator 22 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have gambled in the last 12 months. The question used to define the indicator was: In the last 12 months have you undertaken any forms of gambling? Note: Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Estimates are based on 7,520 respondents in NSW. For this indicator 22 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have gambled in the last 12 months. The question used to define the indicator was: In the last 12 months have you undertaken any forms of gambling? Note: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:





Note: Estimates are based on 7,520 respondents in NSW. For this indicator 22 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have gambled in the last 12 months. The question used to define the indicator was: In the last 12 months have you undertaken any forms of gambling? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



## Betting habits, persons aged 16 years and over who gamble, NSW, 2007

Note: Estimates are based on 3,432 respondents in NSW. For this indicator 22 (0.64%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months have you undertaken any forms of gambling? In the last 12 months have you bet more than you could really afford to lose? Would you say never, rarely, sometimes, often or always?

### Betting more than can afford to lose by age, persons aged 16 years and over who gamble, NSW, 2007



Note: Estimates are based on 3,432 respondents in NSW. For this indicator 22 (0.64%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have sometimes, often or always bet more than they can afford to lose. The questions used to define the indicator were. In the last 12 months have you undertaken any forms of gambling? In the last 12 months have you bet more than you could really afford to lose? Would you say never, rarely, sometimes, often or always?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Betting more than can afford to lose by socioeconomic disadvantage, persons aged 16 years and over who gamble, NSW, 2007

Note: Estimates are based on 3,432 respondents in NSW. For this indicator 22 (0.64%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have sometimes, often or always bet more than they can afford to lose. The questions used to define the indicator were: In the last 12 months have you undertaken any forms of gambling? In the last 12 months have you bet more than you could really afford to lose? Would you say never, rarely, sometimes, often or always?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Betting more than can afford to lose by area health service, persons aged 16 years and over who gamble, NSW, 2007



Note: Estimates are based on 3,432 respondents in NSW. For this indicator 22 (0.64%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have sometimes, often or always bet more than they can afford to lose. The questions used to define the indicator were: In the last 12 months have you undertaken any forms of gambling? In the last 12 months have you bet more than you could really afford to lose? Would you say never, rarely, sometimes, often or always?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



## Gambling problem, persons aged 16 years and over who gamble, NSW, 2007

Note: Estimates are based on 3,431 respondents in NSW. For this indicator 23 (0.67%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months have you undertaken any forms of gambling? In the last 12 months have you felt that you might have a gambling problem? Would you say never, rarely, sometimes, often or always?

#### Self perception of gambling problem by age, persons aged 16 years and over who gamble, NSW, 2007



Note: Estimates are based on 3,431 respondents in NSW. For this indicator 23 (0.67%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have been sometimes, often or always worried about a gambling problem in the last 12 months. The question used to define the indicator were: In the last 12 months have you undertaken any forms of gambling? In the last 12 months have you field that you might have a problem with gambling? Would you say never, rarely, sometimes, often or always?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



# Self perception of gambling problem by socioeconomic disadvantage, persons aged 16 years and over who gamble, NSW, 2007

Note: Estimates are based on 3,431 respondents in NSW. For this indicator 23 (0.67%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have been sometimes, often or always worried about a gambling problem in the last 12 months. The question used to define the indicator were: In the last 12 months have you undertaken any forms of gambling? In the last 12 months have you fielt that you might have a problem with gambling? Would you say never, rarely, sometimes, often or always?

# Self perception of gambling problem by area health service, persons aged 16 years and over who gamble, NSW, 2007



Note: Estimates are based on 3,431 respondents in NSW. For this indicator 23 (0.67%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have been sometimes, often or always worried about a gambling problem in the last 12 months. The question used to define the indicator were: In the last 12 months have you undertaken any forms of gambling? In the last 12 months have you felt that you might have a problem with gambling? Would you say never, rarely, sometimes, often or always?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



## Problem gambler in immediate family by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,495 respondents in NSW. For this indicator 47 (0.62%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have a problem gambler in the immediate family. The question used to define the indicator was: Has anyone in your immediate family ever had a gambling problem?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Problem gambler in immediate family by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,495 respondents in NSW. For this indicator 47 (0.62%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have a problem gambler in the immediate family. The question used to define the indicator was: Has anyone in your immediate family ever had a gambling problem? Note: Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Estimates are based on 7,495 respondents in NSW. For this indicator 47 (0.62%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have Note: a problem gambler in the immediate family. The question used to define the indicator was: Has anyone in your immediate family ever had a gambling problem? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

# Introduction

Influenza (flu) is characterised by abrupt onset of fever, myalgia, headache, sore throat, acute cough, and can cause extreme malaise lasting several days. Because immunisation against the influenza virus has been shown to significantly reduce morbidity and preventable mortality, it is strongly recommended for people who: are at increased risk of complications from influenza, may transmit influenza to those at high risk, provide essential services, work in particular industries, travel, and are involved in the poultry industry during periods of avian influenza activity.[1]

Invasive pneumococcal disease is an isolation of Streptococcus pneumoniae from a normally sterile site, most commonly the blood. It is a major cause of pneumonia, meningitis, and bacteraemia without focus. The 23-valent pneumococcal polysaccharide vaccine is recommended for all people 65 years and over, Aboriginal and Torres Strait Islander people aged 50 years and over, and all people aged 10 years and over who have underlying chronic illnesses that place them at increased risk.[1]

- 50 } were you nst infl In 2007 the New South Wales Population Health Survey asked respondents aged 50 years and over: Were you vaccinated or immunised against flu in the last 12 months? When were you last vaccinated or immunised against pneumonia?

# Results

## Influenza vaccination

In adults aged 50 years and over, the proportion immunised against influenza in the last 12 months was 45.7 per cent, with a significantly higher proportion of females (49.1 per cent) than males (41.9 per cent) being immunised. There was no significant difference by level of socioeconomic disadvantage, between urban health areas and rural health areas, or among health areas. Overall, in this age group, vaccination has increased significantly between 1997 (34.6 per cent) and 2007 (45.7 per cent). The increase was significant in both males (from 32.1 per cent to 41.9 per cent) and females (from 36.8 per cent to 49.1 per cent).

In adults aged 65 years and over, the proportion immunised against influenza in the last 12 months was 72.8 per cent. There was no significant difference between males and females, by level of socioeconomic disadvantage, between urban health areas and rural health areas, or among health areas. Overall, in this age group, vaccination has increased significantly between 1997 (57.1 per cent) and 2007 (72.8 per cent). The increase was significant in both males (from 55.7 per cent to 71.1 per cent) and females (from 58.1 per cent to 74.2 per cent).

## Pneumococcal vaccination

In adults aged 50 years and over, the proportion immunised against pneumococcal disease in the last 5 years was 30.6 per cent, with a significantly higher proportion of females (33.7 per cent) than males (27.2 per cent) being immunised. A significantly lower proportion of adults in the first or least disadvantaged quintile (24.7 per cent), and a significantly higher proportion of adults in the fourth or second most disadvantaged quintile (35.3 per cent), were immunised against pneumococcal disease in the last 5 years. A significantly higher proportion of adults in rural health areas (34.7 per cent) than urban health areas (28.4 per cent) were immunised against pneumococcal disease in the last 5 years. A significantly higher proportion of adults in the Hunter & New England (35.8 per cent) and Greater Southern (37.7 per cent) Area Health Services were immunised against pneumococcal disease in the last 5 years. Overall, in this age group, there has been a significant increase in the proportion of adults being immunised in the last 5 years, from 19.2 per cent in 2002 to 30.6 per cent in 2007. The increase was significant in both males (from 17.4 per cent to 27.2 per cent) and females (from 20.9 per cent to 33.7 per cent).

In adults aged 65 years and over, the proportion immunised against pneumococcal disease in the last 5 years was 59.1 per cent. There was no significant difference between males and females, or by level of socioeconomic disadvantage. A significantly higher proportion of adults in rural health areas (64.5 per cent) than urban health areas (56.1 per cent) were immunised against pneumococcal disease in the last 5 years. A significantly higher proportion of adults in the Hunter & New England (68.5 per cent) and Greater Southern (66.1 per cent) Area Health Services, and a significantly lower proportion of adults in the South Eastern Sydney & Illawarra Area Health Service (51.2 per cent), were immunised against pneumococcal disease in

the last 5 years. Overall, in this age group, there has been a significant increase in the proportion of adults being immunised in the last 5 years, from 38.6 per cent in 2002 to 59.1 per cent in 2007. The increase was significant in both males (from 36.0 per cent to 56.7 per cent) and females (from 40.9 per cent to 61.1 per cent).

## References

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# Vaccinated against influenza in the last 12 months by age, persons aged 50 years and over, NSW, 2007

Note: Estimates are based on 4,684 respondents in NSW. For this indicator 11 (0.23%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 50 years and over who were vaccinated or immunised against influenza in the last 12 months. The question used to define the indicator was: Were you vaccinated or immunised against flu in the last 12 months?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Vaccinated against influenza in the last 12 months by socioeconomic disadvantage, persons aged 50 years and over, NSW, 2007



Note: Estimates are based on 4,684 respondents in NSW. For this indicator 11 (0.23%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 50 years and over who were vaccinated or immunised against influenza in the last 12 months. The question used to define the indicator was: Were you vaccinated or immunised against flu in the last 12 months?

# Vaccinated against influenza in the last 12 months by area health service, persons aged 50 years and over, NSW, 2007



Note: Estimates are based on 4,684 respondents in NSW. For this indicator 11 (0.23%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 50 years and over who were vaccinated or immunised against influenza in the last 12 months. The question used to define the indicator was: Were you vaccinated or immunised against flu in the last 12 months?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Vaccinated against influenza in the last 12 months by year, persons aged 50 years and over, NSW, 1997-2007



Note: Estimates are based on the following numbers of respondents for NSW: 1997 (6,938), 1998 (7,242), 2002 (7,014), 2003 (7,135), 2004 (5,320), 2005 (6,777), 2006 (4,760), 2007 (4,684). The indicator includes those aged 50 years and over who were vaccinated or immunised against influenza in the last 12 months. The question used to define the indicator was: Were you vaccinated or immunised against flu in the last 12 months?



# Vaccinated against influenza in the last 12 months by age, persons aged 65 years and over, NSW, 2007

Note: Estimates are based on 2,340 respondents in NSW. For this indicator 7 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 65 years and over who were vaccinated or immunised against influenza in the last 12 months. The question used to define the indicator was: Were you vaccinated or immunised against flu in the last 12 months?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Vaccinated against influenza in the last 12 months by socioeconomic disadvantage, persons aged 65 years and over, NSW, 2007 Males Females 74.3 5th Quintile 70.9 70.9



Note: Estimates are based on 2,340 respondents in NSW. For this indicator 7 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 65 years and over who were vaccinated or immunised against influenza in the last 12 months. The question used to define the indicator was: Were you vaccinated or immunised against flu in the last 12 months?

Vaccinated against influenza in the last 12 months by area health service, persons aged 65 years and over, NSW, 2007



Note: Estimates are based on 2,340 respondents in NSW. For this indicator 7 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 65 years and over who were vaccinated or immunised against influenza in the last 12 months. The question used to define the indicator was: Were you vaccinated or immunised against flu in the last 12 months?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Vaccinated against influenza in the last 12 months by year, persons aged 65 years and over, NSW, 1997-2007



Note: Estimates are based on the following numbers of respondents for NSW: 1997 (3,278), 1998 (3,394), 2002 (3,416), 2003 (3,573), 2004 (2,585), 2005 (3,380), 2006 (2,382), 2007 (2,340). The indicator includes those aged 65 years and over who were vaccinated or immunised against influenza in the last 12 months. The question used to define the indicator was: Were you vaccinated or immunised against flu in the last 12 months?

## Last pneumococcal disease vaccination, persons aged 50 years and over, NSW, 2007



Note: Estimates are based on 4,452 respondents in NSW. For this indicator 243 (5.18%) were not stated (Don't know or Refused) in NSW. The question used was: When were you last vaccinated or immunised against pneumonia?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 4,452 respondents in NSW. For this indicator 243 (5.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 50 years and over who have been immunised against pneumococcal disease in the last 5 years. The question used to define the indicator was: When were you last vaccinated or immunised against pneumonia?

Vaccinated against pneumococcal disease in the last 5 years by socioeconomic disadvantage, persons aged 50 years and over, NSW, 2007



Note: Estimates are based on 4,452 respondents in NSW. For this indicator 243 (5.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 50 years and over who have been immunised against pneumococcal disease in the last 5 years. The question used to define the indicator was: When were you last vaccinated or immunised against pneumonia?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Vaccinated against pneumococcal disease in the last 5 years by area health service, persons aged 50 years and over, NSW, 2007



Note: Estimates are based on 4,452 respondents in NSW. For this indicator 243 (5.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 50 years and over who have been immunised against pneumococcal disease in the last 5 years. The question used to define the indicator was: When were you last vaccinated or immunised against pneumonia?



## Vaccinated against pneumococcal disease in the last 5 years by year, persons aged 50 years and over, NSW, 2002-2007

Estimates are based on the following numbers of respondents for NSW: 2002 (6,852), 2003 (6,999), 2004 (5,166), 2005 (6,625), 2006 (4,602), 2007 (4,452). The indicator includes those aged 50 years and over who have been immunised against pneumococcal disease in the last 5 years. The question used to define the indicator was: When Note: were you last vaccinated or immunised against pneumonia? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

## Vaccinated against pneumococcal disease in the last 5 years by age, persons aged 65 years and over, NSW, 2007



Estimates are based on 2,234 respondents in NSW. For this indicator 113 (4.81%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 65 years and over who have been immunised against pneumococcal disease in the last 5 years. The question used to define the indicator was: When were you last vaccinated Note: or immunised against pneumonia?

# Vaccinated against pneumococcal disease in the last 5 years by socioeconomic disadvantage, persons aged 65 years and over, NSW, 2007



Note: Estimates are based on 2,234 respondents in NSW. For this indicator 113 (4.81%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 65 years and over who have been immunised against pneumococcal disease in the last 5 years. The question used to define the indicator was: When were you last vaccinated or immunised against pneumonia?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Vaccinated against pneumococcal disease in the last 5 years by area health service, persons aged 65 years and over, NSW, 2007



Note: Estimates are based on 2,234 respondents in NSW. For this indicator 113 (4.81%) were not stated (Don't know or Refused) in NSW. The indicator includes those aged 65 years and over who have been immunised against pneumococcal disease in the last 5 years. The question used to define the indicator was: When were you last vaccinated or immunised against pneumonia?



## Vaccinated against pneumococcal disease in the last 5 years by year, persons aged 65 years and over, NSW, 2002-2007

Estimates are based on the following numbers of respondents for NSW: 2002 (3,324), 2003 (3,497), 2004 (2,504), 2005 (3,303), 2006 (2,315), 2007 (2,234). The indicator includes those aged 65 years and over who have been immunised against pneumococcal disease in the last 5 years. The question used to define the indicator was: When Note: were you last vaccinated or immunised against pneumonia? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

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# Introduction

In New South Wales, a high proportion of the mortality and morbidity caused by house fires happens at night while people are sleeping. Functional and correctly situated smoke alarms detect low levels of smoke and sound an alarm before the smoke becomes too dense for people to escape. They dramatically reduce fatalities, injuries, and damage to property. However, studies have shown a significant proportion of smoke alarms are not functional.[1-3]

The NSW Building Legislation Amendment (Smoke Alarms) Act 2005 commenced on 1 May 2006. This legislation requires that 1 or more smoke alarms are installed in residential buildings where people sleep, smoke alarms are maintained in functional order, and people do not remove these alarms or interfere with their operation.[4]

Immediate and appropriate first aid treatment of a burn or scald has been shown to be effective in reducing the severity of injury. Cooling a burn lessens the pain and decreases burn depth, hence speeds healing times and decreases the risk of scarring. The current Australian and New Zealand Burn Association recommendation for first aid is to cool the burn in cold running water for a minimum of 20 minutes while keeping the rest of the patient warm.[5]

In 2007, the New South Wales Population Health Survey asked respondents: Do you have smoke alarms installed in your home? Are they hard wired or battery operated? When did you last test the battery operated smoke alarms? When did you last change the battery in your smoke alarms? When did you last test the hard wired smoke alarms? How many battery operated smoke alarms do you have? How many hard wired smoke alarms do you have? Have you had a fire in your home in the last 12 months? Does your household have a written home escape plan? When did your household last practice your home escape plan? Where do you, or would you, look for information on burns and scalds first aid? Have you had first aid training in the last 12 months? Have you had a burn or scald in the last 12 months? Was medical treatment required from a health professional? Where did you go to get treatment?

# Results

## Home smoke alarms

3. Stats Overall, in 2007, 92.9 per cent of New South Wales adults had a smoke alarm or detector, whether battery operated or hard wired or both, installed in their home. A significantly higher proportion of adults aged 35-44 years (94.9 per cent) and 75 years and over (95.1 per cent) had a smoke alarm or detector installed in their home, compared with the overall adult population. There was no significant difference by level of socioeconomic disadvantage, or between urban health areas and rural health areas, or among health areas. The proportion of adults who had smoke alarms, whether battery operated or hard wired, installed in their home increased significantly from 1997 (58.2 per cent) to 2007 (92.9 per cent).

Of those adults with a battery operated alarm, 38.5 per cent tested the alarm within the last month, 39.6 per cent tested the alarm 1-5 months ago, 12.4 per cent tested the alarm 6-12 months ago, 3.7 per cent tested the alarm more than a year ago, and 5.4 per cent had never tested the alarm. Of those adults with a hard wired alarm, 28.2 per cent tested the alarm within the last month, 38.6 per cent tested the alarm 1-5 months ago, 14.4 per cent tested the alarm 6-12 months ago, 5.7 per cent tested the alarm more than a year ago, and 13.0 per cent had never tested the alarm.

## Home escape plans

Overall, in 2007, 73.4 per cent of adults had no home escape plan, 1.3 per cent had a plan and practised the plan in the last month, 2.1 per cent practised the plan 1-5 months ago, 1.8 per cent practised the plan 6 months to 1 year ago, 2.5 per cent practised the plan more than 1 year ago, and 18.9 per cent had never practised the plan.

Overall, in 2007, 5.1 per cent of New South Wales adults had practised their home escape place in the last 12 months. A significantly higher proportion of adults aged 35-44 years (9.3 per cent), and a significantly lower proportion of adults aged 16-24 years (2.7 per cent), 55-64 years (3.5 per cent), and 65-74 years (2.8 per cent), had practised their home escape place in the last 12 months, compared with the overall adult population. There was no significant difference by socioeconomic status. A significantly higher proportion of adults in rural health areas (6.2 per cent) than urban health areas (4.7 per cent) had practised their home escape plan in the last 12 months. There was no significant difference among health areas.

## First aid training

Overall, in 2007, 13.6 per cent of adults received first aid training in the last 12 months. There was no significant difference between males and females. A significantly higher proportion of adults aged 16-24 years (17.9 per cent) and 35-44 years (17.9 per cent), and a significantly lower proportion of adults aged 55-64 years (10.0 per cent), 65-74 years (3.1 per cent), and 75 years and over (0.8 per cent), received first aid training in the last 12 months, compared with the overall adult population. There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in the rural health areas (16.4 per cent) than urban health areas (12.4 per cent) received first aid training in the last 12 months. A significantly higher proportion of adults in the Greater Southern (18.6 per cent) and Greater Western (19.6 per cent) Area Health Services received first aid training in the last 12 months, compared with the overall adult population.

Sources of information for first aid treatment for burns and scalds included: first aid book (24.5 per cent), internet (19.3 per cent), health authorities (5.8 per cent), doctor's surgery (5.7 per cent), and family and friends (2.8 per cent).

## Burns and scalds

Overall, in 2007, 17.2 per cent of adults had a burn or scald in the last 12 months. There was no significant difference between males and females. A significantly higher proportion of adults aged 16-24 years (26.7 per cent) and 25-34 years (21.1 per cent), and a significantly lower proportion of adults aged 55-64 years (12.7 per cent), 65-74 years (10.0 per cent), and 75 years and over (6.3 per cent), had a burn or scald in the last 12 months, compared with the overall adult population. There was no significant difference by level of socioeconomic disadvantage, or between rural health areas and urban health areas, or among health areas.

Among those who had a burn or scald in the last 12 months, 6.6 per cent had medical treatment for their burn or scald. There was no significant difference between males and females. A significantly lower proportion of adults aged 45-54 years (2.9 per cent) had medical treatment for their burn or scald in the last 12 months, compared with the overall adult population. There was no significant difference by level of socioeconomic disadvantage, or between rural health areas and urban health areas. A significantly lower proportion of adults in the Greater Southern Area Health Service (1.9 per cent) had medical treatment for their burn or scald in the last 12 months, compared with the overall adult population.

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- 4. NSW Fire Brigades. What Does The Legislation Mean? web page at www.nswfb.nsw.gov.au (accessed 5 September 2008).
- 5. Australian and New Zealand Burn Association website at www.anzba.org.au (accessed 5 September 2008).

## Smoke alarm or detector in the home, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,301 respondents in NSW. For this indicator 174 (2.33%) were not stated (Don't know or Refused) in NSW. The questions used were: Do you Note: have smoke alarms installed in your home? If yes ask battery operated, hard wired or both? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



All

0

20

Estimates are based on 7,301 respondents in NSW. For this indicator 174 (2.33%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have a smoke alarm or detector in their home. The question used to define the indicator was: Do you have smoke alarms installed in your home? Note: Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Per cent

60

40

92.9

100

80

Homes with a smoke alarm or detector by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,301 respondents in NSW. For this indicator 174 (2.33%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have a smoke alarm or detector in their home. The question used to define the indicator was: Do you have smoke alarms installed in your home? Note: Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health

#### Homes with a smoke alarm or detector by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,301 respondents in NSW. For this indicator 174 (2.33%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have Note: a smoke alarm or detector in their home. The question used to define the indicator was: Do you have smoke alarms installed in your home? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:



Homes with a smoke alarm or detector by year, persons aged 16 years and over, NSW, 1997-2007

Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,467), 1998 (17,416), 2002 (12,564), 2003 (13,008), 2004 (8,892), 2005 (10,687), 2006 (7,795), 2007 (7,301). The indicator includes those who have a smoke alarm or detector in their home. The question used to define the indicator was: Do you have smoke alarms installed in your home?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Last tested battery operated smoke alarm, persons who have a battery operated smoke alarm in their home aged 16 years and over, NSW, 2007

 Note:
 Estimates are based on 5,102 respondents in NSW. For this indicator 551 (9.75%) were not stated (Don't know or Refused) in NSW. The questions used were: Do you have smoke alarms installed in your home? If yes ask battery operated, hard wired or both? When did you last test the battery operated smoke alarm(s)?

 Source:
 New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

## Last tested hard wired operated smoke alarm, persons who have a hard wired smoke alarm in their home aged 16 years and over, NSW, 2007



Note: Estimates are based on 1,726 respondents in NSW. For this indicator 339 (16.42%) were not stated (Don't know or Refused) in NSW. The questions used were: Do you have smoke alarms installed in your home?, If yes ask battery operated, hard wired or both? When did you last test the hard wired smoke alarm(s)? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

## Home escape plan and most recent practice of plan, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,255 respondents in NSW. For this indicator 220 (2.94%) were not stated (Don't know or Refused) in NSW. The questions used were: Does your household have a written home escape plan? When did your household last practice your home escape plan? Note:



## Homes with an escape plan practiced in the last 12 months by age, persons aged 16 years and over, NSW, 2007

Estimates are based on 7,255 respondents in NSW. For this indicator 220 (2.94%) were not stated (Don't know or Refused) in NSW. The questions used to define the indicator were: Does your household have a written home escape plan? When did your household last practice your home escape plan? Note: Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



## Homes with an escape plan practiced in the last 12 months by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Estimates are based on 7,255 respondents in NSW. For this indicator 220 (2.94%) were not stated (Don't know or Refused) in NSW. The questions used to define the Note: indicator were: Does your household have a written home escape plan? When did your household last practice your home escape plan? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

Homes with an escape plan practiced in the last 12 months by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,255 respondents in NSW. For this indicator 220 (2.94%) were not stated (Don't know or Refused) in NSW. The questions used to define the indicator were: Does your household have a written home escape plan? When did your household last practice your home escape plan? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



#### First aid training in the last 12 months by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,310 respondents in NSW. For this indicator 10 (0.14%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had first aid training in the last 12 months. The question used to define the indicator was: Have you had first aid training in the last 12 months?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

First aid training in the last 12 months by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,310 respondents in NSW. For this indicator 10 (0.14%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had first aid training in the last 12 months. The question used to define the indicator was: Have you had first aid training in the last 12 months? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,310 respondents in NSW. For this indicator 10 (0.14%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had first aid training in the last 12 months. The question used to define the indicator was: Have you had first aid training in the last 12 months?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.




Note: Estimates are based on 12,396 respondents in NSW. For this indicator 782 (5.93%) were not stated (Don't know or Refused) in NSW. The question used was: Where do you, or would you, look for information on burns and scalds first aid? Respondents could mention more than 1 response. Percentages may total more than 100%. Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,304 respondents in NSW. For this indicator 16 (0.22%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had a burn or scald in the last 12 months. The question used to define the indicator was: Have you had a burn or scald in the last 12 months?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.











Note: Estimates are based on 7,304 respondents in NSW. For this indicator 16 (0.22%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had a burn or scald in the last 12 months. The question used to define the indicator was: Have you had a burn or scald in the last 12 months?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 1,131 respondents in NSW. For this indicator 17 (1.48%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had received treatment for a burn or scald from a medical profressional in the last 12 months. The questions used to define the indicator were: Have you had a burn or scald in the last 12 months? Was medical treatment required from a health professional?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Treatment required for burns and scalds by socioeconomic disadvantage, persons who had a burn or scald in the last 12 months aged 16 years and over, NSW, 2007

Note: Estimates are based on 1,131 respondents in NSW. For this indicator 17 (1.48%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had received treatment for a burn or scald from a medical profressional in the last 12 months. The questions used to define the indicator were: Have you had a burn or scald in the last 12 months? Was medical treatment required from a health professional?



# Treatment required for burns and scalds by area health service, persons who had a burn or scald in the last 12 months aged 16 years and over, NSW, 2007

Note: Estimates are based on 1,131 respondents in NSW. For this indicator 17 (1.48%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had received treatment for a burn or scald from a medical profressional in the last 12 months. The questions used to define the indicator were: Have you had a burn or scald in the last 12 months? Was medical treatment required from a health profressional?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 59 respondents in NSW. For this indicator 17 (22.37%) were not stated (Don't know or Refused) in NSW. The questions used were: Have you had a burn or scald in the last 12 months? Was medical treatment required from a health professional? Where did you go to get treatment? Respondents could mention more than 1 response. Percentages may total more than 100%.

## Introduction

Nutrition is important at all stages of life. Dietary factors are linked to health and disease, either as protective influences or as risk factors. Some of the diseases and conditions to which diet contributes substantially, either for protection or risk, include: coronary heart disease, some cancers, type-2 diabetes, overweight and obesity, osteoporosis, dental caries, gall bladder disease, and diverticular disease.[1-7]

The Australian Guide to Healthy Eating stresses the importance of eating plenty of vegetables, legumes and fruits; eating plenty of cereals (including breads, rice, pasta and noodles), preferably wholegrain; including lean meat, fish, poultry, and/or alternatives in your diet; including reduced fat varieties of milks, yoghurts, cheeses, and/or alternatives in your diet; drinking plenty of water; limiting saturated fat and moderate total fat intake; choosing foods low in salt; limit your alcohol intake; consuming only moderate amounts of sugars and foods containing added sugars.[1]

A diet high in fat and sugar consumption is associated with health risk, which is why it is important to monitor fat and sugar consumption in red meats, dairy foods, fried potatoes, potato crisps and salty snacks, processed meats, soft drinks or cordials or sports drinks, and take-away foods.[3]

Despite the good quality of the food supply, there are some groups who lack food security: that is, who do not have sufficient access at all times to sufficient food for an active and healthy life. Food insecurity is associated with socioeconomic disadvantage and is a likely contributor to ill health.[4]

Further information about the nutrition indicators in this report is available in the methods section.

In 2007, respondents were asked: How many serves of fruit do you usually eat each day? How many serves of fruit do you think you should eat each day to be healthy? How many serves of vegetables do you usually eat each day? How many serves of vegetables do you think you should eat each day to be healthy? How often do you usually eat bread? How often do you eat breakfast cereal? How often do you eat pasta, rice, noodles, or other cooked cereals? How often do you usually have? How often do you eat hot chips, french fries, wedges, or fried potatoes? How often do you eat potato crisps or other salty snacks such as twisties or corn chips? How often do you eat processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon, or ham? How many cups of soft drink, cordials or sports drink do you usually drink in a day? How often do you have meals or snacks such as burgers, pizza, chicken or chips from take-away places? In the last 12 months, were there any times that you ran out of food and couldn't afford to buy more?

## Results

## Fruit consumption

Overall, in 2007, 6.8 per cent of adults consumed no fruit, 10.0 per cent consumed less than 1 serve a day, 28.9 per cent consumed 1 serve a day, 29.8 per cent consumed 2 serves a day, 15.3 per cent consumed 3 serves a day, and 9.3 per cent consumed more than 3 serves a day.

Therefore, 54.4 per cent of adults consumed the recommended 2 or more serves of fruit each day. A significantly higher proportion of females (59.8 per cent) than males (48.4 per cent) consumed the recommended number of serves of fruit a day. Among males, a significantly higher proportion of those aged 45-54 years (55.3 per cent), 55-64 years (54.1 per cent), and 75 years and over (57.4 cent), and a significantly lower proportion of those aged 25-34 years (38.6 per cent), consumed the recommended number of serves of fruit each day, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 55-64 years (66.3 per cent), 65-74 years (71.7 per cent), and 75 years and over (65.4 per cent), consumed the recommended number of serves of fruit a day, compared with the overall adult female population.

A significantly higher proportion of adults in the first or least disadvantaged quintile (63.1 per cent) consumed the recommended number of serves of fruit each day, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas. A significantly higher proportion of adults in the Northern Sydney & Central Coast Area Health Service (60.9 per cent), and a significantly lower proportion of adults in the Greater Western Area Health Service (49.7 per cent), consumed the recommended number of serves of fruit each day, compared with the overall adult population.

Consumption of the recommended number of serves of fruit each day has increased significantly, from 46.1 per cent in 1997 to 54.4 per cent in 2007. The increase was significant in both males (from 39.7 per cent to 48.4 per cent) and females (from 52.4 per cent to 59.8 per cent).

Overall, in 2007, 87.0 per cent of adults knew the recommended daily number of serves of fruit. A significantly higher proportion of females (91.8 per cent) than males (81.4 per cent) knew the recommended daily number of serves of fruit. Among males, a significantly higher proportion of those aged 16-24 years (88.6 per cent) knew the recommended daily number of serves of fruit, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 75 years and over (86.0 per cent) knew the recommended daily number of serves of fruit, compared with the overall adult male

There was no significant difference by level of socioeconomic disadvantage, or between rural health areas and urban health areas, or among health areas. There has been a significant increase in the proportion of adults who knew the recommended daily number of serves of fruit between 2006 (84.9 per cent) and 2007 (87.0 per cent).

Overall, in 2007, 53.4 per cent of adults knew and consumed the recommended number of serves of fruit each day, 33.6 per cent knew but did not consume the recommended number of serves, 1.6 per cent did not know but consumed the recommended number of serves, and 11.4 per cent neither knew nor consumed the recommended number of serves.

### Vegetable consumption

Overall, in 2007, 1.1 per cent of adults consumed no vegetables, 5.4 per cent consumed less than 1 serve a day, 26.7 per cent consumed 1 serve a day, 26.5 per cent consumed 2 serves a day, 17.7 per cent consumed 3 serves a day, 11.9 per cent consumed 4 serves a day, 7.3 per cent consumed 5 serves a day, and 3.4 per cent consumed more than 5 serves a day.

Therefore, 10.7 per cent of adults consumed the recommended 5 or more serves of vegetables a day. A significantly higher proportion of females (13.8 per cent) than males (7.2 per cent) consumed the recommended number of serves of vegetables a day. Among females, a significantly lower proportion of those aged 16-24 years (5.5 per cent), and a significantly higher proportion of those aged 55-64 years (22.0 per cent) and 65-74 years (17.7 per cent), consumed the recommended number of serves of vegetables a day, compared with the overall adult female population. There was no significant difference by age in adult males.

There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in rural health areas (13.5 per cent) than urban health areas (9.4 per cent) consumed the recommended number of serves of vegetables a day. A significantly higher proportion of adults in the Hunter & New England (13.6 per cent) and North Coast (14.3 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West (8.2 per cent) and Sydney West (7.0 per cent) Area Health Services, consumed the recommended number of serves of vegetables a day, compared with the overall adult population.

There has been a significant increase in the proportion of adults who consumed the recommended number of serves of vegetables a day between 1997 (8.9 per cent) and 2007 (10.7 per cent). The increase was significant in females (from 9.7 per cent to 13.8 per cent).

To monitor trends in vegetable consumption below the recommended levels, the New South Population Health Survey reports adults who consume 3 or more serves of vegetables a day. Overall, in 2007, 40.3 per cent of adults consumed 3 or more serves of vegetables a day. A significantly higher proportion of females (48.7 per cent) than males (31.0 per cent) consumed 3 or more serves of vegetables a day. Among males, a significantly higher proportion of those aged 55-64 years (36.9 per cent), 65-74 years (41.8 per cent), and 75 years and over (37.7 per cent), consumed 3 or more serves of vegetables a day, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 55-64 years (55.8 per cent), and a significantly lower proportion of those aged 16-24 (30.6 per cent), consumed 3 or more serves of vegetables a day, compared with the overall adult female population.

A significantly lower proportion of adults in the fifth or most disadvantaged quintile (34.0 per cent), and a significantly higher proportion of adults in the fourth quintile (44.3 per cent), consumed 3 or more serves of vegetables a day, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (46.9 per cent) than urban health areas (37.3 per cent) consumed 3 or more serves of vegetables a day. A significantly higher proportion of adults in the Hunter & New England (46.9 per cent),

North Coast (48.0 per cent), Greater Southern (47.0 per cent), and Greater Western (45.0 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West (30.6 per cent) and Sydney West (36.0 per cent) Area Health Services, consumed 3 or more serves of vegetables a day, compared with the overall adult population.

There has been a significant increase in the proportion of adults consuming 3 or more serves of vegetables a day, between 1997 (34.0 per cent) and 2007 (40.3 per cent). The increase was significant in females (from 39.4 per cent to 48.7 per cent).

Overall, in 2007, 33.5 per cent of adults knew the recommended daily number of serves of vegetables. A significantly higher proportion of females (42.9 per cent) than males (22.4 per cent) knew the recommended daily number of serves of vegetables. Among females, a significantly lower proportion of those aged 75 years and over (35.3 per cent) knew the recommended daily number of serves of vegetables, compared with the overall adult female population. There was no significant difference by age in adult males. There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in rural health areas (35.7 per cent) than urban health areas (32.5 per cent) knew the recommended daily number of serves of vegetables. A significantly lower proportion of adults in the Sydney South West Area Health Service (27.6 per cent) knew the recommended daily number of serves of vegetables, compared with the overall adult population. There has been a significant increase in the proportion of adults who knew the recommended daily number of serves of vegetables, compared with the overall adult population. There has been a significant increase in the proportion of adults who knew the recommended daily number of serves of vegetables, compared with the overall adult population. There has been a significant increase in the proportion of adults who knew the recommended daily number of serves of vegetables between 2006 (27.3 per cent) and 2007 (33.5 per cent). The increase was significant among males (from 16.5 per cent to 22.4 per cent) and females (from 37.0 per cent to 42.9 per cent).

Overall, in 2007, 9.6 per cent of adults knew and consumed the recommended number of serves of vegetables each day, 23.8 per cent knew but did not consume the recommended number of serves, 1.4 per cent did not know but consumed the recommended number of serves, and 65.2 per cent neither knew nor consumed the recommended number of serves.

### **Bread consumption**

Overall, in 2007, 76.3 per cent of adults consumed bread once a day or more. A significantly lower proportion of females (72.3 per cent) than males (80.7 per cent) consumed bread once a day or more. Among males, a significantly higher proportion of those aged 65-74 years (87.0 per cent) and 75 years and over (90.9 cent) consumed bread once a day or more, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 65-74 years (82.4 per cent) and 75 years and over (87.8 per cent), and a significantly lower proportion of those aged 45-54 years (66.6 per cent), consumed bread once a day or more, compared with the overall adult female population.

A significantly higher proportion of adults in the fourth or second most disadvantaged quintile (80.5 per cent) consumed bread once a day or more, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas. A significantly higher proportion of adults in the Greater Southern (81.8 per cent) and Greater Western (82.0 per cent) Area Health Services consumed bread once a day or more, compared with the overall adult population.

There has been a significant decrease in the proportion of adults who consumed bread once a day or more between 2005 (79.0 per cent) and 2007 (76.3 per cent). The decrease was significant among females (from 75.2 per cent to 72.3 per cent).

## Pasta, rice, noodles, or other cooked cereal consumption

Overall, in 2007, 16.1 per cent of adults consumed pasta, rice, noodles, or other cooked cereals once a day or more. A significantly lower proportion of females (14.7 per cent) than males (17.7 per cent) consumed pasta, rice, noodles, or other cooked cereals once a day or more. Among males, a significantly higher proportion of those aged 16-24 years (28.5 per cent), and a significantly lower proportion of those aged 55-64 years (8.3 per cent), 65-74 years (7.6 per cent), and 75 years and over (4.7 cent) consumed pasta, rice, noodles, or other cooked cereals once a day or more, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 16-24 years (20.8 per cent), and a significantly lower proportion of those aged 55-64 years (6.9 per cent), 65-74 years (4.8 per cent), and 75 years and over (5.4 per cent), consumed pasta, rice, noodles, or other cooked cereals once a day or more date the population.

A significantly lower proportion of adults in the fourth or second most disadvantaged quintile (11.2 per cent) consumed pasta, rice, noodles, or other cooked cereals once a day or more, compared with the overall adult population. A significantly lower proportion of adults in rural health areas (8.0 per cent) than urban health areas (19.7 per cent) consumed pasta, rice, noodles, or other cooked cereals once a day or more. A significantly lower proportion of adults in the Hunter & New England (7.8 per cent), North Coast (7.4 per cent), Greater Southern (7.8 per cent), and Greater Western (9.9 per cent) Area Health Services, and a significantly higher proportion of adults in the Sydney South West Area Health Service (24.4 per cent) consumed pasta, rice, noodles, or other cooked cereals once a day or more, compared with the overall adult population.

There has been no significant change in the proportion of adults who consumed pasta, rice, noodles, or other cooked cereals once a day or more between 2005 and 2007.

### Breakfast cereal consumption

Overall, in 2007, 68.0 per cent of adults consumed breakfast cereals 2 times a week or more. There was no significant difference between males and females. A significantly higher proportion of adults aged 65-74 years (77.6 per cent) and 75 years and over (84.9 per cent), and a significantly lower proportion of adults aged 16-24 years (57.2 per cent), consumed breakfast cereals 2 times a week or more, compared with the overall adult population. A significantly higher proportion of adults in the first or least disadvantaged quintile (75.9 per cent), and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (60.5 per cent), consumed breakfast cereals 2 times a week or more, compared with the overall adult population. A significantly lower proportion of adults in the fifth or most disadvantaged quintile (60.5 per cent), consumed breakfast cereals 2 times a week or more, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (70.0 per cent) than urban health areas (67.1 per cent) consumed breakfast cereals 2 times a week or more. A significantly higher proportion of adults in the Northern Sydney & Central Coast Area Health Service (74.2 per cent) consumed breakfast cereals 2 times a week or more, compared with the overall adult population. There has been no significant change in the proportion of adults who consumed breakfast cereals 2 times a week or more between 2005 and 2007.

### **Overall cereal consumption**

Overall, in 2007, when consumption of bread, pasta, rice, noodles, other cooked cereals, and breakfast cereals are combined, 0.3 per cent of adults rarely or never consumed cereals, 5.6 per cent consumed cereals less than once a day, 29.9 per cent consumed cereals once a day, 41.7 per cent consumed cereals twice a day, 16.7 per cent consumed cereals 3 times a day, 4.4 per cent consumed cereals 4 times a day, 0.9 per cent consumed cereals 5 times a day, and 0.5 per cent consumed cereals more than 5 times a day.

## Red meat consumption

Overall, in 2007, 6.9 per cent of adults rarely or never consumed red meat (beef, lamb, liver, and kidney but not pork or ham), 4.0 per cent consumed red meat less than once a week, 10.8 per cent consumed red meat once a week, 21.9 per cent consumed red meat twice a week, 25.4 per cent consumed red meat 3 times a week, 14.4 per cent consumed red meat 4 times a week, 6.6 per cent consumed red meat 5 times a week, and 10.0 per cent consumed red meat more than 5 times a week.

Therefore, 43.6 per cent of adults consumed red meat less than 3 times a week. There was no significantly difference between males and females. A significantly higher proportion of adults aged 75 years and over (47.7 per cent) consumed red meat less than 3 times a week. There was no significantly difference by level of socioeconomic disadvantage. A significantly lower proportion of adults in rural health areas (38.0 per cent) than urban health areas (46.1 per cent) consumed red meat less than 3 times a week. A significantly lower proportion of adults in the Hunter & New England (38.8 per cent) and Greater Southern (36.5 per cent) and Greater Western (27.0 per cent) Area Health Services, and a significantly higher proportion of adults in the Sydney South West Area Health Service (48.4 per cent), consumed red meat less than 3 times a week, compared with the overall adult population.

### Low fat, reduced fat, or skim milk consumption

Overall, in 2007, 4.3 per cent of adults did not consume milk, 49.8 consumed whole milk, 29.5 per cent consumed low or reduced fat milk, and 16.2 per cent consumed skim milk.

Therefore, 45.7 per cent of adults usually consumed low or reduced fat or skim milk. A significantly higher proportion of females (52.3 per cent) than males (38.5 per cent) consumed low or reduced fat or skim milk. Among males, a significantly lower proportion of those aged 16-24 years (26.7 per cent), and a significantly higher proportion of those aged 55-64 years (46.2 per cent) and 65-74 years (48.3 per cent) consumed low

or reduced fat or skim milk, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 16-24 years (39.7 per cent) and 25-34 years (43.8 per cent), and a significantly higher proportion of those aged 55-64 years (65.2 per cent) and 65-74 years (61.1 per cent), consumed low or reduced fat or skim milk, compared with the overall adult female population.

A significantly higher proportion of adults in the 2 least disadvantaged quintiles (58.3 per cent and 50.0 per cent), and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (33.8 per cent), consumed low or reduced fat or skim milk, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas. A significantly higher proportion of adults in the Northern Sydney & Central Coast Health Area Health Service (56.3 per cent), and a significantly lower proportion of adults in the Sydney South West (37.4 per cent) and Sydney West (41.3 per cent) Area Health Services, consumed low or reduced fat or skim milk, compared with the overall adult population.

There has been no significant change in the proportion of adults who usually consumed low or reduced fat or skim milk between 1997 and 2007.

### Fried potato consumption

Overall, in 2007, 27.5 per cent of adults rarely or never consumed fried potatoes (hot chips, french fries, wedges, or fried potatoes), 29.4 per cent consumed fried potatoes less than once a week, 25.6 per cent consumed fried potatoes once a week, 9.9 per cent consumed fried potatoes twice a week, 4.7 per cent consumed fried potatoes 3 times a week, 0.8 per cent consumed fried potatoes 4 times a week, 0.5 per cent consumed fried potatoes 5 times a week, and 1.5 per cent consumed fried potatoes more than 5 times a week.

A significantly higher proportion of females (33.8 per cent) than males (20.6 per cent) rarely or never consumed fried potatoes. Among males, a significantly lower proportion of those aged 16-24 years (8.1 per cent), 25-34 years (10.4 per cent), and 35-44 years (14.2 per cent), and a significantly higher proportion of those aged 55-64 years (29.5 per cent), 65-74 years (38.8 per cent), and 75 years and over (43.1 cent), rarely or never consumed fried potatoes, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 16-24 years (16.9 per cent), 25-34 years (19.7 per cent), and 35-44 years (28.5 per cent), and a significantly higher proportion of those aged 45-54 years (39.4 per cent), 55-64 years (47.1 per cent), 65-74 years (50.9 per cent), and 75 years and over (58.0 cent), rarely or never consumed fried potatoes, compared with the overall adult female population.

There was no significantly difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in rural health areas (29.4 per cent) than urban health areas (26.6 per cent) rarely or never consumed fried potatoes. A significantly lower proportion of adults in the Sydney South West Area Health Service (23.4 per cent), and a significantly higher proportion of adults in the Greater Western Area Health Service (33.3 per cent), rarely or never consumed fried potatoes, compared with the overall adult population.

There has been no significant change in the proportion of adults who rarely or never consumed fried potatoes between 2005 and 2007.

## Salty snack consumption

Overall, in 2007, 44.2 per cent of adults rarely or never consumed potato crisps or other salty snacks, 22.1 per cent consumed potato crisps or other salty snacks less than once a week, 16.6 per cent consumed potato crisps or other salty snacks once a week, 8.2 per cent consumed potato crisps or other salty snacks twice a week, 3.6 per cent consumed potato crisps or other salty snacks 4 times a week, 0.6 per cent consumed potato crisps or other salty snacks 5 times a week, and 3.4 per cent consumed potato crisps or other salty snacks more than 5 times a week.

A significantly higher proportion of females (48.5 per cent) than males (39.6 per cent) rarely or never consumed potato crisps or other salty snacks. Among males, a significantly lower proportion of those aged 16-24 years (19.0 per cent), 25-34 years (21.5 per cent), and 35-44 years (32.7 per cent), and a significantly higher proportion of those aged 55-64 years (56.1 per cent), 65-74 years (68.1 per cent), and 75 years and over (72.9 cent), rarely or never consumed potato crisps or other salty snacks, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 16-24 years (31.4 per cent), 25-34 years (34.4 per cent), and 35-44 years (41.7 per cent), and a significantly higher proportion of those aged 55-64 years (64.9 per cent), 65-74 years (76.5 per cent), and 75 years and over (79.3 cent),

rarely or never consumed potato crisps or other salty snacks, compared with the overall adult female population.

There was no significantly difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in rural health areas (46.8 per cent) than urban health areas (43.0 per cent) rarely or never consumed potato crisps or other salty snacks. There was no significant difference among health areas.

There has been no significant change in the proportion of adults who rarely or never consumed potato crisps or other salty snacks between 2005 and 2007.

### Processed meat consumption

Overall, in 2007, 21.4 per cent of adults rarely or never consumed processed meat products (sausages, frankfurts, devon, salami, meat pies, bacon, or ham), 14.8 per cent consumed processed meat products less than once a week, 24.2 per cent consumed processed meat products once a week, 17.3 per cent consumed processed meat products once a week, 17.3 per cent consumed processed meat products 3 times a week, 4.0 per cent consumed processed meat products 4 times a week, 2.0 per cent consumed processed meat products 5 times a week, and 6.7 per cent consumed processed meat products more than 5 times a week.

Therefore, 77.7 per cent of adults consumed processed meat products less than 3 times a week. A significantly higher proportion of females (85.0 per cent) than males (69.6 per cent) consumed processed meat products less than 3 times a week. Among males, a significantly lower proportion of those aged 16-24 years (52.9 per cent) and 25-34 years (61.6 per cent), and a significantly higher proportion of those aged 55-64 years (80.1 per cent), 65-74 years (82.6 per cent), and 75 years and over (81.2 cent), consumed processed meat products less than 3 times a week, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 16-24 years (75.5 per cent), and a significantly higher proportion of those aged 45-54 years (88.4 per cent), 55-64 years (90.4 per cent), and 65-74 years (88.2 cent), consumed processed meat products less than 3 times a week, compared with the overall adult female population.

A significantly higher proportion of adults in the first or least disadvantaged quintile (81.5 per cent) consumed processed meat products less than 3 times a week, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas, or among health areas.

There has been no significant change in the proportion of adults who consumed processed meat products less than 3 times a week between 1997 and 2007.

### Soft drink, cordial, or sports drink consumption

Overall, in 2007, 47.7 per cent of adults never consumed soft drinks or cordials or sports drinks, 6.9 per cent consumed 1 cup a week, 6.5 per cent consumed 2 cups a week, 8.7 per cent consumed 3-5 cups a week, 14.8 per cent consumed 6-10 cups a week, and 15.5 per cent consumed 11 or more cups a week.

Therefore, 61.1 per cent of adults consumed 2 cups or less of soft drinks or cordials or sports drinks a week. A significantly higher proportion of females (68.4 per cent) than males (53.0 per cent) consumed 2 cups or less of soft drinks or cordials or sports drinks a week. Among males, a significantly lower proportion of those aged 16-24 years (28.8 per cent) and 25-34 years (41.6 per cent), and a significantly higher proportion of those aged 45-54 years (62.8 per cent), 55-64 years (63.7 per cent), 65-74 years (75.4 per cent), and 75 years and over (78.6 cent), consumed 2 cups or less of soft drinks or cordials or sports drinks a week, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 45-54 years (50.1 per cent) and 25-34 years (57.1 per cent), and a significantly higher proportion of those aged 45-54 years (74.6 per cent), 55-64 years (81.4 per cent), 65-74 years (81.8 cent), and 75 years and over (84.8 per cent), consumed 2 cups or less of soft drinks or cordials or sports drinks a week, compared with the overall adult female population.

A significantly higher proportion of adults in the first or least disadvantaged quintile (69.4 per cent), and a significantly lower proportion of adults in the third quintile (56.6 per cent) and fifth or most disadvantaged quintile (56.6 per cent), consumed 2 cups or less of soft drinks or cordials or sports drinks a week, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas. A significantly higher proportion of adults in the Northern Sydney & Central Coast (69.2 per cent) and North Coast (68.0 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney West (56.1 per cent) and Hunter & New England (56.1 per cent) Area Health Services, consumed 2 cups or less of soft drinks or cordials or sports drinks a week, compared with the overall adult population.

There has been no significant change in the proportion of adults who consumed 2 cups or less of soft drinks or cordials or sports drinks a week between 2006 and 2007. However, there has been a significant increase in females (from 65.6 per cent to 68.4 per cent).

### Fast food consumption

Overall, in 2007, 37.9 per cent of adults rarely or never consumed fast foods (such as burgers, pizza, chicken or chips from take-away places), 32.2 per cent consumed fast foods less than once a week, 19.5 per cent consumed fast foods twice a week or more.

A significantly higher proportion of females (44.5 per cent) than males (30.8 per cent) rarely or never consumed fast foods. Among males, a significantly lower proportion of those aged 16-24 years (9.3 per cent), 25-34 years (11.8 per cent), and 35-44 years (19.6 per cent), and a significantly higher proportion of those aged 55-64 years (50.3 per cent), 65-74 years (60.6 per cent), and 75 years and over (76.1 cent), rarely or never consumed fast foods, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 16-24 years (21.9 per cent), 25-34 years (24.7 per cent), and 35-44 years (34.7 per cent), and a significantly higher proportion of those aged 55-64 years (63.7 per cent), 65-74 years (78.9 per cent), and 75 years and over (83.2 cent), rarely or never consumed fast foods, compared with the overall adult female population.

A significantly higher proportion of adults in the first or least disadvantaged quintile (42.0 per cent), and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (34.1 per cent), rarely or never consumed fast foods, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (41.5 per cent) than urban health areas (36.3 per cent) rarely or never consumed fast foods. A significantly higher proportion of adults in the North Coast (48.6 per cent) and Greater Southern (44.3 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney West Area Health Service (29.0 per cent), rarely or never consumed fast foods, compared with the overall adult population.

There has been no significant change in the proportion of adults who rarely or never consumed fast foods between 2006 and 2007. However, there has been a significant increase in females (from 41.4 per cent to 44.5 per cent).

## Food insecurity

Overall, in 2007, 4.4 per cent of adults experienced some food insecurity in the last 12 months. A significantly higher proportion of females (5.9 per cent) than males (2.8 per cent) experienced food insecurity. Among males, a significantly lower proportion of those aged 75 years and over (0.6 cent) experienced some food insecurity in the last 12 months, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 65-74 years (2.8 per cent) and 75 years and over (1.0 cent) experienced some food insecurity in the last 12 months, compared with the overall adult female population. A significantly lower proportion of adults in the first or least disadvantaged quintile (1.8 per cent) experienced food insecurity, compared with the overall adult population. There was no significant difference between urban health areas and rural health areas. A significantly lower proportion of adults in the Northern Sydney & Central Coast Area Health Service (2.2 per cent) experienced food insecurity, compared with the overall adult population.

There has been a significant decrease in the proportion of adults who experienced food insecurity in the last 12 months, between 2002 (5.7 per cent) and 2007 (4.4 per cent). The increase was significant in males (from 5.3 per cent to 2.8 per cent).

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#### Daily number of serves of fruit, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,332 respondents in NSW. For this indicator 72 (0.97%) were not stated (Don't know or Refused) in NSW. The question used was: How many serves of fruit do you usually eat each day? One serve is equivalent to 1 medium piece or 2 small pieces of fruit. Note:

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Recommended fruit consumption by age, persons aged 16 years and over, NSW, 2007

Estimates are based on 7,332 respondents in NSW. For this indicator 72 (0.97%) were not stated (Don't know or Refused) in NSW. The indicator includes those who met the recommended fruit consumption of at least 2 serves a day for people aged 16 years and over. One serve is equivalent to 1 medium piece or 2 small pieces of fruit. The Note: question used to define the indicator was: How many serves of fruit do you usually eat each day? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

Recommended fruit consumption by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,332 respondents in NSW. For this indicator 72 (0.97%) were not stated (Don't know or Refused) in NSW. The indicator includes those who met the recommended fruit consumption of at least 2 serves a day for people aged 16 years and over. One serve is equivalent to 1 medium piece or 2 small pieces of fruit. The question used to define the indicator was: How many serves of fruit do you usually eat each day? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note:

Source:



### Recommended fruit consumption by area health service, persons aged 16 years and over, NSW, 2007

Estimates are based on 7,332 respondents in NSW. For this indicator 72 (0.97%) were not stated (Don't know or Refused) in NSW. The indicator includes those who met Note: the recommended fruit consumption of at least 2 serves a day for people aged 16 years and over. One serve is equivalent to 1 medium piece or 2 small pieces of fruit. The auestion used to define the indicator was: How many serves of fruit do you usually eat each day?





Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,481), 1998 (17,393), 2002 (12,533), 2003 (12,945), 2004 (9,370), 2005 (11,426), 2006 (7,887), 2007 (7,332). The indicator includes those who met the recommended fruit consumption of at least 2 serves a day for people aged 16 years and over. One serve is equivalent to 1 medium piece or 2 small pieces of fruit. The question used to define the indicator was: How many serves of fruit do you usually eat each day?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 6,301 respondents in NSW. For this indicator 1,103 (14.90%) were not stated (Don't know or Refused) in NSW. The indicator includes those who know the recommended daily consumption of fruit, that being 2 or more serves. The question used to define the indicator was: How many serves of fruit do you think you should eat each day to be healthy?

Knowledge of recommended fruit consumption by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 6,301 respondents in NSW. For this indicator 1,103 (14.90%) were not stated (Don't know or Refused) in NSW. The indicator includes those who know the recommended daily consumption of fruit, that being 2 or more serves. The question used to define the indicator was: How many serves of fruit do you think you should eat each day to be healthy?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Knowledge of recommended fruit consumption by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 6,301 respondents in NSW. For this indicator 1,103 (14.90%) were not stated (Don't know or Refused) in NSW. The indicator includes those who know the recommended daily consumption of fruit, that being 2 or more serves. The question used to define the indicator was: How many serves of fruit do you think you should eat each day to be healthy?



# Knowledge of recommended fruit consumption by year, persons aged 16 years and over, NSW, 2006-2007

Note: Estimates are based on the following numbers of respondents for NSW: 2006 (6,611), 2007 (6,301). The indicator includes those who know the recommended daily consumption of fruit, that being 2 or more serves. The question used to define the indicator was: How many serves of fruit do you think you should eat each day to be healthy?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Consistency between knowledge and practice of recommended fruit consumption, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 6,265 respondents in NSW. For this indicator 1,139 (15.38%) were not stated (Don't know or Refused) in NSW. The questions used were: How many serves of fruit do you usually eat each day? A serve is 1 medium piece or 2 small pieces of fruit or 1 cup of diced pieces. How many serves of fruit do you think you should eat each day to be healthy?

#### Daily number of serves of vegetables, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,300 respondents in NSW. For this indicator 104 (1.40%) were not stated (Don't know or Refused) in NSW. The question used was: How many serves of vegetables do you usually eat each day? One serve is equivalent to 1/2 cup of cooked vegetables or 1 cup of salad vegetables.





### Recommended vegetable consumption by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,300 respondents in NSW. For this indicator 104 (1.40%) were not stated (Don't know or Refused) in NSW. The indicator includes those who met the recommended consumption of vegetables. The recommended vegetable intake is at least 5 serves per day for persons aged 16 years and over. One serve is equivalent to 1/2 cup of cooked vegetables or 1 cup of salad vegetables. The question used to define the indicator was: How many serves of vegetables do you usually eat each day?

Recommended vegetable consumption by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,300 respondents in NSW. For this indicator 104 (1.40%) were not stated (Don't know or Refused) in NSW. The indicator includes those who met the recommended consumption of vegetables. The recommended vegetable intake is at least 5 serves per day for persons aged 16 years and over. One serve is equivalent to 1/2 cup of cooked vegetables or 1 cup of salad vegetables. The question used to define the indicator was: How many serves of vegetables do you usually eat each day?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

## Recommended vegetable consumption by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,300 respondents in NSW. For this indicator 104 (1.40%) were not stated (Don't know or Refused) in NSW. The indicator includes those who met the recommended consumption of vegetables. The recommended vegetable intake is at least 5 serves per day for persons aged 16 years and over. One serve is equivalent to 1/2 cup of cooked vegetables or 1 cup of salad vegetables. The question used to define the indicator was: How many serves of vegetables do you usually eat each day?

#### Recommended vegetable consumption by year, persons aged 16 years and over, NSW, 1997-2007



Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,455), 1998 (17,365), 2002 (12,485), 2003 (12,881), 2004 (9,327), 2005 (11,416), 2006 (7,849), 2007 (7,300). The indicator includes those who met the recommended consumption of vegetables. The recommended vegetable intake is at least 5 serves per day for persons aged 16 years and over. One serve is equivalent to 1/2 cup of cooked vegetables or 1 cup of salad vegetables. The question used to define the indicator was: How many serves of vegetables do you usually eat each day?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Three or more serves of vegetables a day by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,300 respondents in NSW. For this indicator 104 (1.40%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed 3 serve or more of vegetables a day. One serve is equivalent to 1/2 cup of cooked vegetables or 1 cup of salad vegetables. The question used to define the indicator was: How many serves of vegetables do you usually eat each day?

Three or more serves of vegetables a day by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,300 respondents in NSW. For this indicator 104 (1.40%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed 3 serve or more of vegetables a day. One serve is equivalent to 1/2 cup of cooked vegetables or 1 cup of salad vegetables. The question used to define the Note: indicator was: How many serves of vegetables do you usually eat each day? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Estimates are based on 7,300 respondents in NSW. For this indicator 104 (1.40%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed 3 serve or more of vegetables a day. One serve is equivalent to 1/2 cup of cooked vegetables or 1 cup of salad vegetables. The question used to define the indicator was: How many serves of vegetables do you usually eat each day? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note:

Source:





Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,455), 1998 (17,365), 2002 (12,485), 2003 (12,881), 2004 (9,327), 2005 (11,314), 2006 (7,849), 2007 (7,300). The indicator includes those who consumed 3 serve or more of vegetables a day. One serve is equivalent to 1/2 cup of cooked vegetables or 1 cup of salad vegetables. The question used to define the indicator was: How many serves of vegetables do you usually eat each day?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Knowledge of recommended vegetable consumption by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 6,247 respondents in NSW. For this indicator 1,157 (15.63%) were not stated (Don't know or Refused) in NSW. The indicator includes those who know the recommended daily consumption of vegetable, defined as 5 or more serves. The question used to define the indicator was: How many serves of vegetables do you think you should eat each day to be healthy?

Knowledge of recommended vegetable consumption by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 6,247 respondents in NSW. For this indicator 1,157 (15.63%) were not stated (Don't know or Refused) in NSW. The indicator includes those who know the recommended daily consumption of vegetable, defined as 5 or more serves. The question used to define the indicator was: How many serves of vegetables do Note: you think you should eat each day to be healthy?

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

#### Knowledge of recommended vegetable consumption by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 6,247 respondents in NSW. For this indicator 1,157 (15.63%) were not stated (Don't know or Refused) in NSW. The indicator includes those who know the recommended daily consumption of vegetable, defined as 5 or more serves. The question used to define the indicator was: How many serves of vegetables do Note: you think you should eat each day to be healthy? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:



Knowledge of recommended vegetable consumption by year, persons aged 16 years and over, NSW, 2006-2007

Source:

### Consistency of knowledge and practice of recommended vegetable consumption, persons aged 16 years and over, NSW, 2007





Estimates are based on the following numbers of respondents for NSW: 2006 (6,480), 2007 (6,247). The indicator includes those who know the recommended daily consumption of vegetable, defined as 5 or more serves. The question used to define the indicator was: How many serves of vegetables do you think you should eat each Note: day to be healthy? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Consumes bread once a day or more by age, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,391 respondents in NSW. For this indicator 13 (0.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed bread once per day or more. The question used to define the indicator was: How often do you usually eat bread? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note: Source:







Estimates are based on 7,391 respondents in NSW. For this indicator 13 (0.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed bread once per day or more. The question used to define the indicator was: How often do you usually eat bread? Note: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

Consumes bread once a day or more by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,391 respondents in NSW. For this indicator 13 (0.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed bread once per day or more. The question used to define the indicator was: How often do you usually eat bread? Note: Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Consumes bread once a day or more by year, persons aged 16 years and over, NSW, 2005-2007

Estimates are based on the following numbers of respondents for NSW: 2005 (11,476), 2006 (7,942), 2007 (7,391). The indicator includes those who consumed bread once per day or more. The question used to define the indicator was: How often do you usually eat bread? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note:

Source:

Consumes pasta, rice, noodles, or other cooked cereals once a day or more by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,359 respondents in NSW. For this indicator 45 (0.61%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed pasta, rice, noodles, or other cooked cereals once per day or more. The question used to define the indicator was: How often do you eat pasta, rice, noodles or other cooked cereals?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



# Consumes pasta, rice, noodles, or other cooked cereals once a day or more by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,359 respondents in NSW. For this indicator 45 (0.61%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed pasta, rice, noodles, or other cooked cereals once per day or more. The question used to define the indicator was: How often do you eat pasta, rice, noodles or other cooked cereals?



# Consumes pasta, rice, noodles, or other cooked cereals once a day or more by area health service, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,359 respondents in NSW. For this indicator 45 (0.61%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed pasta, rice, noodles, or other cooked cereals once per day or more. The question used to define the indicator was: How often do you eat pasta, rice, noodles or other cooked cereals?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



# Consumes pasta, rice, noodles, or other cooked cereals once a day or more by year, persons aged 16 years and over, NSW, 2005-2007

Note: Estimates are based on the following numbers of respondents for NSW: 2005 (11,462), 2006 (7,928), 2007 (7,359). The indicator includes those who consumed pasta, rice, noodles, or other cooked cereals once per day or more. The question used to define the indicator was: How often do you eat pasta, rice, noodles or other cooked cereals? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



# Consumes breakfast cereals 2 times a week or more by age, persons aged 16 years and over, NSW, 2007

 Note:
 Estimates are based on 7,375 respondents in NSW. For this indicator 29 (0.39%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed breakfast cereals 2 times per week or more. The question used to define the indicator was: How often do you eat breakfast cereal?

 Source:
 New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



# Consumes breakfast cereals 2 times a week or more by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

 Note:
 Estimates are based on 7,375 respondents in NSW. For this indicator 29 (0.39%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed breakfast cereals 2 times per week or more. The question used to define the indicator was: How often do you eat breakfast cereal?

 Source:
 New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Consumes breakfast cereals 2 times a week or more by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,375 respondents in NSW. For this indicator 29 (0.39%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed breakfast cereals 2 times per week or more. The question used to define the indicator was: How often do you eat breakfast cereal? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Consumes breakfast cereals 2 times a week or more by year, persons aged 16 years and over, NSW, 2005-2007

Note: Estimates are based on the following numbers of respondents for NSW: 2005 (11,455), 2006 (7,940), 2007 (7,375). The indicator includes those who consumed breakfast cereals 2 times per week or more. The question used to define the indicator was: How often do you eat breakfast cereal? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Frequency of consuming breakfast cereal, breads, pasta, rice and noodles a day, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,324 respondents in NSW. For this indicator 80 (1.08%) were not stated (Don't know or Refused) in NSW. The questions used were: How often do you usually eat bread? How often do you eat breakfast cereal? How often do you eat pasta, rice, noodles or other cooked cereals? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,331 respondents in NSW. For this indicator 48 (0.65%) were not stated (Don't know or Refused) in NSW. The question used was: How often do you gat red meat such as beef, lamb, liver, and kidney but not pork or ham?

#### Consumes red meat less than 3 times a week by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,331 respondents in NSW. For this indicator 48 (0.65%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed red meat less than 3 times a week. The question used to define the indicator was: How often do you eat red meat such as beef, lamb, liver, and kidney but not pork or ham?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Consumes red meat less than 3 times a week by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,331 respondents in NSW. For this indicator 48 (0.65%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed red meat less than 3 times a week. The question used to define the indicator was: How often do you eat red meat such as beef, lamb, liver, and kidney but not pork or ham?





Note: Estimates are based on 7,331 respondents in NSW. For this indicator 48 (0.65%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed red meat less than 3 times a week. The question used to define the indicator was: How often do you eat red meat such as beef, lamb, liver, and kidney but not pork or ham?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Type of milk usually consumed, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,387 respondents in NSW. For this indicator 17 (0.23%) were not stated (Don't know or Refused) in NSW. The question used was: What type of milk do you usually have?

### Usually consumes lower fat or skim milk by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,387 respondents in NSW. For this indicator 17 (0.23%) were not stated (Don't know or Refused) in NSW. The indicator includes those who usually consume low fat, reduced fat, or skim milk. The question used to define the indicator was: What type of milk do you usually have? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,387 respondents in NSW. For this indicator 17 (0.23%) were not stated (Don't know or Refused) in NSW. The indicator includes those who usually consume low fat, reduced fat, or skim milk. The question used to define the indicator was: What type of milk do you usually have?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,387 respondents in NSW. For this indicator 17 (0.23%) were not stated (Don't know or Refused) in NSW. The indicator includes those who usually consume low fat, reduced fat, or skim milk. The question used to define the indicator was: What type of milk do you usually have? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Usually consumes lower fat or skim milk by year, persons aged 16 years and over, NSW, 1997-2007

Note: Estimates are based on the following numbers of respondents for NSW: 1997 (16,624), 1998 (16,615), 2002 (12,598), 2003 (12,990), 2004 (9,402), 2005 (11,486), 2006 (7,940), 2007 (7,387). The indicator includes those who usually consume low fat, reduced fat, or skim milk. The question used to define the indicator was: What type of milk do you usually have?





Note: Estimates are based on 7,138 respondents in NSW. For this indicator 27 (0.38%) were not stated (Don't know or Refused) in NSW. The question used was: How often do you eat hot chips, french fries, wedges or fried potatoes?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,138 respondents in NSW. For this indicator 27 (0.38%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed hot fried potato products rarely or never. The question used to define the indicator was: How often do you eat hot chips, french fries, wedges or fried potatoes?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.
Rarely or never consumes hot fried potatoes by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,138 respondents in NSW. For this indicator 27 (0.38%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed hot fried potato products rarely or never. The question used to define the indicator was: How often do you eat hot chips, french fries, wedges or fried potatoes? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,138 respondents in NSW. For this indicator 27 (0.38%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed hot fried potato products rarely or never. The question used to define the indicator was: How often do you eat hot chips, french fries, wedges or fried potatoes?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Rarely or never consumes hot fried potatoes by year, persons aged 16 years and over, NSW, 2005-2007

Estimates are based on the following numbers of respondents for NSW: 2005 (5,385), 2006 (7,889), 2007 (7,138). The indicator includes those who consumed hot fried potato products rarely or never. The question used to define the indicator was: How often do you eat hot chips, french fries, wedges or fried potatoes? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note: Source:





Estimates are based on 7,140 respondents in NSW. For this indicator 25 (0.35%) were not stated (Don't know or Refused) in NSW. The question used was: How often do Note: you eat potato crisps or other salty snacks? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:





Note: Estimates are based on 7,140 respondents in NSW. For this indicator 25 (0.35%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed potato crisps or salty snacks rarely or never. The question used to define the indicator was: How often do you eat potato crisps or other salty snacks? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,140 respondents in NSW. For this indicator 25 (0.35%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed potato crisps or salty snacks rarely or never. The question used to define the indicator was: How often do you eat potato crisps or other salty snacks? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Rarely or never consumes potato crisps or salty snacks by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,140 respondents in NSW. For this indicator 25 (0.35%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed potato crisps or salty snacks rarely or never. The question used to define the indicator was: How often do you eat potato crisps or other salty snacks? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Rarely or never consumes potato crisps or salty snacks by year, persons aged 16 years and over, NSW, 2005-2007

Note: Estimates are based on the following numbers of respondents for NSW: 2005 (5,365), 2006 (7,890), 2007 (7,140). The indicator includes those who consumed potato crisps or salty snacks rarely or never. The question used to define the indicator was: How often do you eat potato crisps or other salty snacks? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Frequency of consuming processed meat products a week, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,353 respondents in NSW. For this indicator 51 (0.69%) were not stated (Don't know or Refused) in NSW. The question used was: How often do you eat processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon or ham?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



# Consumes processed meat products less than 3 times a week by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,353 respondents in NSW. For this indicator 51 (0.69%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed processed meat products less than 3 times a week. The question used to define the indicator was: How often do you eat processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon or ham?

### Consumes processed meat products less than 3 times a week by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,353 respondents in NSW. For this indicator 51 (0.69%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed processed meat products less than 3 times a week. The question used to define the indicator was: How often do you eat processed meat products such as Note: sausages, frankfurts, devon, salami, meat pies, bacon or ham? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Consumes processed meat products less than 3 times a week by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,353 respondents in NSW. For this indicator 51 (0.69%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed processed meat products less than 3 times a week. The question used to define the indicator was: How often do you eat processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon or ham? Note:



### Consumes processed meat products less than 3 times a week by year, persons aged 16 years and over, NSW, 1997-2007

Estimates are based on the following numbers of respondents for NSW: 1997 (17,487), 2002 (12,578), 2003 (12,985), 2004 (9,405), 2005 (11,473), 2006 (7,932), 2007 (7,353). The indicator includes those who consumed processed meat products less than 3 times a week. The question used to define the indicator was: How often do you Note: eat processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon or ham? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

### Cups of soft drinks or cordials or sports drinks consumed a week, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,336 respondents in NSW. For this indicator 43 (0.58%) were not stated (Don't know or Refused) in NSW. The question used was: How many Louis of soft drink, cordials or sports drink, such as lemonador of durorade, do you usually drink in a day? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

Consumes 2 cups or less of soft drinks, cordials or sports drinks a week by age, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,336 respondents in NSW. For this indicator 43 (0.58%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed 2 cups or less of soft drinks, cordials or sports drinks a week. The question used to define the indicator was: How many cups of soft drink, cordials or sports Note: drink, such as lemonade or Gatorade, do you usually drink in a day? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:



### Consumes 2 cups or less of soft drinks, cordials or sports drinks a week by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Estimates are based on 7,336 respondents in NSW. For this indicator 43 (0.58%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed 2 cups or less of soft drinks, cordials or sports drinks a week. The question used to define the indicator was: How many cups of soft drink, cordials or sports Note: drink, such as lemonade or Gatorade, do you usually drink in a day? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

Consumes 2 cups or less of soft drinks, cordials or sports drinks a week by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,336 respondents in NSW. For this indicator 43 (0.58%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed 2 cups or less of soft drinks, cordials or sports drinks a week. The question used to define the indicator was: How many cups of soft drink, cordials or sports drink, such as lemonade or Gatorade, do you usually drink in a day?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Consumes 2 cups or less of soft drinks, cordials or sports drinks a week by year, persons aged 16 years and over, NSW, 2006-2007

Note: Estimates are based on the following numbers of respondents for NSW: 2006 (7,864), 2007 (7,336). The indicator includes those who consumed 2 cups or less of soft drinks, cordials or sports drinks a week. The question used to define the indicator was: How many cups of soft drink, cordials or sports drink, such as lemonade or Gatorade, do you usually drink in a day?

### Frequency of consuming takeaway food a week, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,236 respondents in NSW. For this indicator 17 (0.23%) were not stated (Don't know or Refused) in NSW. The question used was: How often did you have meals or snacks such as burgers, pizza, chicken or chips from places like McDonalds, Hungry Jacks, Pizza Hut, KFC, Red Rooster, or local take-away places? Note: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:



### Rarely or never consumes takeaway food by age, persons aged 16 years and over, NSW, 2007

Estimates are based on 7,236 respondents in NSW. For this indicator 17 (0.23%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed takeaway food rarely or never. The question used to define the indicator was: How often did you have meals or snacks such as burgers, pizza, chicken or chips from places like McDonalds, Hungry Jacks, Pizza Hut, KFC, Red Rooster, or local take-away places? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note:

Source:

Rarely or never consumes takeaway food by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,236 respondents in NSW. For this indicator 17 (0.23%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed takeaway food rarely or never. The question used to define the indicator was: How often did you have meals or snacks such as burgers, pizza, chicken or chips Note: from places like McDonalds, Hungry Jacks, Pizza Hut, KFC, Red Rooster, or local take-away places? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Rarely or never consumes takeaway food by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,236 respondents in NSW. For this indicator 17 (0.23%) were not stated (Don't know or Refused) in NSW. The indicator includes those who consumed takeaway food rarely or never. The question used to define the indicator was: How often did you have meals or snacks such as burgers, pizza, chicken or chips from places like McDonalds, Hungry Jacks, Pizza Hut, KFC, Red Rooster, or local take-away places? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note:

Source:





Note: Estimates are based on the following numbers of respondents for NSW: 2006 (7,666), 2007 (7,236). The indicator includes those who consumed takeaway food rarely or never. The question used to define the indicator was: How often did you have meals or snacks such as burgers, pizza, chicken or chips from places like McDonalds, Hungry Jacks, Pizza Hut, KFC, Red Rooster, or local take-away places?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Note: Estimates are based on 7,368 respondents in NSW. For this indicator 7 (0.09%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had suffered some food insecurity in the last 12 months. The question used to define the indicator was: In the last 12 months, were there any times you ran out of food and could not afford to buy more?

Food insecurity in the last 12 months by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,368 respondents in NSW. For this indicator 7 (0.09%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had suffered some food insecurity in the last 12 months. The question used to define the indicator was: In the last 12 months, were there any times you ran out of food and could not afford to buy more?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Food insecurity in the last 12 months by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,368 respondents in NSW. For this indicator 7 (0.09%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had suffered some food insecurity in the last 12 months. The question used to define the indicator was: In the last 12 months, were there any times you ran out of food and could not afford to buy more?

### Food insecurity in the last 12 months by year, persons aged 16 years and over, NSW, 2002-2007



Estimates are based on the following numbers of respondents for NSW: 2002 (12,609), 2003 (13,001), 2004 (9,416), 2005 (11,489), 2006 (7,956), 2007 (7,368). The indicator includes those who had suffered some food insecurity in the last 12 months. The question used to define the indicator was: In the last 12 months, were there any Note: times you ran out of food and could not afford to buy more? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

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# Introduction

Physical activity is an important factor in maintaining good health. People who participate in moderate-to-vigorous levels of physical activity have lower rates of preventable mortality than those who are physically inactive; also, physical activity decreases risk of cardiovascular disease, some cancers, some mental illness, type-2 diabetes, overweight and obesity, and preventable injury.[1]

The National Physical Activity Guidelines for Adults state the minimum amount of physical activity recommended to maintain good health is at least 30 minutes of moderate activity on most, and preferably all, days of the week.<sup>[2]</sup>

This can be undertaken in shorter bursts of exercise, such as 3 lots of 10 minutes. Exercise of moderate intensity includes brisk walking, dancing, swimming, or cycling. The Guidelines also encourage people to think of movement as an opportunity rather than an inconvenience, and to be active every day in as many ways as possible.

In the New South Wales Population Health Survey, adequate physical activity is calculated from questions asked in the Active Australia Survey,[3] and is defined as undertaking physical activity for a total of 150 minutes per week over 5 separate occasions. The total minutes are calculated by adding minutes in the last week spent walking continuously for at least 10 minutes, minutes doing moderate physical activity, plus minutes doing vigorous physical activity multiplied by 2.

Active transport, such as walking, cycling or using public transport to get to or from a destination, especially work, is an achievable way for most people to incorporate the recommended 30 minutes of physical activity into their lives. Monitoring the active transport habits of the population provides important information about physical activity.

In order to encourage physical activity and active transport, it is important to have quality infrastructure and adequate neighbourhood facilities, such as sporting fields, public swimming pools, parks or reserves, footpaths, bike paths, and other facilities.

In 2007, the New South Wales Population Health Survey asked respondents: In the last week, how many times have you walked continuously for at least 10 minutes for recreation or exercise or to get to or from places? What do you estimate was the total time you spent walking in this way in the last week? In the last week, how many times did you do any vigorous physical activity that made you breathe harder or puff and pant? What do you estimate was the total time you spent doing this vigorous physical activity in the last week? In the last week, how many times did you do any other more moderate physical activity you haven't already mentioned? What do you estimate was the total time you spent doing these moderate activities in the last week? How do you usually get to work? Does your neighbourhood have any of the following facilities: sporting fields, public swimming pools, parks or reserves, footpaths, bikepaths, and other facilities. How often do you use these facilities each day, week, or month?

# Results

# Adequate physical activity

Overall, in 2007, 54.8 per cent of adults undertook adequate levels of physical activity. A significantly higher proportion of males (62.1 per cent) than females (47.6 per cent) undertook adequate physical activity. Among males, a significantly higher proportion of those aged 16-24 years (76.7 per cent) and a significantly lower proportion of those aged 45-54 years (55.1 per cent) and 75 years and over (50.3 per cent), undertook adequate physical activity, compared with the overall male population. Among females, a significantly higher proportion of those aged 16-24 years (56.3 per cent), and a significantly lower proportion of those aged 75 years and over (23.4 per cent), undertook adequate physical activity, compared with the overall adult female population.

A significantly higher proportion of adults in the first or least disadvantaged quintile (61.2 per cent), and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (48.1 per cent), undertook adequate physical activity, compared with the overall adult population. There was no significant difference between urban health areas and rural health areas. A significantly lower proportion of adults in the Sydney South West Area Health Service (48.7 per cent), undertook adequate physical activity, compared with the

overall adult population.

There has been a significant increase in the proportion of adults undertaking adequate physical activity, from 1998 (47.9 per cent) to 2007 (54.8 per cent). The increase was significant in both males (from 52.5 per cent to 62.1 per cent) and females (from 43.4 per cent to 47.6 per cent).

### Active transport

Overall, in 2007, the majority of adults did not use active transport to travel to work, as 75.3 per cent commuted by car, motorbike or scooter, truck, or taxi, and only 11.3 per cent caught a train, 6.0 per cent caught a bus, 7.4 per cent walked all or part of the way, 1.4 per cent rode a bicycle, and 0.2 per cent caught a ferry.

### Access to neighbourhood facilities to encourage physical activity

Overall, in 2007, 2.2 per cent of adults had no access to neighbourhood facilities to encourage physical activity, 45.2 per cent had access to sporting fields, 50.1 per cent had access to parks or reserves, 36.4 per cent had access to public swimming pools, 46.1 per cent had access to footpaths, and 31.3 per cent had access to bikepaths.

Overall, in 2007, among those adults who had access to sporting fields, 2.5 per cent used them daily or more, 11.3 per cent used them more than once a week but less than daily, 9.6 per cent used them weekly, 7.1 per cent used them less than weekly, and 69.4 per cent never used them.

Overall, in 2007, among those adults who had access to parks and reserves, 6.5 per cent used them daily or more, 16.2 per cent used them more than once a week but less than daily, 14.1 per cent used them weekly, 15.7 per cent used them less than weekly, and 47.5 per cent never used them.

Overall, in 2007, among those adults who had access to public swimming pools, 0.9 per cent used them daily or more, 6.4 per cent used them more than once a week but less than daily, 5.8 per cent used them weekly, 7.3 per cent used them less than weekly, and 79.7 per cent never used them.

Overall, in 2007, among those adults who had access to footpaths, 49.3 per cent used them daily or more, 24.7 per cent used them more than once a week but less than daily, 6.8 per cent used them weekly, 3.8 per cent used them less than weekly, and 15.5 per cent never used them.

Overall, in 2007, among those adults who had access to bikepaths, 4.5 per cent used them daily or more, 7.7 per cent used them more than once a week but less than daily, 6.0 per cent used them weekly, 7.6 per cent used them less than weekly, and 74.1 per cent never used them.

# Used neighbourhood facilities weekly or more

Among those adults with access to neighbourhood facilities to encourage physical activity, 46.4 per cent used them weekly or more. A significantly lower proportion of females (44.3 per cent) than males (48.7 per cent) used neighbourhood facilities weekly or more. Among males, a significantly higher proportion aged 35-44 years (59.5 per cent), and a significantly lower proportion aged 55-64 years (41.7 per cent), 65-74 years (38.4 per cent), and 75 years and over (29.5 per cent), used neighbourhood facilities weekly or more, compared with the overall male population. Among females, a significantly higher proportion aged 25-34 years (55.2 per cent) and 35-44 years (58.0 per cent), and a significantly lower proportion aged 45-54 years (37.2 years), 55-64 years (37.2 per cent), 65-74 years (34.1 per cent) and 75 years and over (22.3 per cent), used neighbourhood facilities weekly or more, compared with the overall adult female population.

A significantly higher proportion of adults in the first or least disadvantaged quintile (54.3 per cent), and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (42.5 per cent), used neighbourhood facilities weekly or more, compared with the overall adult population. A significantly lower proportion of adults in rural health areas (39.1 per cent) than urban health areas (49.7 per cent) used neighbourhood facilities weekly or more. A significantly higher proportion of adults in the South Eastern Sydney & Illawarra Area Health Service (54.5 per cent), and a significantly lower proportion of adults in the Hunter & New England (40.1 per cent), North Coast (40.1 per cent), Greater Southern (38.0 per cent), and Greater Western (36.3 per cent) Area Health Services, used neighbourhood facilities weekly or more, compared with the overall adult population.

There has been no significant change in the proportion of adults using neighbourhood facilities weekly or more between 2006 and 2007.

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### Adequate physical activity by age, persons aged 16 years and over, NSW, 2007





how many times did you do any other more moderate physical activity that you have not already mentioned? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Adequate physical activity by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 5,116 respondents in NSW. For this indicator 211 (3.96%) were not stated (Don't know or Refused) in NSW. The indicator includes those who did adequate physical activity. Adequate physical activity is a total of 150 minutes per week on 5 separate occasions. The total minutes were calculated by adding minutes in Note: the last week spent walking continuously for at least 10 minutes, minutes doing moderate physical activity, plus 2 x minutes doing vigorous physical activity. The questions used to define the indicator were: In the last week, how many times have you walked continuously for at least 10 minutes for recreation or exercise or to get to or from places? What do you estimate was the total time you spent walking in this way in the last week? In the last week, how many times did you do any vigorous physical activity that made you breathe harder or puff and pant? What do you estimate was the total time you spent doing this vigorous physical activity in the last week? In the last week, and the last week is the total time you breather activity in the last week? In the last week is the total time you spent doing this vigorous physical activity in the last week? how many times did you do any other more moderate physical activity that you have not already mentioned? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

### Adequate physical activity by area health service, persons aged 16 years and over, NSW, 2007





how many times did you do any other more moderate physical activity that you have not already mentioned? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:



### Adequate physical activity by year, persons aged 16 years and over, NSW, 1998-2007

Estimates are based on the following numbers of respondents for NSW: 1998 (17,462), 2002 (12,621), 2003 (13,005), 2004 (9,423), 2005 (11,402), 2006 (7,575), 2007 Note: (5,116). The indicator includes those who did adequate physical activity. Adequate physical activity is a total of 150 minutes per week on 5 separate occasions. The total minutes were calculated by adding minutes in the last week spent walking continuously for at least 10 minutes, minutes doing moderate physical activity, plus 2 x minutes doing vigorous physical activity. The questions used to define the indicator were: In the last week, how many times have you walked continuously for at least 10 minutes for recreation or exercise or to get to or from places? What do you estimate was the total time you spent walking in this way in the last week? In the last week, how many times did you do any vigorous physical activity that made you breathe harder or puff and pant? What do you estimate was the total time you spent doing this vigorous physical activity in the last week? In the last week, how many times did you do any other more moderate physical activity that you have not already mentioned?





Note: Estimates are based on 6,531 respondents in NSW. For this indicator 4 (0.06%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last week, which of the following best describes your employment status? How do you usually get to work? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Neighbourhood facilities, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 13,140 respondents in NSW. For this indicator 38 (0.29%) were not stated (Don't know or Refused) in NSW. The questions used were: Does your neighbourhood have any of the following facilities: sporting field, park or reserve, public swimming pool, footpaths, bikepaths? Respondents could mention more than 1 response. Percentages may total more than 100%.





Note: Estimates are based on 6,350 respondents in NSW. For this indicator 40 (0.63%) were not stated (Don't know or Refused) in NSW. The questions used were: Does your neighbourhood have any of the following facilities: sporting field, park or reserve, public swimming pool, footpaths, bikepaths? How often do you use the park or reserve? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 5,692 respondents in NSW. For this indicator 15 (0.26%) were not stated (Don't know or Refused) in NSW. The questions used were: Does your neighbourhood have any of the following facilities: sporting field, park or reserve, public swimming pool, footpaths, bikepaths? How often do you use the sporting fields?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 4,659 respondents in NSW. For this indicator 22 (0.47%) were not stated (Don't know or Refused) in NSW. The questions used were: Does your neighbourhood have any of the following facilities: sporting field, park or reserve, public swimming pool, footpaths, bikepaths? How often do you use the swimming pool? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Frequency of use of footpaths, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 5,678 respondents in NSW. For this indicator 74 (1.29%) were not stated (Don't know or Refused) in NSW. The questions used were: Does your neighbourhood have any of the following facilities: sporting field, park or reserve, public swimming pool, footpaths, bikepaths? How often do you use the footpaths?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Estimates are based on 3,756 respondents in NSW. For this indicator 18 (0.48%) were not stated (Don't know or Refused) in NSW. The questions used were: Does your neighbourhood have any of the following facilities: sporting field, park or reserve, public swimming pool, footpaths, bikepaths? How often do you use the bikepaths? Note: Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,220 respondents in NSW. For this indicator 119 (1.62%) were not stated (Don't know or Refused) in NSW. The indicator includes those who use any neighbourhood facilities on a weekly or more basis. The questions used to define the indicator were: Does your neighbourhood have any of the following facilities: sporting field, park or reserve, public swimming pool, footpaths, bikepaths? How often do you use the sporting field? How often do you use the park or reserve? How often do you use the public swimming pool? How offen do you use the footpaths? How offen do you use the bikepaths? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Weekly or more use of any neighbourhood facilities by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,220 respondents in NSW. For this indicator 119 (1.62%) were not stated (Don't know or Refused) in NSW. The indicator includes those who use any neighbourhood facilities on a weekly or more basis. The questions used to define the indicator were: Does your neighbourhood have any of the following facilities: sporting field, park or reserve, public swimming pool, footpaths, bikepaths? How often do you use the sporting field? How often do you use the park or reserve? How often do you use the public swimming pool? How often do you use the footpaths? How often do you use the bikepaths? Note: Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Estimates are based on 7,220 respondents in NSW. For this indicator 119 (1.62%) were not stated (Don't know or Refused) in NSW. The indicator includes those who use Note: any neighbourhood facilities on a weekly or more basis. The questions used to define the indicator were: Does your neighbourhood have any of the following facilities: sporting field, park or reserve, public swimming pool, footpaths, bikepaths? How often do you use the sporting field? How often do you use the park or reserve? How often do you use the public swimming pool? How often do you use the footpaths? How often do you use the bikepaths? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Weekly or more use of any neighbourhood facilities by year, persons aged 16 years and over, NSW, 2006-2007

pease check between the second Estimates are based on the following numbers of respondents for NSW: 2006 (1,680), 2007 (7,220). The indicator includes those who use any neighbourhood facilities on a weekly or more basis. The questions used to define the indicator were: Does your neighbourhood have any of the following facilities: sporting field, park or reserve, public Note: swimming pool, footpaths, bikepaths? How often do you use the sporting field? How often do you use the park or reserve? How often do you use the public swimming pool? How often do you use the footpaths? How often do you use the bikepaths?

ogy and Research, NSW Department of Health. Source:

# Introduction

Sexually Transmissible Infections (STIs) include any infections passed from one person to another by sexual contact. There are many different types of STIs including chlamydia, gonorrhoea, syphilis, genital warts, and HIV-AIDS. Unsafe sex places an individual at an increased risk of contracting an STI. STIs affect millions of people worldwide and cause a significant level of morbidity and mortality in both adults and children. The most effective way to protect yourself and your partners is to consistently practise safe sex by always using condoms.[1-6]

In 2007, the New South Wales Population Health Survey asked respondents aged 16-70 years: Have you had sexual intercourse in the last 12 months? Have you had sexual intercourse with more than 1 person in the last 12 months? Did you use condoms every time you had sexual intercourse? Have you been diagnosed with chlamydia in the last 12 months?

# Results

Overall, in 2007, among adults aged 16-70 years, 22.1 per cent did not have sexual intercourse in the last 12 months, 70.7 per cent had sexual intercourse with 1 partner, 4.2 per cent had sexual intercourse with more than 1 partner and used condoms, 2.9 per cent had sex with more than 1 partner and did not use condoms, and 0.2 per cent had been diagnosed with chlamydia in the last 12 months.

Therefore, in 2007, among adults aged 16-70 years, 3.1 per cent practised unsafe sex (that is, they had sex with more than 1 partner and did not always use a condom, or had been diagnosed with chlamydia in the last 12 months). A significantly lower proportion of females (1.9 per cent) than males (4.1 per cent) practised unsafe sex. Among males, a significantly lower proportion of those aged 45-54 years (2.1 per cent) and 55-64 years (2.3 per cent) practised unsafe sex, compared with the overall male population aged 16-70 years. Among females, a significantly lower proportion of those aged 55-64 years (0.8 per cent) and 65-74 years (0.5 per cent) practised unsafe sex, compared with the overall adult female population aged 16-70 years. There was no significant difference by level of socioeconomic disadvantage, or between rural health areas and urban health areas. A significantly lower proportion of adults in the Greater Southern Area Health Service (1.4 per cent) practised unsafe sex, compared with the overall adult population aged 16-70 years. The proportion of adults aged 16-70 years who practised unsafe sex has not changed significantly between 2004 and 2007.

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Note: Estimates are based on 5,678 respondents in NSW. For this indicator 315 (5.26%) were not stated (Don't know or Refused) in NSW. The questions used were: Have you had sexual intercourse with more than 1 person in the last 12 months? Did you use condoms every time you had sexual intercourse? Have you been diagnosed with chlamydia in the last 12 months?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 5,678 respondents in NSW. For this indicator 315 (5.26%) were not stated (Don't know or Refused) in NSW. The indicator includes those who are at risk of contracting, or who have contracted, a sexually transmissible infection in the last 12 months. Unsafe sex was defined as either having sex with more than one partner over the last 12 months, and not using condoms each time, or having been diagnosed with chlamydia in the last 12 months. The questions used to define the indicator were: Have you had sexual intercourse? Have you been diagnosed with chlamydia in the last 12 months? Did you use condoms every time you had sexual intercourse? Have you been diagnosed with chlamydia in the last 12 months?





Estimates are based on 5.678 respondents in NSW. For this indicator 315 (5.26%) were not stated (Don't know or Refused) in NSW. The indicator includes those who are Note: at risk of contracting, or who have contracted, a sexually transmissible infection in the last 12 months. Unsafe sex was defined as either having sex with more than one partner over the last 12 months, and not using condoms each time, or having been diagnosed with chlamydia in the last 12 months. The questions used to define the indicator were: Have you had sexual intercourse in the last 12 months? Did you use condoms every time you had sexual intercourse? Have you been diagnosed with chlamydia in the last 12 months? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



#### Unsafe sex by area health service, persons aged 16 to 70 years, NSW, 2007

Note: Estimates are based on 5,678 respondents in NSW. For this indicator 315 (5.26%) were not stated (Don't know or Refused) in NSW. The indicator includes those who are at risk of contracting, or who have contracted, a sexually transmissible infection in the last 12 months. Unsafe sex was defined as either having sex with more than one partner over the last 12 months, and not using condoms each time, or having been diagnosed with chlamydia in the last 12 months. The questions used to define the indicator were: Have you had sexual intercourse in the last 12 months? Have you had sexual intercourse with more than 1 person in the last 12 months? Did you use condoms every time you had sexual intercourse? Have you been diagnosed with chlamydia in the last 12 months?

### Unsafe sex by year, persons aged 16 to 70 years, NSW, 2004-2007



Lease please Estimates are based on the following numbers of respondents for NSW: 2004 (7,501), 2007 (5,678). The indicator includes those who are at risk of contracting, or who Note: have contracted, a sexually transmissible infection in the last 12 months. Unsafe sex was defined as either having sex with more than one partner over the last 12 months, and not using condoms each time, or having been diagnosed with chlamydia in the last 12 months. The questions used to define the indicator were: Have you had sexual intercourse in the last 12 months? Have you had sexual intercourse with more than 1 person in the last 12 months? Did you use condoms every time you had sexual intercourse? Have you been diagnosed with chlamydia in the last 12 months? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

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# Introduction

Tobacco smoking is the leading cause of preventable mortality and morbidity in New South Wales. While the relationship between smoking, lung cancer, and cardiovascular disease has long been evidenced, a substantial number of other diseases are now known to be associated with smoking, including: cancers of the stomach, bladder, cervix, uterus, oesophagus, mouth, larynx, pancreas, and kidney; leukemia; chronic obstructive pulmonary disease and pneumonia; respiratory effects in utero and infancy (including sudden infant death syndrome), childhood, adolescence and adulthood; fetal death and stillbirths; problems with fertility; low birthweight; complications in pregnancy; cataract; hip fractures; low bone density; peptic ulcers in persons who are *Heliobacter pylori* positive; and periodontitis.

Smoking diminishes the overall health of smokers and contributes to widespread organ damage. As smokers need to be aware that smoking carries far greater risks than the most widely known diseases, health care providers should use this new evidence to counsel their patients against smoking. Smokers who quit can lower their risk of a wide range of diseases and improve their health generally.[1]

Exposure to environmental tobacco smoke (passive smoking) is a significant cause of preventable mortality and morbidity in New South Wales. Passive smoking causes lung, nasal and sinus cancer; stroke and ischemic heart disease in adults; lower respiratory infections (croup, bronchitis, bronchiolitis and pneumonia), onset of asthma and worsening of asthma, respiratory symptoms, reduced lung function, middle-ear disease, and eye and nasal irritation in children; reduced birthweight; and sudden infant death syndrome in infants. There is also a causal association between passive smoking and cervical cancer; decreased pulmonary function and exacerbation of cystic fibrosis in adults; and cardiovascular health and the development of neurodevelopmental and behavioural problems in children. The risk of breast cancer appears to increase with passive smoking during puberty but not with overall lifetime exposure. Most of the evidence of harm caused by passive smoking is based on studies in the home environment; however, passive smoking is harmful wherever it takes place.[2]

In New South Wales there are several pieces of legislation relating to the control of tobacco advertising, and sale of tobacco, as well as environmental tobacco smoke. Further information is available from the NSW Department of Health's Tobacco and Health website.<sup>[3]</sup>

In 2007 the New South Wales Population Health Survey asked respondents: Which of the following best describes your smoking status: I smoke daily, I smoke occasionally, I don't smoke now but I used to, I've tried it a few times but never smoked regularly, I've never smoked? Which of the following best describes how you feel about your smoking: I am not planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months? The last time last 24 hours but was smoking 6 months ago, I have not been smoking in the last 6 months? The last time you went to your general practitioner, was your smoking discussed and were you advised to quit smoking? Which of the following best describes your home situation: my home is smoke-free, people occasionally smoke in the house, people frequently smoke in the house? Are people allowed to smoke in your car? If there was a total ban on smoking in hotels and licensed bars would you go there: more often, less often, it would make no difference? If there was a total ban on smoking in outdoor dining areas would you go there: more often, less often, it would make no difference?

# Results

# Smoking status

Overall, in 2007, 14.6 per cent of adults smoked daily, 4.0 per cent smoked occasionally, 22.6 per cent did not smoke now but used to smoke, 10.4 per cent tried smoking a few times but never smoked regularly, and 48.4 per cent never smoked.

# Current smoking

Overall, in 2007, 18.6 per cent of adults were current (daily or occasional) smokers. A significantly higher proportion of males (21.9 per cent) than females (15.4 per cent) were current smokers. Among males, a significantly lower proportion of those aged 65-74 years (11.4 per cent) and 75 years and over (4.4 per cent) were current smokers, compared with the overall adult male population. Among females, a significantly

higher proportion of those aged 35-44 years (20.3 per cent) and 45-54 years (21.6 per cent), and a significantly lower proportion of those aged 55-64 years (12.1 per cent), 65-74 years (8.4 per cent), and 75 years and over (3.7 per cent), were current smokers, compared with the overall adult female population.

A significantly higher proportion of adults in the fifth or most disadvantaged quintile (26.7 per cent), and a significantly lower proportion of adults in the first or least disadvantaged quintile (10.7 per cent), were current smokers, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas. A significantly lower proportion of adults in the Northern Sydney & Central Coast Area Health Service (11.9 per cent) were current smokers, compared with the overall adult population.

There was a significant decrease in the proportion of adults who were current smokers between 1997 (24.0 per cent) and 2007 (18.6 per cent). The decrease was significant in both males (from 27.1 per cent to 21.9 per cent) and females (from 21.1 per cent to 15.4 per cent).

# Daily smoking

Overall, in 2007, 14.6 per cent of adults were daily smokers. A significantly higher proportion of males (17.0 per cent) than females (12.2 per cent) were daily smokers. Among males, a significantly lower proportion of those aged 16-24 years (11.6 per cent), 65-74 years (8.5 per cent), and 75 years and over (4.1 per cent), were daily smokers, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 45-54 years (19.1 per cent), and a significantly lower proportion of those aged 16-24 years (8.3 per cent), 65-74 years (7.4 per cent), and 75 years and over (3.2 per cent), were daily smokers, compared with the overall adult female population.

A significantly higher proportion of adults in the fifth or most disadvantaged quintile (21.8 per cent), and a significantly lower proportion of adults in the first or least disadvantaged quintile (7.6 per cent), were daily smokers, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas. A significantly higher proportion of adults in the North Coast Area Health Service (19.2 per cent), and a significantly lower proportion of adults in the Northern Sydney & Central Coast Area Health Service (8.8 per cent), were daily smokers, compared with the overall adult population.

There was a significant decrease in the proportion of adults who were daily smokers between 1997 (19.1 per cent) and 2007 (14.6 per cent). The decrease was significant in both males (from 21.6 per cent to 17.0 per cent) and females (from 16.7 per cent to 12.2 per cent).

# Intention to quit smoking

Overall, in 2007, 62.6 per cent of adults who were current smokers intend to quit smoking in the next 6 months. There was no significant difference between males and females. A significantly lower proportion of adults aged 55-64 years (42.7 per cent) who were current smokers intend to quit smoking in the next 6 months, compared with the overall adult population who were current smokers. There was no significant difference by level of socioeconomic disadvantage, or between rural health areas and urban health areas, or among health areas.

There was a significant increase in the proportion of adults who were current smokers who intend to quit smoking in the next 6 months between 2002 (50.7 per cent) and 2007 (62.6 per cent). The increase was significant in both males (from 52.0 per cent to 67.2 per cent) and females (from 49.2 per cent to 57.1 per cent).

# Advice to quit smoking

Overall, in 2007, 50.3 per cent of adults who smoked were advised to quit smoking the last time they visited their general practitioner. There was no significant difference between males and females. A significantly lower proportion of adults aged 16-24 years (34.5 per cent) were advised to quit smoking, compared with the overall adult population. There was no significant difference by level of socioeconomic disadvantage, or between rural health areas and urban health areas, or among health areas.

There has been a significant increase in the proportion of smokers who were advised to quit smoking the last time they visited their general practitioner, between 2005 (44.2 per cent) and 2007 (50.3 per cent). The increase was significant in males (from 42.0 per cent to 52.7 per cent).

# Smoke-free homes

Overall, in 2007, 88.2 per cent of adults said their home was smoke-free, 5.9 per cent said people occasionally smoked in their home, and 5.9 per cent said people frequently smoked in their home.

Overall, in 2007, 88.2 per cent of adults lived in smoke-free homes. A significantly lower proportion of adults aged 16-24 years (83.1 per cent) and 45-54 years (84.7 per cent), and a significantly higher proportion of adults aged 35-44 years (91.4 per cent) and 75 years and over (94.0 per cent), lived in smoke-free homes, compared with the overall adult population.

A significantly higher proportion of adults in the first or least disadvantaged quintile (91.6 per cent), and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (84.1 per cent), lived in smoke-free homes, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas. A significantly higher proportion of adults in the Northern Sydney & Central Coast Area Health Service (91.2 per cent) lived in smoke-free homes, compared with the overall adult population.

There has been a significant increase in the proportion of adults who lived in smoke-free homes, between 1997 (69.7 per cent) and 2007 (88.2 per cent). The increase was significant in males (from 69.4 per cent to 87.4 per cent) and females (from 70.0 per cent to 89.0 per cent).

## Smoke-free cars

Overall, in 2007, 87.6 per cent of adults had smoke-free cars. A significantly lower proportion of adults aged 16-24 years (83.1 per cent), and a significantly higher proportion of adults aged 65-74 years (91.2 per cent) and 75 years and over (95.3 per cent), had smoke-free cars, compared with the overall adult population.

A significantly higher proportion of adults in the first or least disadvantaged quintile (90.5 per cent), and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (81.7 per cent), had smoke-free cars, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas. A significantly higher proportion of adults in the Northern Sydney & Central Coast Area Health Service (91.3 per cent) had smoke-free cars, compared with the overall adult population.

There has been a significant increase in the proportion of adults who had smoke-free cars, between 2003 (81.2 per cent) and 2007 (87.6 per cent). The increase was significant in both males (from 77.9 per cent to 85.7 per cent) and females (from 84.6 per cent to 89.5 per cent).

# Smoking bans in hotels and licensed premises

Overall, in 2007, 36.9 per cent of adults would be more likely to frequent hotels and licensed premises if there was a total ban on smoking, and 5.8 per cent would be less likely to frequent hotels and licensed premises if there was a total ban on smoking. For 57.2 per cent of adults, a total ban on smoking in hotels and licensed premises would make no difference.

# Smoking bans in outdoor dining areas

Overall, in 2007, 40.6 per cent of adults would be more likely to frequent outdoor dining areas if there was a total ban on smoking, and 5.8 per cent would be less likely to frequent outdoor dining areas if there was a total ban on smoking. For 53.6 per cent of adults, a total ban on smoking in outdoor dining areas would make no difference.

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### Smoking status, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,510 respondents in NSW. For this indicator 6 (0.08%) were not stated (Don't know or Refused) in NSW. The question used was: Which of the following best describes your smoking status: smoke daily, smoke occasionally, do not smoke now but used to, have tried it a few times but never smoked regularly, and never smoked?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Current smoking by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,510 respondents in NSW. For this indicator 6 (0.08%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoked daily or occasionally. The question used to define the indicator was: Which of the following best describes your smoking status: smoke daily, smoke occasionally, do not smoke now but I used to, I have tried it a few times but never smoked regularly, or I have never smoked?

### Current smoking by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,510 respondents in NSW. For this indicator 6 (0.08%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoked daily or occasionally. The question used to define the indicator was: Which of the following best describes your smoking status: smoke daily, smoke occasionally, do not smoke now but I used to, I have tried it a few times but never smoked regularly, or I have never smoked?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Current smoking by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,510 respondents in NSW. For this indicator 6 (0.08%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoked daily or occasionally. The question used to define the indicator was: Which of the following best describes your smoking status: smoke daily, smoke occasionally, do not smoke now but I used to, I have tried it a few times but never smoked regularly, or I have never smoked?

### Current smoking by year, persons aged 16 years and over, NSW, 1997-2007



Estimates are based on the following numbers of respondents for NSW: 1997 (17,496), 1998 (17,457), 2002 (12,616), 2003 (13,002), 2004 (9,418), 2005 (11,490), 2006 (7,957), 2007 (7,510). The indicator includes those who smoked daily or occasionally. The question used to define the indicator was: Which of the following best describes Note: your smoking status: smoke daily, smoke occasionally, do not smoke now but I used to, I have tried it a few times but never smoked regularly, or I have never smoked? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:







Estimates are based on 7,510 respondents in NSW. For this indicator 6 (0.08%) were not stated (Don't know or Refused) in NSW. The indicator includes those who Note: smoked daily. The question used to define the indicator was: Which of the following best describes your smoking status: smoke daily, smoke occasionally, do not smoke now but I used to, I have tried it a few times but never smoked regularly, or I have never smoked?




Note: Estimates are based on 7,510 respondents in NSW. For this indicator 6 (0.08%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoked daily. The question used to define the indicator was: Which of the following best describes your smoking status: smoke daily, smoke occasionally, do not smoke now but I used to, I have tried it a few times but never smoked regularly, or I have never smoked?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Daily smoking by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,510 respondents in NSW. For this indicator 6 (0.08%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoked daily. The question used to define the indicator was: Which of the following best describes your smoking status: smoke daily, smoke occasionally, do not smoke now but I used to, I have tried it a few times but never smoked regularly, or I have never smoked?





Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,496), 1998 (17,457), 2002 (12,616), 2003 (13,002), 2004 (9,418), 2005 (11,490), 2006 (7,957), 2007 (7,510). The indicator includes those who smoked daily. The question used to define the indicator was: Which of the following best describes your smoking status: smoke daily, smoke occasionally, do not smoke now but I used to, I have tried it a few times but never smoked regularly, or I have never smoked?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 521 respondents in NSW. For this indicator 40 (7.13%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoke daily or occasionally and who are in the process of or intend to quit smoking in the next 6 months. The questions used to define the indicator were: Which of the following best describes your smoking status: smoke daily, smoke occasionally, don't smoke now but used to, I have tried it a few times but never smoked regularly, and I have never smoked? Which of the following best describes how you feel about your smoking: I am not planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on the last 6 months?

Intend to quit smoking by socioeconomic disadvantage, persons who are current smokers aged 16 years and over, NSW, 2007



Note: Estimates are based on 521 respondents in NSW. For this indicator 40 (7.13%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoke daily or occasionally and who are in the process of or intend to quit smoking in the next 6 months. The questions used to define the indicator were: Which of the following best describes your smoking status: smoke daily, smoke occasionally, don't smoke now but used to, I have tried it a few times but never smoked regularly, and I have never smoked? Which of the following best describes how you feel about your smoking: I am not planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months. I am planning on the last 6 months?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Intend to quit smoking by area health service, persons who are current smokers aged 16 years and over, NSW, 2007



Note: Estimates are based on 521 respondents in NSW. For this indicator 40 (7.13%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoke daily or occasionally and who are in the process of or intend to quit smoking in the next 6 months. The questions used to define the indicator were: Which of the following best describes your smoking status: smoke daily, smoke occasionally, don't smoke now but used to, I have tried it a few times but never smoked regularly, and I have never smoked? Which of the following best describes how you feel about your smoking: I am not planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months?



# Intend to quit smoking by year, persons who are current smokers aged 16 years and over, NSW, 2002-2007

Note: Estimates are based on the following numbers of respondents for NSW: 2002 (2,485), 2003 (2,587), 2004 (1,860), 2005 (1,994), 2007 (521). The indicator includes those who smoke daily or occasionally and who are in the process of or intend to quit smoking in the next 6 months. The questions used to define the indicator were: Which of the following best describes your smoking status: smoke daily, smoke occasionally, don't smoke now but used to, I have tried it a few times but never smoked regularly, and I have never smoked? Which of the following best describes how you feel about your smoking: I am not planning on quitting within the next 6 months, I am planning on quitting within the next 6 months, I am planning on quitting within the next 6 months?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Doctor advised to quit smoking by age, persons who are current smokers aged 16 years and over, NSW, 2007



Note: Estimates are based on 1,252 respondents in NSW. For this indicator 12 (0.95%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoke and were advised to quit smoking the last time they visited their general practitioner. The questions used to define the indicator were: What is you current smoking status? The last time you went to your general practitioner, did the doctor discuss your smoking and advise you to quit smoking?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Doctor advised to quit smoking by socioeconomic disadvantage, persons who are current smokers aged 16 years and over, NSW, 2007





Doctor advised to quit smoking by area health service, persons who are current smokers aged 16 years and over, NSW, 2007



Note: Estimates are based on 1,252 respondents in NSW. For this indicator 12 (0.95%) were not stated (Don't know or Refused) in NSW. The indicator includes those who smoke and were advised to quit smoking the last time they visited their general practitioner. The questions used to define the indicator were: What is you current smoking status? The last time you went to your general practitioner, did the doctor discuss your smoking and advise you to quit smoking?



### Doctor advised to quit smoking by year, persons who are current smokers aged 16 years and over, NSW, 2005-2007

Estimates are based on the following numbers of respondents for NSW: 2005 (1,736), 2006 (1,301), 2007 (1,252). The indicator includes those who smoke and were advised to quit smoking the last time they visited their general practitioner. The questions used to define the indicator were: What is you current smoking status? The last Note: time you went to your general practitioner, did the doctor discuss your smoking and advise you to quit smoking? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:



#### Exposure to tobacco smoke in household, persons aged 16 years and over, NSW, 2007

Estimates are based on 7,471 respondents in NSW. For this indicator 12 (0.16%) were not stated (Don't know or Refused) in NSW. The question used was: Which of the Note: Following best describes your home situation: my home is smoke-free, people occasionally smoke in the house, and people frequently smoke in the house? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:



#### Smoke-free households by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,471 respondents in NSW. For this indicator 12 (0.16%) were not stated (Don't know or Refused) in NSW. The indicator includes those who indicated their home was smoke-free. The question used to define the indicator was: Which of the following best describes your home situation: my home is smoke-free, people occasionally smoke in the house, or people frequently smoke in the house?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Smoke-free households by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,471 respondents in NSW. For this indicator 12 (0.16%) were not stated (Don't know or Refused) in NSW. The indicator includes those who indicated their home was smoke-free. The question used to define the indicator was: Which of the following best describes your home situation: my home is smoke-free, people occasionally smoke in the house, or people frequently smoke in the house?

#### Smoke-free households by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,471 respondents in NSW. For this indicator 12 (0.16%) were not stated (Don't know or Refused) in NSW. The indicator includes those who indicated their home was smoke-free. The question used to define the indicator was: Which of the following best describes your home situation: my home is smoke-free, people occasionally smoke in the house, or people frequently smoke in the house?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Smoke-free households by year, persons aged 16 years and over, NSW, 1997-2007



 Note:
 Estimates are based on the following numbers of respondents for NSW: 1997 (17,495), 1998 (17,451), 2002 (12,607), 2003 (12,989), 2004 (9,415), 2005 (11,282), 2006 (7,946), 2007 (7,471). The indicator includes those who indicated their home was smoke-free. The question used to define the indicator was: Which of the following best describes your home situation: my home is smoke-free, people occasionally smoke in the house, or people frequently smoke in the house?

 Source:
 New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Smoke-free cars by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 6,882 respondents in NSW. For this indicator 29 (0.42%) were not stated (Don't know or Refused) in NSW. The indicator includes those who indicated their car was smoke-free. The question used to define the indicator was: Are people allowed to smoke in your car?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



## Smoke-free cars by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 6,882 respondents in NSW. For this indicator 29 (0.42%) were not stated (Don't know or Refused) in NSW. The indicator includes those who indicated their car was smoke-free. The question used to define the indicator was: Are people allowed to smoke in your car?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 6,882 respondents in NSW. For this indicator 29 (0.42%) were not stated (Don't know or Refused) in NSW. The indicator includes those who indicated their car was smoke-free. The question used to define the indicator was: Are people allowed to smoke in your car?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Smoke-free cars by year, persons aged 16 years and over, NSW, 2003-2007

Note: Estimates are based on the following numbers of respondents for NSW: 2003 (11,652), 2004 (8,585), 2005 (10,349), 2006 (7,251), 2007 (6,882). The indicator includes those who indicated their car was smoke-free. The question used to define the indicator was: Are people allowed to smoke in your car?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Impact of total smoking ban on attendance in bars and hotels, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 4,290 respondents in NSW. For this indicator 77 (1.76%) were not stated (Don't know or Refused) in NSW. The question used was: If there was a total ban on smoking in hotels and licensed bars, would you be likely to go there more often, less often, It would make no difference? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



#### Impact of smoking ban in outdoor dining areas, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 4,299 respondents in NSW. For this indicator 68 (1.56%) were not stated (Don't know or Refused) in NSW. The question used was: If there was a total smoking ban in outdoor dining areas, would you be likely to go there more often, less often, it would make no difference?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

## Introduction

Some sun exposure is beneficial to health; for example, by helping the body to produce vitamin D, which is essential for healthy bones. However, excessive sun exposure can lead to several forms of skin cancer, eye disease, and premature ageing. Most people can prevent skin cancer by avoiding exposure to the sun and other sources of ultraviolet light such as sunlamps, solariums and sunbeds. Precautions are especially important for children and teenagers, with children in general spending more time outdoors than adults. In addition, evidence suggests sun exposure in childhood and adolescence contributes more to lifetime risk of skin cancer than a similar level of sun exposure in later life.[1-6]

To reduce exposure to ultraviolet radiation, precautions are required. The best advice is to always wear suitable clothing, a hat, sunglasses, and apply sunscreen to exposed skin when outdoors: especially during summer. Also look for or provide some form of shade as it is an effective form of sun protection [2] The Australian Government Bureau of Meteorology issues an ultraviolet index forecast every day to help people to avoid overexposure to high levels of ultraviolet radiation, based on the World Health Organization's Global Solar UV Index.[3]

In 2007, the New South Wales Population Health Survey asked respondents: In your local area, when you are outside, do you find it easy to find shade in sporting areas? In your local area, when you are outside, do you find it easy to find shade at the outdoor public swimming pool? In your local area, when you are outside, Forlat do you find it easy to find shade at the public park?

## Results

## Availability of shade at local sporting areas

Overall, in 2007, among adults who go to local sporting areas, 62.6 per cent found it easy to find shade. A significantly higher proportion of adults aged 16-24 years (72.0 per cent) and 65-74 years (74.1 per cent), and a significantly lower proportion of those aged 35-44 years (54.0 per cent) and 45-54 years (55.6 per cent), found it easy to find shade at local sporting areas, compared with the overall adult population who go to local sporting areas.

A significantly higher proportion of adults in the first or least disadvantaged quintile (68.4 per cent), and a significantly lower proportion of adults in the third quintile (57.7 per cent), found it easy to find shade at local sporting areas, compared with the overall adult population who go to local sporting areas. There was no significant difference between urban health areas and rural health areas. A significantly higher proportion of adults in the Northern Sydney & Central Coast (68.3 per cent) and Greater Southern (69.6 per cent) Area Health Services found it easy to find shade at local sporting areas, compared with the overall adult population who go to local sporting areas.

There has been a significant increase in the proportion of adults who found it easy to find shade at local sporting areas, from 1997 (51.2 per cent) to 2007 (62.6 per cent).

## Availability of shade at local outdoor public swimming pools

Overall, in 2007, among adults who go to local outdoor public swimming pools, 73.3 per cent found it easy to find shade. A significantly lower proportion of adults aged 55-64 years (68.1 per cent) and 75 years and over (66.2 per cent) found it easy to find shade at local outdoor public swimming pools, compared with the overall adult population who go to local outdoor public swimming pools.

There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in the rural health areas (77.2 per cent) than urban health areas (71.5 per cent) found it easy to find shade at outdoor public swimming pools. A significantly higher proportion of adults in the Greater Western Area Health Service (84.1 per cent), and a significantly lower proportion of adults in the South Eastern Sydney & Illawarra Area Health Service (66.8 per cent), found it easy to find shade at outdoor public swimming pools, compared with the overall adult population who go to outdoor public swimming pools.

There has been a significant increase in the proportion of adults who found it easy to find shade at outdoor public swimming pools, from 1997 (61.0 per cent) to 2007 (73.3 per cent).

## Availability of shade at local public parks

Overall, in 2007, among adults who go to local public parks, 77.6 per cent found it easy to find shade. A significantly higher proportion of adults aged 55-64 years (82.5 per cent) and 65-74 years (85.2 per cent) found it easy to find shade at local public parks, compared with the overall adult population who go to local public parks.

A significantly higher proportion of adults in the first or least disadvantaged quintile (82.0 per cent), and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (72.0 per cent), found it easy to find shade at local public parks, compared with the overall adult population who go to local public parks. A significantly higher proportion of adults in rural health areas (83.7 per cent) than urban health areas (75.0 per cent) found it easy to find shade at local public parks. A significantly higher proportion of adults in the local public parks. A significantly higher proportion of adults in the Northern Sydney & Central Coast (81.9 per cent) and Greater Southern (86.6 per cent) and Greater Western (91.9 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West (71.2 per cent) and Sydney West (70.1 per cent) Area Health Services, found it easy to find shade at local public parks, compared with the overall adult population who go to local public parks.

There has been no significant change in the proportion of adults who found it easy to find shade at local public parks between 2004 and 2007.

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#### Easy to find shade in local sporting areas by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 5,317 respondents in NSW. For this indicator 319 (5.66%) were not stated (Don't know or Refused) in NSW. The indicator includes those who go to sporting areas in their local area who found it easy to find shade. The question used to define the indicator was: In your local area, when you are outside do you find it easy to find shade in sporting areas?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Easy to find shade in local sporting areas by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 5,317 respondents in NSW. For this indicator 319 (5.66%) were not stated (Don't know or Refused) in NSW. The indicator includes those who go to sporting areas in their local area who found it easy to find shade. The question used to define the indicator was: In your local area, when you are outside do you find it easy to find shade in sporting areas?

Easy to find shade in local sporting areas by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 5,317 respondents in NSW. For this indicator 319 (5.66%) were not stated (Don't know or Refused) in NSW. The indicator includes those who go to sporting areas in their local area who found it easy to find shade. The question used to define the indicator was. In your local area, when you are outside do you find it easy Note: to find shade in sporting areas? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

#### Easy to find shade in local sporting areas by year, persons aged 16 years and over, NSW, 1997-2007



Estimates are based on the following numbers of respondents for NSW: 1997 (14,236), 2004 (6,745), 2007 (5,317). The indicator includes those who go to sporting areas Note: in their local area who found it easy to find shade. The question used to define the indicator was: In your local area, when you are outside do you find it easy to find shade in sporting areas?



### Easy to find shade at outdoor public swimming pool by age, persons aged 16 years and over, NSW, 2007

Estimates are based on 3,631 respondents in NSW. For this indicator 618 (14.54%) were not stated (Don't know or Refused) in NSW. The indicator includes those who go to outdoor public swimming pools in their local area who found it easy to find shade. The question used to define the indicator was: In your local area, when you are outside do you find it easy to find shade at the outdoor public swimming pool? Note:

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Estimates are based on 3,631 respondents in NSW. For this indicator 618 (14.54%) were not stated (Don't know or Refused) in NSW. The indicator includes those who go to outdoor public swimming pools in their local area who found it easy to find shade. The question used to define the indicator was: In your local area, when you are outside do you find it easy to find shade at the outdoor public swimming pool? Note:

Easy to find shade at outdoor public swimming pool by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 3,631 respondents in NSW. For this indicator 618 (14.54%) were not stated (Don't know or Refused) in NSW. The indicator includes those who go to outdoor public swimming pools in their local area who found it easy to find shade. The question used to define the indicator was: In your local area, when you are outside Note: do you find it easy to find shade at the outdoor public swimming pool?

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

Easy to find shade at outdoor public swimming pool by year, persons aged 16 years and over, NSW, 1997-2007



Note: Estimates are based on the following numbers of respondents for NSW: 1997 (11,564), 2004 (4,548), 2007 (3,631). The indicator includes those who go to outdoor public swimming pools in their local area, who found it easy to find shade. The question used to define the indicator was: In your local area, when you are outside do you find it easy to find shade at the outdoor public swimming pool? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:



#### Easy to find shade at local public park by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 5,968 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes those who go to public parks in their local area who found it easy to find shade. The question used to define the indicator was: In your local area, when you are outside do you find it easy to find shade at the public park?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Easy to find shade at local public park by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 5,968 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes those who go to public parks in their local area who found it easy to find shade. The question used to define the indicator was: In your local area, when you are outside do you find it easy to find shade at the public park?

Easy to find shade at local public park by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 5,968 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes those who go to public parks in their local area who found it easy to find shade. The question used to define the indicator was: In your local area, when you are outside do you find it easy to find shade at the public park?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Easy to find shade at local public park by year, persons aged 16 years and over, NSW, 2004-2007



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (7,813), 2007 (5,968). The indicator includes those who go to public parks in their local area who found it easy to find shade. The question used to define the indicator was: In your local area, when you are outside do you find it easy to find shade at the public park? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Health status

Monitoring the health status of a population helps to detect emerging patterns of illness and disease and provides information to inform policy and planning of health services. This section reports on self-rated health, asthma, diabetes or high blood glucose, mental health (psychological distress), oral health, overweight and obesity, and family health history.

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## Introduction

Self-rated health is among the most frequently assessed health perceptions in epidemiological research. A large number of empirical studies have demonstrated how a person's appraisal of his or her general health is a powerful predictor of future morbidity and mortality, even after controlling for a variety of physical and psychosocial and socioeconomic factors.[1] Self-rated health is believed to principally reflect physical health problems (acute and chronic conditions and physical functioning) and, to a lesser extent, health behaviours and mental health problems.[2,3] Longitudinal studies show self-rated health is a strong and independent predictor of subsequent illness and premature death.[3,4]

In 2007, the New South Wales Population Health Survey asked respondents: Overall, how would you rate your health during the last 4 weeks: excellent, very good, good, fair, poor, or very poor?

## Results

Overall, in 2007, 21.5 per cent of adults rated their health in the last 4 weeks as excellent, 30.4 per cent as very good, 29.1 per cent as good, 12.6 per cent as fair, 5.2 per cent as poor, and 1.2 per cent as very poor.

When ratings of excellent and very good and good were combined to give an overall positive rating, 81.0 per cent of adults rated their health positively. A significantly lower proportion of females (78.8 per cent) than males (83.3 per cent) rated their health positively. Among males, a significantly higher proportion of those aged 16-24 years (89.2 per cent) and 25-34 years (89.4 per cent), and a significantly lower proportion of those aged 55-64 years (77.5 per cent) and 65-74 years (77.3 per cent) and 75 years and over (73.7 per cent), rated their health positively, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 55-64 years (74.8 per cent) and 65-74 years (73.0 per cent), and a significantly lower proportion of those aged 55-64 years (74.8 per cent) and 65-74 years (73.0 per cent) and 75 years and over (68.8 per cent), rated their health positively, compared with the overall adult female population.

A significantly lower proportion of adults in the fifth or most disadvantaged quintile (77.8 per cent) rated their health positively, compared with the overall adult population. There was no significant difference between urban health areas and rural health areas. A significantly higher proportion of adults in the Northern Sydney & Central Coast Area Health Service (83.7 per cent), and a significantly lower proportion of adults in the North Coast Area Health Service (77.4 per cent), rated their health positively, compared with the overall adult population.

The proportion of adults who rated their health positively decreased significantly between 1997 (85.0 per cent) and 2007 (81.0 per cent). The decrease was significant in females (from 85.1 per cent to 78.8 per cent).

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#### Self-rated health, persons aged 16 years and over, NSW, 2007



Estimates are based on 11,511 respondents in NSW. For this indicator 32 (0.28%) were not stated (Don't know or Refused) in NSW. The question used was: Overall, how Note: would you rate your health during the last 4 weeks: Was it excellent, very good, good, fair, poor, or very poor? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Excellent, very good, or good self-rated health status by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 11,511 respondents in NSW. For this indicator 32 (0.28%) were not stated (Don't know or Refused) in NSW. The indicator includes those responding excellent, very good, or good to a global self-rated health status question. The question used to define the indicator was: Overall, how would you rate your health during the last 4 weeks: Was it excellent, very good, good, fair, poor, or very poor? The question used to define the indicator in 1997 and 1998 was: In general would you say your health is excellent, very good, good, fair, or poor? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Excellent, very good, or good self-rated health status by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 11,511 respondents in NSW. For this indicator 32 (0.28%) were not stated (Don't know or Refused) in NSW. The indicator includes those responding excellent, very good, or good to a global self-rated health status question. The question used to define the indicator was: Overall, how would you rate your health during the last 4 weeks: Was it excellent, very good, good, fair, poor, or very poor? The question used to define the indicator in 1997 and 1998 was: In general would you say your health is excellent, very good, fair, or poor? Note: Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Estimates are based on 11,511 respondents in NSW. For this indicator 32 (0.28%) were not stated (Don't know or Refused) in NSW. The indicator includes those Note: responding excellent, very good, or good to a global self-rated health status question. The question used to define the indicator was: Overall, how would you rate your health during the last 4 weeks: Was it excellent, very good, good, fair, poor, or very poor? The question used to define the indicator in 1997 and 1998 was: In general would you say your health is excellent, very good, good, fair, or poor? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Excellent, very good, or good self-rated health status by year, persons aged 16 years and over, NSW, 1997-2007

Estimates are based on the following numbers of respondents for NSW: 1997 (17,494), 1998 (17,440), 2002 (12,610), 2003 (12,992), 2004 (9,407), 2005 (11,474), 2006 (7,942), 2007 (11,511). The indicator includes those responding excellent, very good, or good to a global self-rated health status question. The question used to define the indicator was: Overall, how would you rate your health during the last 4 weeks: Was it excellent, very good, good, fair, poor, or very poor? The question used to define the indicator in 1997 and 1998 was: In general would you say your health is excellent, very good, good, fair, or poor? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note:

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## Introduction

Asthma is a chronic inflammatory disorder of the airways in which, in response to a wide range of triggers, the airways narrow too much and too easily, resulting in episodes of wheeze, chest tightness, and shortness of breath. The prevalence of asthma is relatively high in Australia by international standards.[1-3]

The effects of asthma can include: disturbed sleep, tiredness, and reduced participation in the workforce and organised sport and other activities. Asthma ranks among the top 10 problems managed by general practitioners and is a major cause for hospital admission in children.[1-3]

Asthma is not curable but can be managed effectively. Current recommended management strategies include: appropriate use of medications, use of a structured or written asthma management plan, avoidance of known triggers, and regular review by a general practitioner. Research has shown most patients with an asthma management plan found it useful for managing their asthma.[4-6]

In 2007, the New South Wales Population Health Survey asked respondents: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of or treatment for asthma in the last 12 months? Do you have a written asthma management plan from your doctor on how to treat your asthma?

## Results

## Ever had asthma

ut of low these Overall, in 2007, 20.2 per cent of adults had ever been told by a doctor or hospital they had asthma. There was no significant difference between males and females. A significantly higher proportion of adults aged 16-24 years (26.8 per cent), and a significantly lower proportion of adults aged 45-54 years (17.0 per cent) and 65-74 years (16.7 per cent) and 75 years and over (14.4 per cent), ever had asthma. There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in rural health areas (23.4 per cent) than urban health areas (18.9 per cent) ever had asthma. A significantly higher proportion of adults in the Greater Western Area Health Service (28.8 per cent), and a significantly lower proportion of adults in the Sydney South West Area Health Service (15.5 per cent), ever had asthma. The proportion of adults who ever had asthma increased significantly between 1997 (16.8 per cent) and 2007 (20.2 per cent). This increase was significant in males (from 15.2 per cent to 19.3 per cent) and females (from 18.4 per cent to 21.1 per cent).

## Currently have asthma

Overall, in 2007, 10.5 per cent of adults had symptoms of or treatment for asthma in the last 12 months (that is, currently have asthma). A significantly higher proportion of females (11.8 per cent) than males (8.9 per cent) currently have asthma. Among females, a significantly a significantly lower proportion of those aged 75 years and over (8.5 per cent) currently have asthma. There was no significant difference by age group in males. There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in rural health areas (12.4 per cent) than urban health areas (9.6 per cent) currently have asthma. A significantly higher proportion of adults in the Greater Western Area Health Service (15.4 per cent), and a significantly lower proportion of adults in the Sydney South West Area Health Service (7.3 per cent), currently have asthma. The proportion of adults who currently have asthma has not changed significantly between 1997 and 2007.

## Written asthma management plan

Overall, in 2007, among those with current asthma, 44.1 per cent had a written asthma management plan. There was no significant difference between males and females, by age group, by level of socioeconomic disadvantage, between rural health areas and urban health areas, or among health areas. The proportion of adults with current asthma who have a written asthma management plan has increased significantly between 1997 (35.6 per cent) and 2007 (44.1 per cent). This increase was significant in females (from 36.6 per cent to 46.5 per cent).

## Current smoking and current asthma

Overall, in 2007, among adults with current asthma, 19.0 per cent were current smokers. A significantly lower proportion of females (15.7 per cent) than males (22.4 per cent) who had current asthma were current smokers. Among males, a significantly lower proportion of those aged 65-74 years (10.8 per cent) and 75 years and over (7.7 per cent) who had current asthma were current smokers, compared with the overall adult male population with current asthma. Among females, a significantly higher proportion of those aged 45-54 years (23.0 per cent), and a significantly lower proportion of those aged 55-64 years (11.2 per cent) and 75 years and over (2.4 per cent), who had current asthma were current smokers, compared with the overall adult female population with current asthma. A significantly lower proportion of adults in the first or least disadvantaged quintile (12.7 per cent), and a significantly higher proportion of adults in the fourth or second most disadvantaged quintile (24.7 per cent), who had current asthma were current smokers, compared with the overall adult population with current asthma. There was no significant difference between rural health areas and urban health areas. A significantly lower proportion of adults in the Northern Sydney & Central Coast Area Health Service (11.9 per cent) who had current asthma were current smokers, compared with the overall adult population with current asthma. The proportion of adults with current asthma who were current smokers, not changed significantly between 2006 and 2007.

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#### Ever diagnosed with asthma by age, persons aged 16 years and over, NSW, 2007





Ever diagnosed with asthma by socioeconomic disadvantage, persons aged 16 years and over, NSW,

Estimates are based on 7,396 respondents in NSW. For this indicator 16 (0.22%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have ever been told by a doctor or hospital they have asthma. The question used to define the indicator was: Have you ever been told by a doctor or hospital you have asthma? Note: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

Per cent

Per cent





Estimates are based on 7,396 respondents in NSW. For this indicator 16 (0.22%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have Note: ever been told by a doctor or hospital they have asthma. The question used to define the indicator was. Have you ever been told by a doctor or hospital you have asthma? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Ever diagnosed with asthma by year, persons aged 16 years and over, NSW, 1997-2007

Estimates are based on the following numbers of respondents for NSW: 1997 (17,461), 1998 (17,447), 2002 (12,608), 2003 (13,001), 2005 (11,480), 2006 (7,948), 2007 (7,396). The indicator includes those who have ever been told by a doctor or hospital they have asthma. The question used to define the indicator was: Have you ever been Note: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

#### Current asthma by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,391 respondents in NSW. For this indicator 21 (0.28%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had symptoms of asthma or treatment for asthma in the last 12 months. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of asthma or treatment for asthma in the last 12 months?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Current asthma by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,391 respondents in NSW. For this indicator 21 (0.28%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had symptoms of asthma or treatment for asthma in the last 12 months. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of asthma or treatment for asthma in the last 12 months?





Note: Estimates are based on 7,391 respondents in NSW. For this indicator 21 (0.28%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had symptoms of asthma or treatment for asthma in the last 12 months. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of asthma or treatment for asthma in the last 12 months.

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



#### Current asthma by year, persons aged 16 years and over, NSW, 1997-2007

Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,458), 1998 (17,446), 2002 (12,604), 2003 (13,000), 2004 (9,413), 2005 (11,474), 2006 (7,941), 2007 (7,391). The indicator includes those who had symptoms of asthma or treatment for asthma in the last 12 months. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of asthma or treatment for asthma in the last 12 months?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 806 respondents in NSW. For this indicator 8 (0.98%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have current asthma and who have a written asthma management plan. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Do you currently have asthma? Do you currently have asthma? Do you have a written asthma management plan from your doctor on how to treat your asthma?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 806 respondents in NSW. For this indicator 8 (0.98%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have current asthma and who have a written asthma management plan. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Do you currently have asthma? Do you currently have asthma?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Written asthma management plan by area health service, persons who currently have asthma aged 16 years and over, NSW, 2007



Note: Estimates are based on 806 respondents in NSW. For this indicator 8 (0.98%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have current asthma and who have a written asthma management plan. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Do you currently have asthma? Do you currently have asthma? Do you have a written asthma management plan from your doctor on how to treat your asthma?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on the following numbers of respondents for NSW: 1997 (1,835), 1998 (1,888), 2003 (1,071), 2006 ( 886), 2007 ( 806). The indicator includes those who have current asthma and who have a written asthma management plan. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Do you currently have asthma? Do you have a written asthma management plan The you would be a written asthma?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Current smoking by age, persons who currently have asthma aged 16 years and over, NSW, 2007



Note: Estimates are based on 2,975 respondents in NSW. For this indicator 27 (0.90%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had symptoms of asthma or treatment for asthma in the last 12 months and are current smokers. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you ad symptoms of asthma or treatment for asthma in the last 12 months and are current for asthma in the last 12 months? Which of the following best describes your smoking status: Smoke daily, smoke daily, smoke daily, smoke daily, smoke daily, smoke daily, smoke daily. Smoke daily, smoke daily, smoke daily. Smok

# Current smoking by socioeconomic disadvantage, persons who currently have asthma aged 16 years and over, NSW, 2007



Note: Estimates are based on 2,975 respondents in NSW. For this indicator 27 (0.90%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had symptoms of asthma or treatment for asthma in the last 12 months and are current smokers. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of asthma or treatment for asthma in the last 12 months and are current for asthma in the last 12 months? Which of the following best describes your smoking status: Smoke daily, smoke occasionally, do not smoke now but I used to, I have tried it a few times but never smoked regularly, or I have never smoked?
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Estimates are based on 2,975 respondents in NSW. For this indicator 27 (0.90%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had symptoms of asthma or treatment for asthma in the last 12 months and are current smokers. The guestions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of asthma or treatment for asthma in the last 12 months and are current smokers. The guestions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of asthma or treatment for asthma in the last 12 months? Which of the following best describes your smoking status: Smoke doctarionally, do not smoke now but I used to, I have tried it a few times but never smoked regularly, or I have never smoked? Note: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:



Current smoking by year, persons who currently have asthma aged 16 years and over, NSW, 2006-2007

Estimates are based on the following numbers of respondents for NSW: 2006 ( 901), 2007 (2,975). The indicator includes those who had symptoms of asthma or treatment Note: for asthma in the last 12 months and are current smokers. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of asthma or treatment for asthma in the last 12 months? Which of the following best describes your smoking status: Smoke daily, smoke occasionally, do not smoke now but I used to, I have tried it a few times but never smoked regularly, or I have never smoked? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

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## Introduction

Diabetes is a chronic disease characterised by high blood glucose levels, resulting from the body either not producing insulin or not using insulin properly. Insulin is a hormone needed for glucose to enter the cells and be converted to energy. Diabetes affects a person's health in 2 ways: by direct metabolic complications, which can be immediately life threatening if not treated promptly; by long term complications involving the eyes, kidneys, nerves, and major blood vessels including those in the heart.[1]

There are 3 main forms of diabetes: type 1, or insulin dependent diabetes mellitus, which occurs when the pancreas no longer produces insulin; type 2, or non insulin dependent diabetes mellitus, which occurs when the pancreas is not producing enough insulin and the insulin it produces is not working effectively; and gestational diabetes, which occurs in pregnancy and should disappear after the birth. The management of type 2, which is the most common form of diabetes, depends on careful control of glucose levels, blood lipid levels (especially cholesterol levels), blood pressure, and regular screening for complications.[1]

Type 2 diabetes accounts for up to 90 per cent of all cases of diabetes, and 68 per cent of hospitalisations for diabetes. In 2004, diabetes was the principal cause of 2.2 per cent of deaths and a related cause of 5.2 per cent of deaths in New South Wales. Between 1989-90 and 2004-05, diabetes related hospitalisations increased by 96 per cent in New South Wales. Cardiovascular disease was the most common cause of death among people with diabetes.[2]

To live well with diabetes, it is important for each person with diabetes to be a part of a "diabetes team". The most important member of the team is the person with diabetes. Other members of the team include: a general practitioner, an endocrinologist or diabetes specialist, a diabetes educator (usually a registered nurse with special training in diabetes), a dietitian, an exercise physiologist, an optometrist or ophthalmologist, and a podiatrist.[3]

In 2007, the New South Wales Population Health Survey asked respondents: Have you ever been told by a doctor or hospital you have high blood glucose? If female, respondents were also asked: Were you pregnant when first told you had diabetes or high blood glucose? Have you ever had diabetes or high blood glucose apart from when you were pregnant? Respondents were also asked: About how long is it since you consulted a diabetes educator for education about your diabetes or high blood glucose? About how long is it since you consulted a dietician for dietary advice about diabetes? About how long is it since you consulted a podiatrist to check for or treat diabetes-related foot problems? Who usually provides care for your diabetes or high blood glucose?

## Results

Overall, in 2007, 7.1 per cent of adults had diabetes or high blood glucose. There was no significant difference between males and females. A significantly lower proportion of adults aged 16-24 years (2.2 per cent), 25-34 years (1.5 per cent), and 35-44 years (2.9 per cent), and a significantly higher proportion of adults aged 55-64 years (13.3 per cent) and 65-74 years (19.3 per cent) and 75 years and over (17.2 per cent) had diabetes or high blood glucose, compared with the overall adult population.

There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in rural health areas (8.6 per cent) than urban health areas (6.5 per cent) had diabetes or high blood glucose. A significantly higher proportion of adults in the Greater Southern (9.5 per cent) and Greater Western (10.0 per cent) Area Health Services, and a significantly lower proportion of adults in the Northern Sydney & Central Coast Area Health Service (5.2 per cent), had diabetes or high blood glucose, compared with the overall adult population.

The proportion of adults with diabetes or high blood glucose increased significantly between 1997 (4.7 per cent) and 2007 (7.1 per cent). The increase was significant in both males (from 5.2 per cent to 7.8 per cent) and females (from 4.2 per cent to 6.5 per cent).

Among those with diabetes or high blood glucose, the time since consulting a diabetes educator was: less than 1 year ago (30.5 per cent), 1 to less than 2 years ago (11.5 per cent), 2 years to less than 5 years ago (11.1 per cent), more than 5 years ago (9.6 per cent), and never consulted a diabetes educator (37.3 per cent).

Among those with diabetes or high blood glucose, the time since consulting a dietician was: less than 1 year ago (23.9 per cent), 1 to less than 2 years ago (11.2 per cent), 2 years to less than 5 years ago (13.4 per cent), more than 5 years ago (12.4 per cent), and never consulted a dietician (39.1 per cent).

Among those with diabetes or high blood glucose, the time since consulting a podiatrist was: less than 1 year ago (31.3 per cent), 1 to less than 2 years ago (4.7 per cent), 2 years to less than 5 years ago (3.2 per cent), more than 5 years ago (3.2 per cent), and never consulted a podiatrist (57.7 per cent).

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#### Diabetes or high blood glucose by age, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,316 respondents in NSW. For this indicator 60 (0.81%) were not stated (Don't know or Refused) in NSW. The indicator includes those who either Note: had diabetes or high blood glucose but did not have gestational diabetes. The questions used to define the indicator were? Have you ever been told by a doctor or hospital you have high blood glucose? If female, Were you pregnant when you were first told you had diabetes or high blood glucose? Have you ever had diabetes or high blood glucose apart from when you were pregnant?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



#### Diabetes or high blood glucose by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Estimates are based on 7,316 respondents in NSW. For this indicator 60 (0.81%) were not stated (Don't know or Refused) in NSW. The indicator includes those who either Note: had diabetes or high blood glucose but did not have gestational diabetes. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have high blood glucose? If female, Were you pregnant when you were first told you had diabetes or high blood glucose? Have you ever had diabetes or high blood glucose apart from when you were pregnant? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,316 respondents in NSW. For this indicator 60 (0.81%) were not stated (Don't know or Refused) in NSW. The indicator includes those who either had diabetes or high blood glucose but did not have gestational diabetes. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have diabetes? Have you ever been told by a doctor or hospital you have diabetes? Have you ever been told by a doctor or hospital you have high blood glucose? If female, Were you pregnant when you were first told you had diabetes or high blood glucose? Have you ever had diabetes or high blood glucose? Have you ever had diabetes or high blood glucose? Have you ever had diabetes or high blood glucose?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,446), 1998 (17,326), 2002 (12,570), 2003 (12,960), 2004 (9,402), 2005 (11,457), 2006 (7,935), 2007 (7,316). The indicator includes those who either had diabetes or high blood glucose but did not have gestational diabetes. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have diabetes? Have you ever been told by a doctor or hospital you have diabetes or high blood glucose? Have you ever had diabetes or high blood glucose? Have you ever had diabetes or high blood glucose apart from when you were first told you had diabetes or high blood glucose? Have you ever had diabetes or high blood glucose apart from when you were pregnant?

Time since visited a diabetes educator, persons who have diabetes or high blood glucose aged 16 years and over, NSW, 2007



Estimates are based on 822 respondents in NSW. For this indicator 18 (2.14%) were not stated (Don't know or Refused) in NSW. The questions used were: Have you ever been told by a doctor or hospital you have diabetes? Have you ever been told by a doctor or hospital you have high blood glucose? About how long is it since you consulted or diverties for durating or potativery exercise to be the set of the se Note: a diabetes educator for education about your diabetes or high blood glucose?

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

#### Time since visited a dietitian, persons who have diabetes or high blood glucose aged 16 years and over, NSW, 2007



Estimates are based on 818 respondents in NSW. For this indicator 22 (2.62%) were not stated (Don't know or Refused) in NSW. The questions used were: Have you ever been told by a doctor or hospital you have diabetes? Have you ever been told by a doctor or hospital you have high blood glucose? About how long is it since you consulted Note: a dietician for dietary advice about diabetes?

Time since visited a podiatrist, persons who have diabetes or high blood glucose aged 16 years and over, NSW, 2007



Estimates are based on 824 respondents in NSW. For this indicator 16 (1.90%) were not stated (Don't know or Refused) in NSW. The questions used were: Have you ever been told by a doctor or hospital you have diabetes? Have you ever been told by a doctor or hospital you have high blood glucose? About how long is it since you consulted a pacificitie to about for a total diabetes? Have you ever been told by a doctor or hospital you have high blood glucose? About how long is it since you consulted a pacificitie to about for a total diabetes? Note: a podiatrist to check for or treat diabetes-related foot problems? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

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### Introduction

Psychological distress has a major effect on the ability of people to work, study, and manage their day-to-day activities. Around 1 in 10 Australians report having a long-term anxiety-related problem or mood (affective) problem.[1]

The Kessler 10 (K10) measure of self-reported psychological distress has been shown to be a useful broad-gauged screening scale for mental disorders in health-risk appraisal surveys and primary care screening batteries.[2] The measure is included in the New South Wales Population Health Survey to monitor the mental health of people aged 16 and over.[3] The K10 measure is a 10-item questionnaire that measures non-specific psychological distress based on questions about the level of nervousness, agitation, psychological fatigue and depression in the most recent 4-week period. Responses to the questionnaire are classified into 4 categories: low psychological distress, when the K10 score is 10-15; moderate psychological distress, when the K10 score is 22-29; and very high psychological distress, when the K10 score is 30 or higher. The Kessler 10 Plus (K10+) measure contains additional questions to assess functioning and related factors. At both the population level and individual level the K10 measure is a barometer for psychological distress without identifying its cause.

It is important for people with mental illness to participate effectively in the community. In response to the State Plan, as part of the NSW Government's commitment to increasing rates of community participation among people with mental illness, the New South Wales Population Health Survey monitors community participation among people with psychological distress by comparing their K-10 score with their level of community participation.[4]

In 2007, the New South Wales Population Health Survey asked adult respondents the following K10 questions: In the last 4 weeks, about how often did you feel nervous? In the last 4 weeks, about how often did you feel so nervous that nothing could calm you down? In the last 4 weeks, about how often did you feel hopeless? In the last 4 weeks, about how often did you feel nervous that nothing could calm you down? In the last 4 weeks, about how often did you feel hopeless? In the last 4 weeks, about how often did you feel restless or fidgety? In the last 4 weeks, about how often were you so restless that you could not sit still? In the last 4 weeks, about how often did you feel depressed? In the last 4 weeks, about how often did you feel that everything was an effort? In the last 4 weeks, about how often did you feel worthless?.

Respondents who scored 16 points and above were asked the K10+ questions: In the last 4 weeks, how many days were you totally unable to work, study, or manage your day-to-day activities because of these feelings? Aside from those days, in the last 4 weeks, how many days were you able to work, study, or manage you day-to-day activities, but had to cut down on what you did because of these feelings? In the last 4 weeks, how many times have you seen a doctor or other health professional about these feelings? In the last 4 weeks, how often have physical health problems been the main cause of these feelings?

### Results

### High or very high psychological distress

Overall, in 2007, 65.8 per cent of adults had low levels of psychological distress, 22.1 per cent had moderate levels, 9.0 per cent had high levels, and 3.1 per cent had very high levels.

Overall, in 2007, adults were unable to work or study or manage their day-to-day activities on 0.61 days in the last 4 weeks (0.65 days for males and 0.58 days for females). Adults had to cut down on what they did on 0.99 days in the last 4 weeks (0.89 days for males and 1.09 days for females). Adults saw a doctor or other health professional about their psychological distress 0.12 times in the last 4 weeks (0.11 times for males and 0.13 times for females).

Overall, in 2007, 12.1 per cent of adults had high or very high levels of psychological distress. A significantly higher proportion of females (13.2 per cent) than males (10.9 per cent) had high or very high levels of psychological distress. Among males, there was no significant difference by age. Among females, a significantly lower proportion aged 65-74 years (9.3 per cent) and 75 years and over (7.0 per cent) had high or very high levels of psychological distress, compared with the overall adult female population.

A significantly higher proportion of adults in the fifth or most disadvantaged quintile (15.5 per cent), and a significantly lower proportion of adults in the first or least disadvantaged quintile (7.7 per cent), had high or very high levels of psychological distress, compared with the overall adult population. There was no significant difference between urban health areas and rural health areas. A significantly lower proportion of adults in the Northern Sydney & Central Coast Health Area Health Service (7.9 per cent) had high or very high levels of psychological distress, compared with the overall adult population. There has been no significant change in the proportion of adults with high or very high psychological distress between 1997 and 2007.

Adults with high or very high psychological distress said their distress was due to physical problems: all of the time (13.9 per cent), most of the time (13.3 per cent), some of the time (16.9 per cent), a little of the time (15.3 per cent), and none of the time (40.6 per cent).

### **Community participation**

Overall, in 2007, 37.4 per cent of adults with high or very high levels of psychological distress helped out at a local group or organisation at least once in the last 3 months. There was no significant difference between males and females. A significantly lower proportion of adults with high or very high levels of psychological distress aged 45-54 years (24.4 per cent) and 75 years and over (16.7 per cent), and a significantly higher proportion of adults with high or very high levels of psychological distress aged 35-44 years (59.3 per cent), helped out at a local group or organisation at least once in the last 3 months, compared with the overall adult population with high or very high levels of psychological distress. There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of adults with high or very high levels of psychological distress in rural areas (46.7 per cent) than urban areas (33.1 per cent) helped out at a local group or organisation at least once in the last 3 months. A significantly higher proportion of adults with high or very high levels of psychological distress in the Hunter & New England Area Health Service (57.3 per cent), and a significantly lower proportion of adults with high or very high levels of psychological distress in the Northern Sydney & Central Coast Area Health Service (20.0 per cent), helped out at a local group or organisation at least once in the last 3 months, compared with the overall adult population with high or very high levels of psychological distress. There has been no significant change in the proportion of adults with high or very high psychological distress who helped out at a local group or organisation at least once in the last 3 months between 2006 and 2007.

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#### Psychological distress by Kessler 10 categories, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,366 respondents in NSW. For this indicator 27 (0.37%) were not stated (Don't know or Refused) in NSW. The K10 is a 10-item questionnaire that measures the level of psychological distress in the most recent 4-week period. The categories shown for the K10 scores are low (K10 between 10 and 15.9), moderate (K10 between 16 and 21.9), high (K10 between 22 and 29.9), and very high (K10 of 30 and over).

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Effect of psychological stress on daily activities, persons aged 16 years and over, NSW, 2007

Response	%	Males (95% CI)	Females % (95% Cl)	Persons % (95% CI)
Days unable to manage daily activities	0.65	(0.49-0.80)	0.58 (0.48-0.68)	0.61 (0.52-0.70)
Days cut down on daily activities	0.89	(0.71-1.08)	1.09 (0.92-1.25)	0.99 (0.87-1.12)
Times saw a health professional	0.11	(0.08-0.13)	0.13 (0.10-0.15)	0.12 (0.10-0.14)

- Note: Estimates are based on the following numbers of respondents for NSW: 2006 ( 821), 2007 ( 509). The questions were only asked of people who scored 16 and above in the Kessler 10 tool, people who scored less than 16 were allocated a value of 0. The K10 is a 10-item questionnaire that measures the level of psychological distress in the most recent 4-week period. The questions used were: In the last 4 weeks, how many days were you totally unable to work, study or manage your day-to-day activities because of these feelings? Aside from any days that you were totally unable to work, study or manage your day-to-day activities, in the last 4 weeks, how many days were you able to work, study or or antage your day-to-day activities, in the last 4 weeks, how many times have you seen a doctor or other health professional about these feelings?
- Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

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#### High and very high psychological distress by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,366 respondents in NSW. For this indicator 27 (0.37%) were not stated (Don't know or Refused) in NSW. The indicator includes those with a Kessler 10 (K10) score of 22 or above. The K10 is a 10-item questionnaire that measures the level of psychological distress in the most recent 4-week period. Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,366 respondents in NSW. For this indicator 27 (0.37%) were not stated (Don't know or Refused) in NSW. The indicator includes those with a Kessler 10 (K10) score of 22 or above. The K10 is a 10-item questionnaire that measures the level of psychological distress in the most recent 4-week period.
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



High and very high psychological distress by area health service, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,366 respondents in NSW. For this indicator 27 (0.37%) were not stated (Don't know or Refused) in NSW. The indicator includes those with a Kessler 10 (K10) score of 22 or above. The K10 is a 10-item questionnaire that measures the level of psychological distress in the most recent 4-week period. Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



High and very high psychological distress by year, persons aged 16 years and over, NSW, 1997-2007

Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,326), 1998 (17,343), 2002 (12,527), 2003 (12,852), 2004 (9,305), 2005 (11,388), 2006 (7,869), 2007 (7,366). The indicator includes those with a Kessler 10 (K10) score of 22 or above. The K10 is a 10-item questionnaire that measures the level of psychological distress in the most recent 4-week period.



# Times that physical problems have been the cause of psychological distress in last 4 weeks, persons with high or very high psychological distress aged 16 years and over, NSW, 2007

Note: Estimates are based on 686 respondents in NSW. For this indicator 16 (2.28%) were not stated (Don't know or Refused) in NSW. The question used was: In the last 4 weeks, how often have physical health problems been the main cause of these feelings? The Kessler 10 tool was also used to define persons with a score of 22 or above. The K10 is a 10-item questionnaire that measures the level of psychological distress in the most recent 4-week period.
 Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Males Females Age (years) 23.2 75+ 38.6 65-74 55-64 29.2 26.7 45-54 66.4 35-44 25-34 33.4 26.3 16-24 36.1 34.2 39.9 All 100 80 60 40 20 0 0 20 40 60 80 100 Per cent Per cent

Helped out any local group or organisation at least once in the last 3 months by age, persons with high or very high psychological distress aged 16 years and over, NSW, 2007

Note: Estimates are based on 509 respondents in NSW. For this indicator 4 (0.78%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have helped out any local group or organisation at least once in the last 3 months and who have with a Kessler 10 (K10) score of 22 or above. The question used was: In the last 3 months, have you helped out any local group or organisation such as a school, scouts and brownies, a sporting club, or hospital, or other organisation as a volunteer? The K10 is a 10-item questionnaire that measures the level of psychological distress in the most recent 4-week period.

Helped out any local group or organisation at least once in the last 3 months by socioeconomic disadvantage, persons with high or very high psychological distress aged 16 years and over, NSW, 2007



Note: Estimates are based on 509 respondents in NSW. For this indicator 4 (0.78%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have helped out any local group or organisation at least once in the last 3 months and who have with a Kessler 10 (K10) score of 22 or above. The question used was: In the last 3 months, have you helped out any local group or organisation such as a school, scouts and brownies, a sporting club, or hospital, or other organisation as a volunteer? The K10 is a 10-item questionnaire that measures the level of psychological distress in the most recent 4-week period.

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Helped out any local group or organisation at least once in the last 3 months by area health service, persons with high or very high psychological distress aged 16 years and over, NSW, 2007



Note: Estimates are based on 509 respondents in NSW. For this indicator 4 (0.78%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have helped out any local group or organisation at least once in the last 3 months and who have with a Kessler 10 (K10) score of 22 or above. The question used was: In the last 3 months, have you helped out any local group or organisation such as a school, scouts and brownies, a sporting club, or hospital, or other organisation as a volunteer? The K10 is a 10-item questionnaire that measures the level of psychological distress in the most recent 4-week period.



#### Helped out any local group or organisation at least once in the last 3 months by year, persons with high or very high psychological distress aged 16 years and over, NSW, 2006-2007

Estimates are based on the following numbers of respondents for NSW: 2006 ( 821), 2007 ( 509). The indicator includes those who have helped out any local group or organisation at least once in the last 3 months and who have with a Kessler 10 (K10) score of 22 or above. The guestion used was: In the last 3 months, have you helped Note: out any local group or organisation such as a school, scouts and brownies, a sporting club, or hospital, or other organisation as a volunteer? The K10 is a 10-item questionnaire that measures the level of psychological distress in the most recent 4-week period.

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

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### Introduction

Australians enjoy a high standard of oral health. However, there are inequalities, with higher rates of dental caries among people with higher levels of socioeconomic disadvantage, people living in rural and remote areas, indigenous people, people born overseas, and people from older generations. There is also differential access to dental services according to country of birth, indigenous status, language spoken at home, health insurance status, socioeconomic status, and educational status.[1]

According to the 2004-06 National Survey of Adult Oral Health, there have been improvements in oral health, particularly among the 'fluoride generation' born since 1970; however, there is a population divide between those who have regular visits to a dental professional and those who visit a dental professional infrequently or only when they have an oral health problem. The latter group is worse off on almost all measures of oral health.[2]

Also, a higher percentage of patients who use public dental services have inadequate dentition or decayed teeth, compared with the Australian population.[3] Regular visits to a dental professional, at least once every 2 years, have a significant and positive effect on oral health.[4,5]

Fluoridation of drinking water reduces dental caries. It is carried out under the provisions of the Fluoridation of Public Water Supplies Regulation 2002 and the Fluoridation of Public Water Supplies Act 1957. Under the Act, water supply authorities are responsible for fluoridating water, for daily testing of fluoride concentration, and for submitting results of testing to the NSW Department of Health.[6,7]

In 2007, the New South Wales Population Health Survey asked respondents: Are any of your natural teeth missing? Do you have dentures or false teeth? When did you last visit a dental professional about your teeth, dentures or gums? Respondents who had not seen a dental professional in the last 12 months were asked: What are the main reasons for you not visiting the dentist in the last 12 months? Respondents were also asked: Has fluoride been added to your water supply? Do you agree with adding fluoride to your public water supply to try and prevent tooth decay? or, Would you be in favour of adding fluoride to your water supply to try and prevent tooth decay: in children, in adults, in both children and adults? Where have you received information on water fluoridation? Who should decide on the fluoridation of water supplies?

### Results

### Visits to dental professionals

Overall, in 2007, 56.0 per cent of adults visited a dental professional less than 12 months ago, 17.6 per cent 1 to less than 2 years ago, 13.8 per cent 2 to less than 5 years ago, 6.5 per cent 5 to less than 10 years ago, 5.1 per cent 10 years ago or more, and 1.0 per cent had never visited a dental professional.

A significantly higher proportion of females (59.0 per cent) than males (52.9 per cent) visited a dental professional less than 12 months ago. Among males, a significantly higher proportion of those aged 55-64 years (60.8 per cent), and a significantly lower proportion of those aged 16-24 years (43.9 per cent) and 25-34 years (44.8 per cent), visited a dental professional in the last 12 months, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 45-54 years (65.3 per cent) and 55-64 years (63.6 per cent), and a significantly lower proportion of those aged 75 years and over (50.6 per cent), visited a dental professional in the last 12 months, compared with the overall adult female population.

A significantly higher proportion of adults in the first or least disadvantaged quintile (68.9 per cent) and second least disadvantaged quintile (61.1 per cent), and a significantly lower proportion of adults in fifth or most disadvantaged quintiles (49.1 per cent) and third and fourth quintiles (52.0 per cent and 48.9 per cent), visited a dental professional less than 12 months ago.

A significantly lower proportion of adults in rural health areas (51.9 per cent) than urban health areas (57.8 per cent) visited a dental professional in the last 12 months. A significantly higher proportion of adults in the Northern Sydney & Central Coast Area Health Service (64.2 per cent), and a significantly lower proportion of adults in the Greater Western Area Health Service (47.2 per cent), visited a dental professional in the last 12 months.

There has been no significant change in the proportion of adults who visited a dental professional in the last 12 months between 2002 and 2007.

The principle reasons for not visiting a dental professional in the last 12 months include: do not need to (19.5 per cent), too expensive (7.8 per cent), hard to find time (5.9 per cent), and worried or afraid of going (3.9 per cent).

### Retention of natural teeth

Overall, in 2007, 5.1 per cent of adults had all their natural teeth missing. A significantly higher proportion of females (6.4 per cent) than males (3.9 per cent) had all their natural teeth missing. Among males, a significantly higher proportion of those aged 55-64 years (6.3 per cent), 65-74 years (16.3 per cent), and 75 years and over (19.0 per cent), and a significantly lower proportion of those aged 16-24 years (0.5 per cent), 25-34 years (0.0 per cent), 35-44 years (0.3 per cent), and 45-54 years (1.5 per cent), had all their natural teeth missing, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 65-74 years (18.6 per cent), and 75 years and over (33.3 per cent), and a significantly lower proportion of those aged 16-24 years (0.3 per cent), 25-34 years (0.6 per cent), 35-44 years (1.3 per cent), and 45-54 years (2.7 per cent), had all their natural teeth missing, compared with the overall adult female population.

A significantly lower proportion of adults in the first or least disadvantaged quintile (2.6 per cent), and a significantly higher proportion of adults in the fourth quintile (6.6 per cent), had all their natural teeth missing, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (7.4 per cent) than urban health areas (4.2 per cent) had all their natural teeth missing. A significantly higher proportion of adults in the Hunter & New England (7.3 per cent), North Coast (7.0 per cent), Greater Southern (7.5 per cent), and Greater Western (7.6 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West (3.6 per cent) and Northern Sydney & Central Coast (3.7 per cent) Area Health Services, had all their natural teeth missing, compared with the overall adult population.

The proportion of adults with all their natural teeth missing decreased significantly from 1998 (8.2 per cent) to 2007 (5.1 per cent). The decrease was significant in males (from 5.7 per cent to 3.9 per cent) and females (from 10.6 per cent to 6.4 per cent).

### Attitude towards fluoridation of public water supplies

Overall, in 2007, 81.3 per cent of adults said their public water supply had been fluoridated.

Overall, in 2007, 88.5 per cent of adults agreed with having their public water supply fluoridated. There was no significant difference between males and females, or among age groups. A significantly higher proportion of adults in the first or least disadvantaged quintile (91.5 per cent), and a significantly lower proportion of adults in the fourth quintile (84.0 per cent), agreed with having their public water supply fluoridated, compared with the overall adult population. A significantly lower proportion of adults in rural health areas (83.6 per cent) than urban health areas (90.6 per cent) agreed with having their public water supply fluoridated. A significantly lower proportion of adults in the North Coast (73.8 per cent) and Greater Southern (84.0 per cent) Area Health Services agreed with having their public water supply fluoridated, compared with the overall adult population.

There was no significant difference in the proportion of adults who agreed with having their public water supply fluoridated between 2005 and 2007.

Information about water fluoridation came from a wide variety of sources: newspapers (12.8 per cent), television (10.0 per cent), health authorities (6.9 per cent), dental auxiliaries (6.6 per cent), radio (3.3 per cent), dentists (3.0 per cent), magazines (2.5 per cent), and advertisements for dental products (0.4 per cent).

Adults felt that decisions on the fluoridation of public water supplies should be made by: the community (16.2 per cent), the state government (15.9 per cent), health authorities (14.8 per cent), dental associations (9.5 per cent), and water boards (3.1 per cent).

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#### Time since last dental visit, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,443 respondents in NSW. For this indicator 45 (0.60%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, how often have you had a toothache or other problem with your mouth or dentures? What was the most recent problem you had? What treatment did you receive? If no problem or treatment then: When did you last visit a dental professional about your teeth, dentures, or gums?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Visited a dental professional in the last 12 months by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,443 respondents in NSW. For this indicator 45 (0.60%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have attended a dental professional in the last 12 months. The question used to define the indicator was: When did you last visit a dental professional about your teeth, dentures, or gums?

Visited a dental professional in the last 12 months by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007





Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

## Visited a dental professional in the last 12 months by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,443 respondents in NSW. For this indicator 45 (0.60%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have attended a dental professional in the last 12 months. The question used to define the indicator was: When did you last visit a dental professional about your teeth, dentures, or gums?



Visited a dental professional in the last 12 months by year, persons aged 16 years and over, NSW, 2002-2007

Estimates are based on the following numbers of respondents for NSW: 2002 (12,166), 2003 (12,865), 2004 (9,320), 2005 (11,351), 2006 (7,902), 2007 (7,443). The indicator includes those who have attended a dental professional in the last 12 months. The question used to define the indicator was: When did you last visit a dental Note: professional about your teeth, dentures, or gums?

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

#### Reason for not visiting a dental professional in the last 12 months, persons who did not visit a dental professional in the last 12 months aged 16 years and over, NSW, 2007



Note: Estimates are based on 8,921 respondents in NSW. For this indicator 32 (0.36%) were not stated (Don't know or Refused) in NSW. The questions used were: When did you last visit a dental professional about your teeth, dentures, or gums? What are the main reasons for you not visiting the dentist in the last 12 months? Respondents could mention more than 1 response. Percentages may total more than 100%.

#### All natural teeth missing by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,483 respondents in NSW. For this indicator 5 (0.07%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had all their natural teeth missing. Natural teeth does not include dentures but includes wisdom teeth. The question used to define the indicator was: Are any of your natural teeth missing?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,483 respondents in NSW. For this indicator 5 (0.07%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had all their natural teeth missing. Natural teeth does not include dentures but includes wisdom teeth. The question used to define the indicator was: Are any of your natural teeth missing?





Note: Estimates are based on 7,483 respondents in NSW. For this indicator 5 (0.07%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had all their natural teeth missing. Natural teeth does not include dentures but includes wisdom teeth. The question used to define the indicator was: Are any of your natural teeth missing?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### All natural teeth missing by year, persons aged 16 years and over, NSW, 1998-2007



Note: Estimates are based on the following numbers of respondents for NSW: 1998 (17,434), 2002 (12,617), 2003 (13,003), 2004 (9,418), 2005 (11,489), 2006 (7,959), 2007 (7,483). The indicator includes those who had all their natural teeth missing. Natural teeth does not include dentures but includes wisdom teeth. The question used to define the indicator was: Are any of your natural teeth missing?

#### Fluoride added to public water supply, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 5,473 respondents in NSW. For this indicator 2,015 (26.91%) were not stated (Don't know or Refused) in NSW. The question used was: Has fluoride been added to your public water supply?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



#### Agree with adding fluoride to water supply by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 6,526 respondents in NSW. For this indicator 962 (12.85%) were not stated (Don't know or Refused) in NSW. The indicator includes those who either agree with or would agree to having fluoride added to their water supply. The questions used to define the indicator were: Has fluoride been added to your public water supply? If yes then asked: Do you agree with adding fluoride to your public water supply to prevent tooth decay? If no or don't know or refused then asked: Would you be in favour of adding fluoride to your water supply to prevent tooth decay?

#### Agree with adding fluoride to water supply by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 6,526 respondents in NSW. For this indicator 962 (12.85%) were not stated (Don't know or Refused) in NSW. The indicator includes those who either agree with or would agree to having fluoride added to their water supply. The questions used to define the indicator were: Has fluoride been added to your public Note: water supply? If yes then asked: Do you agree with adding fluoride to your public water supply to prevent tooth decay? If no or don't know or refused then asked: Would you be in favour of adding fluoride to your water supply to prevent tooth decay? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Agree with adding fluoride to water supply by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 6,526 respondents in NSW. For this indicator 962 (12.85%) were not stated (Don't know or Refused) in NSW. The indicator includes those who Note: either agree with or would agree to having fluoride added to their water supply. The questions used to define the indicator were: Has fluoride been added to your public water supply? If yes then asked: Do you agree with adding fluoride to your public water supply to prevent tooth decay? If no or don't know or refused then asked: Would you be in favour of adding fluoride to your water supply to prevent tooth decay? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on the following numbers of respondents for NSW: 2005 (1,773), 2006 (6,842), 2007 (6,526). The indicator includes those who either agree with or would agree to having fluoride added to their water supply. The questions used to define the indicator were: Has fluoride been added to your public water supply? If yes then asked: Do you agree with adding fluoride to your public water supply to prevent tooth decay? If no or don't know or refused then asked: Would you be in favour of adding fluoride to your water supply to prevent tooth decay?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Places received information on water fluoridation, persons aged 16 years and over, NSW, 2007



 Note:
 Estimates are based on 12,387 respondents in NSW. For this indicator 791 (6.00%) were not stated (Don't know or Refused) in NSW. The questions was: Where have you received information on water fluoridation? Respondents could mention more than 1 response. Percentages may total more than 100%.

 Source:
 New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Responsible body for decisions on fluoridation of water supply, persons aged 16 years and over, NSW, 2007

Estimates are based on 12,204 respondents in NSW. For this indicator 974 (7.39%) were not stated (Don't know or Refused) in NSW. The questions was: Who should decide on the fluoridation of water supplies? Respondents could mention more than 1 response. Percentages may total more than 100%. Note: Source:

Other

4.1

20

40

60

Per cent

80

100

0

Estimates are based on 12,204 respondents in NSW. For this indicator 974 (7.39%) were not stated (Don't know or Refused) in NS decide on the fluoridation of water supplies? Respondents could mention more than 1 response. Percentages may total more than New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

4.0

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100

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Per cent

40

### Introduction

Throughout Australia, the prevalence of overweight and obesity is increasing. Being overweight or obese increases the risk of a wide range of health problems, including cardiovascular disease, type 2 diabetes, breast cancer, gallstones, degenerative joint disease, obstructive sleep apnoea, and impaired psychosocial functioning.[1] Overweight and obesity develop when the energy intake from food and drink exceeds energy expenditure from physical activity and other metabolic processes.

The prevalence of overweight and obesity is calculated using the Body Mass Index (BMI). BMI is calculated by dividing a person's weight (in kilograms) by their height (in metres squared). The resulting BMI is then classified into 4 categories: underweight when the BMI is less than 18.5, acceptable or ideal weight when the BMI is greater than or equal to 18.5 and less than 25, overweight when the BMI is greater than or equal to 25 and less than 30, and obese when the BMI is greater than or equal to 30.[2,3] Although studies have shown self-reported BMI results in an under-estimation of measured BMI, it is still useful for ongoing surveillance of population health.

In 2007, the New South Wales Population Health Survey asked respondents: How tall are you without shoes? How much do you weigh without clothes or shoes? These answers were used to estimate BMI.

### Results

In 2007, according to estimates of BMI based on self-reported height and weight, 2.9 per cent of adults were underweight, 45.4 per cent were healthy weight, 33.7 per cent were overweight, and 18.0 per cent were obese.

### **Overweight or obese**

In 2007, according to estimates of BMI based on self-reported height and weight, 51.7 per cent of adults were overweight or obese. A significantly higher proportion of males (58.8 per cent) than females (44.7 per cent) were overweight or obese. Among males, a significantly lower proportion of those aged 16-24 years (30.7 per cent), and a significantly higher proportion aged 45-54 years (70.0 per cent) and 55-64 years (67.1 per cent) and 65-74 years (69.8 per cent), were overweight or obese, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 16-24 years (21.4 per cent), and a significantly lower proportion of those aged 16-24 years (21.4 per cent), and a significantly higher proportion of those aged 16-24 years (21.4 per cent), and a significantly higher proportion of those aged 45-54 years (49.5 per cent) and 55-64 years (54.9 per cent) and 65-74 years (58.7 per cent), were overweight or obese, compared with the overall adult female population.

A significantly lower proportion of adults in the least disadvantaged quintile (41.9 per cent), and a significantly higher proportion of adults in the fourth quintile (57.6 per cent), were overweight or obese, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (57.2 per cent) than urban health areas (49.2 per cent) were overweight or obese. A significantly higher proportion of adults in the Hunter & New England (59.2 per cent), Greater Southern (56.7 per cent), and Greater Western (65.1 per cent) Area Health Services were overweight or obese, and a significantly lower proportion of adults in the Northern Sydney & Central Coast Area Health Service (45.2 per cent) were overweight or obese, compared with the overall adult population.

The proportion of adults who were overweight or obese has increased significantly from 1997 (41.8 per cent) to 2007 (51.7 per cent). The increase was significant in both males (from 49.3 per cent to 58.8 per cent) and females (from 34.2 per cent to 44.7 per cent).

### Obesity

In 2007, according to estimates of BMI based on self-reported height and weight, 18.0 per cent of adults were obese. There was no significant difference between males and females. A significantly lower proportion of adults aged 16-24 years (8.7 per cent) and 75 years and over (12.8 per cent), and a significantly higher proportion of adults aged 45-54 years (21.9 per cent) and 55-64 years (24.3 per cent) and 65-74 years (24.2 per cent), were obese, compared with the overall adult population.

A significantly lower proportion of adults in the least disadvantaged quintile (13.9 per cent) were obese, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (21.4 per cent) than urban health areas (16.5 per cent) were obese. A significantly higher proportion of adults in the Hunter & New England (22.5 per cent), Greater Southern (24.5 per cent), and Greater Western (23.9 per cent) Area Health Services, and a significantly lower proportion of adults in the Northern Sydney & Central Coast Area Health Service (14.5 per cent) were obese, compared with the overall adult population.

The proportion of adults who were obese has increased significantly from 1997 (11.2 per cent) to 2007 (18.0 per cent). The increase was significant in both males (from 11.0 per cent to 17.6 per cent) and females (from 11.3 per cent to 18.5 per cent).

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#### Body Mass Index categories, persons aged 16 years and over, NSW, 2007





#### Overweight and obesity by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,264 respondents in NSW. For this indicator 279 (3.70%) were not stated (Don't know or Refused) in NSW. The indicator includes those who are overweigh or obese: that is with a Body Mass Index (BMI) of 25 or higher. The questions used to define the indicator were: How tall are you without shoes? How much do you weigh without clothes or shoes? BMI is calculated as follows: BMI = weight (kg)/height²(m). Categories for this indicator include overweight (BMI from 25 to 29.9) and obese (BMI of 30 and over).

#### Overweight and obesity by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,264 respondents in NSW. For this indicator 279 (3.70%) were not stated (Don't know or Refused) in NSW. The indicator includes those who are overweigh or obese: that is with a Body Mass Index (BMI) of 25 or higher. The questions used to define the indicator were: How tall are you without shoes? How much do you weigh without clothes or shoes? BMI is calculated as follows: BMI = weight (kg)/height<sup>2</sup>(m). Categories for this indicator include overweight (BMI from 25 to 29.9) and obese (BMI of 30 and over).

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Overweight and obesity by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,264 respondents in NSW. For this indicator 279 (3.70%) were not stated (Don't know or Refused) in NSW. The indicator includes those who are overweigh or obese: that is with a Body Mass Index (BMI) of 25 or higher. The questions used to define the indicator were: How tall are you without shoes? How much do you weigh without clothes or shoes? BMI is calculated as follows: BMI = weight (kg)/height<sup>2</sup>(m). Categories for this indicator include overweight (BMI from 25 to 29.9) and obese (BMI of 30 and over).

#### Overweight and obesity by year, persons aged 16 years and over, NSW, 1997-2007



Note: Estimates are based on the following numbers of respondents for NSW: 1997 (16,790), 1998 (16,445), 2002 (11,997), 2003 (12,448), 2004 (9,063), 2005 (11,078), 2006 (7,668), 2007 (7,264). The indicator includes those who are overweigh or obese: that is with a Body Mass Index (BMI) of 25 or higher. The questions used to define the indicator were: How tall are you without shoes? How much do you weigh without clothes or shoes? BMI is calculated as follows: BMI = weight (kg)/height²(m). Categories for this indicator include overweight (BMI from 25 to 29.9) and obese (BMI of 30 and over).

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



#### Obesity by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,264 respondents in NSW. For this indicator 279 (3.70%) were not stated (Don't know or Refused) in NSW. The indicator includes those who are obese: that is, with a Body Mass Index (BMI) of 30 or higher. The questions used to define the indicator were: How tall are you without shoes? How much do you weigh without clothes or shoes? BMI is calculated as follows BMI = weight(kg)/height<sup>2</sup>(m).





Note: Estimates are based on 7,264 respondents in NSW. For this indicator 279 (3.70%) were not stated (Don't know or Refused) in NSW. The indicator includes those who are obese: that is, with a Body Mass Index (BMI) of 30 or higher. The questions used to define the indicator were: How tall are you without shoes? How much do you weigh without clothes or shoes? BMI is calculated as follows BMI = weight(kg)/height<sup>2</sup>(m).

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,264 respondents in NSW. For this indicator 279 (3.70%) were not stated (Don't know or Refused) in NSW. The indicator includes those who are obese: that is, with a Body Mass Index (BMI) of 30 or higher. The questions used to define the indicator were: How tall are you without shoes? How much do you weigh without clothes or shoes? BMI is calculated as follows BMI = weight(kg)/height<sup>2</sup>(m).

#### Obesity by year, persons aged 16 years and over, NSW, 1997-2007



Estimates are based on the following numbers of respondents for NSW: 1997 (16,790), 1998 (16,445), 2002 (11,997), 2003 (12,448), 2004 (9,063), 2005 (11,078), 2006 (7,668), 2007 (7,264). The indicator includes those who are obese: that is, with a Body Mass Index (BMI) of 30 or higher. The questions used to define the indicator were: How tall are you without shoes? How much do you weigh without clothes or shoes? BMI is calculated as follows BMI = weight(kg)/height<sup>2</sup>(m). New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note: Source:

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### Introduction

Many common disorders such as diabetes, heart disease, cancer, and mental illness can run in families. By the age of 60 years, 6 out of 10 people are likely to develop a disease that is genetic or partly genetically determined. A knowledge of family health history can assist in the prediction, prevention, or treatment of health problems that affected previous generations.[1-2]

Genetic counselling may be appropriate in a range of circumstances including: when there is a condition that runs in a family and individuals are concerned that they or their children will develop the condition; where a previous child is affected by a serious problem in growth, development or health; where 1 or more family members (blood relatives not related by marriage) have unusual features or a serious health problem; where a woman is in her mid-30s or older and is either planning a pregnancy or is already pregnant; when a couple are blood relatives; where an individual or their partner has some concerns about a condition in themselves or their families being passed on to their children; when a fetal abnormality is detected during pregnancy; when there is concern about exposure to some environmental agent such as drugs, medications, chemicals, or radiation that might cause birth defects.[3]

In 2007, the New South Wales Population Health Survey asked respondents aged 16 years and over: How important do you think knowledge of your biological family's health history is to your personal health? Have you ever discussed the health history of your biological mother, father, brothers, sisters or grandparents with your general practitioner in relation to your health? Have you been diagnosed with a potentially serious disease such as diabetes, cancer or heart disease? Has your mother, father or any of your brothers or sisters or grandparents ever been diagnosed with a potentially serious disease? Would you consider taking a genetics test to find out if you had a high chance of developing a potentially serious disease?

### Results

### Importance of family health history

Overall, in 2007, when asked whether knowledge of their biological family's health history was important to their personal health, 72.9 per cent of adults thought it was very important, 23.5 per cent thought it was somewhat important, and 3.6 per cent thought it was not at all important.

When ratings of very important and somewhat important were combined to give an overall important rating, 96.4 per cent of adults thought that knowledge of their biological family's health history was important to their personal health. A significantly higher proportion of females (97.7 per cent) than males (95.1 per cent) thought that knowledge of their biological family's health history was important to their personal health. Among males, a significantly higher proportion of those aged 35-44 years (97.8 per cent), and a significantly lower proportion of those aged 65-74 years (91.3 per cent) and 75 years and over (86.9 per cent), thought that knowledge of their biological family's health history was important to their personal health, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 75 years and over (91.8 per cent), thought that knowledge of their biological family's health history was important to their personal health, compared with that knowledge of their biological family's health history was important to their personal health, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 25-34 years (99.4 per cent), and a significantly lower proportion of those aged 75 years and over (91.8 per cent), thought that knowledge of their biological family's health history was important to their personal health, compared with the overall adult female population.

There was no significant difference by level of socioeconomic disadvantage, or between rural health areas and urban health areas. A significantly higher proportion of adults in the Hunter & New England Area Health Service (97.6 per cent) thought that knowledge of their biological family's health history was important to their personal health, compared with the overall adult population.

### Discussed family health history with general practitioner

Overall, in 2007, 64.9 per cent of adults had discussed their family health history with their general practitioner. A significantly higher proportion of females (72.3 per cent) than males (57.4 per cent) had discussed their family health history with their general practitioner. Among males, a significantly higher proportion of those aged 45-54 years (73.6 per cent) and 55-64 years (70.9 per cent), and a significantly lower proportion of those aged 16-24 years (33.2 per cent) and 25-34 years (46.7 per cent) and 75 years and over (49.1 per cent), had discussed their family health history with their general practitioner, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 25-34 years

(77.4 per cent), 35-44 years (77.5 per cent), 45-54 years (82.2 per cent), and 55-64 years (80.8 per cent), and a significantly lower proportion of those aged 16-24 years (52.1 per cent) and 75 years and over (52.2 per cent), had discussed their family health history with their general practitioner, compared with the overall adult female population.

A significantly higher proportion of adults in the first or least disadvantaged quintile (70.9 per cent), and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (60.6 per cent), had discussed their family health history with their general practitioner, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas. A significantly higher proportion of adults in the Northern Sydney & Central Coast Area Health Service (69.5 per cent) had discussed their family health history with their general practitioner, compared with the overall adult adult population.

### Ever diagnosed with a potentially serious disease

Overall, in 2007, 16.0 per cent of adults had ever been diagnosed with a potentially serious disease. There was no significant difference between males and females. A significantly higher proportion of adults aged 55-64 years (28.4 per cent) and 65-74 years (38.6 per cent) and 75 years and over (40.5 per cent), and a significantly lower proportion of adults aged 16-24 years (2.9 per cent) and 25-34 years (5.6 per cent) and 35-44 years and over (7.4 per cent), had ever been diagnosed with a potentially serious disease, compared with the overall adult population.

A significantly higher proportion of adults in the fourth or second most disadvantaged quintile (18.5 per cent) had ever been diagnosed with a potentially serious disease, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (18.4 per cent) than urban health areas (14.9 per cent) had ever been diagnosed with a potentially serious disease, compared with the overall adult population. A significantly higher proportion of adults in the North Coast Area Health Service (19.9 per cent) had ever been diagnosed with a potentially serious disease, compared with the overall adult population.

# Member of biological family ever diagnosed with a potentially serious disease

Overall, in 2007, 66.5 per cent of adults had a member of their biological family ever diagnosed with a potentially serious disease. A significantly higher proportion of females (70.8 per cent) than males (62.1 per cent) had a member of their biological family ever diagnosed with a potentially serious disease. Among males, a significantly higher proportion of those aged 45-54 years (69.3 per cent) and 55-64 years (75.7 per cent), and a significantly lower proportion of those aged 16-24 years (49.4 per cent), had a member of their biological family ever diagnosed with a potentially serious disease, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 35-74 years (76.5 per cent), 45-54 years (76.0 per cent), 55-64 years (77.4 per cent), and 65-74 years (78.9 per cent), and a significantly lower proportion of those aged 16-24 years (78.9 per cent), and a significantly lower proportion of those aged 16-24 years (78.9 per cent), and a significantly lower proportion of those aged 16-24 years (78.9 per cent), and a significantly lower proportion of those aged 16-24 years (58.1 per cent) and 75 years and over (61.3 per cent), had a member of their biological family ever diagnosed with a potentially serious disease, compared with the overall adult female population.

There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in rural health areas (71.4 per cent) than urban health areas (64.4 per cent) had a member of their biological family ever diagnosed with a potentially serious disease, compared with the overall adult population. A significantly higher proportion of adults in the Hunter & New England (72.1 per cent), North Coast (70.9 per cent), and Greater Southern (73.8 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West Area Health Service (59.7 per cent) had a member of their biological family ever diagnosed with a potentially serious disease, compared with the overall adult population.

### Willing to have a genetics test

Overall, in 2007, 72.9 per cent of adults were willing to have a genetics test. There was no significant difference between males and females. A significantly higher proportion of adults aged 16-24 years (82.4 per cent) and 45-54 years (76.9 per cent), and a significantly lower proportion of adults aged 65-74 years (65.2 per cent) and 75 years and over (49.7 per cent), were willing to have a genetics test, compared with the overall adult population.

There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in rural health areas (76.7 per cent) than urban health areas (71.1 per cent) were willing to have a genetics test. A significantly higher proportion of adults in the Hunter & New England (77.1 per cent), Greater Southern (77.3 per cent), and Greater Western (79.0 per cent) Area Health Services were willing to have a genetics test, compared with the overall adult population.

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#### Importance of family health history, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,229 respondents in NSW. For this indicator 140 (1.90%) were not stated (Don't know or Refused) in NSW. The question used was: How important do you think knowledge of your biological family's health history is to your personal health? Would you say: Very important, somewhat important, not at all important, or no knowledge of biological family because you were adopted?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Knowing biological family's health is important to personal health by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,229 respondents in NSW. For this indicator 140 (1.90%) were not stated (Don't know or Refused) in NSW. The indicator includes those who think that knowing their biological family's health history is important to their personal health. The question used to define the indicator was: How important do you think knowledge of your biological family's health because you were adopted?

Knowing biological family's health is important to personal health by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,229 respondents in NSW. For this indicator 140 (1.90%) were not stated (Don't know or Refused) in NSW. The indicator includes those who think that knowing their biological family's health history is important to their personal health. The question used to define the indicator was: How important do you think knowledge of your biological family's health history is to your personal health. Would you say very important, somewhat important, not at all important, or you have no knowledge of your biological family's health because you were adopted?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,229 respondents in NSW. For this indicator 140 (1.90%) were not stated (Don't know or Refused) in NSW. The indicator includes those who think that knowing their biological family's health history is important to their personal health. The question used to define the indicator was: How important do you think knowledge of your biological family's health history is to your personal health. Would you say very important, somewhat important, not at all important, or you have no knowledge of your biological family's health because you were adopted?


# Discussed family health history with a general practitioner by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,301 respondents in NSW. For this indicator 68 (0.92%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have discussed their biological family's health history with their general practitioner in relation to their own health. The question used to define the indicator was: Have you ever discussed the health history of your biological mother, father, brothers, sisters, or grandparents with your general practitioner in relation to your health?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



# Discussed family health history with a general practitioner by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,301 respondents in NSW. For this indicator 68 (0.92%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have discussed their biological family's health history with their general practitioner in relation to their own health. The question used to define the indicator was: Have you ever discussed the health history of your biological mother, father, brothers, sisters, or grandparents with your general practitioner in relation to your health?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Discussed family health history with a general practitioner by area health service, persons aged 16 years and over, NSW, 2007









Note: Estimates are based on 7,335 respondents in NSW. For this indicator 34 (0.46%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have been diagnosed with a potentially serious disease. The question used to define the indicator was: Have you been diagnosed with a potentially serious disease such as diabetes, cancer, or heart disease?

Ever diagnosed with a potentially serious disease by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,335 respondents in NSW. For this indicator 34 (0.46%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have been diagnosed with a potentially serious disease. The question used to define the indicator was: Have you been diagnosed with a potentially serious disease such as diabetes, cancer, or heart disease?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Ever diagnosed with a potentially serious disease by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,335 respondents in NSW. For this indicator 34 (0.46%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have been diagnosed with a potentially serious disease. The question used to define the indicator was: Have you been diagnosed with a potentially serious disease such as diabetes, cancer, or heart disease?





Estimates are based on 7,207 respondents in NSW. For this indicator 162 (2.20%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have had a member of their biological family diagnosed with a potentially serious disease. The question used to define the indicator was: Has your mother, father, or any of your brother or clifform and the potential to account the pote Note: brothers or sisters or grandparents, ever been diagnosed with a potentially serious disease?

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:



#### Member of biological family ever diagnosed with a potentially serious disease by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Estimates are based on 7,207 respondents in NSW. For this indicator 162 (2.20%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have had a member of their biological family diagnosed with a potentially serious disease. The question used to define the indicator was: Has your mother, father, or any of your Note: brothers or sisters or grandparents, ever been diagnosed with a potentially serious disease? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

Member of biological family ever diagnosed with a potentially serious disease by area health service, persons aged 16 years and over, NSW, 2007





New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:





Note: Estimates are based on 5,149 respondents in NSW. For this indicator 377 (6.82%) were not stated (Don't know or Refused) in NSW. The indicator includes those who would consider taking a genetics test. The questions used were: Have you been diagnosed with a potentially serious disease such as diabetes, cancer, or heart disease? Has your mother, father, or any of your brothers or sisters or grandparents, ever been diagnosed with a potentially serious disease? Would you consider taking a genetic test to find out if you had a high chance of developing a potentially serious disease?

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Willing to have a genetics test by socioeconomic disadvantage, persons who have had a diagnosis of a potentially serous disease in their immediate family aged 16 years and over, NSW, 2007

Estimates are based on 5,149 respondents in NSW. For this indicator 377 (6.82%) were not stated (Don't know or Refused) in NSW. The indicator includes those who Note: would consider taking a genetics test. The questions used were: Have you been diagnosed with a potentially serious disease such as diabetes, cancer, or heart disease? Has your mother, father, or any of your brothers or sisters or grandparents, ever been diagnosed with a potentially serious disease? Would you consider taking a genetic test to find out if you had a high chance of developing a potentially serious disease? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Willing to have a genetics test by area health service, persons who have had a diagnosis of a potentially serous disease in their immediate family aged 16 years and over, NSW, 2007

Estimates are based on 5,149 respondents in NSW. For this indicator 377 (6.82%) were not stated (Don't know or Refused) in NSW. The indicator includes those who Note: would consider taking a genetics test. The questions used were: Have you been diagnosed with a potentially serious disease such as diabetes, cancer, or heart disease? Has your mother, father, or any of your brothers or sisters or grandparents, ever been diagnosed with a potentially serious disease? Would you consider taking a genetic test to find out if you had a high chance of developing a potentially serious disease? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Health services

Monitoring health service use and access provides information to inform policy and planning of health services. This section reports on health service use and access (including private health insurance and difficulties getting health care), emergency department presentations, hospital admissions, general practitioner services, public dental services, and community health centres.

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## Introduction

In 2007, to monitor access to health services, respondents were asked: In the last 12 months, have you stayed for at least 1 night in hospital, or attended any of the following services: a hospital emergency department, a general practice, a community health centre, a public dental service or dental hospital? To monitor private health insurance, respondents were asked: Apart from Medicare, are you covered by private health insurance? To monitor difficulties people experience in getting health care (that is, any health service provided by general practitioners and specialists, public and private hospitals and dental clinics, pharmacists, allied health services such as physiotherapy, and community health services), respondents were asked: Do you have any difficulties getting health care when you need it? Those who responded yes were then asked: Please describe the difficulties you have. nates

## Results

#### Health service use

In 2007, 14.1 per cent were admitted to hospital for at least 1 night, 15.5 per cent presented to an emergency department, 7.8 per cent attended a community health centre, 5.1 per cent attended a public dental service or hospital, and 83.2 per cent visited a general practitioner.

#### Private health insurance

Overall, in 2007, 55.1 per cent of adults were covered by private health insurance. There was no significant difference between males and females. A significantly lower proportion of adults aged 16-24 years (45.6 per cent) and 25-34 years (51.2 per cent) and 75 years and over (46.6 per cent), and a significantly higher proportion of adults aged 35-44 years (58.7 years) and 45-54 years (60.6 per cent) and 55-64 years (63.0 per cent), were covered by private health insurance, compared with the overall adult population.

A significantly lower proportion of adults in the fifth or most disadvantaged guintile (39.0 per cent) and fourth quintile (47.3 per cent), and a significantly higher proportion of adults in the first or least disadvantaged quintile (75.8 per cent) and second quintile (61.4 per cent), were covered by private health insurance, compared with the overall adult population.

A significantly higher proportion of adults in urban health areas (57.8 per cent) than rural health areas (49.0 per cent) were covered by private health insurance. A significantly higher proportion of adults in the South Eastern Sydney & Illawarra (60.4 per cent) and Northern Sydney & Central Coast (69.6 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West (49.3 per cent), North Coast (39.1 per cent), Greater Southern (50.7 per cent), and Greater Western (47.0 per cent) Area Health Services, were covered by private health insurance, compared with the overall adult population.

There has been a significant increase in the proportion of adults covered by private health insurance between 1997 (42.0 per cent) and 2007 (55.1 per cent). The increase was significant in both males (from 42.7 per cent to 55.8 per cent) and females (from 41.4 per cent to 54.4 per cent).

#### Difficulties getting health care

Overall, in 2007, 17.0 per cent of adults experienced difficulties getting health care. A significantly higher proportion of females (19.2 per cent) than males (14.7 per cent) experienced difficulties getting health care. Among males, a significantly lower proportion of those aged 16-24 years (9.1 per cent) and 75 years and over (7.6 per cent), and a significantly higher proportion aged 35-44 years (20.1 per cent), experienced difficulties getting health care, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 16-24 years (10.6 per cent), 65-74 years (14.1 per cent), and 75 years and over (10.4 per cent), and a significantly higher proportion of those aged 35-44 years (27.7 per cent) and 45-54 years (26.2 per cent), experienced difficulties getting health care, compared with the overall adult female population.

A significantly lower proportion of adults in the first or least disadvantaged guintile (9.4 per cent), and a significantly higher proportion of adults in the fourth quintile (24.5 per cent), experienced difficulties getting health care, compared with the overall adult population.

A significantly higher proportion of adults in rural health areas (27.6 per cent) than urban health areas (12.5 per cent) experienced difficulties getting health care. A significantly higher proportion of adults in the Hunter & New England (24.5 per cent), North Coast (29.4 per cent), Greater Southern (29.8 per cent), and Greater Western (29.9 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West (12.2 per cent), South Eastern Sydney & Illawarra (13.0 per cent), Sydney West (13.4 per cent), and Northern Sydney & Central Coast (11.3 per cent) Area Health Services, experienced difficulties getting health care, compared with the overall adult population.

There has been a significant increase in the proportion of adults experienced difficulties getting health care between 1997 (9.9 per cent) and 2007 (17.0 per cent). The increase was significant in both males (from 8.8 per cent to 14.7 per cent) and females (from 11.0 per cent to 19.2 per cent).

Among those who experienced difficulties getting health care, the main difficulties were: waiting time for an appointment with a general practitioner (43.1 per cent), shortage of general practitioners in area (10.7 per cert), difficulty in accessing specialists (10.1 per cent), cost of health services (9.5 per cent), qual treatment (8.7 per cent), shortage of health services (8.6 per cent), transport issues (8.4 per cent), with time in emergency departments (7.8 per cent), and waiting time for dental services (7.0 per cent). cent), difficulty in accessing specialists (10.1 per cent), cost of health services (9.5 per cent), quality of treatment (8.7 per cent), shortage of health services (8.6 per cent), transport issues (8.4 per cent), waiting

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#### Health services attended in last 12 months, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The question used was: In the last 12 months, have you stayed for at least 1 night in hospital, or attended any of the following services: a hospital emergency department, a general practice, a community health centre, a public dental service or dental hospital? Respondents could mention more than 1 response. Percentages may total more than 100%.
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Private health insurance by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 13,039 respondents in NSW. For this indicator 139 (1.05%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have private health insurance. The question used to define the indicator was: Apart from Medicare, are you covered by private health insurance?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Private health insurance by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 13,039 respondents in NSW. For this indicator 139 (1.05%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have private health insurance. The question used to define the indicator was: Apart from Medicare, are you covered by private health insurance? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 13,039 respondents in NSW. For this indicator 139 (1.05%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have private health insurance. The question used to define the indicator was: Apart from Medicare, are you covered by private health insurance?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Private health insurance by year, persons aged 16 years and over, NSW, 1997-2007



Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,427), 1998 (17,373), 2002 (12,537), 2003 (12,903), 2004 (9,356), 2005 (11,413), 2006 (7,911), 2007 (13,039). The indicator includes those who have private health insurance. The question used to define the indicator was: Apart from Medicare, are you covered by private health insurance?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Difficulties getting health care when needing it by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 12,738 respondents in NSW. For this indicator 37 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had difficulties getting health care when they needed it. It excludes those who said they do not need health care. The question used to define the indicator was: Do you have any difficulties getting health care when you need it?

Difficulties getting health care when needing it by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 12,738 respondents in NSW. For this indicator 37 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had difficulties getting health care when they needed it. It excludes those who said they do not need health care. The question used to define the indicator was: Do you have any difficulties getting health care when you need it?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Difficulties getting health care when needing it by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 12,738 respondents in NSW. For this indicator 37 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who had difficulties getting health care when they needed it. It excludes those who said they do not need health care. The question used to define the indicator was: Do you have any difficulties getting health care when you need it?



Difficulties getting health care when needing it by year, persons aged 16 years and over, NSW, 1997-2007

Estimates are based on the following numbers of respondents for NSW: 1997 (16,968), 1998 (17,112), 2002 (12,016), 2003 (12,456), 2004 (9,084), 2005 (11,201), 2006 (7,769), 2007 (12,738). The indicator includes those who had difficulties getting health care when they needed it. It excludes those who said they do not need health care. The question used to define the indicator was: Do you have any difficulties getting health care when you need it? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note:

Source:





Estimates are based on 2,585 respondents in NSW. For this indicator 37 (1.41%) were not stated (Don't know or Refused) in NSW. The questions used were: Do you have any difficulties getting health care when you need it? Please describe the difficulties you have? Respondents could mention more than 1 response. Percentages may total Note: more than 100%

#### Introduction

In 2007, among adults aged 16 years and over, there were approximately 1,499,601 presentations to emergency departments in New South Wales hospitals.[1] To monitor the quality of care received at emergency departments, in 2007 the New South Wales Population Health Survey asked respondents: In the last 12 months, have you attended a hospital emergency department (or casualty) for your own medical care? Overall, what do you think of the care you received at this emergency department? If care was rated as fair or poor, respondents were also asked: Could you briefly describe why you rated the care you received as fair or poor?

## Results

#### Presentations to emergency departments

In 2007, the New South Wales Population Health Survey estimated that 15.5 per cent of adults presented to an emergency department on 1 or more occasions in the last 12 months. A significantly higher proportion of males (16.5 per cent) than females (14.6 per cent) presented to an emergency department. Among males, there was no significant difference by age group, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 45-54 years (11.1 per cent) and 55-64 years (12.5 per cent) presented to an emergency department, compared with the overall adult female population.

A significantly lower proportion of adults in the first or least disadvantaged quintile (12.4 per cent) presented to an emergency department, compared with the overall adult population.

A significantly higher proportion of adults in rural health areas (19.6 per cent) than urban health areas (13.8 per cent) presented to an emergency department. A significantly higher proportion of adults in the North Coast (19.1 per cent), Greater Southern (21.3 per cent), and Greater Western (23.9 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West Area Health Service (12.5 per cent), presented to an emergency department, compared with the overall adult population.

The proportion of adults who presented to an emergency department on 1 or more occasions in the last 12 months has increased significantly from 1997 (13.9 per cent) to 2007 (15.5 per cent). The increase was significant in both males (from 15.8 per cent to 16.5 per cent) and females (from 12.0 per cent to 14.6 per cent).

#### Rating of emergency department care

Those who presented to an emergency department were asked to rate the care they received: 24.8 per cent rated their care as excellent, 27.5 per cent as very good, 27.1 per cent as good, 11.4 per cent as fair, and 9.2 per cent as poor. Responses of excellent, very good and good were combined into a positive rating of care.

Overall, 79.4 per cent of adults gave a positive rating to the care they received. There was no significant difference between males and females. A significantly higher proportion of adults aged 55-64 years (86.0 per cent) and 65-74 years (85.3 per cent) and 75 years and over (95.4 per cent) rated their care positively, compared with the overall adult population who presented to an emergency department.

There was no significant difference by level of socioeconomic disadvantage, between rural health areas and urban health areas, or among health areas.

The proportion of adults who rated their care positively did not change significantly between 1997 and 2007.

The main reason for rating care as fair or poor was waiting time (61.2 per cent) followed by: poor or inadequate service (17.1 per cent), not enough staff (12.2 per cent), poor attitude of clinical staff (7.8 per cent), communication problems (7.5 per cent), inadequate medication or management (5.8 per cent), misdiagnosis or contradictory diagnosis (5.8 per cent), sent home without treatment or follow-up (5.0 per cent), poor technical skill of clinical staff (4.7 per cent), and poor accommodation quality (2.3 per cent).

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#### References

1. NSW Emergency Department Data 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

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Emergency department presentation in the last 12 months by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those who presented to an emergency department in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a hospital emergency department or casualty for your own medical care?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Males Females 5th Quintile 15.7 most disadvantaged NART 18 NART 18 4th Quintile 17.4 3rd Quintile 16.5 2nd Quintile 13.2 15.1 1st Quintile 14.2 10.7 least disadvantaged NSW 16.5 14 6 100 80 60 40 20 0 0 20 40 60 80 100 Per cent Per cent



Note: Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those who presented to an emergency department in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a hospital emergency department or casualty for your own medical care?

emergency department or casualty for your own medical care? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Emergency department presentation in the last 12 months by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those who presented to an emergency department in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a hospital Note: mergency department or casualty for your own medical care? Source:

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

#### Emergency department presentation in the last 12 months by year, persons aged 16 years and over, NSW, 1997-2007



Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,494), 1998 (17,438), 2002 (12,603), 2003 (12,992), 2004 (9,412), 2005 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470), 2006 (11,470) (7,941), 2007 (13,097). The indicator includes those who presented to an emergency department in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a hospital emergency department or casualty for your own medical care? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

Emergency department care ratings, persons who attended in the previous 12 months aged 16 years and over, NSW, 2007



Estimates are based on 2,157 respondents in NSW. For this indicator 33 (1.51%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, have you attended a hospital emergency department or casualty for your own medical care? Overall, what do you think of the care you received at this emergency Note: department: Was it excellent, very good, good, fair, or poor? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:





Note: Estimates are based on 2,157 respondents in NSW. For this indicator 33 (1.51%) were not stated (Don't know or Refused) in NSW. The indicator includes those who presented to an emergency department in the last 12 months who rated their care as excellent, very good, or good for the most recent visit. The questions used to define the indicator were: In the last 12 months, have you attended a hospital emergency department or casualty for your own medical care? Overall what do you think of the care you received at this emergency department: Was it excellent, very good, good, fair, or poor?



Emergency department care rated as excellent, very good or good by socioeconomic disadvantage, persons who attended in the previous 12 months aged 16 years and over, NSW, 2007

Note: Estimates are based on 2,157 respondents in NSW. For this indicator 33 (1.51%) were not stated (Don't know or Refused) in NSW. The indicator includes those who presented to an emergency department in the last 12 months who rated their care as excellent, very good, or good for the most recent visit. The questions used to define the indicator were: In the last 12 months, have you attended a hospital emergency department or casualty for your own medical care? Overall what do you think of the care you received at this emergency department: very good, good, fair, or good?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Emergency department care rated as excellent, very good or good by area health service, persons who attended in the previous 12 months aged 16 years and over, NSW, 2007



Note: Estimates are based on 2,157 respondents in NSW. For this indicator 33 (1.51%) were not stated (Don't know or Refused) in NSW. The indicator includes those who presented to an emergency department in the last 12 months who rated their care as excellent, very good, or good for the most recent visit. The questions used to define the indicator were: In the last 12 months, have you attended a hospital emergency department or casualty for your own medical care? Overall what do you think of the care you received at this emergency department: Was it excellent, very good, fair, or poor?

you received at this emergency department: Was it excellent, very good, good, fair, or poor? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Emergency department care rated as excellent, very good or good by year, persons who attended in the previous 12 months aged 16 years and over, NSW, 1997-2007

Estimates are based on the following numbers of respondents for NSW: 1997 (2,727), 1998 (2,581), 2002 (2,025), 2003 (2,054), 2004 (1,535), 2005 (1,689), 2006 (1,225), 2007 (2,157). The indicator includes those who presented to an emergency department in the last 12 months who rated their care as excellent, very good, or good for the Note: most recent visit. The questions used to define the indicator were: In the last 12 months, have you attended a hospital emergency department or casualty for your own medical care? Overall what do you think of the care you received at this emergency department: Was it excellent, very good, good, fair, or poor? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:



Reason for rating most recent emergency visit as fair or poor, persons who attended in the previous 12 months and rated the care as fair or poor aged 16 years and over, NSW, 2007

Estimates are based on 450 respondents in NSW. For this indicator 33 (6.83%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 Note: months, have you attended a hospital emergency department or casualty for your own medical care? Overall, what do you think of the care you received at this emergency department: Was it excellent, very good, good, fair or poor? Could you briefly describe why you rated the care you received as fair or poor? Respondents could mention more than 1 response. Percentages may total more than 100%. New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

## Introduction

In the 2004-05 financial year there were approximately 1,998,000 admissions to New South Wales hospitals among adults aged 16 years and over.[1] To monitor the quality of care received in public hospitals, in 2007 the New South Wales Population Health Survey asked respondents: In the last 12 months, have you stayed for at least 1 night in hospital? Overall, what do you think of the care you received at this hospital? If care was rated as fair or poor, respondents were also asked: Could you briefly describe why you rated the care you received as fair or poor?

## Results

#### Admissions to hospitals

In 2007, the New South Wales Population Health Survey estimated that 14.1 per cent of adults were admitted to hospital on 1 or more occasions in the previous 12 months. A significantly higher proportion of females (16.1 per cent) than males (12.0 per cent) were admitted to hospital. Among males, a significantly lower proportion of those aged 16-24 years (8.1 per cent) and 25-34 years (8.3 per cent) and 35-44 years (6.6 per cent), and a significantly higher proportion of those aged 55-64 years (16.2 per cent) and 65-74 years (22.3 per cent) and 75 years and over (29.2 per cent), were admitted to hospital, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 35-44 years (13.0 per cent) and 45-54 years (10.6 per cent) and 55-64 years (13.6 per cent), and a significantly higher proportion of those aged 25-34 years (24.0 per cent) and 75 years and over (24.9 per cent), were admitted to hospital, compared with the overall adult female population.

There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of adults in rural health areas (15.5 per cent) than urban health areas (13.5 per cent) were admitted to hospital. A significantly higher proportion of adults in the Greater Southern (17.2 per cent) and Greater Western (17.2 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West Area Health Service (11.9 per cent), were admitted to hospital, compared with the overall adult population. There has been a significant increase in the proportion of adults admitted to hospital in the last 12 months between 1997 (13.0 per cent) and 2007 (14.1 per cent). The increase was significant in females (from 14.6 per cent to 16.1 per cent).

#### Rating of hospital care

Those who were admitted to hospital were asked to rate the care they received. Overall, 40.5 per cent rated their care as excellent, 30.4 per cent as very good, 19.0 per cent as good, 6.5 per cent as fair, and 3.9 per cent as poor. Responses of excellent, very good, and good were combined into a positive rating of care.

Overall, 89.6 per cent of adults rated their hospital care positively. There was no significant difference between males and females. A significantly higher proportion of adults aged 75 years and over (92.9 per cent) rated their hospital care positively, compared with the overall adult population admitted to a hospital. There was no significant difference by level of socioeconomic disadvantage, or between rural health areas and urban health areas. A significantly higher proportion of adults in the Northern Sydney & Central Coast Area Health Service (94.5 per cent) rated their hospital care positively, compared with the overall adult population admitted to a hospital. The proportion of adults who rated their hospital care positively has not changed significantly between 1997 and 2007.

The main reasons for rating care as fair or poor were: excessive waiting time for care (18.1 per cent), inadequate medication or management (14.7 per cent), poor quality accommodation (13.9 per cent), poor attitude of clinical staff (13.0 per cent), not enough staff (12.8 per cent), poor technical skill of clinical staff (12.7 per cent), communication problems (11.8 per cent), hospital could not offer required care (3.6 per cent), and poor or inadequate food (2.3 per cent).

## References

1. Inpatient Statistics Collection 2004-05 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Please check Health states New For latest estimates.











Note: Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those admitted to hospital in the last 12 months. The question used to define the indicator was: In the last 12 months, have you stayed for at least 1 night in hospital?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



# Hospital admission in the last 12 months by area health service, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those admitted to hospital in the last 12 months. The question used to define the indicator was: In the last 12 months, have you stayed for at least 1 night in hospital?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Hospital admission in the last 12 months by year, persons aged 16 years and over, NSW, 1997-2007

Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,494), 1998 (17,454), 2002 (12,603), 2003 (12,992), 2004 (9,412), 2005 (11,470), 2006 (7,941), 2007 (13,097). The indicator includes those admitted to hospital in the last 12 months. The question used to define the indicator was: In the last 12 months, have you stayed for at least 1 night in hospital?









# Hospital care rated as excellent, very good or good by age, persons who attended in the previous 12 months aged 16 years and over, NSW, 2007

Note: Estimates are based on 2,099 respondents in NSW. For this indicator 5 (0.24%) were not stated (Don't know or Refused) in NSW. The indicator includes those admitted to hospital in the last 12 months who rated their care as excellent, very good, or good for the most recent overnight stay. The questions used to define the indicator were: In the last 12 months, have you stayed for at least 1 night in hospital? Overall what do you think of the care you received at this hospital: Was it excellent, very good, good, fair, or poor?



Hospital care rated as excellent, very good or good by socioeconomic disadvantage, persons who attended in the previous 12 months aged 16 years and over, NSW, 2007

Note: Estimates are based on 2,099 respondents in NSW. For this indicator 5 (0.24%) were not stated (Don't know or Refused) in NSW. The indicator includes those admitted to hospital in the last 12 months who rated their care as excellent, very good, or good for the most recent overnight stay. The questions used to define the indicator were: In the last 12 months, have you stayed for at least 1 night in hospital? Overall what do you think of the care you received at this hospital: Was it excellent, very good, good, fair, or poor?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 2,099 respondents in NSW. For this indicator 5 (0.24%) were not stated (Don't know or Refused) in NSW. The indicator includes those admitted to hospital in the last 12 months who rated their care as excellent, very good, or good for the most recent overnight stay. The questions used to define the indicator were: In the last 12 months, have you stayed for at least 1 night in hospital? Overall what do you think of the care you received at this hospital: Was it excellent, very good, good, fair, or poor?



Hospital care rated as excellent, very good or good by year, persons who attended in the previous 12 months aged 16 years and over, NSW, 1997-2007

Note: Estimates are based on the following numbers of respondents for NSW: 1997 (2,550), 1998 (2,659), 2002 (1,926), 2003 (2,012), 2004 (1,461), 2005 (1,772), 2006 (1,245), 2007 (2,099). The indicator includes those admitted to hospital in the last 12 months who rated their care as excellent, very good, or good for the most recent overnight stay. The questions used to define the indicator were: In the last 12 months, have you stayed for at least 1 night in hospital? Overall what do you think of the care you received at this hospital: Was it excellent, very good, good, fair, or poor?

miology and Research, NSW Department of Health. New South Wales Population Health Survey 2007 (HOIST). Centre for Epide Source:





Estimates are based on 305 respondents in NSW. For this indicator 5 (1.61%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 Note: months, have you stayed for at least 1 night in hospital? Overall, what do you think of the care you received at this hospital: Was it excellent, very good, good, fair, or poor? Could you briefly describe why you rated the care you received as fair or poor? Respondents could mention more than 1 response. Percentages may total more than 100%. New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

## Introduction

To monitor the quality of care received in general practice, in 2007 the New South Wales Population Health Survey asked respondents: In the last 12 months, have you seen a general pratitioner? When did you last see a general practitioner? Overall, what do you think of the care you received at the most recent general practitioner visit? If care was rated as fair or poor, respondents were also asked: Could you briefly describe why you rated the care you received as fair or poor?

## Results

#### General practitioner visits

Overall, in 2007, 13.5 per cent of adults visited a general practitioner in the last week, 9.9 per cent visited a general practitioner 1 to 2 weeks ago, 15.9 per cent visited a general practitioner between 2 weeks and 1 month ago, 34.8 per cent visited a general practitioner between 1 month and 6 months ago, 8.8 per cent visited a general practitioner between 6 and 12 months ago, and 17.0 per cent visited a general practitioner more than 12 months ago.

Overall, in 2007, 83.2 per cent adults visited a general practitioner in the last 12 months. A significantly lower proportion of males (78.8 per cent) than females (87.3 per cent) visited a general practitioner in the last 12 months. Among males, a significantly lower proportion of those aged 16-24 years (65.0 per cent) and 35-44 years (73.8 per cent), and a significantly higher proportion of those aged 55-64 years (86.4 per cent), 65-74 years (93.7 per cent), and 75 years and over (95.9 per cent), visited a general practitioner in the last 12 months, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 16-24 years (77.6 per cent), and 75 years and over (95.4 per cent), visited a general practitioner in the last 12 months, compared with the overall adult female population. A significantly higher proportion of adults in the first or least disadvantaged quintile (86.7 per cent) visited a general practitioner in the last 12 months, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas, or among health areas. The proportion of adults who visited a general practitioner in the last 12 months has decreased significantly between 1997 (87.8 per cent) and 2007 (83.2 per cent). The decrease was significant in both males (from 85.0 per cent to 78.8 per cent) and females (from 90.6 per cent to 87.3 per cent).

Overall, in 2007, 28.3 per cent adults visited a general practitioner in the last 2 weeks. A significantly lower proportion of males (25.4 per cent) than females (30.8 per cent) visited a general practitioner in the last 2 weeks. Among males, a significantly lower proportion of those aged 16-24 years (11.2 per cent) and 25-34 years (16.8 per cent), and a significantly higher proportion of those aged 55-64 years (30.7 per cent), 65-74 years (37.7 per cent), and 75 years and over (43.7 per cent), visited a general practitioner in the last 2 weeks, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 35-44 years (25.0 per cent), and a significantly higher proportion of those aged 65-74 years (38.3 per cent) and 75 years and over (45.3 per cent), visited a general practitioner in the last 2 weeks, compared with the overall adult female population. A significantly higher proportion of adults in the fifth or most disadvantaged quintile (31.2 per cent) visited a general practitioner in the last 2 weeks, compared with the overall adult population. A significantly lower proportion of adults in rural health areas (26.1 per cent) than urban health areas (29.2 per cent) visited a general practitioner in the last 2 weeks, compared with the overall adult population. There was no significant difference among health areas. There has been no significant change in the proportion of adults who visited a general practitioner in the last 2 weeks between 1997 and 2007.

#### Rating of most recent general practitioner visit

Overall, in 2007, among those adults who visited a general practitioner in the last 12 months, 93.3 per cent rated their care positively (as excellent or very good or good). There was no significant difference between males and females. A significantly lower proportion of adults aged 25-34 years (90.7 per cent), and a significantly higher proportion of adults aged 55-64 years (95.0 per cent) and 65-74 years (95.8 per cent) and 75 years and over (97.1 per cent), rated their last general practitioner visit positively, compared with the overall adult population who visited a general practitioner. There was no significant difference by level of socioeconomic disadvantage, between rural health areas and urban health areas, or among health areas.

The main reason for rating care as fair or poor was lack of caring manner (44.4 per cent) followed by: inadequate or wrong medication or management (25.6 per cent), waiting time (5.8 per cent), sent home without treatment or follow-up (5.0 per cent), poor technical skill of clinical staff (4.7 per cent), and poor accommodation quality (2.3 per cent).

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Estimates are based on 13,034 respondents in NSW. For this indicator 76 (0.58%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months did you see a general practitioner? When did you last see a general practitioner? Would you say within the last week, 1 to 2 weeks ago, 2 weeks to 1 month Note: ago, between 1 and 6 months, or 6 to 12 months ago? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:



Visited a general practitioner in the last 12 months by age, persons aged 16 years and over, NSW, 2007

Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those that have Note: een a general practitioner in the last 12 months. The question used to define the indicator was: In the last 12 months did you see a general practitioner? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

Visited a general practitioner in the last 12 months by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007













Visited a general practitioner in the last 12 months by year, persons aged 16 years and over, NSW, 1997-2007

Note: Estimates are based on the following numbers of respondents for NSW: 1997 (17,470), 1998 (17,433), 2007 (13,097). The indicator includes those that have seen a general practitioner in the last 12 months. The question used to define the indicator was: In the last 12 months did you see a general practitioner? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



#### Visited a general practitioner in the last 2 weeks by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 11,298 respondents in NSW. For this indicator 76 (0.67%) were not stated (Don't know or Refused) in NSW. The indicator includes those that have seen a general practitioner in the last 2 weeks. The questions used to define the indicator were: In the last 12 months did you see a general practitioner? When did you last see a general practitioner?

Visited a general practitioner in the last 2 weeks by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 11,298 respondents in NSW. For this indicator 76 (0.67%) were not stated (Don't know or Refused) in NSW. The indicator includes those that have seen a general practitioner in the last 2 weeks. The questions used to define the indicator were. In the last 12 months did you see a general practitioner? When did you last see a general practitioner?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Visited a general practitioner in the last 2 weeks by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 11,298 respondents in NSW. For this indicator 76 (0.67%) were not stated (Don't know or Refused) in NSW. The indicator includes those that have seen a general practitioner in the last 2 weeks. The questions used to define the indicator were: In the last 12 months did you see a general practitioner? When did you last see a general practitioner?



Visited a general practitioner in the last 2 weeks by year, persons aged 16 years and over, NSW, 1997-2007

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:



General practitioner care rated as excellent, very good or good by age, persons who have visited a general practitioner in the last 12 months aged 16 years or over, NSW, 2007

Estimates are based on 11,336 respondents in NSW. For this indicator 38 (0.33%) were not stated (Don't know or Refused) in NSW. The indicator includes those who rated their care as excellent or very good or good for the most recent general practitioner visit. The questions used to define the indicator were: In the last 12 months did you see Note: a general practitioner? Overall, what do you think of the care you received at your most recent general practitioner visit? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

Estimates are based on the following numbers of respondents for NSW: 1997 (15,412), 1998 (15,020), 2007 (11,298). The indicator includes those that have seen a general practitioner in the last 2 weeks. The questions used to define the indicator were: In the last 12 months did you see a general practitioner? When did you last see a Note: eneral practitioner?

General practitioner care rated as excellent, very good or good by socioeconomic disadvantage, persons who have visited a general practitioner in the last 12 months aged 16 years or over, NSW, 2007



Note: Estimates are based on 11,336 respondents in NSW. For this indicator 38 (0.33%) were not stated (Don't know or Refused) in NSW. The indicator includes those who rated their care as excellent or very good or good for the most recent general practitioner visit. The questions used to define the indicator were: In the last 12 months did you see a general practitioner? Overall, what do you think of the care you received at your most recent general practitioner visit?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# General practitioner care rated as excellent, very good or good by area health service, persons who have visited a general practitioner in the last 12 months aged 16 years or over, NSW, 2007



Note: Estimates are based on 11,336 respondents in NSW. For this indicator 38 (0.33%) were not stated (Don't know or Refused) in NSW. The indicator includes those who rated their care as excellent or very good or good for the most recent general practitioner visit. The questions used to define the indicator were: In the last 12 months did you see a general practitioner? Overall, what do you think of the care you received at your most recent general practitioner visit?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.
Reason for rating most recent general practitioner visit as fair or poor, persons who visited a general practitioner in the last 12 months aged 16 years and over, NSW, 2007



Estimates are based on 694 respondents in NSW. For this indicator 38 (5.19%) were not stated (Don't know or Refused) in NSW. The indicator includes those who rated their most recent general practice visit as fair or poor. The questions used were: Did you see a general practitioner in the last 12 months? Overall, what do you think of the Note: care received at the most recent general practitioner visit: Would you say excellent, very good, good, fair, or poor? Could you briefly describe why you rated the care received as fair or poor? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

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# Introduction

New South Wales residents with a health care or pensioner concession card are eligible for public dental care. In order to monitor the use of public dental services, in 2007 the New South Wales Population Health asked respondents: In the last 12 months, have you been to a government-run public dental service or dental hospital? Overall, what do you think of the care you received at this public dental service? If care was rated as fair or poor, respondents were also asked: Could you briefly describe why you rated the care you received as fair or poor?

# Results

## Attendance at a public dental service

In 2007, the New South Wales Population Health Survey estimated that 5.1 per cent of adults attended a public dental service in the last 12 months. There was no significant difference between females and males. A significantly higher proportion of adults aged 16-24 years (9.9 per cent), and a significantly lower proportion of adults aged 35-44 years (3.8 per cent) and 45-54 years (3.5 per cent), attended a public dental service in the last 12 months. A significantly lower proportion of adults in the first or least disadvantaged quintile (3.2 per cent), and significantly a higher proportion of adults in the fifth or most disadvantaged quintile (7.8 per cent), attended a public dental service in the last 12 months. A significantly lower proportion of adults in urban health areas (4.7 per cent) than rural health areas (6.0 per cent) attended a public dental service in the last 12 months. A significantly lower proportion of adults in Northern Sydney & Central Coast Area Health Service (3.7 per cent), and significantly a higher proportion of adults in the North Coast Area Health Service (6.8 per cent), attended a public dental service in the last 12 months. There has been no significant change in the proportion of adults attending a public dental service in the last 12 months. There has been a significant increase in males from 3.9 per cent to 5.1 per cent.

# Rating of public dental service care

Those who attended a public dental service were asked to rate the care they received. Overall, 29.3 per cent rated their care as excellent, 28.5 per cent as very good, 29.3 per cent as good, 7.1 per cent as fair, and 5.8 per cent as poor. Responses of excellent, very good, and good were combined into a positive rating of care.

Overall, 87.0 per cent of adults rated their care positively. There was no significant difference between females and males. A significantly higher proportion of adults aged 16-24 years (95.4 per cent) rated their care positively, compared with the overall adult population who attended a public dental service. There was no significant difference by level of socioeconomic disadvantage, or between urban health areas and rural health areas. A significantly higher proportion of adults in Northern Sydney & Central Coast Area Health Service (94.4 per cent) rated their care positively, compared with the overall adult population who attended a public dental service. There has been no significant change in the proportion of adults who rated their public dental service care positively between 2002 and 2007.

The main reasons for rating care as fair or poor were: insufficient services (32.2 per cent), poor technical skill of clinical staff (17.4 per cent), waiting time for an appointment (14.1 per cent), and poor attitude of clinical staff (12.3 per cent).



### Public dental service attendance in the last 12 months by age, persons aged 16 years and over, NSW, 2007

Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those who attended a public dental service or dental hospital in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a public Note: (government-run) dental service or dental hospital?

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

### Public dental service attendance in the last 12 months by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those who attended a public dental service or dental hospital in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a public Note: (government-run) dental service or dental hospital? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

Public dental service attendance in the last 12 months by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those who attended a public dental service or dental hospital in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a public (government-run) dental service or dental hospital?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Public dental service attendance in the last 12 months by year, persons aged 16 years and over, NSW, 2002-2007



Note: Estimates are based on the following numbers of respondents for NSW: 2002 (12,603), 2003 (12,992), 2004 (9,412), 2005 (11,470), 2006 (7,941), 2007 (13,097). The indicator includes those who attended a public dental service or dental hospital in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a public (government-run) dental service or dental hospital?

Public dental service care rating, persons who attended in the previous 12 months aged 16 years and over, NSW, 2007



Estimates are based on 684 respondents in NSW. For this indicator 10 (1.44%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, have you attended a public (government-run) dental service or dental hospital? Overall, what do you think of the care you received at the public dental service: Note: Was it excellent, very good, good, fair, or poor? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:





Note: Estimates are based on 684 respondents in NSW. For this indicator 10 (1.44%) were not stated (Don't know or Refused) in NSW. The indicator includes those who attended a public dental service or dental hospital in the last 12 months who rated their care as excellent, very good, or good for the most recent attendance. The questions used to define the indicator were: In the last 12 months, have you attended a public (government-run) dental service or dental hospital? Overall what do you think of the care you received: Was it excellent, very good, good, fair, or poor?



Public dental service care rated as excellent, very good, or good by socioeconomic disadvantage, persons who attended in the previous 12 months aged 16 years and over, NSW, 2007

Note: Estimates are based on 684 respondents in NSW. For this indicator 10 (1.44%) were not stated (Don't know or Refused) in NSW. The indicator includes those who attended a public dental service or dental hospital in the last 12 months who rated their care as excellent, very good, or good for the most recent attendance. The questions used to define the indicator were: In the last 12 months, have you attended a public (government-run) dental service or dental hospital? Overall what do you think of the care you received: Was it excellent, very good, good, fair, or poor?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Estimates are based on 684 respondents in NSW. For this indicator 10 (1.44%) were not stated (Don't know or Refused) in NSW. The indicator includes those who Note: attended a public dental service or dental hospital in the last 12 months who rated their care as excellent, very good, or good for the most recent attendance. The questions used to define the indicator were: In the last 12 months, have you attended a public (government-run) dental service or dental hospital? Overall what do you think of the care you received: Was it excellent, very good, good, fair, or poor?



Public dental service care rated as excellent, very good, or good by year, persons who attended in the previous 12 months aged 16 years and over, NSW, 2002-2007

Estimates are based on the following numbers of respondents for NSW: 2002 ( 636), 2003 ( 656), 2004 ( 542), 2006 ( 331), 2007 ( 684). The indicator includes those who attended a public dental service or dental hospital in the last 12 months who rated their care as excellent, very good, or good for the most recent attendance. The questions used to define the indicator were: In the last 12 months, have you attended a public (government-run) dental service or dental hospital? Overall what do you think of the care you received: Was it excellent, very good, good, fair, or poor? Note:

miology and Research, NSW Department of Health. Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epide





Estimates are based on 184 respondents in NSW. For this indicator 10 (5.15%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 Note: months, have you attended a public (government-run) dental service or dental hospital? Overall, what do you think of the care you received at the public dental service: Was it excellent, very good, good, fair, or poor? Could you briefly describe why you rated the care you received as fair or poor? Respondents could mention more than 1 response. Percentages may total more than 100%. New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

# Introduction

Community health centres have a particularly important role to play in providing information and support to people of all ages within the community. Services provided by community health centres include primary care, community health nursing, sexual health services, counselling, selected allied health services, outreach clinics, child and family health services, day and respite care, health promotion, health education, community support, and group programs.

In 2007, the New South Wales Population Health Survey asked respondents: In the last 12 months, have you attended a government-run community health centre?

# Results

In 2007, the New South Wales Population Health Survey estimated that 7.8 per cent of adults attended a community health centre on 1 or more occasions in the last 12 months. A significantly higher proportion of females (9.7 per cent) than males (5.8 per cent) attended a community health centre in the last 12 months. Among males, a significantly lower proportion of those aged 55-64 years (4.0 per cent), and a significantly higher proportion of those aged 75 years and over (8.5 per cent), attended a community health centre in the last 12 months, compared with the overall adult male population. Among females, a significantly lower proportion of adults aged 45-54 years (6.7 per cent) and 55-64 years (6.4 per cent) and 75 years and over (7.5 per cent), and a significantly higher proportion of those aged 25-34 years (15.8 per cent), attended a community health centre in the last 12 months, compared with the overall adult male population.

A significantly lower proportion of adults in the second least disadvantaged quintile (5.7 per cent) attended a community health centre in the last 12 months, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (9.7 per ent) than urban health areas (7.0 per cent) attended a community health centre in the last 12 months, compared with the overall adult population. A significantly lower proportion of adults in the Sydney South West Area Health Service (6.0 per cent), and a significantly higher proportion of adults in the North Coast (9.9 per cent) and Greater Western (13.1 per cent) Area Health Services, attended a community health centre in the last 12 months, compared with the overall adult population.

There has been a significant increase in the proportion of adults who attended a community health centre in the last 12 months between 2002 (6.9 per cent) and 2007 (7.8 per cent).



# Community health centre attendance in the last 12 months by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those who attended a community health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a government-run community health centre?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those who attended a community health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a government-run community health centre?

Community health centre attendance in the last 12 months by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 13,097 respondents in NSW. For this indicator 13 (0.10%) were not stated (Don't know or Refused) in NSW. The indicator includes those who attended a community health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a government-run Note: community health centre?

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:

### Community health centre attendance in the last 12 months by year, persons aged 16 years and over, NSW, 2002-2007



Estimates are based on the following numbers of respondents for NSW: 2002 (12,603), 2003 (12,992), 2004 (9,412), 2005 (11,470), 2006 (7,941), 2007 (13,097). The indicator includes those who attended a community health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, have you Note: attended a government-run community health centre? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:

# Social capital

Monitoring social capital within the population is an important way of measuring social connections and networks based on trust, mutual reciprocity, and norms of action. This sections reports on participation in the local community, trust and safety, reciprocity and neighbourhood connection, and building harmonious communities.

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# Introduction

Social capital is the raw material of civil society created from the interactions between people. It is not located within the person but the space between people. It is not the property of the organisation, market, or state, but all these can engage in its production. It originates with people forming social connections and networks based on trust, mutual reciprocity, and norms of action. It is referred to as capital because that term invests it with the same status as other forms of capital: financial, physical, and human. The term capital is also appropriate because it can be measured and quantified in a way that distributes its benefits and avoids its losses.[1,2]

Since 2002, the New South Wales Population Health Survey has been using the social capital tool developed by Bullen and Onyx,[1] which is reported under the headings: participation in the local community, trust and safety, and reciprocity and neighbourhood connection. In 2007, in response to the State Plan, the Survey began to collect further information about the proportion of the adult population who have participated in a group sport or physical activity in the last 12 months, and who have participated in a group cultural or artistic activity in the last 12 months. This information is reported under the heading: building harmonious communities.[3]

In 2007, to measure social capital, the New South Wales Population Health Survey asked respondents: In the last 3 months, how often have you helped out any local group or organisation such as a school, scouts and brownies, a sporting club, or hospital as a volunteer? Do you agree or disagree with the statement: Most people can be trusted? Do you agree or disagree with the statement: I feel safe walking down my street after dark? Do you agree or disagree with the statement: My area has a reputation for being a safe place? How often have you visited someone in your neighbourhood in the last week? When you go shopping in your local area how often are you likely to run into friends and acquaintances? Would you be sad if you had to leave this neighbourhood? Responses were grouped into positive and negative responses for each question. Under the State Plan, respondents were also asked: In the last 12 months, have you participated in any of the following activities: recreational group or cultural group activities; community or special interest group activities; attended a sporting event as a spectator; visited a library, museum or art gallery; attended the movies, a theatre, or a concert; visited a park, botanic gardens, zoo, or theme park?

# Results

# Participation in the local community

Overall, in 2007, 37.7 per cent of adults helped out at a local group or organisation in the last 3 months. A significantly higher proportion of females (39.5 per cent) than males (35.8 per cent) helped out at a local group or organisation. Among males, there was no significant difference by age group. Among females, a significantly higher proportion of those aged 35-44 years (55.5 per cent), and a significantly lower proportion of those aged 75 years and over (27.9 per cent), helped out at a local group or organisation, compared with the overall adult female population. A significantly higher proportion of adults in the fourth or second most disadvantaged quintile (41.6 per cent) helped out at a local group or organisation, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (47.3 per cent) than urban health areas (33.6 per cent) helped out at a local group or organisation. A significantly higher proportion of adults in the Hunter & New England (44.4 per cent), North Coast (47.3 per cent), Greater Southern (51.5 per cent), and Greater Western (48.8 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West Area Health Service (30.3 per cent) helped out at a local group or organisation, compared with the overall adult population. The proportion of adults who helped out at a local group or organisation in the last 3 months increased significantly between 2002 (33.4 per cent) and 2007 (37.7 per cent). The increase was significant in both males (from 30.7 per cent to 35.8 per cent) and females (from 36.0 per cent to 39.5 per cent).

# Trust and safety

Overall, in 2007, 70.7 per cent of adults strongly agreed or agreed that most people can be trusted. A significantly lower proportion of females (69.1 per cent) than males (72.3 per cent) strongly agreed or agreed that most people can be trusted. Among males, a significantly lower proportion of those aged 16-24 years (62.0 per cent) strongly agreed or agreed that most people can be trusted, compared with the overall adult

male population. Among females, a significantly higher proportion of those aged 65-74 years (75.0 per cent) and 75 years and over (77.0 per cent), strongly agreed or agreed that most people can be trusted, compared with the overall adult female population. A significantly higher proportion of adults in the first or least disadvantaged quintile (81.0 per cent) and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (61.0 per cent) strongly agreed or agreed that most people can be trusted, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (73.9 per cent) than urban health areas (69.2 per cent) strongly agreed or agreed that most people can be trusted. A significantly higher proportion of adults in the Northern Sydney & Central Coast (78.8 per cent), North Coast (75.5 per cent), and Greater Southern (78.0 per cent) and Sydney West (64.7 per cent) Area Health Services, strongly agreed or agreed that most people can be trusted lower proportion of adults in the Sydney South West (62.3 per cent) and Sydney West (64.7 per cent) Area Health Services, strongly agreed or agreed that most people can be trusted increased significantly between 2002 (65.7 per cent) and 2007 (70.7 per cent). The increase was significant in both males (from 68.9 per cent to 72.3 per cent) and females (from 62.6 per cent to 69.1 per cent).

Overall, in 2007, 71.1 per cent of adults felt safe walking down their street after dark. A significantly lower proportion of females (60.3 per cent) than males (82.3 per cent) felt safe walking down their street after dark. Among males, a significantly lower proportion of those aged 16-24 years (75.9 per cent), 65-74 years (74.3 per cent), and 75 years and over (68.2 per cent), and a significantly higher proportion of those aged 25-34 years (87.6 per cent), felt safe walking down their street after dark, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 25-34 years (66.7 per cent) and 45-54 years (69.9 per cent), and a significantly lower proportion of those aged 65-74 years (49.5 per cent) and 75 years and over (32.2 per cent), felt safe walking down their street after dark, compared with the overall adult female population. A significantly higher proportion of adults in the first or least disadvantaged quintile (83.8 per cent), and a significantly lower proportion of adults in the fourth quintile (67.0 per cent) and fifth or most disadvantaged quintile (60.9 per cent), felt safe walking down their street after dark, compared with the overall adult population. There was no significant difference between rural health areas and urban health areas. A significantly higher proportion of adults in the South Eastern Sydney & Illawarra (76.0 per cent), Northern Sydney & Central Coast (78.9 per cent), and Greater Southern (75.0 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West (64.5 per cent) and Sydney West (64.4 per cent) Area Health Services felt safe walking down their street after dark, compared with the overall adult population. The proportion of adults who felt safe walking down their street after dark increased significantly between 2002 (67.4 per cent) and 2007 (71.1 per cent). The increase was significant in both males (from 78.4 per cent to 82.3 per cent) and females (from 56.5 per cent to 60.3 per cent).

Overall, in 2007, 76.4 per cent of adults said their area had a reputation for being safe. There was no significant difference between males and females. A significantly higher proportion of adults aged 55-64 years (80.5 per cent) and 65-74 years (82.5 per cent), and a significantly lower proportion of adults aged 16-24 years (65.8 per cent), said their area had a reputation for being safe, compared with the overall adult population. A significantly lower proportion of adults in the first or least disadvantaged quintile (91.5 per cent) and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (59.9 per cent), said their area had a reputation for being safe, compared with the overall adult population. A significantly lower proportion of adults in the fifth or most disadvantaged quintile (59.9 per cent), said their area had a reputation for being safe, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (81.5 per cent) than urban health areas (74.2 per cent) said their area had a reputation for being safe. A significantly higher proportion of adults in the Northern Sydney & Central Coast (86.3 per cent), North Coast (82.5 per cent), Greater Southern (87.5 per cent), and Greater Western (80.7 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West (64.0 per cent) and Sydney West (69.0 per cent) Area Health Services said their area had a reputation for being safe, compared with the overall adult population. The proportion of adults who said their area had a reputation for being safe increased significantly between 2002 (73.3 per cent) and 2007 (76.4 per cent). The increase was significant in females (from 71.4 per cent to 75.6 per cent).

# Reciprocity and neighbourhood connection

Overall, in 2007, 62.3 per cent of adults visited neighbours at least once in the last week. A significantly lower proportion of females (60.1 per cent) than males (64.7 per cent) visited neighbours at least once in the last week. Among males, there was no significant difference by age group. Among females, a significantly higher proportion of those aged 65-74 years (66.3 per cent), and a significantly lower proportion of those aged 75 years and over (54.4 per cent), visited neighbours at least once in the last week, compared with the overall adult female population. A significantly higher proportion of adults in the fourth quintile of disadvantage (67.6 per cent) visited neighbours at least once in the last week, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (66.9 per cent) than urban health areas (60.3 per cent) visited neighbours at least once in the last week. A significantly higher proportion of adults in the Hunter & New England (67.0 per cent) and North Coast (67.9 per cent) Area

Health Services, and a significantly lower proportion of adults in the Sydney South West (57.5 per cent) and Sydney West (57.5 per cent) Area Health Services, visited neighbours at least once in the last week, compared with the overall adult population. The proportion of adults who visited neighbours at least once in the last week decreased significantly between 2002 (66.3 per cent) and 2007 (62.3 per cent). The decrease was significant in both males (from 69.1 per cent to 64.7 per cent) and females (from 63.6 per cent to 60.1 per cent).

Overall, in 2007, 80.9 per cent of adults ran into friends and acquaintances when shopping in their local area. A significantly higher proportion of females (83.4 per cent) than males (78.3 per cent) ran into friends and acquaintances when shopping in their local area. Among males, a significantly lower proportion of those aged 35-44 years (72.1 per cent) ran into friends and acquaintances when shopping in their local area, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 75 years and over (78.7 per cent) ran into friends and acquaintances when shopping in their local area, compared with the overall adult female population. A significantly lower proportion of adults in the first or least disadvantaged quintile (77.1 per cent), and a significantly higher proportion of adults in the fourth or second most disadvantaged quintile (86.7 per cent), ran into friends and acquaintances when shopping in their local area, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (88.4 per cent) than urban health areas (77.6 per cent) ran into friends and acquaintances when shopping in their local area. A significantly higher proportion of adults in the Hunter & New England (84.8 per cent), North Coast (89.6 per cent), Greater Southern (90.3 per cent) and Greater Western (93.4 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney West (76.1 per cent) and Northern Sydney & Central Coast (76.2 per cent) Area Health Services, ran into friends and acquaintances when shopping in their local area, compared with the overall adult population. The overall proportion of adults who ran into friends and acquaintances when shopping in their local area has not changed significantly between 2002 and 2007.

Overall, in 2007, 73.2 per cent of adults would feel sad if they had to leave their neighbourhood. A significantly higher proportion of females (76.2 per cent) than males (70.0 per cent) would feel sad if they had to leave their neighbourhood. Among males, a significantly higher proportion of those aged 45-54 years (78.2 per cent), 65-74 years (77.9 per cent), and 75 years and over (80.8 per cent), would feel sad if they had to leave their neighbourhood, compared with the overall adult male population. Among females, a significantly lower proportion of those aged 25-34 years years (67.5 per cent), and a significantly higher proportion of those aged 55-64 years (79.9 per cent), 65-74 years (82.8 per cent), and 75 years and over (85.4 per cent), would feel sad if they had to leave their neighbourhood, compared with the overall adult female population. A significantly lower proportion of adults in the fifth or most disadvantaged quintile (68.9 per cent), and a significantly higher proportion of adults in the fourth or second most disadvantaged quintile (78.5 per cent), would feel sad if they had to leave their neighbourhood, compared with the overall adult population. A significantly higher proportion of adults in rural health areas (78.3 per cent) than urban health areas (71.0 per cent) would feel sad if they had to leave their neighbourhood. A significantly higher proportion of adults in the Northern Sydney & Central Coast (77.8 per cent), Hunter & New England (78.3 per cent), North Coast (77.4 per cent), Greater Southern (79.1 per cent), and Greater Western (78.7 per cent) Area Health Services, and a significantly lower proportion of adults in the Sydney South West Area Health Service (64.7 per cent), would feel sad if they had to leave their neighbourhood, compared with the overall adult population. The overall proportion of adults who would feel sad if they had to leave their neighbourhood has not changed significantly between 2002 and 2007.

# Building harmonious communities

Overall, in 2007, adults participated in the following activities: recreational group or cultural group (31.8 per cent), community or special interest group (31.2 per cent), church or religious activities (31.1 per cent), went out to a cafe or restaurant or bar (89.5 per cent), took part in sport or physical activities (60.4 per cent), attended a sporting event as a spectator (53.4 per cent), visited a library or museum or art gallery (60.8 per cent), attended the movies or a theatre or a concert (71.9 per cent), visited a park or botanic gardens or zoo or theme park (68.9 per cent).

Overall, in 2007, 60.4 per cent of adults took part in sport or physical activities. A significantly higher proportion of males (67.3 per cent) than females (53.8 per cent) took part in sport or physical activities. Among males, a significantly higher proportion of those aged 16-24 years (81.6 per cent) and 25-34 years (78.2 per cent), and a significantly lower proportion of those aged 55-64 years (55.6 per cent), 65-74 years (53.6 per cent), and 75 years and over (36.7 per cent), took part in sport or physical activities, compared with the overall adult male population. Among females, a significantly higher proportion of those aged 16-24 years (69.4 per cent) and 35-44 years (63.4 per cent), and a significantly lower proportion of those aged 65-74 years (38.6 per cent) and 75 years and over (23.1 per cent), took part in sport or physical activities, compared set years (38.6 per cent) and 75 years and over (23.1 per cent), took part in sport or physical activities, compared set years (38.6 per cent) and 75 years and over (23.1 per cent), took part in sport or physical activities, compared set years (38.6 per cent) and 75 years and over (23.1 per cent), took part in sport or physical activities, compared set years (38.6 per cent) and 75 years and over (23.1 per cent), took part in sport or physical activities, compared set years (38.6 per cent) and 75 years and over (23.1 per cent), took part in sport or physical activities, compared set years (38.6 per cent) and 75 years and over (23.1 per cent), took part in sport or physical activities, per cent) and 75 years and over (23.1 per cent), took part in sport or physical activities, per cent) and 75 years and over (23.1 per cent), took part in sport or physical activities, per cent) and per cent per cent years (23.1 per cent), took part in sport or physical activities, per cent years (23.1 per cent), took part in sport or physical activities, per cent years (23.1 per cent) activities, per cent years (23.1 per cent) per cent years (23.1 per cent) per cent years (23.

compared with the overall adult female population. A significantly higher proportion of adults in the first or least disadvantaged quintile (66.6 per cent), and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (53.5 per cent), took part in sport or physical activities in the last 12 months, compared with the overall adult population. A significantly lower proportion of adults in rural health areas (56.6 per cent) than urban health areas (62.2 per cent) took part in sport or physical activities. There was no significant difference among health areas.

Overall, in 2007, 57.9 per cent of adults participated in a recreational, cultural, community or special interest group, or church or religious activities. There was no significant difference between males and females. A significantly higher proportion of adults aged 75 years and over (64.8 per cent) participated in a recreational or cultural or community or special interest group, or church or religious activities, compared with the overall adult population. There was no significant difference by level of socioeconomic disadvantage, or between rural health areas and urban health areas, or among health areas.

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Helped out any local group or organisation at least once in the last 3 months by age, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,379 respondents in NSW. For this indicator 36 (0.49%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have helped out any local group or organisation at least once in the last 3 months. The question used was: In the last 3 months, have you helped out any local group or organisation such as a school, scouts and brownies, a sporting club, or hospital, as a volunteer, or other organisation? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note:

Source:



### Helped out any local group or organisation at least once in the last 3 months by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,379 respondents in NSW. For this indicator 36 (0.49%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have helped out any local group or organisation at least once in the last 3 months. The question used was: In the last 3 months, have you helped out any local group or organisation such as a school, scouts and brownies, a sporting club, or hospital, as a volunteer, or other organisation?

Helped out any local group or organisation at least once in the last 3 months by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,379 respondents in NSW. For this indicator 36 (0.49%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have helped out any local group or organisation at least once in the last 3 months. The question used was: In the last 3 months, have you helped out any local group or organisation such as a school, scouts and brownies, a sporting club, or hospital, as a volunteer, or other organisation? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note:

Source:



Helped out any local group or organisation at least once in the last 3 months by year, persons aged 16 years and over, NSW, 2002-2007

Note: Estimates are based on the following numbers of respondents for NSW: 2002 (12,613), 2003 (12,995), 2005 (11,481), 2006 (7,938), 2007 (7,379). The indicator includes those who have helped out any local group or organisation at least once in the last 3 months. The question used was: In the last 3 months, have you helped out any local group or organisation such as a school, scouts and brownies, a sporting club, or hospital, as a volunteer, or other organisation? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:





Note: Estimates are based on 7,204 respondents in NSW. For this indicator 211 (2.85%) were not stated (Don't know or Refused) in NSW. The indicator includes those who strongly agree or agree that most people can be trusted. The question used was: Do you strongly agree, agree, disagree or strongly disagree with the statement "Most people can be trusted"?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,204 respondents in NSW. For this indicator 211 (2.85%) were not stated (Don't know or Refused) in NSW. The indicator includes those who strongly agree or agree that most people can be trusted. The question used was: Do you strongly agree, agree, disagree or strongly disagree with the statement "Most people can be trusted"?

### Most people can be trusted by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,204 respondents in NSW. For this indicator 211 (2.85%) were not stated (Don't know or Refused) in NSW. The indicator includes those who strongly agree or agree that most people can be trusted. The question used was: Do you strongly agree, agree, disagree or strongly disagree with the statement "Most people can be trusted"?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Most people can be trusted by year, persons aged 16 years and over, NSW, 2002-2007



Note: Estimates are based on the following numbers of respondents for NSW: 2002 (12,251), 2003 (12,570), 2005 (11,203), 2006 (7,775), 2007 (7,204). The indicator includes those who strongly agree or agree that most people can be trusted. The question used was: Do you strongly agree, agree, disagree or strongly disagree with the statement "Most people can be trusted"?



### Feel safe walking down their street after dark by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,136 respondents in NSW. For this indicator 279 (3.76%) were not stated (Don't know or Refused) in NSW. The indicator includes those who strongly agree or agree that they feel safe walking down their street after dark. The question used was: Do you strongly agree, disagree or strongly disagree with the statement "I feel safe walking down my street after dark"?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



# Feel safe walking down their street after dark by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,136 respondents in NSW. For this indicator 279 (3.76%) were not stated (Don't know or Refused) in NSW. The indicator includes those who strongly agree or agree that they feel safe walking down their street after dark. The question used was: Do you strongly agree, disagree or strongly disagree with the statement "I feel safe walking down my street after dark"?

Per cent

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Per cent

Feel safe walking down their street after dark by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,136 respondents in NSW. For this indicator 279 (3.76%) were not stated (Don't know or Refused) in NSW. The indicator includes those who strongly agree or agree that they feel safe walking down their street after dark. The question used was: Do you strongly agree, disagree or strongly disagree with the Note: statement "I feel safe walking down my street after dark"?

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:





Note: Estimates are based on the following numbers of respondents for NSW: 2002 (12,220), 2003 (12,602), 2005 (11,160), 2006 (7,719), 2007 (7,136). The indicator includes those who strongly agree or agree that they feel safe walking down their street after dark. The question used was: Do you strongly agree, disagree or strongly disagree with the statement "I feel safe walking down my street after dark"?





Note: Estimates are based on 7,104 respondents in NSW. For this indicator 311 (4.19%) were not stated (Don't know or Refused) in NSW. The indicator includes those who strongly agree or agree that their area has a reputation for being a safe place. The question used was: Do you strongly agree, agree, disagree or strongly disagree with the statement "My area has a reputation for being a safe place"?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Area has a reputation for being a safe place by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,104 respondents in NSW. For this indicator 311 (4.19%) were not stated (Don't know or Refused) in NSW. The indicator includes those who strongly agree or agree that their area has a reputation for being a safe place. The question used was: Do you strongly agree, agree, disagree or strongly disagree with the statement "My area has a reputation for being a safe place"?





Estimates are based on 7,104 respondents in NSW. For this indicator 311 (4.19%) were not stated (Don't know or Refused) in NSW. The indicator includes those who strongly agree or agree that their area has a reputation for being a safe place. The question used was: Do you strongly agree, agree, disagree or strongly disagree with the Note: statement My area has a reputation for being a safe place"? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:





Note: Estimates are based on the following numbers of respondents for NSW: 2002 (12,184), 2003 (12,519), 2005 (11,038), 2006 (7,690), 2007 (7,104). The indicator includes Latinates are based of the biodwing numbers of responsible in term being a safe place. The question used was: Do you strongly agree, agree, disagree or strongly disagree with the statement "My area has a reputation for being a safe place"?

### Visit neighbours by age, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,380 respondents in NSW. For this indicator 35 (0.47%) were not stated (Don't know or Refused) in NSW. The indicator includes those who visited someone in their neighbourhood at least once in the last week. The question used was: How often have you visited someone in your neighbourhood in the last week? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Visit neighbours by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,380 respondents in NSW. For this indicator 35 (0.47%) were not stated (Don't know or Refused) in NSW. The indicator includes those who visited someone in their neighbourhood at least once in the last week. The question used was: How often have you visited someone in your neighbourhood in the last week?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Visit neighbours by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,380 respondents in NSW. For this indicator 35 (0.47%) were not stated (Don't know or Refused) in NSW. The indicator includes those who visited someone in their neighbourhood at least once in the last week. The question used was: How often have you visited someone in your neighbourhood in the last week? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



### Visit neighbours by year, persons aged 16 years and over, NSW, 2002-2007

Note: Estimates are based on the following numbers of respondents for NSW: 2002 (12,602), 2003 (12,986), 2005 (11,476), 2006 (7,952), 2007 (7,380). The indicator includes those who visited someone in their neighbourhood at least once in the last week. The question used was: How often have you visited someone in your neighbourhood in the last week?





Estimates are based on 7,365 respondents in NSW. For this indicator 50 (0.67%) were not stated (Don't know or Refused) in NSW. The indicator includes those who run into friends and acquaintances when shopping in their local area at least some of the time. The question used was: When you go shopping in your local area how often are Note: ou likely to run into friends and acquaintances?

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:





Estimates are based on 7,365 respondents in NSW. For this indicator 50 (0.67%) were not stated (Don't know or Refused) in NSW. The indicator includes those who run into friends and acquaintances when shopping in their local area at least some of the time. The question used was: When you go shopping in your local area how often are you likely to run into friends and acquaintances? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note:

Source:

Run into friends and acquaintances when shopping in local area by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 7,365 respondents in NSW. For this indicator 50 (0.67%) were not stated (Don't know or Refused) in NSW. The indicator includes those who run into friends and acquaintances when shopping in their local area at least some of the time. The question used was: When you go shopping in your local area how often are Note: ou likely to run into friends and acquaintances?

New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Source:





Note: Estimates are based on the following numbers of respondents for NSW: 2002 (12,556), 2003 (12,944), 2005 (11,447), 2006 (7,935), 2007 (7,365). The indicator includes those who run into friends and acquaintances when shopping in their local area at least some of the time. The question used was: When you go shopping in your local area how often are you likely to run into friends and acquaintances? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Source:



### Sad to leave neighbourhood by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 7,176 respondents in NSW. For this indicator 239 (3.22%) were not stated (Don't know or Refused) in NSW. The indicator includes those who would be sad if they had to leave their neighbourhood. The question used was: Would you be sad if you had to leave this neighbourhood?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.





Note: Estimates are based on 7,176 respondents in NSW. For this indicator 239 (3.22%) were not stated (Don't know or Refused) in NSW. The indicator includes those who would be sad if they had to leave their neighbourhood. The question used was: Would you be sad if you had to leave this neighbourhood?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

### Sad to leave neighbourhood by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 7,176 respondents in NSW. For this indicator 239 (3.22%) were not stated (Don't know or Refused) in NSW. The indicator includes those who would be sad if they had to leave their neighbourhood. The question used was: Would you be sad if you had to leave this neighbourhood? Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



Sad to leave neighbourhood by year, persons aged 16 years and over, NSW, 2002-2007

Note: Estimates are based on the following numbers of respondents for NSW: 2002 (12,249), 2003 (12,642), 2005 (11,178), 2006 (7,735), 2007 (7,176). The indicator includes those who would be sad if they had to leave their neighbourhood. The question used was: Would you be sad if you had to leave this neighbourhood?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Participated in group cultural or artistic activity in the last 12 months, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 5,100 respondents in NSW. For this indicator 15 (0.29%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, have you participated in any of the following activities: Recreational group or cultural group activities: community or special interest group activities; church or religious activities; went out to a cafe, restaurant or bar; took part in sport or physical activities; attended a sporting event as a spectator; visited a library, museum or art gallery; attended the movies, a theatre or a concert; visited a park, botanic gardens, zoo or theme park? Respondents could mention more than 10%.





### Took part in sport or physical activities by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 5,100 respondents in NSW. For this indicator 15 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who took part in sport or physical activities in the last 12 months. The question used to define the indicator was: In the last 12 months, have you taken part in sport or physical activities?





Note: Estimates are based on 5,100 respondents in NSW. For this indicator 15 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who took part in sport or physical activities in the last 12 months. The question used to define the indicator was: In the last 12 months, have you taken part in sport or physical activities?

Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

# Took part in sport or physical activities by area health service, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 5,100 respondents in NSW. For this indicator 15 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who took part in sport or physical activities in the last 12 months. The question used to define the indicator was: In the last 12 months, have you taken part in sport or physical activities?



Participated in a recreational group, cultural group, community or special interest group, church or religious activities in the last 12 months by age, persons aged 16 years and over, NSW, 2007

Note: Estimates are based on 5,100 respondents in NSW. For this indicator 15 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have participated in a group cultural or artistic activity in the last 12 months. The questions used to define the indicator were: In the last 12 months, have you participated in any of the following activities: Recreational group or cultural group activities; community or special interest group activities; church or religious activities?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Participated in a recreational group, cultural group, community or special interest group, church or religious activities in the last 12 months by socioeconomic disadvantage, persons aged 16 years and over, NSW, 2007



Note: Estimates are based on 5,100 respondents in NSW. For this indicator 15 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have participated in a group cultural or artistic activity in the last 12 months. The questions used to define the indicator were: In the last 12 months, have you participated in any of the following activities: Recreational group or cultural group activities; community or special interest group activities; church or religious activities?
Source: New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Participated in a recreational group, cultural group, community or special interest group, church or religious activities in the last 12 months by area health service, persons aged 16 years and over, NSW, 2007



Estimates are based on 5,100 respondents in NSW. For this indicator 15 (0.29%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have participated in a group cultural or artistic activity in the last 12 months. The questions used to define the indicator were: In the last 12 months, have you participated in any of the following activities: Recreational group or cultural group activities; community or special interest group activities; church or religious activities? New South Wales Population Health Survey 2007 (HOIST). Centre for Epidemiology and Research, NSW Department of Health. Note: Source:

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# **Conclusion**

The New South Wales Population Health Survey began as a continuous survey in 2002, following adult health surveys in 1997 and 1998. Most indicators are collected and reported annually but some are collected and reported biennially and triennially. In 2007, data were collected on demographics, health behaviours, health status, health service use and access, and social capital. Where possible, indicators have been aligned with those collected previously, so that trends can be examined.

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# **Health behaviours**

Health behaviours influence health and wellbeing. There have been significant changes in some indicators of health behaviour, while other indicators have not changed significantly.

There have been significant increases in use of public water supply as usual source of drinking water, vaccination against influenza, vaccination against pneumococcal pneumonia, homes with a smoke alarm or detector, recommended fruit consumption, knowledge of recommended fruit consumption, recommended vegetable consumption, consumption of 3 or more serves of vegetables a day, knowledge of recommended vegetable consumption, adequate physical activity, intention to quit smoking, doctor advised to quit smoking, smoke-free homes, smoke-free cars, easy to find shade in local sporting areas, and easy to find shade at outdoor local swimming pools.

There have been significant decreases in any risk alcohol drinking, high risk alcohol drinking, consumption of bread once a day or more, consumption of pasta or rice or noodles or other cooked cereals once a day or more, consumption of breakfast cereals 2 times a week or more, food insecurity in the last 12 months, current smoking, and daily smoking.

There has been no significant change in consumption of low or reduced fat or skim milks, rarely or never consumes hot fried potatoes, rarely or never consumes potato crisps or salty snacks, consumption of processed meat products less than 3 times a week, consumption of 2 cups or less of soft drinks or cordials or sports drinks a week, rarely or never consumes takeaway foods, weekly or more use of neighbourhood facilities, unsafe sex, and easy to find shade at local public park.

In 2007, 11 new indicators were reported for health behaviours: current cannabis smoking, support re-use of treated effluent water, gambled in the last 12 months, bet more than can afford to lose, self-perception of gambling problem, problem gambler in immediate family, homes with an escape plan practised in the last 12 months, first aid training in last 12 months, burns or scalds in last 12 months, treatment for burns and scalds, and consumes red meat less than 3 times a week.

# Health status

Monitoring the health status of a population helps detect emerging patterns of illness and disease and provides information to inform health policy and planning of health services. There have been significant changes in some indicators of health status, while other indicators have not changed significantly.

There have been significant increases in ever diagnosed with asthma, written asthma management plan, diabetes or high blood glucose, overweight or obese, and obese.

There have been significant decreases in positive self-rated health and all natural teeth missing.

There has been no significant change in current asthma, current smoking in adults with current asthma, high or very high psychological distress, adults with high or very high psychological distress who helped out at a local group or organisation in the last 3 months, visited a dental professional in the last 12 months, and agree with adding fluoride to the public water supply.

In 2007, 5 new indicators were reported for health status: knowing biological family's health history is important to personal health, discussed family health history with general practitioner, ever diagnosed with a potentially serious disease, member of biological family ever diagnosed with a potentially serious disease, and willing to have a genetics test.

# Health service use and access

Information about the use of and access to health services assists in formulating health policy and health service planning. There have been significant changes in some health service indicators, while other indicators have not changed significantly.

There have been significant increases in private health insurance, difficulties getting health care, emergency department presentations, hospital admissions, and community health centre attendance.

There have been significant decreases in visits to a general practitioner in the last 12 months.

There has been no significant change in positive rating of emergency department care, positive rating of hospital care, visits to a general practitioner in the last 2 weeks, and public dental service attendance.

In 2007, 1 new indicator was reported for health services: positive rating of last visit to general practitioner.

# **Social capital**

Social capital is created from the everyday interactions between people. It is called capital because it can be measured and quantified in a way that can distribute its benefits and avoid its losses. There have been significant changes in some indicators of social capital, while other indicators have not changed significantly.

There have been significant increases in the proportion of adults who helped out at any local group or organisation at least once in the last 3 months, who said most people can be trusted, who felt safe walking down their street after dark, and who said their local area has a reputation for being a safe place.

There have been significant decreases in the proportion of adults who visited neighbours in the last week.

There has been no significant change in the proportion of adults who ran into friends and acquaintances when shopping in their local area, or would feel sad if they had to leave their neighbourhood.

In 2007, 2 new indicators were reported for social capital: took part in sport or physical activities, and participated in a recreational group or cultural group.

# The future

The collection and reporting plan for the New South Wales Population Health Survey to 2012 can be found at www.health.nsw.gov.au/publichealth/surveys/index.asp. The continued monitoring of indicators via the Survey will provide information to assist health professionals, health service planners and those involved in development of health policy.
# Trends in health behaviours

Indicator	Year	Males % (95% CI)	Females % (95% CI)	Urban % (95% CI)	Rural % (95% CI)	All % (95% CI)
Risk alcohol drinking	1997	50.6 (49.1-52.0)	34.3 (33.1-35.6)	40.0 (38.8-41.3)	47.5 (46.2-48.9)	42.3 (41.3-43.3)
	1998	50.4 (48.8-52.0)	36.3 (35.0-37.6)	41.7 (40.4-43.0)	46.6 (45.2-48.0)	43.2 (42.2-44.2)
	2002	39.3 (37.3-41.2)	30.2 (28.6-31.8)	33.1 (31.4-34.7)	38.4 (36.6-40.2)	34.7 (33.4-35.9)
	2003	41.5 (39.5-43.4)	30.2 (28.8-31.7)	33.7 (32.1-35.2)	40.0 (38.4-41.6)	35.6 (34.4-36.8)
	2004	40.5 (38.1-42.8)	30.3 (28.5-32.1)	34.3 (32.4-36.3)	37.6 (35.7-39.5)	35.3 (33.8-36.8)
	2005	37.2 (35.3-39.2)	27.3 (25.8-28.7)	30.3 (28.7-31.9)	36.4 (34.8-38.1)	32.1 (30.9-33.3)
	2006	37.3 (35.0-39.6)	28.4 (26.7-30.2)	30.9 (29.1-32.8)	37.2 (35.2-39.3)	32.8 (31.4-34.2)
Liek viele electral drieleine	2007	37.2 (34.7-39.7)	27.0 (25.2-28.8)	29.6 (27.7-31.6)	37.0 (34.7-39.3)	31.9 (30.3-33.4)
	2002	17.8 (16.1-10.5)	10.8 (9.6-12.0)	14.3 (13.0-16.0)	15.0 (13.5-16.6)	14.7 (13.5-15.6)
	2003	15.6 (13.7-17.5)	10.9 (9.3-12.0)	12 3 (10 6-13 9)	16 1 (14 3-17 9)	13 5 (12 2-14 7)
	2004	13.2 (11.7-14.7)	7.1 (6.2-8.0)	9.6 (8.5-10.7)	11.3 (10.1-12.6)	10.1 (9.2-10.9)
	2006	12.3 (10.7-13.9)	6.4 (5.4-7.5)	8.7 (7.5-9.9)	10.8 (9.4-12.2)	9.4 (8.4-10.3)
	2007	11.3 (9.6-13.0)	6.7 (5.6-7.7)	8.1 (6.9-9.3)	10.7 (9.1-12.4)	8.9 (7.9-9.9)
Current cannabis smoking	2007	6.7 (3.4-10.1)	4.0 (1.7-6.3)	3.6 (1.6-5.7)	8.8 (4.4-13.1)	5.3 (3.3-7.3)
Use public water as usual source of water	2002			86.3 (84.3-88.3)	68.7 (66.1-71.3)	80.9 (79.3-82.5)
	2003			86.6 (85.5-87.7)	68.7 (67.2-70.1)	81.2 (80.3-82.1)
	2005			84.2 (83.0-85.5)	66.1 (64.6-67.7)	78.8 (77.8-79.8)
	2006			87.6 (86.3-88.9)	67.9 (66.0-69.8)	81.7 (80.6-82.8)
	2007			89.6 (88.3-90.9)	70.5 (68.5-72.5)	83.8 (82.7-84.9)
Support re-use of treated enfluent water	2007	516 (40 1 54 4)	29 1 (26 2 20 2)	91.1 (91.1-98.3)	50.1 (47.0 50.0)	91.0 (91.0-98.0)
Betting more than can afford to lose	2007	48 (3 4-6 3)	47 (3 4-6 1)	4 8 (3 4-6 1)	49 (3 4-6 3)	48 (3 8-5 8)
Self perception of gambling problem	2007	5.1 (3 5-6 8)	3.3 (2 1-4.5)	4.4 (3 0-5 9)	4.2 (2 7-5 7)	4.4 (3.3-5.4)
Problem gambler in immediate family	2007			10.4 (9.2-11.7)	10.5 (9.2-11.8)	10.4 (9.5-11.4)
Vaccinated against influenza in the last 12 months	1997	32.1 (30.0-34.3)	36.8 (34.9-38.8)	34.0 (32.0-35.9)	35.8 (33.9-37.8)	34.6 (33.2-36.0)
	1998	36.8 (34.5-39.0)	43.6 (41.6-45.6)	39.0 (37.0-41.1)	42.9 (40.9-44.8)	40.3 (38.9-41.8)
	2002	43.4 (41.0-45.9)	49.8 (47.6-51.9)	45.9 (43.6-48.1)	48.3 (46.2-50.4)	46.7 (45.1-48.3)
	2003	46.2 (43.6-48.7)	53.0 (50.9-55.2)	50.2 (47.9-52.5)	49.0 (47.1-51.0)	49.8 (48.2-51.5)
	2004	46.0 (43.0-49.0)	51.8 (49.4-54.2)	48.1 (45.5-50.8)	50.6 (48.2-53.1)	49.0 (47.1-50.9)
	2005	46.6 (44.2-49.1)	50.6 (48.6-52.5)	48.8 (46.6-50.9)	48.5 (46.7-50.4)	48.7 (47.1-50.2)
	2006	44.2 (41.5-46.9)	51.5 (49.2-53.7)	47.7 (45.3-50.2)	48.4 (46.1-50.7)	48.0 (46.2-49.7)
	2007	41.9 (39.1-44.8)	49.1 (46.9-51.4)	44.7 (42.3-47.2)	47.5 (45.1-49.8)	45.7 (43.9-47.4)
Vaccinated against influenza in the last 12 months	1997	55.7 (52.3-59.2)	58.1 (55.3-61.0)	57.6 (54.6-60.6)	56.1 (53.2-59.0)	57.1 (54.9-59.3)
	2002	74 6 (71 6 77 6)	75 8 (73 3 78 2)	62.4 (59.5-65.3)	73 6 (71 1-76 2)	75 2 (72 2-77 1)
6	2002	76.3 (73.2-79.3)	75.9 (73.5-78.3)	76.7 (74.0-79.3)	74.7 (72.4-77.1)	76.0 (74 1-77.9)
	2004	76.1 (72.6-79.5)	75.5 (72.7-78.4)	75.9 (72.9-79.0)	75.5 (72.5-78.5)	75.8 (73.6-78.0)
	2005	75.3 (72.6-78.1)	74.5 (72.2-76.8)	75.2 (72.8-77.6)	74.4 (72.0-76.7)	74.9 (73.1-76.7)
	2006	73.8 (70.5-77.1)	75.9 (73.3-78.4)	75.4 (72.6-78.2)	74.2 (71.5-76.9)	75.0 (72.9-77.0)
	2007	71.1 (67.6-74.7)	74.2 (71.5-76.9)	72.2 (69.2-75.2)	73.9 (71.1-76.6)	72.8 (70.6-75.0)
Vaccinated against pneumococcal disease in the last 5 years	2002	17.4 (15.6-19.2)	20.9 (19.3-22.6)	19.2 (17.6-20.8)	19.3 (17.7-20.9)	19.2 (18.0-20.5)
	2003	21.4 (19.4-23.5)	26.0 (24.2-27.8)	23.5 (21.7-25.3)	24.6 (22.9-26.2)	23.9 (22.5-25.2)
	2004	20.2 (18.0-22.5)	27.3 (25.2-29.4)	22.8 (20.7-24.9)	26.1 (23.8-28.3)	23.9 (22.4-25.5)
	2005	24.5 (22.5-26.4)	30.7 (29.0-32.5)	26.8 (25.0-28.6)	29.6 (27.9-31.3)	27.7 (26.4-29.0)
	2006	30.2 (27.7-32.6)	33.9 (31.8-36.0)	30.9 (28.7-33.1)	34.4 (32.2-36.5)	32.1 (30.5-33.7)
Vaccinated against pneumococcal disease in the last 5 years	2007	36.0 (32.6-39.4)	40.9 (38.0-43.7)	20.4 (20.3-30.3)	37.1 (34.2-40.0)	38.6 (36.4-40.8)
	2002	45.5 (42.0-49.1)	48.6 (45.8-51.5)	47.4 (44.3-50.6)	46.6 (43.8-49.4)	47.1 (44.9-49.4)
	2004	43.4 (39.2-47.5)	50.3 (46.9-53.6)	46.8 (43.2-50.4)	47.9 (44.3-51.5)	47.2 (44.6-49.8)
	2005	51.0 (47.8-54.3)	56.5 (53.9-59.1)	53.9 (51.1-56.7)	54.3 (51.7-57.0)	54.1 (52.0-56.1)
	2006	60.0 (56.3-63.8)	61.6 (58.6-64.6)	59.6 (56.3-62.9)	63.0 (60.0-66.0)	60.9 (58.5-63.2)
	2007	56.7 (52.7-60.7)	61.1 (58.1-64.1)	56.1 (52.7-59.5)	64.5 (61.4-67.6)	59.1 (56.7-61.6)
Homes with a smoke alarm or detector	1997			54.5 (53.3-55.8)	66.6 (65.4-67.8)	58.2 (57.3-59.2)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1998			61.4 (60.1-62.7)	69.8 (68.6-71.1)	64.0 (63.0-65.0)
	2002			70.5 (69.0-72.0)	18.1 (77.3-80.0)	/3.0 (71.9-74.1)
	2003			71.1 (69.6-72.5)	76.7 (75.4-78.1)	72.8 (71.7-73.9)
	2004			74 8 (73 3-76 3)	81 6 (80 3-82 9)	76.9 (75.8-78.0)
	2006			85.5 (84.1-86.9)	90.0 (88.8-91.2)	86.9 (85.8-87.9)
	2007			92.7 (91.6-93.8)	93.4 (92.2-94.6)	92.9 (92.0-93.7)
Homes with an escape plan practiced in the last 12 months	2007			4.7 (3.8-5.6)	6.2 (5.0-7.3)	5.1 (4.4-5.9)
First aid training in the last 12 months	2007	14.5 (12.7-16.3)	12.7 (11.4-14.0)	12.4 (11.0-13.8)	16.4 (14.6-18.2)	13.6 (12.5-14.7)
Burns or scalds in the last 12 months	2007	16.5 (14.6-18.5)	17.9 (16.3-19.4)	16.6 (15.0-18.2)	18.7 (16.8-20.6)	17.2 (16.0-18.5)
Treatment required for burns and scalds	2007	6.3 (2.2-10.3)	7.0 (4.2-9.7)	7.5 (4.2-10.7)	4.9 (2.0-7.7)	6.6 (4.2-9.0)
Recommended fruit consumption	1997	39.7 (38.3-41.1)	52.4 (51.1-53.7)	47.0 (45.7-48.3)	44.2 (42.8-45.5)	46.1 (45.2-47.1)
	1998	39.5 (38.0-41.0)	50.9 (49.5-52.2)	45.3 (44.0-46.6)	45.3 (43.9-46.6)	45.3 (44.3-46.3)
	2002	41.4 (39.4-43.3)	51.2 (49.5-52.9)	47.3 (45.7-49.0)	44.0 (42.3-45.8)	46.3 (45.0-47.6)
	2003	40.1 (38.2-42.0)	53 / (51 F FF /)	48.4 (46.8-50.0)	45.1 (43.5-46.7)	47.4 (46.2-48.6)
	12004	140.0 100.0-40.0	100.4 (01.0-00.4)	HO.I (40.1-50.2)	1++.1 (+2.0-40.1)	+1.1 (40.0-40.0)
	2005	44 6 (42 6-46 5)	57 5 (55 9-59 1)	51 1 (49 5-52 8)	51 2 (49 6-52 0)	51 2 (49 9-52 1)
	2005	44.6 (42.6-46.5) 47.0 (44.7-49.3)	57.5 (55.9-59.1) 59.6 (57.7-61.5)	51.1 (49.5-52.8) 53.8 (51.9-55.8)	51.2 (49.6-52.9) 52.3 (50.3-54.4)	51.2 (49.9-52.4) 53.4 (51.9-54.9)
	2005 2006 2007	44.6 (42.6-46.5) 47.0 (44.7-49.3) 48.4 (45.8-50.9)	57.5 (55.9-59.1) 59.6 (57.7-61.5) 59.8 (57.9-61.8)	51.1 (49.5-52.8) 53.8 (51.9-55.8) 55.0 (52.9-57.1)	51.2 (49.6-52.9) 52.3 (50.3-54.4) 52.9 (50.7-55.2)	51.2 (49.9-52.4) 53.4 (51.9-54.9) 54.4 (52.8-56.0)

Indicator	Year	Males	Females	Urban	Rural	All
		% (95% CI)				
	2007	81.4 (79.2-83.6)	91.8 (90.6-92.9)	86.9 (85.4-88.5)	87.1 (85.5-88.7)	87.0 (85.8-88.2)
Recommended vegetable consumption	1997	8.0 (7.3-8.8)	9.7 (8.9-10.5)	8.1 (7.4-8.8)	10.6 (9.7-11.4)	8.9 (8.3-9.4)
	1998	7.1 (6.4-7.9)	8.6 (7.8-9.3)	7.1 (6.4-7.7)	9.6 (8.8-10.5)	7.9 (7.3-8.4)
	2002	5.8 (4.9-6.6)	9.1 (8.3-10.0)	6.7 (5.9-7.5)	9.2 (8.3-10.1)	7.5 (6.9-8.1)
	2003	8.1 (7.1-9.1)	11.4 (10.4-12.4)	9.4 (8.4-10.3)	10.7 (9.8-11.6)	9.8 (9.1-10.5)
	2004	6.0 (5.0-7.0)	10.3 (9.1-11.4)	7.2 (6.2-8.1)	10.5 (9.3-11.7)	8.2 (7.4-8.9)
	2005	4.7 (3.9-5.4)	10.1 (9.2-10.9)	6.5 (5.7-7.2)	9.6 (8.7-10.5)	7.4 (6.8-8.0)
	2006	6.4 (5.3-7.5)	12.4 (11.3-13.6)	8.3 (7.3-9.3)	12.0 (10.9-13.2)	9.4 (8.7-10.2)
	2007	7.2 (6.0-8.4)	13.8 (12.5-15.1)	9.4 (8.3-10.5)	13.5 (12.2-14.9)	10.7 (9.8-11.5)
Three or more serves of vegetables a day	1997	28.4 (27.1-29.7)	39.4 (38.1-40.6)	32.6 (31.4-33.8)	37.0 (35.7-38.3)	34.0 (33.0-34.9)
	1998	29.3 (27.9-30.7)	38.2 (36.9-39.5)	31.3 (30.1-32.6)	39.4 (38.1-40.8)	33.8 (32.9-34.7)
	2002	31.5 (29.7-33.3)	43.8 (42.1-45.4)	35.9 (34.3-37.5)	41.8 (40.0-43.6)	37.7 (36.5-38.9)
	2003	36.4 (34.5-38.2)	47.4 (45.8-48.9)	40.1 (38.5-41.7)	46.2 (44.6-47.9)	42.0 (40.8-43.2)
	2004	27.0 (25.0-29.1)	42.8 (40.9-44.7)	33.3 (31.4-35.1)	39.0 (37.1-40.9)	35.0 (33.6-36.5)
	2005	26.3 (24.7-28.0)	46.2 (44.6-47.7)	34.4 (32.9-35.9)	41.2 (39.6-42.8)	36.4 (35.3-37.6)
	2006	30.9 (28.8-33.0)	50.8 (48.9-52.7)	39.0 (37.1-40.9)	45.3 (43.2-47.3)	40.9 (39.4-42.3)
	2007	31.0 (28.7-33.3)	48.7 (46.8-50.7)	37.3 (35.3-39.3)	46.9 (44.7-49.2)	40.3 (38.7-41.8)
Knowledge of recommended vegetable consumption	2006	16.5 (14.5-18.4)	37.0 (35.1-39.0)	26.5 (24.7-28.4)	29.2 (27.2-31.2)	27.3 (25.9-28.7)
	2007	22.4 (20.1-24.7)	42.9 (40.9-45.0)	32.5 (30.4-34.5)	35.7 (33.5-38.0)	33.5 (31.9-35.0)
Consumes bread once a day or more	2005	83.0 (81.5-84.5)	75.2 (73.8-76.6)	77.6 (76.2-79.0)	82.5 (81.3-83.7)	79.0 (78.0-80.1)
	2006	81.0 (79.1-82.8)	72.9 (71.2-74.6)	76.0 (74.3-77.6)	79.0 (77.4-80.7)	76.9 (75.6-78.2)
	2007	80.7 (78.7-82.8)	72.3 (70.5-74.1)	75.7 (73.9-77.5)	77.8 (75.9-79.7)	76.3 (75.0-77.7)
Consumes pasta, rice, noodles and other cooked cereals once a day or more	2005	15.8 (14.2-17.5)	15.1 (13.8-16.5)	18.9 (17.5-20.3)	7.5 (6.6-8.5)	15.5 (14.4-16.5)
	2006	14.1 (12.4-15.8)	15.4 (13.8-17.0)	18.7 (17.1-20.3)	5.6 (4.6-6.7)	14.7 (13.6-15.9)
	2007	17.7 (15.5-19.8)	14.7 (13.2-16.2)	19.7 (18.0-21.5)	8.0 (6.6-9.3)	16.1 (14.8-17.4)
Consumes breakfast cereals 2 times a week or more	2005	66.3 (64.4-68.2)	65.7 (64.2-67.3)	65.1 (63.4-66.7)	68.3 (66.7-69.8)	66.0 (64.8-67.3)
	2006	67.0 (64.7-69.2)	69.9 (68.1-71.6)	67.2 (65.3-69.1)	71.2 (69.3-73.1)	68.4 (67.0-69.8)
	2007	68.6 (66.2-71.0)	67.4 (65.4-69.3)	67.1 (65.1-69.0)	70.0 (67.9-72.1)	68.0 (66.4-69.5)
Consumes red meat less than 3 times a week	2007	42.9 (40.4-45.4)	44.2 (42.2-46.1)	46.1 (44.0-48.1)	38.0 (35.8-40.2)	43.6 (42.0-45.1)
Usually consumes lower fat or skim milk	1997	37.2 (35.8-38.6)	53.6 (52.3-55.0)	46.8 (45.5-48.1)	42.6 (41.2-43.9)	45.5 (44.6-46.5)
	1998	38.6 (37.0-40.1)	52.3 (50.9-53.6)	46.6 (45.3-48.0)	43.0 (41.6-44.3)	45.5 (44.5-46.5)
	2002	35.6 (33.7-37.4)	50.6 (48.9-52.3)	44.5 (42.8-46.2)	40.0 (38.3-41.8)	43.2 (41.9-44.4)
	2003	37.2 (35.4-39.1)	50.9 (49.3-52.4)	44.6 (43.0-46.2)	43.2 (41.6-44.8)	44.2 (42.9-45.4)
	2004	38.8 (36.4-41.1)	53.2 (51.3-55.1)	47.7 (45.7-49.7)	42.3 (40.4-44.3)	46.1 (44.6-47.6)
	2005	37.4 (35.5-39.2)	50.4 (48.8-52.0)	44.5 (42.9-46.1)	42.8 (41.2-44.4)	44.0 (42.7-45.2)
	2006	40.7 (38.5-43.0)	53.9 (52.0-55.8)	48.4 (46.5-50.4)	44.9 (42.9-46.9)	47.3 (45.9-48.8)
	2007	38.5 (36.0-40.9)	52.3 (50.3-54.3)	45.5 (43.5-47.6)	46.0 (43.8-48.2)	45.7 (44.1-47.2)
Rarely or never consumes hot fried potatoes	2005	23.4 (21.1-25.7)	32.5 (30.5-34.6)	28.1 (26.1-30.1)	27.9 (25.9-29.9)	28.1 (26.5-29.6)
	2006	25.5 (23.5-27.5)	34.5 (32.8-36.2)	29.9 (28.2-31.6)	30.4 (28.6-32.1)	30.1 (28.7-31.4)
10	2007	20.6 (18.8-22.4)	33.8 (32.0-35.6)	26.6 (24.9-28.3)	29.4 (27.5-31.2)	27.5 (26.2-28.8)
Rarely or never consumes potato crisps or salty snacks	2005	42.1 (39.3-44.9)	48.1 (45.8-50.3)	44.2 (41.9-46.6)	47.2 (44.8-49.7)	45.1 (43.3-46.9)
	2006	43.9 (41.6-46.2)	49.4 (47.5-51.3)	45.9 (43.9-47.8)	48.5 (46.5-50.6)	46.7 (45.2-48.2)
$( \land \cdot \ )$	2007	39.6 (37.1-42.0)	48.5 (46.5-50.5)	43.0 (40.9-45.1)	46.8 (44.6-49.0)	44.2 (42.6-45.8)
Consumes processed meat products less than 3 times a week	1997	71.6 (70.3-72.9)	86.5 (85.6-87.4)	81.1 (80.1-82.2)	74.6 (73.4-75.8)	79.2 (78.4-80.0)
	2002	68.9 (67.1-70.8)	84.5 (83.2-85.7)	77.9 (76.4-79.3)	74.3 (72.6-75.9)	76.8 (75.6-77.9)
	2003	73.7 (72.0-75.5)	85.7 (84.5-86.8)	80.7 (79.4-82.1)	77.8 (76.4-79.3)	79.8 (78.8-80.9)
	2004	72.5 (70.3-74.6)	85.0 (83.6-86.4)	79.5 (77.8-81.2)	77.3 (75.5-79.0)	78.8 (77.5-80.1)
	2005	72.2 (70.4-74.0)	84.1 (82.8-85.3)	78.9 (77.5-80.4)	76.7 (75.1-78.2)	78.2 (77.1-79.3)
	2006	73.8 (71.7-75.8)	83.3 (81.8-84.8)	78.6 (76.9-80.2)	78.6 (76.8-80.4)	78.6 (77.3-79.8)
	2007	69.6 (67.2-72.1)	85.0 (83.6-86.5)	78.2 (76.4-80.1)	76.5 (74.4-78.6)	77.7 (76.3-79.1)
Consumes 2 cups or less of soft drinks, cordials or sports drinks a week	2006	54.5 (52.1-56.8)	65.6 (63.7-67.5)	60.3 (58.3-62.2)	59.8 (57.7-61.8)	60.1 (58.6-61.6)
	2007	53.0 (50.4-55.6)	68.4 (66.6-70.3)	61.3 (59.3-63.4)	60.4 (58.1-62.7)	61.1 (59.5-62.7)
Rarely or never consumes takeaway food	2006	32.7 (30.6-34.8)	41.4 (39.6-43.3)	35.0 (33.2-36.8)	41.9 (39.9-43.8)	37.1 (35.7-38.5)
	2007	30.8 (28.7-32.9)	44.5 (42.5-46.4)	36.3 (34.4-38.2)	41.5 (39.4-43.6)	37.9 (36.5-39.4)
Food insecurity in the last 12 months	2002	5.3 (4.4-6.1)	6.1 (5.3-6.9)	5.2 (4.5-6.0)	6.7 (5.8-7.7)	5.7 (5.1-6.3)
	2003	5.3 (4.4-6.1)	6.8 (6.0-7.5)	5.7 (5.0-6.4)	6.9 (6.1-7.7)	6.1 (5.5-6.6)
<sup>2</sup> O	2004	5.3 (4.3-6.3)	6.2 (5.2-7.2)	5.6 (4.7-6.5)	6.0 (5.0-6.9)	5.7 (5.0-6.4)
	2005	4.0 (3.2-4.8)	6.5 (5.7-7.4)	5.2 (4.5-6.0)	5.4 (4.7-6.2)	5.3 (4.7-5.9)
	2006	5.2 (4.1-6.3)	6.0 (5.1-6.9)	5.5 (4.6-6.5)	5.8 (4.8-6.8)	5.6 (4.9-6.3)
	2007	2.8 (2.1-3.6)	5.9 (4.9-6.9)	4.2 (3.4-5.0)	4.9 (4.0-5.8)	4.4 (3.8-5.0)
Adequate physical activity	1998	52.5 (51.0-54.0)	43.4 (42.1-44.7)	48.6 (47.3-49.9)	46.3 (44.9-47.6)	47.9 (46.9-48.9)
	2002	51.0 (49.1-53.0)	43.4 (41.8-45.1)	47.0 (45.4-48.7)	47.6 (45.8-49.3)	47.2 (45.9-48.5)
	2003	49.5 (47.6-51.5)	40.4 (38.9-42.0)	45.7 (44.1-47.3)	42.6 (40.9-44.2)	44.7 (43.5-46.0)
	2004	57.0 (54.7-59.3)	47.9 (46.0-49.8)	53.3 (51.3-55.3)	50.2 (48.3-52.2)	52.4 (50.9-53.9)
	2005	56.6 (54.6-58.5)	47.3 (45.7-49.0)	52.5 (50.8-54.2)	50.3 (48.6-52.0)	51.9 (50.6-53.1)
	2006	60.4 (58.1-62.7)	49.6 (47.6-51.5)	55.0 (53.1-57.0)	54.7 (52.6-56.7)	54.9 (53.4-56.4)
	2007	62.1 (59.3-65.0)	47.6 (45.2-50.0)	54.6 (52.2-57.0)	55.4 (52.7-58.0)	54.8 (52.9-56.7)
Weekly or more use of any neighbourhood facilities	2006	49.4 (44.5-54.3)	45.8 (41.6-50.0)	51.3 (47.4-55.2)	35.7 (30.9-40.5)	47.7 (44.4-50.9)
	2007	48.7 (46.1-51.2)	44.3 (42.3-46.2)	49.7 (47.6-51.8)	39.1 (36.9-41.3)	46.4 (44.8-48.1)
Unsafe sex	2004	4.4 (3.4-5.3)	2.4 (1.9-3.0)	3.2 (2.5-4.0)	3.8 (3.0-4.6)	3.4 (2.8-4.0)
	2007	4.1 (3.1-5.1)	1.9 (1.3-2.6)	3.3 (2.5-4.1)	2.5 (1.8-3.2)	3.1 (2.5-3.7)
Current smoking	1997	27.1 (25.8-28.4)	21.1 (20.0-22.1)	23.6 (22.5-24.7)	25.1 (23.9-26.2)	24.0 (23.2-24.9)
	1998	26.2 (24.8-27.5)	21.3 (20.2-22.4)	23.9 (22.7-25.0)	23.3 (22.2-24.5)	23.7 (22.8-24.6)
	2002	23.9 (22.2-25.6)	19.2 (17.9-20.5)	20.8 (19.5-22.2)	23.1 (21.6-24.6)	21.5 (20.5-22.6)
	2003	24.7 (23.0-26.4)	19.7 (18.5-21.0)	21.7 (20.3-23.1)	23.6 (22.2-25.1)	22.3 (21.2-23.3)
	2004	22.5 (20.5-24.5)	19.3 (17.8-20.8)	21.0 (19.3-22.6)	20.6 (19.0-22.2)	20.9 (19.6-22.1)
	2005	22.6 (20.9-24.3)	17.6 (16.3-18.8)	19.0 (17.7-20.4)	22.5 (21.0-24.0)	20.1 (19.0-21.1)
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Indicator	Year	Males	Females	Urban	Rural	All
		% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
	2006	19.2 (17.3-21.1)	16.2 (14.8-17.7)	17.1 (15.6-18.6)	19.1 (17.4-20.8)	17.7 (16.5-18.9)
	2007	21.9 (19.8-24.0)	15.4 (14.0-16.7)	18.5 (16.8-20.1)	18.8 (17.0-20.5)	18.6 (17.3-19.8)
Daily smoking	1997	21.6 (20.4-22.7)	16.7 (15.7-17.6)	18.3 (17.4-19.3)	20.8 (19.7-21.9)	19.1 (18.3-19.8)
	1998	20.8 (19.5-22.0)	16.6 (15.6-17.5)	18.3 (17.3-19.3)	19.4 (18.3-20.4)	18.6 (17.9-19.4)
	2002	18.5 (17.0-20.0)	14.3 (13.1-15.5)	15.6 (14.3-16.8)	18.3 (16.9-19.7)	16.4 (15.4-17.3)
	2003	19.7 (18.1-21.3)	15.7 (14.6-16.9)	17.1 (15.8-18.4)	19.3 (18.0-20.7)	17.8 (16.8-18.7)
	2004	17.3 (15.6-19.1)	15.4 (14.0-16.8)	16.1 (14.7-17.6)	16.9 (15.4-18.3)	16.3 (15.2-17.5)
	2005	17.5 (16.0-19.0)	14.1 (13.0-15.3)	14.6 (13.4-15.8)	18.5 (17.1-19.9)	15.8 (14.8-16.7)
	2006	15.0 (13.3-16.7)	12.9 (11.6-14.2)	13.1 (11.7-14.5)	15.8 (14.2-17.3)	13.9 (12.8-15.0)
	2007	17.0 (15.1-18.9)	12.2 (11.0-13.5)	14.2 (12.7-15.6)	15.5 (13.8-17.1)	14.6 (13.4-15.7)
Intend to quit smoking	2002	52.0 (47.9-56.1)	49.2 (45.3-53.1)	51.4 (47.6-55.3)	49.3 (45.4-53.1)	50.7 (47.9-53.6)
	2003	45.3 (41.1-49.4)	51.6 (48.0-55.3)	46.0 (42.3-49.8)	52.0 (48.4-55.6)	47.9 (45.1-50.7)
	2004	56.3 (51.4-61.3)	57.2 (52.8-61.7)	56.1 (51.6-60.5)	58.3 (54.1-62.5)	56.8 (53.4-60.1)
	2005	61.1 (56.9-65.2)	58.3 (54.3-62.3)	60.4 (56.4-64.3)	58.7 (54.8-62.5)	59.8 (56.9-62.8)
	2007	67.2 (59.8-74.6)	57.1 (49.6-64.6)	62.3 (55.3-69.4)	63.3 (55.6-70.9)	62.6 (57.2-68.0)
Doctor advised to quit smoking	2005	42.0 (37.4-46.6)	46.9 (42.6-51.3)	44.6 (40.3-48.9)	43.4 (39.1-47.7)	44.2 (41.0-47.4)
	2006	45.7 (40.1-51.3)	51.6 (46.6-56.5)	49.2 (44.2-54.3)	46.8 (41.9-51.7)	48.4 (44.7-52.2)
	2007	52.7 (47.3-58.2)	46.9 (42.1-51.8)	50.5 (45.6-55.4)	49.8 (44.5-55.1)	50.3 (46.5-54.0)
Smoke-free households	1997			70.1 (68.9-71.3)	68.7 (67.5-70.0)	69.7 (68.8-70.6)
	1998			73.6 (72.4-74.7)	72.1 (70.9-73.4)	73.1 (72.3-74.0)
	2002			81.4 (80.1-82.7)	79.2 (77.8-80.6)	80.8 (79.8-81.8)
	2003			83.2 (82.0-84.4)	81.2 (80.0-82.4)	82.6 (81.7-83.5)
	2004			84.6 (83.2-86.0)	83.5 (82.1-84.9)	84.2 (83.2-85.3)
	2005			86.1 (84.9-87.3)	86.1 (85.0-87.2)	86.1 (85.2-87.0)
	2006			88.2 (86.9-89.4)	86.5 (85.2-87.9)	87.7 (86.7-88.6)
	2007			88.3 (87.0-89.6)	88.0 (86.6-89.3)	88.2 (87.2-89.2)
Smoke-free cars	2003			81.8 (80.4-83.1)	80.0 (78.6-81.3)	81 2 (80 2-82 2)
	2004		<u>x</u>	83 8 (82 2-85 4)	85.4 (84.0-86.9)	84.3 (83.1-85.5)
	2005		$\sim$	84 8 (83 5-86 1)	84.9 (83.6-86.2)	84 8 (83 9-85 8)
	2006		X	88.0 (86.6-89.3)	86.9 (85.5-88.4)	87 7 (86 6-88 7)
	2000			87.4 (86.0-88.8)	88.0 (86.6-89.4)	87.6 (86.5-88.7)
Easy to find shade in local sporting areas	1007		$\mathbf{N}$	52.2 (50.8-53.7)	40.0 (47.6-50.5)	51 2 (50 1-52 3)
Lasy to find shade in local sporting areas	2004			61.0 (50.6-64.2)	64 7 (62 4 66 0)	62 8 (61 0 64 E)
	2004	6	60.	61.0 (50.5 64.2)	64.2 (61.9 60.9)	02.0 (01.0-04.5)
Four to find shade at autopar public quimming pact	2007			50.0 (53.0-04.2)	04.3 (01.0-00.8)	
Easy to tind shade at outdoor public swimming pool	1997	XU	$\mathbb{N}$	59.2 (57.6-60.8)	04.4 (62.9-65.9)	01.0 (59.8-62.1)
	2004			70.8 (68.2-73.4)	13.9 (11.5-16.4)	11.0 (09.9-13.7)
	2007	$\sim$	-	/1.5 (68.8-74.1)	11.2 (74.6-79.8)	73.3 (71.3-75.3)
Easy to find shade at local public park	2004	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		75.7 (73.8-77.6)	85.6 (83.9-87.2)	78.7 (77.3-80.1)
	2007			75.0 (73.0-77.0)	83.7 (81.8-85.5)	77.6 (76.0-79.1)

Intersection

# Trends in health status

Indicator	Year	Males % (95% CI)	Females % (95% CI)	Urban % (95% CI)	Rural % (95% CI)	All % (95% CI)
Excellent, very good, or good self-rated health status	1997	85.0 (84.0-85.9)	85.1 (84.2-86.0)	85.7 (84.8-86.5)	83.5 (82.6-84.5)	85.0 (84.4-85.7)
	1998	85.0 (84.0-86.0)	83.1 (82.2-84.0)	84.3 (83.4-85.2)	83.5 (82.5-84.4)	84.0 (83.3-84.7)
	2002	82.0 (80.5-83.5)	79.9 (78.6-81.2)	80.7 (79.5-82.0)	81.5 (80.1-82.8)	81.0 (80.0-81.9)
	2003	81.8 (80.4-83.2)	79.7 (78.5-80.9)	80.5 (79.2-81.7)	81.2 (80.0-82.5)	80.7 (79.8-81.6)
	2004	79.4 (77.6-81.3)	79.5 (78.0-81.0)	79.6 (78.1-81.2)	79.1 (77.5-80.6)	79.5 (78.3-80.7)
	2005	83.3 (81.9-84.7)	78.7 (77.4-80.0)	81.0 (79.7-82.2)	80.9 (79.6-82.2)	80.9 (80.0-81.9)
	2006	82.5 (80.9-84.2)	78.1 (76.6-79.7)	80.3 (78.8-81.8)	80.4 (78.8-81.9)	80.3 (79.2-81.4)
	2007	83.3 (82.0-84.7)	78.8 (77.6-80.0)	81.6 (80.4-82.8)	79.8 (78.5-81.2)	81.0 (80.1-82.0)
Ever diagnosed with asthma	1997	15.2 (14.1-16.2)	18.4 (17.4-19.5)	15.6 (14.7-16.6)	19.5 (18.4-20.6)	16.8 (16.1-17.6)
	1998	15.5 (14.3-16.6)	18.2 (17.2-19.2)	15.8 (14.9-16.8)	19.2 (18.1-20.3)	16.8 (16.1-17.6)
	2002	18.6 (17.1-20.1)	21.1 (19.7-22.4)	19.0 (17.7-20.3)	21.8 (20.4-23.3)	19.8 (18.8-20.9)
	2003	19.3 (17.7-20.8)	22.6 (21.3-23.9)	19.9 (18.6-21.2)	23.3 (21.9-24.8)	21.0 (19.9-22.0)
	2005	17.9 (16.4-19.4)	20.4 (19.1-21.7)	18.2 (16.9-19.5)	21.4 (20.1-22.8)	19.2 (18.2-20.2)
	2006	18.4 (16.6-20.2)	20.1 (18.6-21.6)	18.2 (16.7-19.7)	21.8 (20.0-23.6)	19.3 (18.1-20.4)
	2007	19.3 (17.3-21.3)	21.1 (19.6-22.7)	18.9 (17.3-20.5)	23.4 (21.5-25.3)	20.2 (19.0-21.5)
Current asthma	1997	8.8 (7.9-9.6)	12.1 (11.2-13.0)	9.9 (9.1-10.7)	11.8 (10.9-12.7)	10.5 (9.8-11.1)
	1998	8.9 (8.0-9.8)	11.0 (10.2-11.7)	9.2 (8.4-9.9)	11.6 (10.7-12.5)	9.9 (9.4-10.5)
	2002	9.2 (8.1-10.4)	12.1 (11.1-13.2)	9.8 (8.8-10.7)	12.8 (11.6-14.0)	10.7 (9.9-11.5)
	2003	9.1 (8.0-10.3)	12.6 (11.6-13.7)	10.8 (9.8-11.8)	11.3 (10.2-12.3)	10.9 (10.1-11.7)
	2004	8.9 (7.4-10.4)	11.9 (10.7-13.1)	9.9 (8.6-11.2)	11.6 (10.4-12.9)	10.4 (9.5-11.4)
	2005	8.8 (7.7-9.9)	12.0 (11.0-13.0)	9.7 (8.7-10.7)	12.1 (11.0-13.1)	10.4 (9.7-11.2)
	2006	9.9 (8.5-11.3)	11.8 (10.6-13.0)	10.1 (8.9-11.2)	12.7 (11.2-14.1)	10.9 (9.9-11.8)
Written acthma management alon	2007	0.9 (7.5-10.4)	11.0 (10.0-13.1)	3.0 (8.4-10.8)	12.4 (10.9-13.9)	10.5 (9.5-11.4)
million asullina management pidit	1000	33 1 (20 1 20 1)	35 6 (32 1 20 4)	35 5 (21 1 20 5)	33 0 (20 2 26 7)	34 6 (31 7 37 6)
	2003	34 7 (27.2-42.0)	45 0 (32.1-39.1)	33.5 (31.4-39.3)	39.2 (29.3-30.7)	34.0 (31.7-37.0)
	2003	33.9 (26.6-41.2)	40.6 (35.3-45.9)	42.3 (30.6-46.2) 39 3 (33 2-45 3)	34.6 (28.9-40.2)	41.2 (30.9-43.4) 37.6 (33.2-42.0)
	2000	40 7 (32 4-49 0)	46 5 (40 7-52 2)	42.8 (36.3-49.3)	46.4 (39.9-53.0)	44 1 (39 3-48 9)
Current smoking	2006	19.8 (13.6-25.9)	16.4 (12.1-20.7)	18.9 (13.8-24.0)	16.1 (11.9-20.2)	17.9 (14.3-21.5)
	2007	22.4 (19.0-25.7)	15.7 (13.5-17.9)	19.1 (16.5-21.8)	18.7 (16.0-21.4)	19.0 (17.0-21.0)
Diabetes or high blood glucose	1997	5.2 (4.6-5.7)	4.2 (3.7-4.8)	4.6 (4.1-5.1)	5.0 (4.4-5.6)	4.7 (4.3-5.1)
	1998	4.9 (4.2-5.5)	4.0 (3.5-4.5)	4.3 (3.8-4.9)	4.7 (4.1-5.2)	4.4 (4.0-4.8)
	2002	6.5 (5.7-7.3)	5.5 (4.9-6.2)	5.4 (4.7-6.1)	7.3 (6.5-8.1)	6.0 (5.5-6.5)
	2003	7.0 (6.1-7.8)	5.6 (4.9-6.2)	6.0 (5.3-6.6)	7.1 (6.3-7.8)	6.3 (5.8-6.8)
	2004	8.0 (6.9-9.1)	5.3 (4.6-6.0)	6.4 (5.5-7.2)	7.2 (6.2-8.2)	6.6 (6.0-7.3)
	2005	8.4 (7.4-9.3)	6.9 (6.1-7.6)	7.5 (6.7-8.3)	7.8 (7.0-8.6)	7.6 (7.0-8.2)
15	2006	8.5 (7.4-9.7)	6.4 (5.6-7.2)	7.5 (6.6-8.5)	7.3 (6.4-8.1)	7.4 (6.7-8.1)
	2007	7.8 (6.7-8.9)	6.5 (5.7-7.3)	6.5 (5.6-7.3)	8.6 (7.5-9.6)	7.1 (6.4-7.8)
High and very high psychological distress	1997	9.2 (8.4-10.0)	13.0 (12.1-13.9)	10.9 (10.1-11.7)	11.6 (10.8-12.5)	11.2 (10.5-11.8)
	1998	9.0 (8.1-9.9)	12.1 (11.2-12.9)	10.8 (9.9-11.6)	10.1 (9.3-11.0)	10.6 (10.0-11.2)
	2002	10.5 (9.3-11.6)	14.2 (13.0-15.4)	12.4 (11.3-13.5)	12.2 (11.0-13.4)	12.4 (11.5-13.2)
	2003	9.3 (8.2-10.4)	12.8 (11.8-13.9)	11.1 (10.1-12.1)	11.1 (10.0-12.1)	11.1 (10.3-11.8)
	2004	11.7 (10.2-13.3)	14.7 (13.3-16.1)	13.5 (12.2-14.9)	12.6 (11.2-13.9)	13.2 (12.2-14.3)
	2005	9.7 (8.4-10.9)	14.1 (12.9-15.3)	12.1 (11.0-13.2)	11.5 (10.4-12.6)	11.9 (11.1-12.8)
	2006	9.4 (8.1-10.7)	12.2 (11.0.14.5)	10.8 (9.6-12.0)	10.4 (9.2-11.7)	10.7 (9.8-11.6)
Helped out any local group or organization at loast once in the last 3 months	2007	10.9 (9.4-12.5)	34.7 (20.4-40.1)	11.9 (10.0-13.2) 20.3 (24.0-35.8)	30.0 (33.8-46.0)	12.1 (11.1-13.1)
	2000	31.2 (24.3-36.0)	39.9 (32.6-47.3)	33.1 (25.4-40.7)	46 7 (37 9-55 4)	37.4 (31.4-43.3)
Visited a dental professional in the last 12 months	2002	53 8 (51 8-55 8)	57 7 (56 0-59 4)	57 6 (55 9-59 3)	51 5 (49 7-53 3)	55 8 (54 5-57 1)
	2003	56.2 (54.2-58.1)	60.5 (59.0-62.1)	60.7 (59.1-62.3)	52.8 (51.2-54.4)	58.3 (57.1-59.5)
	2004	58.1 (55.8-60.4)	63.1 (61.2-64.9)	62.9 (60.9-64.8)	55.5 (53.5-57.5)	60.6 (59.1-62.1)
	2005	60.2 (58.2-62.1)	63.9 (62.4-65.5)	64.4 (62.8-66.0)	56.7 (55.0-58.3)	62.1 (60.9-63.3)
	2006	56.4 (54.1-58.7)	59.8 (57.9-61.6)	60.3 (58.4-62.2)	53.0 (51.0-55.1)	58.1 (56.6-59.6)
	2007	52.9 (50.4-55.4)	59.0 (57.1-60.9)	57.8 (55.7-59.8)	51.9 (49.7-54.1)	56.0 (54.4-57.6)
All natural teeth missing	1998	5.7 (5.1-6.4)	10.6 (9.9-11.3)	6.8 (6.2-7.4)	11.4 (10.6-12.2)	8.2 (7.7-8.7)
	2002	4.9 (4.3-5.6)	7.8 (7.1-8.6)	5.3 (4.7-5.9)	8.9 (8.1-9.7)	6.4 (5.9-6.9)
	2003	4.3 (3.7-4.9)	7.7 (7.1-8.3)	4.8 (4.2-5.3)	9.1 (8.4-9.9)	6.1 (5.7-6.6)
	2004	4.7 (4.0-5.5)	7.7 (6.9-8.6)	5.2 (4.5-5.9)	8.6 (7.7-9.5)	6.3 (5.7-6.8)
	2005	4.2 (3.6-4.8)	6.8 (6.2-7.4)	4.7 (4.2-5.2)	7.5 (6.9-8.2)	5.6 (5.1-6.0)
	2006	3.7 (3.1-4.3)	5.9 (5.2-6.5)	3.8 (3.2-4.3)	7.1 (6.3-7.9)	4.8 (4.3-5.2)
	2007	3.9 (3.3-4.5)	6.4 (5.7-7.1)	4.2 (3.6-4.8)	7.4 (6.5-8.2)	5.1 (4.7-5.6)
Agree with adding fluoride to water supply	2005	87.4 (84.3-90.4)	88.2 (85.9-90.6)	91.0 (88.7-93.2)	79.7 (76.3-83.2)	87.8 (85.9-89.7)
	2006	86.2 (84.6-87.8)	86.1 (84.7-87.5)	88.8 (87.5-90.2)	80.1 (78.4-81.8)	86.1 (85.1-87.2)
	2007	89.2 (87.6-90.8)	87.8 (86.4-89.2)	90.6 (89.3-91.9)	83.6 (81.8-85.3)	88.5 (87.4-89.5)
Overweight and obesity	1997	49.3 (47.8-50.7)	34.2 (32.9-35.4)	40.1 (38.8-41.3)	45.6 (44.3-47.0)	41.8 (40.8-42.7)
	1998	49.8 (48.3-51.4)	34.1 (32.9-35.4)	40.1 (38.8-41.4)	46.4 (45.0-47.8)	42.0 (41.0-43.1)
	2002	53.4 (51.4-55.4)	38.2 (36.6-39.8)	44.5 (42.8-46.2)	49.1 (47.3-51.0)	45.9 (44.6-47.2)
	2003	55.7 (53.7-57.7)	41.0 (39.4-42.6)	40.∠ (44.5-47.8)	33.5 (51.8-55.1)	48.4 (47.1-49.6)
	2004	56.2 (53.8-58.6)	40.5 (38.6-42.4)	40.8 (44.8-48.8)	52.2 (50.2-54.2)	48.4 (46.9-50.0)
	2005	57 1 (55 0.50 7)	42.3 (40.7-43.9)	+1.4 (45.1-49.1)	52 5 (50 1-51 - 6)	49.9 (40.0-51.1)
<u> </u>	2000	58 8 (56 2 61 4)	41.4-40.2)	40.2 (41.3-31.5)	57 2 (55 0 50 E	51.7 (50.1.52.2)
Obesity	1997	11.0 (10 1-11 8)	11.3 (10 6-12 1)	10.2 (9.5-11.0)	13.2 (12 4-14 1)	11.2 (10 6-11 7)
,	1998	12.5 (11.5-13.4)	11.5 (10.7-12.3)	11.0 (10.2-11 8)	14.2 (13.3-15.2)	12.0 (11.4-12.6)
					(	

Indicator	Veer	Males	Females	Urban	Rural	All
Indicator	rear	% (95% CI)				
	2002	14.6 (13.3-16.0)	14.4 (13.3-15.5)	13.8 (12.7-14.9)	16.1 (14.9-17.3)	14.5 (13.6-15.4)
	2003	15.5 (14.1-16.8)	16.5 (15.3-17.6)	15.0 (13.9-16.2)	18.2 (16.9-19.4)	16.0 (15.1-16.9)
	2004	15.9 (14.3-17.6)	14.8 (13.5-16.1)	14.4 (13.0-15.8)	17.7 (16.2-19.1)	15.4 (14.3-16.4)
	2005	17.3 (15.8-18.8)	16.2 (15.1-17.3)	15.0 (13.8-16.1)	20.8 (19.4-22.1)	16.7 (15.8-17.6)
	2006	18.0 (16.2-19.8)	17.4 (15.9-18.8)	17.2 (15.7-18.7)	18.9 (17.3-20.5)	17.7 (16.6-18.9)
	2007	17.6 (15.7-19.5)	18.5 (17.0-19.9)	16.5 (15.0-18.0)	21.4 (19.6-23.2)	18.0 (16.8-19.2)
Knowing biological family's health is important to personal health	2007	95.1 (94.0-96.1)	97.7 (97.2-98.2)	96.5 (95.8-97.2)	96.3 (95.4-97.1)	96.4 (95.9-97.0)
Discussed family health history with a general practitioner	2007	57.4 (54.9-59.9)	72.3 (70.5-74.1)	65.0 (63.0-67.0)	64.7 (62.5-67.0)	64.9 (63.4-66.5)
Ever diagnosed with a potentially serious disease	2007	15.9 (14.4-17.5)	16.0 (14.7-17.2)	14.9 (13.7-16.2)	18.4 (16.8-19.9)	16.0 (15.0-17.0)
Member of biological family ever diagnosed with a potentially serious disease	2007	62.1 (59.6-64.7)	70.8 (69.0-72.7)	64.4 (62.4-66.5)	71.4 (69.3-73.5)	66.5 (65.0-68.1)
Willing to have a genetics test	2007	73.8 (71.1-76.4)	72.2 (70.2-74.2)	71.1 (68.9-73.3)	76.7 (74.6-78.7)	72.9 (71.3-74.6)
Please check the attractions		ales		ates	estin	hates.

# Trends in health services

Indicator	Year	0/	Males	Females	Urban	Rural	All % (05% CI)
Private health insurance	1997	42.7	(41.2-44.1)	41.4 (40.1-42.7)	44.3 (43.0-45.6)	36.9 (35.6-38.2)	42.0 (41.1-43.0)
	1998	40.5	(39.0-42.0)	41.3 (40.0-42.6)	43.6 (42.2-44.9)	34.9 (33.6-36.2)	40.9 (39.9-41.9)
	2002	52.1	(50.2-54.1)	54.1 (52.4-55.7)	57.0 (55.3-58.7)	44.2 (42.4-45.9)	53.1 (51.8-54.4)
	2003	53.4	(51.5-55.4)	54.4 (52.8-56.0)	57.4 (55.7-59.0)	45.4 (43.7-47.0)	53.7 (52.5-55.0)
	2004	54.4	(52.1-56.8)	54.1 (52.2-56.0)	57.7 (55.7-59.6)	46.5 (44.5-48.4)	54.3 (52.7-55.8)
	2005	54.3	(52.3-56.3)	54.9 (53.3-56.5)	58.4 (56.8-60.1)	45.8 (44.1-47.4)	54.6 (53.3-55.9)
	2006	53.2	(50.9-55.6)	55.9 (54.0-57.8)	58.2 (56.3-60.2)	46.2 (44.2-48.2)	54.6 (53.1-56.1)
	2007	55.8	(53.9-57.7)	54.4 (52.9-55.9)	57.8 (56.2-59.3)	49.0 (47.3-50.7)	55.1 (53.9-56.3)
Difficulties getting health care when needing it	1997	8.8	(8.0-9.6)	11.0 (10.3-11.8)	8.1 (7.4-8.8)	14.0 (13.1-14.9)	9.9 (9.4-10.5)
	1998	8.5	(7.8-9.3)	11.8 (11.0-12.5)	8.0 (7.4-8.7)	15.0 (14.1-15.9)	10.2 (9.6-10.7)
	2002	10.8	(9.6-11.9)	14.3 (13.2-15.4)	9.6 (8.6-10.5)	19.4 (18.0-20.8)	12.6 (11.8-13.4)
	2003	11.4	(10.3-12.6)	15.1 (14.0-16.2)	10.0 (9.1-10.9)	20.8 (19.5-22.2)	13.3 (12.5-14.0)
	2004	12.7	(11.2-14.1)	15.0 (13.7-16.3)	10.0 (8.9-11.2)	22.6 (21.0-24.3)	13.9 (12.9-14.8)
	2005	11.1	(10.0-12.3)	15.0 (13.9-16.1)	9.9 (9.0-10.9)	20.5 (19.1-21.8)	13.1 (12.3-13.9)
	2006	11.9	(10.5-13.3)	14.6 (13.3-15.9)	9.5 (8.4-10.7)	21.9 (20.2-23.6)	13.2 (12.3-14.2)
	2007	14.7	(13.4-16.0)	19.2 (18.1-20.4)	12.5 (11.4-13.5)	27.6 (26.1-29.1)	17.0 (16.2-17.9)
Emergency department presentation in the last 12 months	1997	15.8	(14.8-16.8)	12.0 (11.2-12.9)	11.7 (10.9-12.5)	18.9 (17.8-20.0)	13.9 (13.2-14.6)
	1998	13.9	(12.9-14.9)	12.0 (11.2-12.8)	11.2 (10.4-12.0)	17.0 (15.9-18.0)	13.0 (12.3-13.6)
	2002	14.7	(13.4-16.0)	13.8 (12.7-14.9)	12.6 (11.5-13.7)	18.1 (16.7-19.4)	14.3 (13.4-15.1)
	2003	14.0	(12.7-15.3)	13.1 (12.1-14.1)	11.8 (10.8-12.8)	17.7 (16.4-18.9)	13.6 (12.7-14.4)
	2004	15.4	(13.8-17.0)	13.6 (12.3-14.9)	13.2 (11.9-14.5)	17.5 (16.0-19.0)	14.5 (13.5-15.5)
	2005	14.0	(12.7-15.3)	13.3 (12.2-14.4)	12.4 (11.3-13.5)	16.6 (15.3-17.8)	13.6 (12.8-14.5)
	2006	14.1	(12.5-15.7)	14.0 (12.8-15.3)	12.4 (11.1-13.7)	17.8 (16.3-19.3)	14.1 (13.0-15.1)
	2007	16.5	(15.1-17.9)	14.6 (13.6-15.6)	13.8 (12.7-14.8)	19.6 (18.2-20.9)	15.5 (14.7-16.4)
Emergency department care rated as excellent, very good or good	1997	80.4	(77.5-83.3)	79.6 (76.6-82.7)	77.4 (74.2-80.6)	83.9 (81.6-86.2)	80.1 (78.0-82.2)
	1998	82.5	(79.5-85.5)	78.6 (75.7-81.5)	77.4 (74.3-80.6)	85.6 (83.4-87.9)	80.7 (78.6-82.8)
	2002	79.8	(75.8-83.7)	72.6 (68.7-76.6)	75.5 (71.6-79.4)	77.5 (73.8-81.3)	76.3 (73.5-79.1)
	2003	80.3	(76.1-84.4)	77.9 (74.3-81.6)	74.2 (70.0-78.3)	86.6 (84.1-89.0)	79.1 (76.3-81.8)
	2004	77.3	(72.3-82.2)	81.7 (77.9-85.6)	76.9 (72.3-81.4)	83.7 (80.0-87.4)	79.4 (76.2-82.6)
	2005	85.7	(82.0-89.3)	75.6 (71.5-79.8)	77.4 (73.3-81.4)	86.3 (83.5-89.2)	80.7 (77.9-83.5)
	2006	84.0	(79.6-88.3)	78.4 (73.9-82.8)	77.8 (73.2-82.5)	86.4 (83.4-89.5)	81.1 (78.0-84.3)
	2007	81.1	(77.3-84.9)	77.5 (74.2-80.8)	77.8 (74.2-81.4)	81.9 (78.8-85.0)	79.4 (76.9-81.9)
lospital admission in the last 12 months	1997	11.3	(10.4-12.1)	14.6 (13.7-15.5)	12.1 (11.3-12.8)	15.0 (14.1-15.9)	13.0 (12.3-13.6)
	1998	11.4	(10.5-12.4)	15.3 (14.4-16.2)	12.7 (11.8-13.5)	15.0 (14.1-15.9)	13.4 (12.7-14.0)
	2002	11.0	(9.9-12.2)	16.0 (14.8-17.3)	13.0 (11.9-14.1)	14.8 (13.6-16.0)	13.6 (12.7-14.4)
	2003	12.3	(11.1-13.5)	14.9 (13.8-16.0)	12.9 (11.9-14.0)	15.2 (14.0-16.4)	13.6 (12.8-14.4)
	2004	12.4	(10.9-13.8)	15.0 (13.6-16.4)	13.0 (11.6-14.3)	15.4 (14.0-16.8)	13.7 (12.7-14.7)
	2005	11.5	(10.4-12.7)	15.7 (14.6-16.9)	13.4 (12.3-14.4)	14.4 (13.2-15.5)	13.7 (12.9-14.5)
	2006	12.7	(11.3-14.1)	15.4 (14.1-16.8)	13.7 (12.4-15.0)	15.0 (13.6-16.4)	14.1 (13.1-15.1)
	2007	12.0	(10.9-13.1)	16.1 (15.0-17.2)	13.5 (12.5-14.4)	15.5 (14.4-16.7)	14.1 (13.3-14.9)
Hospital care rated as excellent, very good or good	1997	90.2	(87.8-92.7)	89.9 (87.9-91.9)	89.3 (87.1-91.5)	91.4 (89.6-93.2)	90.0 (88.5-91.6)
	1998	92.6	(90.4-94.7)	89.9 (88.0-91.8)	90.7 (88.8-92.7)	91.6 (89.7-93.5)	91.0 (89.6-92.5)
	2002	93.4	(90.6-96.2)	88.9 (85.9-91.9)	90.4 (87.6-93.2)	91.4 (88.2-94.6)	90.7 (88.6-92.9)
	2003	93.0	(90.3-95.8)	89.9 (87.5-92.2)	90.9 (88.5-93.3)	92.0 (89.7-94.2)	91.3 (89.5-93.0)
	2004	91.6	(88.3-94.9)	90.5 (87.4-93.7)	90.8 (87.7-94.0)	91.3 (88.7-93.9)	91.0 (88.7-93.3)
	2005	93.6	(91.1-96.1)	90.5 (88.0-93.0)	91.8 (89.5-94.1)	91.7 (89.0-94.4)	91.8 (90.0-93.6)
	2006	91.0	(87.5-94.6)	89.5 (86.5-92.5)	89.6 (86.4-92.7)	91.5 (88.9-94.2)	90.2 (87.9-92.5)
	2007	91.3	(88.7-93.8)	88.3 (85.9-90.7)	89.4 (87.0-91.8)	89.9 (87.7-92.1)	89.6 (87.8-91.3)
/isited a general practitioner in the last 12 months	1997	85.0	(83.9-86.0)	90.6 (89.8-91.3)	87.7 (86.8-88.5)	88.1 (87.3-89.0)	87.8 (87.2-88.4)
	1998	82.7	(81.5-83.8)	89.7 (88.9-90.5)	87.5 (86.6-88.4)	83.4 (82.4-84.5)	86.2 (85.5-86.9)
	2007	78.8	(77.2-80.4)	87.3 (86.3-88.4)	83.4 (82.2-84.7)	82.5 (81.0-83.9)	83.2 (82.2-84.1)
/isited a general practitioner in the last 2 weeks	1997	25.4	(24.1-26.8)	30.2 (28.9-31.5)	29.1 (27.9-30.3)	25.2 (24.0-26.5)	27.9 (27.0-28.9)
	1998	24.0	(22.6-25.4)	30.5 (29.2-31.8)	27.8 (26.6-29.0)	26.6 (25.3-27.8)	27.4 (26.5-28.4)
	2007	25.4	(23.6-27.1)	30.8 (29.3-32.2)	29.2 (27.7-30.6)	26.1 (24.6-27.6)	28.3 (27.1-29.4)
General practitioner care rated as excellent, very good or good	2007	93.1	(92.0-94.1)	93.5 (92.7-94.3)	93.1 (92.3-94.0)	93.7 (92.8-94.6)	93.3 (92.7-94.0)
Public dental service attendance in the last 12 months	2002	3.9	(3.1-4.7)	5.3 (4.5-6.1)	4.2 (3.5-4.9)	5.5 (4.7-6.3)	4.6 (4.1-5.2)
	2003	3.8	(3.2-4.5)	4.7 (4.1-5.4)	3.8 (3.2-4.3)	5.4 (4.7-6.2)	4.3 (3.8-4.7)
		C				00(5070)	E 4 (4 0 C 1)
	2004	5.2	(4.2-6.1)	5.6 (4.8-6.5)	5.1 (4.2-5.9)	6.2 (5.2-7.2)	5.4 (4.6-0.1)
	2004 2005	4.9	(4.2-6.1)	5.6 (4.8-6.5) 5.4 (4.7-6.1)	5.1 (4.2-5.9) 4.7 (4.0-5.4)	6.2 (5.2-7.2) 6.2 (5.3-7.1)	5.2 (4.6-5.7)
	2004 2005 2006	4.9 3.9	(4.2-6.1) (4.1-5.8) (2.9-4.8)	5.6 (4.8-6.5) 5.4 (4.7-6.1) 4.6 (3.8-5.4)	5.1 (4.2-5.9) 4.7 (4.0-5.4) 4.1 (3.3-4.8)	6.2 (5.2-7.2) 6.2 (5.3-7.1) 4.5 (3.6-5.5)	5.2 (4.6-5.7) 4.2 (3.6-4.8)
	2004 2005 2006 2007	5.2 4.9 3.9 5.1	(4.2-6.1) (4.1-5.8) (2.9-4.8) (4.3-5.9)	5.6 (4.8-6.5) 5.4 (4.7-6.1) 4.6 (3.8-5.4) 5.1 (4.5-5.8)	5.1 (4.2-5.9) 4.7 (4.0-5.4) 4.1 (3.3-4.8) 4.7 (4.1-5.4)	6.2 (5.2-7.2)           6.2 (5.3-7.1)           4.5 (3.6-5.5)           6.0 (5.1-6.8)	5.2 (4.6-5.7) 4.2 (3.6-4.8) 5.1 (4.6-5.6)
<sup>3</sup> ublic dental service care rated as excellent, very good, or good	2004 2005 2006 2007 2002	5.2 4.9 3.9 5.1 82.2	(4.2-6.1) (4.1-5.8) (2.9-4.8) (4.3-5.9) (75.0-89.5)	5.6 (4.8-6.5) 5.4 (4.7-6.1) 4.6 (3.8-5.4) 5.1 (4.5-5.8) 81.1 (75.5-86.6)	5.1 (4.2-5.9) 4.7 (4.0-5.4) 4.1 (3.3-4.8) 4.7 (4.1-5.4) 82.4 (76.5-88.3)	6.2 (5.2-7.2) 6.2 (5.3-7.1) 4.5 (3.6-5.5) 6.0 (5.1-6.8) 80.1 (73.7-86.5)	5.4 (4.8-6.1) 5.2 (4.6-5.7) 4.2 (3.6-4.8) 5.1 (4.6-5.6) 81.6 (77.1-86.0)
<sup>2</sup> ublic dental service care rated as excellent, very good, or good	2004 2005 2006 2007 2002 2003	5.2 4.9 3.9 5.1 82.2 85.8	(4.2-6.1) (4.1-5.8) (2.9-4.8) (4.3-5.9) (75.0-89.5) (80.4-91.2)	5.6 (4.8-6.5) 5.4 (4.7-6.1) 4.6 (3.8-5.4) 5.1 (4.5-5.8) 81.1 (75.5-86.6) 84.8 (79.9-89.8)	5.1 (4.2-5.9) 4.7 (4.0-5.4) 4.1 (3.3-4.8) 4.7 (4.1-5.4) 82.4 (76.5-88.3) 87.1 (82.2-92.0)	6.2 (5.2-7.2) 6.2 (5.3-7.1) 4.5 (3.6-5.5) 6.0 (5.1-6.8) 80.1 (73.7-86.5) 82.7 (77.4-87.9)	5.2 (4.6-5.7) 4.2 (3.6-4.8) 5.1 (4.6-5.6) 81.6 (77.1-86.0) 85.4 (81.8-89.0)
Public dental service care rated as excellent, very good, or good	2004 2005 2006 2007 2002 2003 2004	5.2 4.9 3.9 5.1 82.2 85.8 80.8	(4.2-6.1) (4.1-5.8) (2.9-4.8) (4.3-5.9) (75.0-89.5) (80.4-91.2) (72.0-89.6)	5.6 (4.8-6.5) 5.4 (4.7-6.1) 4.6 (3.8-5.4) 5.1 (4.5-5.8) 81.1 (75.5-86.6) 84.8 (79.9-89.8) 87.7 (82.7-92.8)	5.1 (4.2-5.9) 4.7 (4.0-5.4) 4.1 (3.3-4.8) 4.7 (4.1-5.4) 82.4 (76.5-88.3) 87.1 (82.2-92.0) 84.3 (77.3-91.3)	6.2 (5.2-7.2) 6.2 (5.3-7.1) 4.5 (3.6-5.5) 6.0 (5.1-6.8) 80.1 (73.7-86.5) 82.7 (77.4-87.9) 84.7 (78.6-90.9)	5.4 (4.6-5.1) 5.2 (4.6-5.7) 4.2 (3.6-4.8) 5.1 (4.6-5.6) 81.6 (77.1-86.0) 85.4 (81.8-89.0) 84.4 (79.4-89.5)
Public dental service care rated as excellent, very good, or good	2004 2005 2006 2007 2002 2003 2004 2006	5.2 4.9 3.9 5.1 82.2 85.8 80.8 86.4	(4.2-6.1) (4.1-5.8) (2.9-4.8) (4.3-5.9) (75.0-89.5) (80.4-91.2) (72.0-89.6) (77.5-95.2)	5.6 (4.8-6.5) 5.4 (4.7-6.1) 4.6 (3.8-5.4) 5.1 (4.5-5.8) 81.1 (75.5-86.6) 84.8 (79.9-89.8) 87.7 (82.7-92.8) 82.4 (76.0-88.9)	5.1 (4.2-5.9) 4.7 (4.0-5.4) 4.1 (3.3-4.8) 4.7 (4.1-5.4) 82.4 (76.5-88.3) 87.1 (82.2-92.0) 84.3 (77.3-91.3) 83.1 (75.9-90.3)	6.2 (5.2-7.2) 6.2 (5.3-7.1) 4.5 (3.6-5.5) 6.0 (5.1-6.8) 80.1 (73.7-86.5) 82.7 (77.4-87.9) 84.7 (78.6-90.9) 86.6 (80.0-93.1)	5.4 (4.5-6.1) 5.2 (4.6-5.7) 4.2 (3.6-4.8) 5.1 (4.6-5.6) 81.6 (77.1-86.0) 85.4 (81.8-89.0) 84.4 (79.4-89.5) 84.2 (78.9-89.5)
Public dental service care rated as excellent, very good, or good	2004 2005 2006 2007 2002 2003 2004 2006 2007	5.2 4.9 3.9 5.1 82.2 85.8 80.8 80.8 86.4 88.5	(4.2-6.1)           (4.1-5.8)           (2.9-4.8)           (4.3-5.9)           (75.0-89.5)           (80.4-91.2)           (72.0-89.6)           (77.5-95.2)           (83.2-93.9)	5.6 (4.8-6.5) 5.4 (4.7-6.1) 4.6 (3.8-5.4) 5.1 (4.5-5.8) 81.1 (75.5-86.6) 84.8 (79.9-89.8) 87.7 (82.7-92.8) 82.4 (76.0-88.9) 85.6 (81.6-89.5)	5.1 (4.2-5.9) 4.7 (4.0-5.4) 4.1 (3.3-4.8) 4.7 (4.1-5.4) 82.4 (76.5-88.3) 87.1 (82.2-92.0) 84.3 (77.3-91.3) 83.1 (75.9-90.3) 86.6 (82.0-91.3)	6.2 (5.2-7.2) 6.2 (5.3-7.1) 4.5 (3.6-5.5) 6.0 (5.1-6.8) 80.1 (73.7-86.5) 82.7 (77.4-87.9) 84.7 (78.6-90.9) 86.6 (80.0-93.1) 87.7 (84.0-91.5)	5.4 (4.5-6.1) 5.2 (4.6-5.7) 4.2 (3.6-4.8) 5.1 (4.6-5.6) 81.6 (77.1-86.0) 85.4 (81.8-89.0) 84.4 (79.4-89.5) 84.2 (78.9-89.5) 87.0 (83.7-90.3)
Public dental service care rated as excellent, very good, or good	2004 2005 2007 2002 2003 2004 2006 2007 2002	5.2 4.9 3.9 5.1 82.2 85.8 80.8 86.4 88.5 4.8	(4.2-6.1) (4.1-5.8) (2.9-4.8) (4.3-5.9) (75.0-89.5) (80.4-91.2) (72.0-89.6) (77.5-95.2) (83.2-93.9) (4.0-5.6)	$\begin{array}{c} 5.6 \left(4.8\text{-}6.5\right)\\ \overline{5.4} \left(4.7\text{-}6.1\right)\\ 4.6 \left(3.8\text{-}5.4\right)\\ 5.1 \left(4.5\text{-}5.8\right)\\ 81.1 \left(75.5\text{-}86.6\right)\\ 84.8 \left(79.9\text{-}89.8\right)\\ 87.7 \left(82.7\text{-}92.8\right)\\ 82.4 \left(76.0\text{-}88.9\right)\\ 85.6 \left(81.6\text{-}89.5\right)\\ 8.9 \left(8.0\text{-}9.9\right)\end{array}$	5.1 (4.2-5.9) 4.7 (4.0-5.4) 4.1 (3.3-4.8) 4.7 (4.1-5.4) 82.4 (76.5-88.3) 87.1 (82.2-92.0) 84.3 (77.3-91.3) 83.1 (75.9-90.3) 86.6 (82.0-91.3) 6.1 (5.3-6.9)	6.2 (5.2-7.2) 6.2 (5.3-7.1) 4.5 (3.6-5.5) 6.0 (5.1-6.8) 80.1 (73.7-86.5) 82.7 (77.4-87.9) 84.7 (78.6-90.9) 86.6 (80.0-93.1) 87.7 (84.0-91.5) 8.8 (7.8-9.7)	5.4 (4.5-6.7) 5.2 (4.6-5.7) 4.2 (3.6-4.8) 5.1 (4.6-5.6) 81.6 (77.1-86.0) 85.4 (81.8-89.0) 84.4 (79.4-89.5) 84.2 (78.9-89.5) 87.0 (83.7-90.3) 6.9 (6.3-7.5)
Public dental service care rated as excellent, very good, or good	2004 2005 2006 2007 2002 2003 2004 2006 2007 2002 2002	5.2 4.9 5.1 82.2 85.8 80.8 86.4 88.5 4.8 3.6	(4.2-6.1) (4.1-5.8) (2.9-4.8) (4.3-5.9) (75.0-89.5) (80.4-91.2) (72.0-89.6) (77.5-95.2) (83.2-93.9) (4.0-5.6) (3.0-4.3)	$\begin{array}{c} 5.6 \left(4.8\text{-}6.5\right)\\ \overline{5.4} \left(4.7\text{-}6.1\right)\\ 4.6 \left(3.8\text{-}5.4\right)\\ 5.1 \left(4.5\text{-}5.8\right)\\ 81.1 \left(75.5\text{-}86.6\right)\\ 84.8 \left(79.9\text{-}89.8\right)\\ 87.7 \left(82.7\text{-}92.8\right)\\ 82.4 \left(76.0\text{-}88.9\right)\\ 85.6 \left(81.6\text{-}89.5\right)\\ 8.9 \left(8.0\text{-}9.9\right)\\ 6.5 \left(5.8\text{-}7.2\right)\end{array}$	5.1 (4.2-5.9) 4.7 (4.0-5.4) 4.1 (3.3-4.8) 4.7 (4.1-5.4) 82.4 (76.5-88.3) 87.1 (82.2-92.0) 84.3 (77.3-91.3) 83.1 (77.3-91.3) 86.6 (82.0-91.3) 6.1 (5.3-6.9) 4.3 (3.7-4.9)	6.2 (5.2-7.2) 6.2 (5.3-7.1) 4.5 (3.6-5.5) 6.0 (5.1-6.8) 80.1 (73.7-86.5) 82.7 (77.4-87.9) 84.7 (78.6-90.9) 86.6 (80.0-93.1) 87.7 (84.0-91.5) 8.8 (7.8-9.7) 6.9 (6.1-7.6)	5.4 (4.6-5.7) 5.2 (4.6-5.7) 4.2 (3.6-4.8) 5.1 (4.6-5.6) 81.6 (77.1-86.0) 85.4 (81.8-89.0) 84.4 (79.4-89.5) 84.2 (78.9-89.5) 87.0 (83.7-90.3) 6.9 (6.3-7.5) 5.1 (4.6-5.6)
Public dental service care rated as excellent, very good, or good	2004 2005 2007 2002 2003 2004 2006 2007 2002 2003 2004	5.2 4.9 5.1 82.2 85.8 80.8 86.4 88.5 4.8 3.6 6.1	(4.2-6.1)           (4.1-5.8)           (2.9-4.8)           (4.3-5.9)           (75.0-89.5)           (80.4-91.2)           (77.5-95.2)           (83.2-93.9)           (4.0-5.6)           (3.0-4.3)           (5.0-7.2)	$\begin{array}{r} 5.6 \left(4.8\text{-}6.5\right)\\ \overline{5.4} \left(4.7\text{-}6.1\right)\\ 4.6 \left(3.8\text{-}5.4\right)\\ \overline{5.1} \left(4.5\text{-}5.8\right)\\ 81.1 \left(75.5\text{-}86.6\right)\\ 84.8 \left(79.9\text{-}89.8\right)\\ 87.7 \left(82.7\text{-}92.8\right)\\ 82.4 \left(76.0\text{-}88.9\right)\\ 85.6 \left(81.6\text{-}89.5\right)\\ 8.9 \left(80.9\text{-}9.9\right)\\ 6.5 \left(5.8\text{-}7.2\right)\\ 8.1 \left(7.1\text{-}9.1\right)\end{array}$	$\begin{array}{c} 5.1 \left(4.2\text{-}5.9\right)\\ 4.7 \left(4.0\text{-}5.4\right)\\ 4.1 \left(3.3\text{-}4.8\right)\\ 4.7 \left(4.1\text{-}5.4\right)\\ 82.4 \left(76.5\text{-}88.3\right)\\ 87.1 \left(82.2\text{-}92.0\right)\\ 84.3 \left(77.3\text{-}91.3\right)\\ 83.1 \left(77.3\text{-}91.3\right)\\ 86.6 \left(82.0\text{-}91.3\right)\\ 6.1 \left(5.3\text{-}6.9\right)\\ 4.3 \left(3.7\text{-}4.9\right)\\ 6.5 \left(5.5\text{-}7.5\right)\end{array}$	6.2 (5.2-7.2) 6.2 (5.3-7.1) 4.5 (3.6-5.5) 6.0 (5.1-6.8) 80.1 (73.7-86.5) 82.7 (77.4-87.9) 84.7 (78.6-90.9) 86.6 (80.0-93.1) 87.7 (84.0-91.5) 8.8 (7.8-9.7) 6.9 (6.1-7.6) 8.5 (7.4-9.5)	5.4 (4.5-5.7) 5.2 (4.6-5.7) 4.2 (3.6-4.8) 5.1 (4.6-5.6) 81.6 (77.1-86.0) 85.4 (81.8-89.0) 84.4 (79.4-89.5) 84.2 (78.9-89.5) 87.0 (83.7-90.3) 6.9 (6.3-7.5) 5.1 (4.6-5.6) 7.1 (6.4-7.8)
Public dental service care rated as excellent, very good, or good	2004 2005 2007 2002 2003 2004 2006 2007 2002 2003 2004 2004 2005	5.2 4.9 3.9 5.1 82.2 85.8 80.8 86.4 88.5 4.8 3.6 6.1 6.1 6.2	(4.2-6.1)           (4.1-5.8)           (2.9-4.8)           (4.3-5.9)           (75.0-89.5)           (80.4-91.2)           (72.0-89.6)           (77.5-95.2)           (83.2-93.9)           (4.0-5.6)           (3.0-4.3)           (5.0-7.2)	5.6 (4.8-6.5) 5.4 (4.7-6.1) 4.6 (3.8-5.4) 5.1 (4.5-5.8) 81.1 (75.5-86.6) 84.8 (79.9-89.8) 87.7 (82.7-92.8) 82.4 (76.0-88.9) 85.6 (81.6-89.5) 8.9 (8.0-9.9) 6.5 (5.8-7.2) 8.1 (7.1-9.1) 8.8 (7.9-9.7)	$\begin{array}{c} 5.1 \left(4.2\text{-}5.9\right)\\ 4.7 \left(4.0\text{-}5.4\right)\\ 4.1 \left(3.3\text{-}4.8\right)\\ 4.7 \left(4.1\text{-}5.4\right)\\ 82.4 \left(76.5\text{-}88.3\right)\\ 87.1 \left(82.2\text{-}92.0\right)\\ 84.3 \left(77.3\text{-}91.3\right)\\ 83.1 \left(75.9\text{-}90.3\right)\\ 86.6 \left(82.0\text{-}91.3\right)\\ 6.1 \left(5.3\text{-}6.9\right)\\ 4.3 \left(3.7\text{-}4.9\right)\\ 6.5 \left(5.5\text{-}7.5\right)\\ 7.2 \left(6.3\text{-}8.0\right)\end{array}$	6.2 (5.2-7.2) 6.2 (5.3-7.1) 4.5 (3.6-5.5) 6.0 (5.1-6.8) 80.1 (73.7-86.5) 82.7 (77.4-87.9) 84.7 (78.6-90.9) 86.6 (80.0-93.1) 87.7 (84.0-91.5) 8.8 (7.8-9.7) 6.9 (6.1-7.6) 8.5 (7.4-9.5) 8.4 (7.5-9.2)	5.4 (4.5-6.7) 5.2 (4.6-5.7) 4.2 (3.6-4.8) 5.1 (4.6-5.6) 81.6 (77.1-86.0) 85.4 (81.8-89.0) 84.4 (79.4-89.5) 84.2 (78.9-89.5) 87.0 (83.7-90.3) 6.9 (6.3-7.5) 5.1 (4.6-5.6) 7.1 (6.4-7.8) 7.5 (6.9-8.2)
Public dental service care rated as excellent, very good, or good	2004 2005 2007 2002 2003 2004 2006 2007 2002 2003 2004 2005 2006	5.2 4.9 3.9 5.1 82.2 85.8 80.8 86.4 88.5 4.8 3.6 6.1 6.2 5.7	(4.2-6.1) (4.1-5.8) (2.9-4.8) (4.3-5.9) (75.0-89.5) (80.4-91.2) (72.0-89.6) (77.5-95.2) (83.2-93.9) (4.0-5.6) (3.0-4.3) (5.0-7.2) (5.3-7.2) (4.7-6.8)	$\begin{array}{r} 5.6 \left(4.8\text{-}6.5\right)\\ \overline{5.4} \left(4.7\text{-}6.1\right)\\ 4.6 \left(3.8\text{-}5.4\right)\\ \overline{5.1} \left(4.5\text{-}5.8\right)\\ 81.1 \left(75.5\text{-}86.6\right)\\ 84.8 \left(79.9\text{-}89.8\right)\\ 87.7 \left(82.7\text{-}92.8\right)\\ 82.4 \left(76.0\text{-}88.9\right)\\ 85.6 \left(81.6\text{-}89.5\right)\\ 8.9 \left(8.0\text{-}9.9\right)\\ 6.5 \left(5.8\text{-}7.2\right)\\ 8.1 \left(7.1\text{-}9.1\right)\\ 8.8 \left(7.9\text{-}9.7\right)\\ 8.8 \left(7.9\text{-}9.9\right)\end{array}$	$\begin{array}{c} 5.1 \left(4.2\text{-}5.9\right) \\ 4.7 \left(4.0\text{-}5.4\right) \\ 4.1 \left(3.3\text{-}4.8\right) \\ 4.7 \left(4.1\text{-}5.4\right) \\ 82.4 \left(76.5\text{-}88.3\right) \\ 87.1 \left(82.2\text{-}92.0\right) \\ 84.3 \left(77.3\text{-}91.3\right) \\ 83.1 \left(75.9\text{-}90.3\right) \\ 86.6 \left(82.0\text{-}91.3\right) \\ 6.1 \left(5.3\text{-}6.9\right) \\ 4.3 \left(3.7\text{-}4.9\right) \\ 6.5 \left(5.5\text{-}7.5\right) \\ 7.2 \left(6.3\text{-}8.0\right) \\ 7.0 \left(5.9\text{-}8.0\right) \end{array}$	6.2 (5.2-7.2) 6.2 (5.3-7.1) 4.5 (3.6-5.5) 6.0 (5.1-6.8) 80.1 (73.7-86.5) 82.7 (77.4-87.9) 84.7 (78.6-90.9) 86.6 (80.0-93.1) 87.7 (84.0-91.5) 8.8 (7.8-9.7) 6.9 (6.1-7.6) 8.5 (7.4-9.5) 8.4 (7.5-9.2) 8.1 (7.1-9.2)	5.4 (4.5-6.1) 5.2 (4.6-5.7) 4.2 (3.6-4.8) 5.1 (4.6-5.6) 81.6 (77.1-86.0) 85.4 (81.8-89.0) 84.4 (79.4-89.5) 84.2 (78.9-89.5) 87.0 (83.7-90.3) 6.9 (6.3-7.5) 5.1 (4.6-5.6) 7.1 (6.4-7.8) 7.5 (6.9-8.2) 7.3 (6.5-8.1)

# Trends in social capital

Indicator	Year	Males % (95% CI)	Females % (95% CI)	Urban % (95% CI)	Rural % (95% CI)	All % (95% CI)
Helped out any local group or organisation at least once in the last 3 months	2002	30.7 (28.9-32.4)	36.0 (34 4-37 6)	28.9 (27 4-30 4)	43.6 (41 8-45 4)	33.4 (32.2-34.5)
	2003	31.4 (29.6-33.2)	33.1 (31.6-34.6)	28.8 (27.3-30.3)	39.6 (38.0-41.3)	32.1 (30.9-33.2)
	2005	32.2 (20.3-34.0)	38.6	32.0	43.5	35.4
	2006	34.1	37.7 (25.0.20.5)	32.3	44.4	(34.2-30.0) 35.9 (24.5-27.2)
	2007	35.8	39.5	33.6	47.3	37.7
Most people can be trusted	2002	(33.4-38.2) 68.9	(37.6-41.4) 62.6	(31.6-35.5) 64.3	(45.0-49.5) 68.9	(36.2-39.2) 65.7
	2003	(67.1-70.7) 71.6	(60.9-64.3) 68.1	(62.7-66.0) 68.8	(67.3-70.6) 72.0	(64.5-67.0) 69.7
	2000	(69.9-73.4) 74.2	(66.6-69.6) 72.5	(67.2-70.3) 72.5	(70.5-73.5) 75.3	(68.6-70.9) 73.3
	2005	(72.4-76.0) 74.4	(71.0-74.0) 72.7	(70.9-74.0) 72.4	(73.8-76.8) 76.1	(72.2-74.5) 73.5
	2006	(72.3-76.4)	(71.0-74.5)	(70.6-74.2)	(74.3-77.9)	(72.2-74.9)
	2007	(70.0-74.6)	(67.2-71.0)	(67.3-71.2)	(71.9-76.0)	(69.2-72.2)
Feel safe walking down their street after dark	2002	(76.8-80.0)	(54.9-58.2)	(66.2-69.3)	(65.1-68.3)	(66.3-68.6)
	2003	80.2 (78.7-81.7)	56.4 (54.8-58.0)	68.3 (66.9-69.8)	67.3 (65.8-68.8)	68.0 (66.9-69.1)
	2005	82.9 (81.4-84.3)	59.9 (58.4-61.5)	71.1 (69.7-72.6)	71.6 (70.2-73.1)	71.3 (70.2-72.4)
	2006	82.4 (80.8-84.1)	58.0 (56.2-59.9)	70.1 (68.3-71.8)	70.6 (68.8-72.4)	70.2 (68.9-71.6)
	2007	82.3 (80.5-84.1)	60.3 (58.4-62.3)	70.9 (69.1-72.7)	71.5 (69.6-73.5)	71.1 (69.7-72.5)
Area has a reputation for being a safe place	2002	75.2 (73.5-76.9)	71.4 (69.9-73.0)	71.3 (69.8-72.8)	77.9 (76.4-79.3)	73.3 (72.2-74.4)
	2003	76.4 (74.8-78.1)	73.3 (71.9-74.7)	73.3 (71.9-74.8)	78.4 (77.0-79.8)	74.9 (73.8-75.9)
	2005	78.6	77.5	76.4 (75.0-77.8)	81.9 (80,5-83,2)	78.1
A CONTRACT OF A CONTRACT.	2006	75.8	74.9	73.0	80.8 (79 1-82 4)	75.3 (74.0-76.7)
	2007	77.2	75.6 (73.9-77.4)	74.2	81.5 (70.8-83.2)	76.4
Visit neighbours	2002	69.1	63.6	64.1	71.5	66.3
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2003	(67.3-70.9) 67.0	(62.0-65.2) 64.0	(62.5-65.7) 62.8	(70.0-73.1)	(65.1-67.5) 65.4
	2005	(65.1-68.8) 66.4	(62.4-65.5) 60.6	(61.2-64.4) 61.1	(69.9-72.8) 68.9	(64.2-66.6) 63.4
6.5	2006	(64.5-68.3) 66.6	(59.0-62.2) 66.9	(59.4-62.7) 64.3	(67.3-70.5) 72.5	(62.2-64.7) 66.7
	2000	(64.4-68.9) 64.7	(65.1-68.6) 60.1	(62.4-66.2) 60.3	(70.7-74.3) 66.9	(65.3-68.2) 62.3
	2007	(62.2-67.2) 80.7	(58.1-62.0) 84.0	(58.3-62.3) 78.9	(64.8-69.1) 90.4	(60.7-63.9) 82.4
Run into triends and acquaintances when shopping in local area	2002	(79.2-82.3)	(82.8-85.2)	(77.6-80.2)	(89.2-91.6)	(81.4-83.4)
N X	2003	(78.9-82.0)	(81.7-84.1)	(76.7-79.4)	(88.7-90.7)	(80.6-82.6)
	2005	(77.7-81.1)	(81.8-84.2)	(76.3-79.1)	(88.4-90.5)	(80.2-82.3)
	2006	(76.3-80.2)	83.2 (81.8-84.6)	(75.5-78.7)	89.2 (88.0-90.5)	80.8 (79.5-82.0)
6	2007	78.3 (76.2-80.4)	83.4 (81.9-84.8)	77.6 (75.9-79.4)	88.4 (86.9-89.9)	80.9 (79.6-82.2)
Sad to leave neighbourhood	2002	71.1 (69.3-72.9)	75.5 (74.0-76.9)	72.0 (70.5-73.6)	76.2 (74.6-77.8)	73.3 (72.1-74.5)
0.	2003	69.4 (67.6-71.2)	77.0 (75.6-78.3)	71.9 (70.4-73.4)	76.6 (75.2-78.0)	73.3 (72.2-74.4)
	2005	67.3 (65.4-69.3)	75.8 (74.4-77.2)	70.0 (68.5-71.6)	75.5 (74.0-77.0)	71.7 (70.5-72.9)
X	2006	69.5 (67.3-71.7)	76.3 (74.7-78.0)	72.2 (70.4-74.0)	74.7 (72.9-76.6)	73.0 (71.6-74.3)
	2007	70.0 (67.6-72.4)	76.2 (74.5-78.0)	71.0 (69.0-72.9)	78.3 (76.5-80.2)	73.2 (71.7-74.7)
Took part in sport or physical activities	2007	67.3 (64.6-70.1)	53.8	62.2 (59 8-64 5)	56.6 (54.0-59.2)	60.4 (58 6-62 3)
Participated in a recreational group, cultural group, community or special interest group, church or religious activities in the last 12 months	2007	57.2 (54.1-60.2)	58.5 (56.2-60.9)	58.1 (55.6-60.6)	57.4 (54.7-60.0)	57.9 (55.9-59.8)

# Question modules

The survey questions used in the New South Wales Population Health Survey in 2007 are available as individual question modules, including: alcohol and cannabis, asthma, community health centres, demographics, diabetes or high blood glucose, emergency departments, environmental health (water quality), family health history, gambling, general practitioner services, health services use and access (including private health insurance and difficulties getting health care), hospital admissions, immunisation (influenza and pneumococcal), injury prevention (smoke alarms and burns and scalds), mental health (psychological distress), nutrition, oral health, overweight and obesity, physical activity (including neighbourhood facilities), public dental services, self-rated health, sexual health, smoking, social capital, and sun protection.

incultit injury preventio in actilities), public dental services, s intection.

### Alcohol and cannabis

Q1. How often do you usually drink alcohol? [PROMPT IF NECESSARY]

1. \_\_\_\_\_ number of days

2. Less than once per week

3. I don't drink alcohol  $\rightarrow$  Q6

X Don't know  $\rightarrow$  Q6

R Refused  $\rightarrow$  Q6

Q2. Alcoholic drinks are measured in terms of a standard drink. A standard drink is equal to one middy of full-strength beer, one schooner of light beer, one small glass of wine, or one pub-sized nip of spirits. On a day when you drink alcohol, how many standard drinks do you usually have? [PROMPT IF NECESSARY]

1. \_\_\_\_\_ number of drinks

X Don't know **R** Refused

Q3. In the last 4 weeks have you had more than [4 if male/2 if female] drinks in a day? [PROMPT IF NECESSARY]

1. Yes

2. No  $\rightarrow$  Q6

X Don't know  $\rightarrow$  Q6

R Refused  $\rightarrow$  Q6

Q4. In the last 4 weeks how often have you had [11 or more if male/7 or more if female] drinks in a day? 1. number of times

2. Not at all

- X Don't know
- R Refused

Q5. In the last 4 weeks how often have you had [7-10 if male/5-6 if female] drinks in a day?

- 1. \_\_\_\_\_ \_\_ number of times
- 2. Not at all
- X Don't know
- **R** Refused

Q6. Which of the following best describes your marijuana or hashish smoking status? [ASKED IF 16-34 YEARS. PROMPT IF NECESSARYI

- 1. I smoke daily
- 2. I smoke occasionally
- 3. I don't smoke now, but I used to
- 4. I've tried it a few times but never
- Please cher 5. I've never smoked
- X Don't know
- R Refused

# Asthma

Q1. Have you ever been told by a doctor or hospital you have asthma? 1. Yes  $\rightarrow$  Q3 2. No  $\rightarrow$  END OF MODULE X Don't know  $\rightarrow$  END OF MODULE R Refused  $\rightarrow$  END OF MODULE

Q2. Have you had symptoms of or treatment for asthma in the last 12 months? 1. Yes 2. No  $\rightarrow$  END OF MODULE

X Don't know  $\rightarrow$  END OF MODULE

R Refused  $\rightarrow$  END OF MODULE

2. No 3. Don't know R Refused 4. The second seco

### **Community health centres**

Q1. In the last 12 months, have you attended a government-run community health centre?

- 1. Yes
- 2. No
- X Don't know
- R Refused

Please of each real states of the section of the se

### **Demographics**

Q1. [RECORD LANGUAGE SURVEY RECORDED IN]

- 1. English
- 2. Arabic
- 3. Chinese
- 4. Greek
- 5. Italian
- 6. Vietnamese

ette. Q2. A letter was sent to your household recently about this study. Do you remember receiving this letter? 1. Yes

- 2. No
- X Don't know **R** Refused

Q3. How many people, including yourself, live in your household?

- 1. \_\_\_\_ number of people
- X Don't know
- R Refused

Q4. How many of these people are children under 16 years of age?

- 1. number of people
- X Don't know
- R Refused

Q5. How many children under 6 years of age live in this household?

- 1. number of people
- X Don't know
- **R** Refused

Q6. How many people aged 65 years old or over live in this household?

- 1. \_\_\_\_ number of people
- X Don't know
- **R** Refused

Q7. Could you please tell me how old you are today?

- 1. \_\_\_\_ age in years
- X Don't know
- R Refused
- Q8. Are you male or female? [ONLY ASK IF UNSURE]
- 1. Male
- 2. Female

Q9. Besides yourself, who else lives in your household? [MULTIPLE RESPONSE]

- 1. No one else: lives alone
- 2. Mother
- 3. Father
- 4. Respondent's partner
- 5. Stepmother
- 6. Stepfather
- 7. Grandparents
- 8. Sons or daughters
- 9. Brothers or sisters
- 10. Stepbrothers or stepsisters
- 11. Other relatives
- 12. Non-family members
- 13. Other [SPECIFY] \_\_\_\_
- X Don't know
- R Refused

Q10. What is your current formal marital status?

- 1. Married
- 2. Widowed
- 3. Separated but not divorced
- 4. Divorced
- 5. Never married
- X Don't know
- R Refused
- Q11. In which country were you born?
- 1. Australia
- 2. Other country [SPECIFY] \_
- X Don't know
- R Refused

Q12. Do you usually speak a language other than English at home?

- 1. Yes
- 2. No  $\rightarrow$  Q14
- X Don't know  $\rightarrow$  Q14
- R Refused  $\rightarrow$  Q14
- Q13. What language do you usually speak at home?
- 1. Language [SPECIFY] \_\_\_\_\_
- X Don't know
- R Refused

of dates estimates. uncoling s Q14. What is the highest level of primary or secondary schooling you have completed? [PROMPT IF NECESSARY1

- 1. Never attended school
- 2. Currently still at school
- 3. Year 8 or below
- 4. Year 9 or equivalent
- 5. Year 10 or equivalent
- 6. Year 11 or equivalent
- 7. Year 12 or equivalent (Matriculation or Leaving)
- X Don't know
- R Refused

Q15. What is the level of the highest qualification you have completed?

- 1. Completed School Certificate or Intermediate or Year 10 or 4th Form
- 2. Completed Higher School Certificate or Leaving or Year 12 or 6th Form
- 3. TAFE certificate or diploma
- 4. University, College of Advanced Education, or some other tertiary institute degree or higher
- 5. Other [SPECIFY]
- Completed primary school
- 7. Completed Years 7 to 9
- X Don't know
- R Refused

Q16. In the last week, which of the following best describes your employment status?[READ OUT]

- 1. Worked for payment or profit  $\rightarrow$  Q18
- 2. Worked for payment or profit, but absent on paid leave, holidays, on strike or stood down  $\rightarrow$  Q18
- 3. Unpaid work in a family business  $\rightarrow$  Q18
- 4. Other unpaid work
- 5. Did not have a job
- X Don't know  $\rightarrow$  Q20
- R Refused  $\rightarrow$  Q20

Q17. Were you actively looking for work in the last week?

- 1. Yes: looked for full-time work  $\rightarrow$  Q20
- 2. Yes: looked for part-time work  $\rightarrow$  Q20
- 3. No: did not look for work  $\rightarrow$  Q20
- X Don't know  $\rightarrow$  Q20
- R Refused  $\rightarrow$  Q20

Q18. In the main job held in the last week, were you:

- 1. A wage or salary earner
- 2. Conducting own business with employees
- 3. Conducting own business without employees
- 4. A helper not receiving wages
- X Don't know
- R Refused

Q19. In the last week, how many hours did you work in all jobs?

1. No. of hours [SPECIFY]

X Don't know

**R** Refused

Q20. Do you currently receive a government pension, allowance or benefit? [ONLY ASKED OF 65 AND Jar estimates. OVER1

- 1. Yes
- 2. No
- X Don't know
- R Refused

Q21. Apart from Medicare, are you currently covered by private health insurance?

- 1. Yes
- 2. No
- X Don't know
- **R** Refused

come. Wh. Q22. I would now like to ask you about your household's income. What is your annual household income before tax? Would it be:

- 1. Less than \$20,000
- 2. \$20,000 to \$40,000
- 3. \$40,000 to \$60,000
- 4. \$60,000 to \$80,000
- 5. More than \$80,000
- X Don't know
- R Refused

Q23. How long have you lived in your local area?

- 1. years
- X Don't know
- **R** Refused

Q24. What is the name of your local council or shire?

1. X Don't know **R** Refused

Q25. What is the name of the town or suburb where you live?

- 1.
- X Don't know R Refused

Q26. Could you tell me your postcode?

- 1.
- X Don't know
- **R** Refused

Q27. Do you have more than one telephone number in your household? 1. Yes 2. No  $\rightarrow$  END OF MODULE X Don't know  $\rightarrow$  END OF MODULE R Refused  $\rightarrow$  END OF MODULE

Q28. How many residential telephone numbers do you have? Do not include mobile phone numbers, dedicated fax numbers or modems.

1. \_\_\_\_\_ number of phone numbers

X Don't know

R Refused

Please check Health states New For latest estimates.

### Diabetes or high blood glucose

Q1. Have you ever been told by a doctor or hospital you have diabetes?

- 1. Yes [IF FEMALE  $\rightarrow$  Q3; IF MALE  $\rightarrow$  Q5]
- 2. No
- 3. Only during pregnancy  $\rightarrow$  END OF MODULE
- X Don't know
- R Refused

Q2. Have you ever been told by a doctor or hospital you have high blood glucose?

- 1. Yes [IF MALE  $\rightarrow$  Q5]
- 2. No  $\rightarrow$  END OF MODULE
- 3. Borderline  $\rightarrow$  [IF FEMALE  $\rightarrow$  Q3; IF MALE  $\rightarrow$  END OF MODULE]
- 4. Only during pregnancy  $\rightarrow$  END OF MODULE
- X Don't know  $\rightarrow$  END OF MODULE
- R Refused  $\rightarrow$  END OF MODULE

Lestimates. Q3. Were you pregnant when you were told you had diabetes or high blood glucose?

- 1. Yes
- 2. No  $\rightarrow$  Q5

X Don't know  $\rightarrow$  END OF MODULE

R Refused  $\rightarrow$  END OF MODULE

Q4. Have you ever had diabetes or high blood glucose apart from when you were pregnant? 1. Yes

2. No  $\rightarrow$  END OF MODULE

X Don't know  $\rightarrow$  END OF MODULE

R Refused  $\rightarrow$  END OF MODULE

Q5. About how long is it since you consulted a diabetes educator for education about your diabetes or high blood glucose? [NOTE: A diabetes educator is a person who is specially trained to teach you about your ealthstats diabetes and diabetes management]

- 1. Less than 1 year ago
- 2. 1 year ago to less than 2 years ago
- 3. 2 years to less than 5 years ago
- 4. More than 5 years
- 5. Never
- X Don't know
- R Refused

Q6. About how long is it since you consulted a dietician for dietary advice about diabetes?

- 1. Less than 1 year ago
- 2. 1 year ago to less than 2 years ago
- 3. 2 years to less than 5 years ago
- 4. More than 5 years
- 5. Never
- X Don't know
- R Refused

Q7. About how long is it since you consulted a podiatrist to check for or treat diabetes-related foot problems? [NOTE: A podiatrist is a person who is specially trained to provide foot care]

- 1. Less than 1 year ago
- 2. 1 year ago to less than 2 years ago
- 3. 2 years to less than 5 years ago
- 4. More than 5 years
- 5. Never
- X Don't know
- R Refused

Q8. Who usually provides care for your diabetes or high blood glucose?

- 1. [SPECIFY]
- X Don't know
- R Refused

#### **Emergency department presentations**

Q1. In the last 12 months, have you attended a hospital emergency department (or casualty) for your own medical care?

- 1. Yes
- 2. No  $\rightarrow$  END OF MODULE
- X Don't know  $\rightarrow$  END OF MODULE
- R Refused  $\rightarrow$  END OF MODULE

lair or poor? estimates to the task estimates to the task estimates th Q2. Overall, what do you think of the care you received at this emergency department?

- 1. Excellent  $\rightarrow$  END OF MODULE
- 2. Very good  $\rightarrow$  END OF MODULE
- 3. Good  $\rightarrow$  END OF MODULE
- 4. Fair
- 5. Poor
- X Don't know  $\rightarrow$  END OF MODULE
- R Refused  $\rightarrow$  END OF MODULE

Q3. Could you briefly describe why you rated the care you received as fair or poor?

- 1. [SPECIFY]
- X Don't know
- R Refused

### **Environmental health**

- Q1. What is your normal source of drinking water?
- 1. Public water supply
- 2. Bottled water
- 3. Rainwater
- 4. Private bore, spring, or well
- 5. Other private supply [for example, creek or farm dam]
- 6. Combination of different water sources
- 7. Other [SPECIFY]
- X Don't know
- **R** Refused

Q2. Do you treat your water before drinking? [IF YES, HOW?]

- 1. No
- 2. Sometimes
- 3. Yes: boiling
- 4. Yes: filtering
- 5. Yes: boil and filter
- 6. Yes: other [SPECIFY]
- X Don't know
- R Refused

vale estimates Q3. Which of the following uses of treated wastewater or sewage do you support? [READ OUT. MULTIPLE RESPONSE.] **RESPONSE.**]

- 1. Maintenance of water levels in rivers and waterways
- 2. Watering of public parks and gardens
- 3. To increase drinking water supply in reservoirs
- 4. Crop irrigation
- 5. None
- X Don't know
- **R** Refused

sewage to you is in a contract of the states of the states

### Family health history

Q1. How important do you think knowledge of your biological family's health history is to your personal health? [READ OUT 1-4]

- 1. Very important
- 2. Somewhat important
- 3. Not at all important
- 4. No knowledge of biological family because adopted
- X Don't know
- R Refused

Q2. Have you ever discussed the health history of your biological mother, father, brothers, sisters, or grandparents with your general practitioner in relation to your health?

- 1. Yes
- 2. No
- X Don't know
- R Refused

Q3. Have you been diagnosed with a potentially serious disease such as diabetes, cancer, or heart disease?

- 1. Yes
- 2. No
- X Don't know
- R Refused

10.51 Q4. Has your mother, father or any of your brothers or sisters or grandparents ever been diagnosed with a potentially serious disease? IN YO' es

- 1. Yes
- 2. No
- X Don't know
- R Refused

s test to find out Q5. Would you consider taking a genetics test to find out if you had a high chance of developing a potentially serious disease?

- 1. Yes
- 2. No
- X Don't know
- **R** Refused

ę.5.

# Gambling

Q1. In the last 12 months have you undertaken any forms of gambling?

1. Yes

2. No  $\rightarrow$  Q4

- X Don't know  $\rightarrow$  Q4
- R Refused  $\rightarrow$  Q4

Q2. In the last 12 months, have you bet more than you could really afford to lose?

- 1. Never
- 2. Rarely
- 3. Sometimes
- 4. Often

....ght have a problem with gambling ....gyS X Don't know R Refused Q4. Has anyone in your immediate family ever had a gambling problem? 1. Yes 2. No X Don't know R Refused

#### **General practitioner services**

Q1. In the last 12 months, did you see a general practitioner? 1. Yes 2. No  $\rightarrow$  END OF MODULE X Don't know  $\rightarrow$  END OF MODULE R Refused  $\rightarrow$  END OF MODULE Q2. When did you last see a general practitioner? 1. Within the last week 2.1 to 2 weeks ago 3. 2 weeks to 1 month ago

4. Between 1 and 6 months

5. 6 to 12 months ago

Q3. Overall, what do you think of the care received at the most recent general practitioner visit?

1. Excellent → END OF MODULE

2. Very good → END OF MODULE

3. Good → END OF MODULE

4. Fair

5. Poor

X Don't know → END OF MODULE

Q4. Could you briefly describe why you rated the care you received as fair or poor?

1. [SPECIFY]

X Don't know

R Refused

e you received

R Refused

#### Health service use and access

Q1. In the last 12 months have you attended any of the following services? [READ OUT. MULTIPLE **RESPONSE**]

- 1. Stayed at least 1 night in hospital
- 2. A hospital emergency department
- 3. General practitioner services
- 4. A government run community health centre
- 5. A government run public dental service or dental hospital
- 6. Did not attend any of these services
- X Don't know
- **R** Refused

Q2. Apart from Medicare, are you covered by private health insurance?

- 1. Yes
- 2. No
- X Don't know
- **R** Refused

Please of each of the states o Q3. Do you have any difficulties getting health care when you need it?

- 1. Yes
- 2. No  $\rightarrow$  END OF MODULE
- 3. Don't need health care  $\rightarrow$  END OF MODULE
- X Don't know  $\rightarrow$  END OF MODULE
- R Refused  $\rightarrow$  END OF MODULE
- Q4. Please describe the difficulties you have.

1. Comments

### **Hospital admissions**

Q1. In the last 12 months, have you stayed for at least 1 night in hospital? 1. Yes 2. No  $\rightarrow$  END OF MODULE X Dont know  $\rightarrow$  END OF MODULE R Refused  $\rightarrow$  END OF MODULE rorpoor? A corpoor? A content to take the stimates out of takes testimates the takes the stimates out of takes testimates the takes the stimates out of takes testimates the takes of the stimates out of takes testimates the takes of the stimates out of takes testimates the takes of the stimates out of takes testimates the takes of the stimates of th Q2. Overall, what do you think of the care you received at this hospital? [READ OUT] 1. Excellent  $\rightarrow$  END OF MODULE 2. Very good  $\rightarrow$  END OF MODULE 3. Good  $\rightarrow$  END OF MODULE 4. Fair 5. Poor X Don't know  $\rightarrow$  END OF MODULE R Refused  $\rightarrow$  END OF MODULE Q3. Could you briefly describe why you rated the care you received as fair or poor? 1. [SPECIFY] X Don't know **R** Refused

### **Immunisation**

Q1. Were you vaccinated against flu in the past 12 months? [ASK IF OVER 50 YEARS]

- 1. Yes
- 2. No
- X Don't know
- R Refused

Q2. When were you last vaccinated against pneumonia? [ASK IF OVER 50 YEARS]

- 1. Within the last 12 months
- 2. 12 months to 5 years ago
- 3. More than 5 years ago
- 4. Never vaccinated
- X Don't know
- **R** Refused

Please check the attraction of the states of

# **Injury prevention**

- Q1. Do you have smoke alarms installed in your home?
- 1. Yes: battery operated
- 2. Yes: hard wired
- 3. Yes: battery operated and hard wired
- 4. No  $\rightarrow$  Q7
- X Don't know  $\rightarrow$  Q7
- R Refused  $\rightarrow$  Q7

#### Q2. When did you last test the battery operated smoke alarms? [READ OUT]

- 1. Within the last month
- 2. More than a month but less than 6 months ago

, in your smoke alarms? ...ess than a year ago ...inged the battery ...inged the batt

763

- 5. Never tested
- X Don't know
- R Refused
- Q6. How many hard wired smoke alarms do you have?
- [SPECIFY] 1.
- X Don't know
- **R** Refused
- Q7. Does your household have: [READ]
- 1. A written home escape plan
- 2. A home escape plan which is not written down
- 3. No home escape plan  $\rightarrow$  Q9
- X Don't know  $\rightarrow$  Q9
- R Refused  $\rightarrow$  Q9
- Q8. When did your household last practice your home escape plan?
- 1. Within the last month
- 2. More than a month but less than 6 months ago
- 3. Six months to a year ago
- 4. More than a year ago
- 5. Never practiced the plan
- X Don't know
- **R** Refused

Q9. Where do you, or would you, look for information on burns and scalds first aid?

- 1. Internet
- 2. First aid book
- 3. Friends and family
- 4. Health authorities
- 5. Doctors surgery
- 6. No information/source
- 7. Other [specify]
- X Don't know
- R Refused

Q10. Have you had first aid training in the last 12 months?

- 1. Yes
- 2. No
- X Don't know
- R Refused

Q11. Have you had a burn or scald in the last 12 months?

1. Yes

2. No  $\rightarrow$  END OF MODULE

- R. Refused  $\rightarrow$  END OF MODULE
- X. Don't know  $\rightarrow$  END OF MODULE

spia stinates who have estimates Q12. Was medical treatment required from a health professional?

- 1. Yes
- 2. No  $\rightarrow$  END OF MODULE
- X Don't know  $\rightarrow$  END OF MODULE
- R Refused  $\rightarrow$  END OF MODULE

Q13. Where did you go to get treatment?

- 1. General practitioner
- 2. Pharmacy
- 3. Emergency department of local hospital
- 4. Burns outpatient clinic
- 5. Other [specify]
- X Don't know
- **R** Refused

### Mental health

Q1. In the last 4 weeks, about how often did you feel tired out for no good reason? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

Q2. In the last 4 weeks, about how often did you feel nervous? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time  $\rightarrow$  Q4
- X Don't know  $\rightarrow$  Q4
- R Refused  $\rightarrow$  Q4

uing co Q3. In the last 4 weeks, about how often did you feel so nervous that nothing could calm you down? [READ OUT

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

Q4. In the last 4 weeks, about how often did you feel hopeless? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

Q5. In the last 4 weeks, about how often did you feel restless or fidgety? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time -
- X Don't know  $\rightarrow$  Q7
- R Refused  $\rightarrow$  Q7

Q6. In the last 4 weeks, about how often did you feel so restless you could not sit still? [READ OUT] 1. All of the time

- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know R Refused

Q7. In the last 4 weeks, about how often did you feel depressed? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time

mates.

5. None of the time X Don't know

R Refused

Q8. In the last 4 weeks, about how often did you feel that everything was an effort? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- **R** Refused

Q9. In the last 4 weeks, about how often did you feel so sad that nothing could cheer you up? [READ OUT]

- 1. All of the time

Q10. In the last 4 weeks, about how often did you feel worthless? [READ OUT] 1. All of the time 2. Most of the time 3. Some of the time 4. A little of the time 5. None of the time X Don't know R Refused Q11. In the last 4 weeks, how many days we activities because of these form Q11. In the last 4 weeks, how many days were you totally unable to work, study or manage your day-to-day

\_ number of days 1.

- X Don't know
- **R** Refused

Q12. Aside from [that day-those days], in the last 4 weeks, how many days were you able to work, study or manage your day-to-day activities, but had to cut down on what you did because of these feelings? number of days

1. X Don't know

R Refused

Q13. In the last 4 weeks, how many times have you seen a doctor or other health professional about these feelings?

- number of consultations 1. \_
- X Don't know
- R Refused

Q14. In the last 4 weeks, how often have physical health problems been the main cause of these feelings? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

# **Nutrition**

Q1. How many serves of fruit do you usually eat each day? [one serve = one medium piece or 2 small pieces of fruit or one cup of diced pieces]

- 1. \_\_\_\_\_ serves per day
- 2. \_\_\_\_\_ serves per week
- 3. Don't eat fruit
- X Don't know
- **R** Refused

Q2. How many serves of fruit do you think you should eat each day to be healthy?

1. \_\_\_\_\_ serves per day

- X Don't know
- R Refused

Q3. How many serves of vegetables do you usually eat each day? [one serve = 1/2 cup cooked or one cup estimo of salad vegetables]

- 1. \_\_\_\_\_ serves per day
- 2. \_\_\_\_\_ serves per week
- 3. Don't eat vegetables
- X Don't know
- R Refused

Q4. How many serves of vegetables do you think you should eat each day to be healthy?

- 1. serves per day
- X Don't know
- R Refused

Q5. How often do you usually eat bread? [Include bread rolls, flat breads, crumpets, bagels, English or bread-type muffins.]

- 1. \_\_\_\_\_ times per day
- 2. \_\_\_\_\_ times per week
- 3. \_\_\_\_\_ times per month
- 4. Rarely or never
- X Don't know
- R Refused

Q6. How often do you usually eat breakfast cereal? [Ready made, home made or cooked]

- 1. \_\_\_\_\_ times per day
- 2. \_\_\_\_\_ times per week
- 3. \_\_\_\_\_ times per month
- 4. Rarely or never
- X Don't know
- R Refused

Q7. How often do you eat pasta, rice, noodles or other cooked cereals (not including cooked breakfast cereals)?

- \_ times per day 1.
- \_\_\_\_\_times per week 2. \_\_\_
- 3. \_\_\_\_\_ times per month
- 4. Rarely or never
- X Don't know
- **R** Refused

Q8. How often do you eat red meat such as beef, lamb, liver and kidney but not pork or ham?

- 1. \_\_\_\_\_ times per day
- times per week
   times per month
- 4. Rarely or never
- X Don't know
- R Refused

Q9. What type of milk do you usually have?

- 1. Regular milk (whole or full cream)
- 2. Low- or reduced-fat milk
- 3. Skim milk
- 4. Evaporated or sweetened milk
- 5. Other [SPECIFY]
- 6. Don't have milk
- X Don't know
- **R** Refused

Q10. How often do you eat processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon or ham?

- 1. \_\_\_\_\_ times per day
- 2. \_\_\_\_\_ times per week
- 3. \_\_\_\_\_ times per month
- 4. Rarely or never
- X Don't know
- R Refused

Q11. How often do you eat hot chips, french fries, wedges, or fried potatoes?

- 1. \_\_\_\_\_ times per day
- 2. \_\_\_\_\_ times per week
- 3. \_\_\_\_\_ times per month
- 4. Rarely or never
- X Don't know
- R Refused

to atest estimates. Q12. How often do you eat potato crisps or other salty snacks (such as twisties or corn chips)?

- 1. \_\_\_\_\_ times per day
- 2. \_\_\_\_\_ times per week
- 3. \_\_\_\_\_ times per month
- 4. Rarely or never
- X Don't know
- R Refused

Q13. How many cups of soft drink, cordials or sports drink do you usually drink in a day?

- 1. \_\_\_\_\_ cups per day
- 2. cups per week
- 3. Doesn't drink soft drink
- X Don't know
- R Refused

Q14. How often do you have meals or snacks such as burgers, pizza, chicken or chips from take-away places?

- 1. \_\_\_\_\_ times per week
- 2. \_\_\_\_\_ times per month
- 3. Rarely or never *O*
- X Don't know
- R Refused

Q15. In the last 12 months, were there any times that you ran out of food and couldn't afford to buy more? 1. Yes

- 2. No
- X Don't know
- R Refused

### **Oral health**

- Q1. Are any of your natural teeth missing?
- 1. Yes: have some natural teeth missing
- 2. Yes: have all natural teeth missing
- 3. No: have no natural teeth missing  $\rightarrow$  Q3
- X Don't know  $\rightarrow$  Q3
- R Refused  $\rightarrow$  Q3

Q2. Do you have dentures or false teeth?

- 1. Yes
- 2. No
- X Don't know
- R Refused

,A der anic, den Q3. When did you last visit a dental professional about your teeth, dentures or gums? [A dental professional includes dentist, dental specialist, dental hygienist, dental technician, dental mechanic, denturist or dental therapist.] [READ OUT]

- 1. Less than 12 months ago  $\rightarrow$  Q5
- 2. One year to less than 2 years ago
- 3. Two to less than 5 years ago
- 4. Five to less than 10 years ago
- 5. Ten years ago or more
- 6. Never
- X Don't know  $\rightarrow$  Q5
- R Refused  $\rightarrow$  Q5

ing the Q4. What are the main reasons for you not visiting the dentist in the last 12 months? [MULTIPLE RESPONSE]

- 1. Respondent has dentures
- 2. Worried or afraid of going; don't like going
- 3. Don't need to
- 4. Hard to find time
- 5. Can't find a dentist I like
- 6. Too expensive
- 7. Too far to go
- 8. Long waiting lists
- 9. Dentist has moved or retired
- 10. Other [SPECIFY]
- X Don't know
- R Refused
- Q5. Has fluoride been added to your public water supply?
- 1. Yes
- 2. No  $\rightarrow$  Q7
- X Don't know  $\rightarrow$  Q7
- R Refused  $\rightarrow$  Q7

Q6. Do you agree with adding fluoride to your public water supply to prevent tooth decay?

- 1. Yes
- 2. No
- X Don't know
- R Refused

Q7. Would you be in favour of adding fluoride to your public water supply to prevent tooth decay? [READ OUT]

- 1. In children
- 2. In adults
- 3. Both adults and children
- 4. Neither
- X Don't know
- R Refused

Q8. Where have you received information about water fluoridation? [READ OUT]

- 1. Newspapers
- 2. Magazines
- 3. Television
- 4. Radio
- 5. Advertisements for dental products
- 6. Health authorities
- 7. Dentists
- 8. Dental auxiliaries
- 9. Have not received information about water fluoridation
- 10. Other [SPECIFY]
- X Don't know
- **R** Refused

Please of each real states of the states of Q9. Who should decide on the fluoridation of water supplies? [READ OUT]

- 1. State government
- 2. Health authorities
- 3. Dental associations
- 4. Water boards
- 5. Community
- 6. Other [SPECIFY] \_\_\_\_\_
- X Don't know
- **R** Refused

#### **Overweight and obesity**

Q1. How tall are you without shoes? 1. \_\_\_\_\_ centimetres X Don't know **R** Refused [OR] Please of edit in the states of the states o 1. \_\_\_\_\_ feet \_\_\_\_\_ inches X Don't know **R** Refused Q2. How much do you weigh without clothes or shoes? 1. \_\_\_\_\_ kilograms X Don't know **R** Refused [OR] 1. \_\_\_\_\_ stones \_\_\_\_\_ lbs X Don't know R Refused

#### Physical activity

Q1. In the last week, how many times have you walked continuously for at least 10 minutes for recreation or exercise or to get to or from places?

1 number	of times [If = $0 \rightarrow Q3$ ]
X Don't know $\rightarrow$ Q3	
R Refused $\rightarrow$ Q3	

Q2. What do you estimate was the total time you spent walking in this way in the last week? [In hours and minutes]

hours \_\_\_\_\_ minutes 1.

X Don't know

R Refused

Q3. The next question excludes household chores or gardening. In the last week, how many times did you do any vigorous physical activity which made you breathe harder or puff and pant?

1. \_\_\_\_\_ number of times [If =  $0 \rightarrow Q5$ ] X Don't know  $\rightarrow$  Q5

R Refused  $\rightarrow$  Q5

Q4. What do you estimate was the total time you spent doing this vigorous physical activity in the last week? [In hours and minutes]

1. \_\_\_\_\_ hours \_\_\_\_\_ minutes

X Don't know

R Refused

Q5. This next question does not include household chores or gardening. In the last week, how many times did you do any other more moderate physical activity that you haven't already mentioned?

1. \_\_\_\_\_ number of times [If =  $0 \rightarrow Q7$ ] X Don't know  $\rightarrow$  Q7

R Refused  $\rightarrow$  Q7

Q6. What do you estimate was the total time that you spent doing these activities in the last week? [In hours and minutes]

1. hours

X Don't know

R Refused

Q7. How do you usually get to work?

- 2. Bicvcle
- 3. Walk only
- 4. Walk part of the way
- 5. Bus
- 6. Ferry
- 7. Train
- 8. Tram (including light rail)
- 9. Taxi
- 10. Car (as driver)
- 11. Car (as passenger)
- 12. Truck
- 13. Motor bike or motor scooter
- 14. Other
- X Don't know
- R Refused

Q8. Does your neighbourhood have any of the following facilities:

minutes

- 1. Sporting fields
- 2. Public swimming pools
- 3. Parks or reserves
- 4. Footpaths
- 5. Bike paths
- 6. Other

X Don't know  $\rightarrow$  END OF MODULE R Refused  $\rightarrow$  END OF MODULE

Q9. How often do you use these facilities [ask for each facility]?

- 1. \_\_\_\_\_ times per day
- 2. \_\_\_\_\_ times per week
- 3. \_\_\_\_\_ times per month
- 4. Rarely or never
- X Don't know
- R Refused

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#### **Public dental services**

Q1. In the last 12 months have you attended a public (government-run) dental service or dental hospital? 1. Yes

2. No  $\rightarrow$  END OF MODULE

X Dont know  $\rightarrow$  END OF MODULE

R Refused  $\rightarrow$  END OF MODULE

Q2. Overall, what do you think of the care you received at this public dental service or dental hospital? 1. Excellent  $\rightarrow$  END OF MODULE

2. Very good  $\rightarrow$  END OF MODULE

3. Good  $\rightarrow$  END OF MODULE

4. Fair

5. Poor

X Don't know  $\rightarrow$  END OF MODULE

R Refused  $\rightarrow$  END OF MODULE

Q3. Could you briefly describe why you rated the care you received as fair or poor?

1. [SPECIFY]

X Don't know

R Refused

ring or poor?
## Self-rated health

Q1. Overall, how would you rate your health during the past 4 weeks? [READ OUT]

- 1. Excellent
- 2. Very good
- 3. Good
- 4. Fair
- 5. Poor
- 6. Very poor
- X Don't know
- R Refused

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## Sexual health

Q1. Have you had sexual intercourse in the last 12 months? 1. Yes 2. No  $\rightarrow$  END OF MODULE X Don't know  $\rightarrow$  END OF MODULE R Refused  $\rightarrow$  END OF MODULE Please check heath states when heath states and the states of the states Q2. Have you had sexual intercourse with more than 1 person in the last 12 months? 1. Yes 2. No  $\rightarrow$  Q4 X Don't know  $\rightarrow$  Q4 R Refused  $\rightarrow$  Q4 Q3. Do you use condoms every time you have sexual intercourse? 1. Yes 2. No X Don't know R Refused Q4. Have you been diagnosed with chlamydia in the last 12 months? 1. Yes 2. No X Don't know R Refused

# Smoking

Q1. Which of the following best describes your smoking status? This includes cigarettes, cigars and pipes. [READ OUT]

- 1. I smoke daily
- 2. I smoke occasionally
- 3. I don't smoke now, but I used to  $\rightarrow$  Q4
- 4. I've tried it a few times but never smoked regularly  $\rightarrow$  Q4
- 5. I've never smoked  $\rightarrow$  Q4
- X Don't know  $\rightarrow$  Q4
- R Refused  $\rightarrow$  Q4

Q2. Which of the following best describes how you feel about your smoking?[READ OUT] stimates

- 1. I am not planning on quitting within the next 6 months
- 2. I am planning on quitting within the next 6 months
- 3. I am planning on quitting within the next month
- 4. I have not smoked in the last 24 hours but was smoking 6 months ago  $\rightarrow$  Q4
- 5. I have not been smoking in the last 6 months  $\rightarrow$  Q4
- X Don't know  $\rightarrow$  Q4
- R Refused  $\rightarrow$  Q4

JIL UN AC Q3. The last time you went to your general practitioner, did the doctor discuss your smoking and advise you to quit smoking?

- 1. Yes
- 2. No
- X Don't know
- R Refused

Q4. Which of the following best describes your home situation? [READ OUT]

- 1. My home is smoke-free (includes smoking is allowed outside only)
- 2. People occasionally smoke in the house
- 3. People frequently smoke in the house
- X Don't know
- R Refused

Q5. Are people allowed to smoke in your car?

- 1. Yes
- 2. No
- 3. Don't have a car
- X Don't know
- **R** Refused

Q6. If there was a total ban on smoking in hotels and licensed bars, would you be likely to go there: [READ OUTI

- 1. More often?
- 2. Less often?
- 3. It would make no difference
- X Don't know
- R Refused

Q7. If there was a total ban on smoking in outdoor dining areas, would you be likely to go there: [READ OUT] 1. More often?

- 2. Less often?
- 3. It would make no difference
- X Don't know
- R Refused

# Social capital

Q1. In the past 3 months, how often have you helped out any local group or organisation such as a school, scouts and brownies, a sporting club, or hospital as a volunteer, or other organisation? [READ OUT]

- 1. About once a week
- 2. Once every 2 to 3 weeks
- 3. Once a month
- 4. Not at all
- X Don't know
- R Refused

Q2. Most people can be trusted. Do you agree or disagree?

- 1. Strongly agree
- 2. Agree
- 3. Disagree
- 4. Strongly disagree
- X Don't know
- **R** Refused

Q3. Can you please tell me if you agree or disagree with these statements. I feel safe walking down my street after dark. Do you agree or disagree?
1. Strongly agree
2. Agree
3. Disagree
4. Strongly disagree
X Don't know
R Refused

- Do ye Q4. My area has a reputation for being a safe place. Do you agree or disagree?

- 1. Strongly agree
- 2. Agree
- 3. Disagree
- 4. Strongly disagree
- X Don't know
- **R** Refused

Q5. How often have you visited someone in your neighbourhood in the past week? [READ OUT]

- 1. Frequently
- 2. A few times
- 3. At least once
- 4. Never (in the last wee
- X Don't know
- R Refused

Q6. When you go shopping in your local area how often are you likely to run into friends and acquaintances? [READ OUT]

- 1. Nearly always
- 2. Most of the time
- 3. Some of the time
- 4. Rarely or never
- X Don't know
- R Refused

Q7. Would you be sad if you had to leave this neighbourhood?

- 1. Yes
- 2. No
- X Don't know
- R Refused

Q8. In the last 12 months, have you participated in any of the following activities? [READ OUT. MULTIPLE **RESPONSE**]

- 1. Recreational group or cultural group activities
- 2. Community or special interest group activities

Nates.

- 3. Church or religious activities
- 4. Went out to a cafe, restaurant or bar
- 5. Took part in sport or physical activities
- 6. Attended a sporting event as a spectator
- 7. Visited a library, museum or art gallery
- 8. Attended the movies, a theatre or a concert
- 9. Visited a park, botanic gardens, zoo or theme park
- 10. None of these activities
- X Don't know
- **R** Refused

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#### Sun protection

Q1. In your local area, when you are outside do you find it easy to find shade in sporting areas? [NOTE: Shade can be natural, for example, trees or purpose-built clubhouse, shade awnings, etc.]

- 1. Yes
- 2. No
- 3. Not applicable
- X Don't know
- **R** Refused

Q2. In your local area, when you are outside do you find it easy to find shade at the outdoor public swimming pool? [NOTE: Shade can be natural, for example, trees or purpose-built clubhouse, shade awnings, etc.] 1. Yes

- 2. No
- 3. Not applicable
- X Don't know
- R Refused

energy of the en Q3. In your local area, when you are outside do you find it easy to find shade at the public park? [NOTE: Shade can be natural, for example, trees or purpose-built clubhouse, shade awnings, etc.]

- 1. Yes
- 2. No
- 3. Not applicable
- X Don't know
- **R** Refused

res.