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New South Wales Adult Health Survey 2003

NSW DEPARTMENT OF HEALTH

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The electronic report of the *New South Wales Adult Health Survey 2003*, which contains additional information to that published in this printed report, can be downloaded from the NSW Department of Health website at www.health.nsw.gov.au.



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1. FOREWORD

I am pleased to present this report from the *New South Wales Adult Health Survey 2003*, which provides information on health behaviours, health status, access to health services, and social capital, for people aged 16 years and over.

In 2003, the Centre for Epidemiology and Research, in partnership with the 17 area health services, conducted the first year of the New South Wales Continuous Health Survey, using computer-assisted telephone interviewing (CATI). In the continuous survey, interviews are conducted year-round with all age-groups in every area health service in NSW. Data for the *New South Wales Adult Health Survey 2003* were collected from February to December 2003.

After describing the survey methods, this report presents information on health behaviours relating to alcohol, environmental health, food handling, immunisation, injury prevention, nutrition, physical activity, and smoking. This is followed by a chapter on health status, including: self-rated health status, asthma, diabetes, adult incontinence, falls, mental health, oral health, and overweight or obesity. Next there is a chapter on health services, including: difficulties getting health care, emergency departments, community health services, and public dental services. The final chapter covers social capital, including: social reciprocity and neighbourhood connection, trust and safety, and participation in the local community.

Indicators are presented for males and females by age, socioeconomic disadvantage, and geographic location, and are compared to previous years where possible. 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 access the dataset through the Health Outcomes Information Statistical Toolkit (HOIST) or by request.

Further information can be obtained from the NSW Department of Health's Centre for Epidemiology and Research. Comments on the New South Wales Continuous Health Survey, and on this report from the New South Wales Adult Health Survey 2003, are welcome.

I thank all the individuals and organisations who contributed their time and expertise to assist in the development and conduct of the *New South Wales Adult Health Survey 2003*.

Greg Stewart Deputy Director-General Public Health and Chief Health Officer November 2004

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3. EXECUTIVE SUMMARY

Introduction

In 2003, the NSW Department of Health, in conjunction with the 17 area health services, completed the second year of the NSW Continuous Health Survey, an ongoing survey of the health of people in NSW using computer-assisted telephone interviewing (CATI). The main aims of the NSW Continuous Health Survey are to provide detailed information on the health of the people of NSW, and to support the planning, implementation, and evaluation of health services and programs in NSW. This report describes the *New South Wales Adult Health Survey 2003*, a major activity of the NSW Continuous Health Survey.

The content of the *New South Wales Adult Health Survey* 2003 was developed by the Health Survey Program in consultation with key stakeholders, area health services, other government departments, and a range of experts. The content covered the eight priority areas outlined in *Healthy People 2005: New Directions for Public Health in NSW*. The questionnaire was translated into five languages: Arabic, Chinese, Greek, Italian, and Vietnamese.

Interviews were carried out continuously between February and December 2003. The target population for the *New South Wales Adult Health Survey 2003* was all NSW 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 randomlyselected for interview. Information was collected on a total of 13,088 adults.

Health behaviours

Unhealthy behaviours contribute significantly to the burden of death and ill health in NSW. Health behaviours measured in the *New South Wales Adult Health Survey 2003* included alcohol intake, food handling practices, fruit and vegetable consumption, immunisation, physical activity, smoking, and smoking in the home.

More than one-third of the overall population reported undertaking risk-drinking behaviours. More males than females reported risk-drinking behaviours, and young adults of both sexes were more likely to report riskdrinking behaviour than the general population. There was geographic variation, with rural residents reporting higher levels of risk-drinking than urban residents. Encouragingly, there has been a decrease in the proportion of people reporting risk-drinking behaviours since 1997.

Over three-quarters of people aged 65 years and over reported being vaccinated against influenza in the past 12 months. Less than half of people in this age group reported being vaccinated against pneumococcal disease in the preceding five years. However, the proportion of people being vaccinated against both these conditions has continued to increase each year.

Just under half of all respondents reported eating the recommended daily fruit intake, while only one in five respondents reported consuming the recommended daily minimum quantity of vegetables. Under half of respondents reported using low fat milk. A greater proportion of females than males consumed the recommended amount of fruit, vegetables, and used low fat milk each day. Overall, just over six per cent of respondents reported that they had run out of food and could not afford to buy more, on at least one occasion in the previous 12 months.

Under half of all respondents aged 16 years and over reported undertaking adequate levels of physical activity. The proportion of males undertaking adequate physical activity was greater than females.

In 2003, just over one in five adults aged 16 and over reported that they are current smokers. More males than females reported that they currently smoke. More than 80 per cent of respondents reported that their home was smoke-free, while nine per cent reported people 'occasionally' smoked inside the house, and just under nine per cent reported that people 'frequently' smoked inside the house.

Health status

The *New South Wales Adult Health Survey 2003* collected information on a range of health indicators including: self-rated health status, asthma, diabetes, incontinence, falls, oral health, overweight or obesity, and psychological distress.

Over 80 per cent of the population rated their own health as 'excellent', 'very good', or 'good'. There was no difference between the proportion of males and females who gave a positive rating of their health status.

Overall, 11 per cent of respondents aged 16 years and over reported current doctor-diagnosed asthma. A greater proportion of females than males reported current asthma.

Approximately six per cent of people aged 16 years and over reported that a doctor had ever told them that they had diabetes. More males than females reported diabetes. The prevalence of diabetes increased with age and has increased since 1997.

Almost one-quarter of people aged 65 years and over reported a fall in the last 12 months, with a significantly greater proportion of females than males reporting a fall. Almost one-third of falls required medical treatment and over one-quarter required hospitalisation.

Almost six per cent of all respondents reported that they had none of their natural teeth.

Just under half of all respondents reported being either overweight or obese, and 16 per cent of people were classified as obese. A significantly greater proportion of males than females were classified as overweight or obese. The proportion of people classified as overweight or obese has risen since 1997.

Overall, one in nine respondents reported either 'high' or 'very high' levels of psychological distress. Females were more likely than males to report 'high' or 'very high' levels of psychological distress. Rates of 'high' and 'very high' psychological distress rose significantly between 1998 and 2003, but dropped between 2002 and 2003.

Health services

The *New South Wales Adult Health Survey 2003* collected information on the use of, and satisfaction with, health services including emergency departments, hospitals, and community health centres; and information on difficulties obtaining health care when needed.

Over one in eight respondents reported experiencing difficulties getting health care when needed. Females were more likely to have difficulties getting health care than males, as were rural residents.

One in seven respondents reported attending an emergency department in the previous 12 months; of these, almost four-fifths rated the care received as 'excellent', 'very good', or 'good'. Similarly, one in seven respondents had been admitted to hospital and over 90 per cent of these rated the care received as 'excellent', 'very good', or 'good'. Just over five per cent of respondents reported attending a community health centre, with over 93 per cent rating the care they received as 'excellent', 'very good', or 'good'.

Social capital

The term 'social capital' refers to the institutions, relationships, and conventions that shape social networks, foster trust, and facilitate coordination and cooperation for mutual benefit. The *New South Wales Adult Health Survey 2003* included questions on social reciprocity and neighbourhood connection, feelings of trust and safety, and participation in the local community.

Nearly three-quarters of respondents stated that they could ask someone in their neighbourhood for help with caring for a child, if they needed to; and that they would be sad if they had to leave their neighbourhood. Over two-thirds of respondents reported feeling safe walking down their street after dark. Males were more likely to report feeling safe than females.

Overall, almost one-third of the population reported that they had helped out a local group or organisation, and more than half of the population had attended a local community event in the past six months.

4. SNAPSHOT OF ADULT HEALTH, NSW, 2003

S(Smoking) N(Nutrition and Obesity) A(Alcohol) P(Physical Activity) S(Psychological Distress) H(Health Status and Health Services) O(Oral Health, Asthma and Diabetes) T(Trust and Social Capital)

SNAPSHOT OF ADULT HEALTH, NSW, 2003

Торіс	Issue	Indicator	Male (%)	Female (%)	Persons (%)
Health behaviours	Alcohol	Alcohol risk drinking	41.5	30.4	35.9
	Fruit	Recommended daily fruit intake	39.0	52.5	45.9
	Vegetables	Recommended vegetable intake	11.8	26.7	19.3
	Physical Activity	Adequate physical activity	49.7	40.7	45.1
	Smoking	Current daily or occasional smoking	24.9	20.0	22.4
	Smoke free households	Smoke-free households	-	_	82.6
Health status	Health status	Excellent, very good, or good self-rated health status	81.9	79.8	80.8
	Asthma	Current asthma	9.2	12.7	11.0
	Diabetes	Diabetes or high blood sugar	6.9	5.5	6.2
	Psychological distress	High and very high psychological distress	9.3	12.9	11.1
	Oral Health	All natural teeth missing	4.2	7.4	5.8
	Overweight or obesity	Overweight or obesity	55.6	41.0	48.3
Health services	Difficulty getting health care	Difficulties getting health care when needing it	11.4	15.2	13.3
	care rating	very good, or good	80.2	77.7	79.0
	Hospital care rating	Hospital care rated as excellent, very good, or good	93.0	89.8	91.2
Social capital	Participation	Attended a community event at least once in the			
		last six months	54.5	62.2	58.4
	Trust	Most people can be trusted	71.6	68.0	69.8
	Safety Reciprocity-Social	Feel safe walking down their street after dark	80.4	56.8	68.4
	engagement	Visit neighbours	66.9	64.0	65.4

5. METHODS

Introduction

In 2003, the NSW Department of Health, in conjunction with the 17 area health services, completed the second year of the NSW Continuous Health Survey, an ongoing survey of the health of people in NSW using computerassisted telephone interviewing (CATI). The main aims of the NSW Continuous Health Survey are to provide detailed information on the health of the people of NSW, and to support the planning, implementation, and evaluation of health services and programs in NSW.

Prior to the introduction of the NSW Continuous Health Survey, 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.

This section describes the methods used to conduct the *New South Wales Adult Health Survey 2003*, which reports on the health of NSW residents aged 16 years and over.

New South Wales Adult Health Survey 2003

Survey instrument

The survey instrument for the *New South Wales Adult Health Survey 2003* 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 previously used by the Health Survey Program; new questions developed specifically for the *New South Wales Adult Health Survey 2003*; and questions developed specifically for the area health services. All new questions that had previously not been used were submitted to the NSW Department of Health's Ethics Committee for approval prior to their use. New questions were also field-tested prior to inclusion in the survey.

The final survey instrument covered the eight priority areas outlined in *Healthy People 2005: New Directions for Public Health in New South Wales*,¹ and included questions on:

- social determinants of health, including demographics and social capital;
- environmental determinants of health, including environmental tobacco smoke, injury prevention, and environmental risk;
- individual or behavioural determinants of health, including physical activity, body mass index, nutrition, smoking, alcohol consumption, immunisation, and health status;

- major health problems, including asthma, diabetes, oral health, falls, and mental health;
- population groups with special needs, including older people, and rural residents;
- settings including access to, use of, and satisfaction with health services; and health priorities within specific area health services;
- partnerships and infrastructure, including evaluation of campaigns and policies.

The survey instrument was translated into five languages: Arabic, Chinese, Greek, Italian and Vietnamese.

Survey sample

The target population for the *New South Wales Adult Health Survey 2003* was all NSW residents living in households with private telephones. The target sample comprised approximately 1,000 people in each of the 17 area health services (total sample of 17,000).

The sampling frame was developed as follows. Records from the Australia on Disk electronic White Pages were geo-coded using MapInfo mapping software.^{2,3} The geocoded 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 geocoded 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.

When households were contacted, one person was selected using random numbers generated by the CATI system.

Interviews

Interviews were carried out continuously between February and December 2003. Households selected that had addresses in the electronic phone book were sent a letter describing the aims and methods of the survey two weeks prior to initial attempts at telephone contact. A 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 NSW Health Survey Program facility carried out interviews. Up to seven calls were made to establish initial contact with a household, and five calls were made in order to contact a selected respondent.

Call outcomes and response rates

During the survey, 78,097 telephone numbers were called. The outcome for these telephone numbers is shown in Table 1. Only 26,838 (34.4 per cent) of the numbers called yielded an eligible household. The remaining numbers were not answered (despite seven call backs); or were disconnected; or were business, fax, or interstate numbers.

In total, 15,837 interviews were conducted, with at least 837 interviews in each area health service and 13,088 with people aged 16 years or over. The overall response rate was 67.9 per cent (completed interviews divided by completed interviews and refusals). Response rates varied by area health service, from 57.95 per cent in South Eastern Sydney Area Health Service to 74.9 per cent in New England Area Health Service (Table 2). Most respondents (99 per cent) were interviewed in English. The remaining interviews were conducted in Arabic, Chinese, Greek, Italian, and Vietnamese (Table 3).

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 and 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 2001 mid-year population estimates (excluding people resident in institutions) for each area health service. Further information on the weighting process is provided elsewhere.⁴

Call and interview data were manipulated and analysed using SAS version 8.02.⁵ The SURVEYMEANS procedure in SAS version 8.02 was used to analyse the data and calculate point estimates and 95 per cent confidence intervals for the estimates. The 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.⁵

The K10+ measure of psychological distress

The K10+ scale was included in the *New South Wales Adult Health Survey 2003*, as a measure of 'psychological distress'.^{6,7} 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

TABLE 1

OUTCOME OF TELEPHONE CALLS

Outcome N te	umber of elephone numbers
No Answer after 7 attempts	11360
Not Connected	27902
Business telephone number or fax numb	er 11501
HH not in NSW or holiday house	496
Respondent away for duration of survey	1186
Respondent confused or deaf	1495
Respondent spoke non-translated langu	age 831
Refusal to participate	7489
Complete interview	15837
Total Telephone Numbers called	78097

TABLE 2

COMPLETED INTERVIEWS AND RESPONSE RATES BY HEALTH AREA

Health area	Total respondents	Response rate %
Central Coast	906	68.33
Central Sydney	837	60.30
Far West	904	71.86
Greater Murray	929	73.67
Hunter	993	69.68
Illawarra	904	66.67
Macquarie	962	73.38
Mid-North Coast	1021	71.20
Mid Western	1034	73.65
New England	952	74.90
Northern Rivers	982	70.34
Northern Sydney	933	66.03
South Eastern Sydney	867	57.95
Southern	884	74.47
South West Sydney	922	60.22
Wentworth	900	65.50
Western Sydney	907	60.67
Grand Total	15837	67.89

TABLE 3

COMPLETED INTERVIEWS BY LANGUAGE

Number of respondents
15699
7
94
0
2
35
15837

depressive symptoms in the most recent four-week period. For each question, there is a five-level response scale based on the amount of time (from none of the time through to all the time) during a four-week period that the person experienced the particular problem. Scoring of the raw questionnaire assigns between one and five points to each symptom, with a value of one indicating that the person experiences the problem 'none of the time' and five 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').^{8,9}

The K10 scores calculated for the *New South Wales Adult Health Survey 2003* 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 nine questions, the score for the missing question was imputed as the mean score of the nine answered questions.

Indices of geographic remoteness and socioeconomic disadvantage: ARIA and SEIFA

The Accessibility–Remoteness Index for Australia (ARIA) is a measure of the remoteness of a locality based on its accessibility to service centres.¹⁰ It is derived using the road distances from 11,340 populated localities to 201 service centres across Australia. For each locality, the accessibility to services is expressed as a continuous measure from 0 (high accessibility) to 12 (high remoteness) and grouped into five categories: highly accessible, accessible, moderately accessible, remote, and very remote.

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.¹¹

The SEIFA Index that is used to provide breakdowns of the *New South Wales Adult Health Survey 2003* data is the Index of Relative Socio-Economic Disadvantage. This index is calculated based on attributes such as low income and educational attainment, high unemployment, and people working in unskilled occupations.

SEIFA index values are grouped into five quintiles, with quintile one being the least disadvantaged and quintile five being the most disadvantaged.

Both the ARIA and SEIFA indexes were assigned to the results of the *New South Wales Adult Health Survey 2003*, 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.

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- 11. Australian Bureau of Statistics. *1996 Census of Population and Housing: Socio-Economic Indexes for Areas*, Information Paper, Catalogue no. 2039.0. Canberra: ABS, 1998.





6. REPRESENTATIVENESS OF SAMPLE

Males were under-represented in the survey, making up 43.1 per cent of the survey sample, compared with 49.8 per cent of the NSW population. Conversely, females were over-represented, making up 56.9 per cent of the survey sample, compared with 50.2 per cent of the NSW population. Among both sexes, people aged 44 years or younger were under-represented in the sample, while people aged 45 years or over were over-represented. Comparisons of the distribution of the survey sample and that of the population are shown in Table 4. After weighting, the age- and sex-distribution of the survey sample reflected that of the population.

Indigenous people comprised 1.7 per cent of the survey sample, which is slightly lower than their representation in the NSW population (1.9 per cent), and people born in Australia comprised 83.4 per cent of the survey sample, which is higher than their representation in the NSW population (70.5 per cent) according to the 2001 Census.¹ Figures 1–2 and Table 4 provide information on the age distribution of the unweighted survey sample versus NSW population for males and females. Figures 3–10 show the distribution of the survey sample, after weighting, by SEIFA Index of Relative Socioeconomic Disadvantage (IRSD) quintile, Accessibility–Remoteness Index (ARIA) quintile, Aboriginal or Torres Strait Islander status, country of birth, people who speak a language other than English at home, current employment status, highest level of school completed, and annual household income.

Reference

1. Australian Bureau of Statistics. *Selected social and housing characteristics for statistical local areas, NSW and Jervis Bay Territory.* 2001 Census of Population and Housing, Catalogue no. 2015.1. Canberra: ABS, 2003.

FIGURE 1

AGE DISTRIBUTION OF UNWEIGHTED SURVEY SAMPLE VERSUS NSW POPULATION, MALES





TABLE 4

SURVEY SAMPLE SIZE AND NSW POPULATION, BY AGE AND SEX

Age group		Survey sample (unweighted)						NSW population June 2001				
	Ма	les	Fei	nales	Per	sons	Mal	es	Fem	ales	Pers	ons
	no	%	no	%	no	%	no	%	no	%	no	%
0-4	449	2.8	408	2.6	857	5.4	216165	3.4	205368	3.2	421533	6.6
5–9	430	2.7	420	2.7	850	5.4	227812	3.5	216394	3.4	444206	6.9
10-14	500	3.2	419	2.6	919	5.8	227588	3.5	217375	3.4	444963	6.9
15–19	382	2.4	383	2.4	765	4.8	227721	3.5	216977	3.4	444698	6.9
20-24	313	2	379	2.4	692	4.4	225099	3.5	218248	3.4	443347	6.9
25–29	305	1.9	425	2.7	730	4.6	239049	3.7	240309	3.7	479358	7.5
30–34	351	2.2	532	3.4	883	5.6	240531	3.7	244466	3.8	484997	7.6
35–39	319	2	528	3.3	847	5.3	249066	3.9	249049	3.9	498115	7.8
40-44	423	2.7	565	3.6	988	6.2	247580	3.9	248446	3.9	496027	7.7
45-49	486	3.1	675	4.3	1161	7.3	227174	3.5	227345	3.5	454519	7.1
50-54	485	3.1	706	4.5	1191	7.5	217425	3.4	211700	3.3	429125	6.7
55-59	550	3.5	727	4.6	1277	8.1	172154	2.7	167097	2.6	339252	5.3
60-64	449	2.8	651	4.1	1100	6.9	138303	2.2	137548	2.1	275851	4.3
65-69	473	3	595	3.8	1068	6.7	113093	1.8	118969	1.9	232062	3.6
70-74	382	2.4	572	3.6	954	6	101442	1.6	114794	1.8	216236	3.4
75–79	322	2	553	3.5	875	5.5	75318	1.2	98246	1.5	173564	2.7
80+	212	1.3	468	3	680	4.3	55307	0.9	88413	1.4	143721	2.2
Total	6831	43.1	9006	56.9	15837	100	3200827	49.8	3220744	50.2	6421573	100
-						-						1.1

Source: NSW Adult Health Survey 1997, 1998 and 2002 (HOIST), Centre for Epidemiology and Research, NSW Department of Health.



FIGURE 4







FIGURE 6





FIGURE 8





FIGURE 10



7. HEALTH BEHAVIOURS

Health behaviours in adulthood influence health and wellbeing, particularly in relation to diet, physical activity, smoking (both active and passive), alcohol and drugs, immunisation against vaccine preventable diseases, cancer screening, injury prevention, and exposure to environmental risk. Preventable disease and premature mortality are directly affected by these health behaviours throughout adulthood. The health behaviours measured in the *New South Wales Adult Health Survey 2003* included alcohol intake, environmental health risks, immunisation, injury prevention, nutrition, physical activity, and smoking and exposure to tobacco smoke in the home.

Alcohol

Introduction

Alcohol affects health in a number of ways, including: acute physical effects, such as intoxication and alcohol overdose; chronic physical effects, such as cirrhosis of the liver, heart disease, brain damage, and memory loss; and the effects of alcohol consumption on the health of others, such as road trauma caused by drink-driving and alcohol-related violence.¹ Alcohol abuse is also associated with crime, social problems, and lost productivity.

Alcohol consumption is second only to tobacco consumption as a preventable cause of drug-related morbidity and mortality in Australia. The Australian Institute of Health and Welfare estimates that in 1998 there were 3,271 alcohol-related deaths and 43,032 hospital episodes arising from the misuse of alcohol.² The proportion of people in Australia who engage in high risk drinking, as measured in the National Health Surveys, has not changed since 1990.³

Despite the major harms associated with excessive alcohol consumption, a number of health benefits are believed to accrue from low-to-moderate alcohol consumption. These include: reduced strain of chronic stress and negative life events; decreased risk of stone formation in the kidney and gall bladder; increased bone mineral density; and decreased mortality from cardiovascular disease in middle-aged and elderly populations.⁴

To monitor levels of alcohol use in the community, the *New South Wales Adult Health Survey 2003* included questions on the consumption of alcohol. Respondents were asked the following questions: 'How often do you usually drink alcohol?'; 'On a day when you drink alcohol, how many standard drinks do you usually have?'; 'In the past four weeks how often have you had more than four [if male] or two [if female] drinks in a day?'; 'In the past four weeks, how often have you had 11 or more [if male] or seven or more [if female] drinks in a day?'; 'In the past four weeks how often have you had 7–10 [if male] or 5–6 [if female] drinks in a day?'.

Results

Any alcohol risk-drinking behaviour

'Any alcohol risk-drinking behaviour' was defined, as per Guideline 1 of the NHMRC Australian Alcohol Guidelines,⁵ as one or more of the following: consuming alcohol every day; consuming on average more than four [if male] or two [if female] 'standard drinks' per day; or consuming more than six [if male] or four [if female] 'standard drinks' on any occasion in the past four weeks.

In 2003, more than one-third of the overall population (35.7 per cent) undertook 'any risk drinking behaviour'. The proportion of males (41.3 per cent) engaging in any risk drinking behaviours was significantly higher than the proportion of females (30.3 per cent).

Among males, a significantly higher proportion of those aged 25–34 years (49.2 per cent) and a significantly lower proportion of those aged 65 years and over (33.6 per cent to 33.9 per cent) undertook any risk-drinking behaviour, compared with the overall male population. Among females, a significantly greater proportion of those aged 16–34 years (37.1 per cent to 44.0 per cent) and a significantly lower proportion of those aged 55 years and over (16.9 per cent to 22.0) per cent) were likely to undertake any risk-drinking behaviour, compared with the overall female population.

There was significant geographic variation in 'any risk drinking behaviour', with a significantly higher proportion of rural residents (39.8 per cent) reporting any risk drinking behaviour than urban residents (34.6 per cent).

A significantly greater proportion of males (48.3 per cent) in the second least socioeconomically disadvantaged quintile were likely to undertake risk-drinking behaviours than the overall male population. There was no significant difference in the proportion of females undertaking risk drinking behaviours by socioeconomic quintile.

Encouragingly, there has been a significant decrease in the proportion of people reporting 'any risk drinking behaviour' between 1997, (42.3 per cent) and 2003 (35.7 per cent). This decrease was greater in males (50.7 per cent to 41.3 per cent) than females (34.1 per cent to 30.4 per cent).

High short-term alcohol risk

Short-term alcohol risk was categorised into 'low risk' (having consumed up to six standard drinks on any one day if male, or up to four drinks if female); 'risky' (having consumed 7–10 standard drinks on any one day if male, and 5–6 if female), and 'high risk' (having consumed 11 or more standard drinks in any one day if male, and seven or more if female), as per the WHO *International Guide for Monitoring Alcohol Consumption and Related Harm.*⁶

Overall in 2003, 72.3 per cent of people who consumed alcohol were categorised as at 'low risk' as a result of their drinking behaviour, 13.1 per cent as 'risky', and 14.6 per cent as at a 'high risk' of harm in the short-term, as a result of their drinking. Among people who consumed alcohol, the proportion of males reporting short-term high-risk drinking (17.8 per cent) was significantly higher than the proportion of females (10.9 per cent).

Among males who consumed alcohol, a significantly higher proportion of those aged 16–34 years (26.6 per cent to 33.8 per cent), and a significantly lower proportion of those aged 45 years and over (0.9 per cent to 10.9 per cent) undertook short-term high-risk drinking compared with the overall population of males who consumed alcohol. Among females who consumed alcohol, a significantly higher proportion aged 16–34 years (15.9 per cent to 27.1 per cent) and a significantly lower proportion aged 55 years and over (0.3 per cent to 2.1 per cent) were likely to undertake short-term high-risk drinking compared with the overall female population.

Among people who consumed alcohol, there was no significant difference in the levels of short-term high-risk drinking between urban residents (14.5 per cent) and rural residents (15.3 per cent). A significantly greater proportion (19.4 per cent) of people in the second quintile of socioeconomic disadvantage and a significantly lower proportion of people in the first (10.4) and third (11.5) quintiles of socioeconomic disdavantage engaged in short-term high-risk drinking.

There was no significant change in the proportion of people engaging in short-term high-risk drinking between 2002 and 2003.

Figures 11–12 show the proportion of people reporting any alcohol risk drinking by age and socioeconomic disadvantage. Figures 13 and 14 provide information on short term alcohol risk drinking in the past four weeks, and the proportion of people reporting high risk drinking in the last four weeks by age.

References

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FIGURE 11

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FIGURE 13

SHORT TERM ALCOHOL RISK IN THE PAST FOUR WEEKS, PERSONS WHO CONSUME ALCOHOL AGED 16 YEARS AND OVER, NSW, 2003





Environmental health

Introduction

Human health and the environment are linked. In rural areas, issues as diverse as land use, agricultural practice, water quality, and biodiversity, influence human health. Similarly, in the urban and built environment, air and water quality, transport choice, urban form, and environmental health infrastructure, influence health status¹. Increasingly, the effect on human health of global phenomena, such as population growth and climate change, are recognised at a local level.²

Respondents in the *New South Wales Adult Health Survey 2003* were asked about their normal source of water and methods of treating water before drinking. Respondents were asked the following questions: 'What is your normal source of drinking water?', and 'Do you treat your water before drinking?'.

Results

Drinking water

Overall, in 2003, 81.1 per cent of people aged 16 years and over used a public water supply as their usual source of drinking water. The next most prevalent sources of drinking water were bottled water (8.8 per cent) and rain water (7.7 per cent).

Of the respondents whose usual source of drinking water was a public water supply, 62.4 per cent did not treat their drinking water, while 33.8 per cent reported that they either filter (21.3 per cent) or boil (12.5 per cent) their water before drinking.

A significantly greater proportion of people aged 65 years and over (85.5 per cent to 88.0 per cent), and a significantly lower proportion of people aged 16–24 years (77.1 per cent) used public water as their usual source of drinking water.

The proportion of people in rural areas (61.5 per cent) using public water as their usual water supply was significantly lower than the proportion in urban areas (86.6 per cent).

A significantly greater proportion of people in the first (87.6 per cent) and second (86.5 per cent) least disadvantaged quintiles, and a significantly lower proportion of people in the second most disadvantaged quintile (75.7 per cent), used public water as their usual water supply, compared to the overall population.

There was no change in the proportion of people using public water as their usual water supply between 2002 (81.1 per cent) and 2003 (81.1 per cent).

Figure 15 shows the proportion of people who treated their public water supply before drinking, and Figure 16 shows the proportion, by socioeconomic disadvantage, who used public water as their usual source of water.

References

- 1. Frumkin H. Urban Sprawl and Public Health. *Public Health Reports* 2003; 177.
- 2. Commonwealth Department of Health and Aging. *Human Health and Climate Change in Oceania: A Risk Assessment* 2003. Canberra: CDHA, 2003.

FIGURE 15

TYPE OF WATER TREATMENT, PERSONS WHO TREAT THEIR PUBLIC WATER SUPPLY AGED 16 YEARS AND OVER, NSW, 2003



FIGURE 16

USE PUBLIC WATER AS USUAL SOURCE OF WATER, BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003



Food handling

Introduction

The three most frequently encountered hazards associated with outbreaks of foodborne illness are: temperature misuse, inadequate handling of food, and contaminated raw material.¹ As such, good food hygiene in the home can help protect household members from foodborne illness. Householders involved in food preparation are advised to: always wash hands with soap before handling food; wash hands, knives and chopping boards carefully after using them to cut or handle meat; keep cooked food separate from uncooked meats; keep poultry in the fridge; and wash vegetables thoroughly before use. Perishable foods should be stored below five degrees Celsius, or kept hot above 60 degrees Celsius.²

The *New South Wales Adult Health Survey 2003* asked respondents about food handling practices in the home. Respondents were asked the following question about food handling: 'Thinking about the last time that you prepared raw meat or chicken when cooking, after preparing it did you: Wipe your hands or rinse them without using soap or wash your hands with soap, or continue cooking without cleaning your hands?'.

Results

Overall, in 2003, 60.8 per cent of people aged 16 years and over reported that they washed their hands with soap after preparing raw meat. A significantly greater proportion of females (64.4 per cent) washed their hands with soap after meat preparation than males (56.3 per cent). The proportion of people washing hands with soap decreased with age. A significantly greater proportion of females aged 16–34 years (70.8 per cent to 72.7 per cent) and a significantly lower proportion of females aged 65 years and over (54.8 per cent to 55.6 per cent) washed their hands with soap after preparing meat compared to the overall female population. There was no significant variation by age among males.

The proportion of people in rural areas (55.2 per cent) who washed their hands with soap after meat preparation was significantly lower than the proportion in urban areas (62.3 per cent).

There was no significant variation in the proportion of people hand washing with soap after meat preparation by socioeconomic disadvantage.

No comparative data are available for this indicator prior to 2003.

Figure 17 shows hand washing when preparing raw meat, and Figure 18 shows hand washing with soap when preparing raw meat by age.

References

- Food Science Australia. National Risk Validation Project: Final Report 2003. Available from http://internal.health.nsw.gov.au/ public-health/food/files/nrvp_report.pdf. Accessed 5th March 2004.
- 2. NSW Department of Health. *When Food Causes Disease* (*fact sheet*). Available from http://internal.health.nsw.gov.au/ health-public-affairs/mhcs/publications/4395.html. Accessed 5th March 2004.



FIGURE 18

HAND WASHING WITH SOAP WHEN PREPARING RAW MEAT BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003



Immunisation

Introduction

In NSW, despite substantial progress in reducing the incidence of vaccine preventable diseases, increases in immunisation levels are needed to further reduce and eliminate these causes of illness and death.¹

Influenza (or flu) is caused by the influenza virus and is characterised by abrupt onset of fever, myalgia, headache, sore throat, and acute cough, and can cause extreme malaise lasting several days. Although usually not life threatening, influenza can be complicated by secondary bacterial pneumonia in individuals whose medical condition makes them vulnerable. Under the National Influenza and Pneumococcal Vaccination (NIPV) Program,¹ influenza vaccine is provided free to all people aged 65 years and over. For Aboriginal and Torres Strait Islander people, the vaccine is provided free to those aged 50 years and over, and to those aged 15–49 years who may be at increased risk because of chronic illness.

Streptococcus pneumoniae (pneumococcus), a bacterial inhabitant of the upper respiratory tract, is a major cause of pneumonia, meningitis, and middle-ear infection, particularly in young children, the elderly, and Aboriginal and Torres Strait Islander people. The NHMRC recommends immunisation against pneumococcal disease every five years for: all people aged 65 years and over; Aboriginal and Torres Strait Islander people aged 50 years and over; and people with compromised immune systems, chronic illness, or who have had their spleen removed.¹

In the *New South Wales Adult Health Survey 2003* the following questions were asked to respondents aged 50 years and over: 'Has a health professional ever advised you to be vaccinated against the flu?', 'Were you vaccinated or immunised against flu in the past 12 months?', 'Has a health professional ever advised you to be vaccinated against pneumonia?', 'When were you last vaccinated or immunised against pneumonia?'.

Results

Influenza vaccination

Overall, in 2003, 49.0 per cent of the population aged 50 years and over reported having had an influenza vaccination in the past 12 months. A significantly greater proportion of females (52.3 per cent) reported having had an influenza vaccination than males (45.6 per cent). The proportion of people vaccinated against influenza did not differ between urban areas (49.5 per cent) and rural areas (47.6 per cent). The proportion receiving influenza vaccination did not vary by level of socioeconomic status. Influenza vaccination coverage has increased significantly overall, between 1997 (34.6 per cent) and 2003 (49.0 per cent).

In people covered by the NIPV Program (those aged 65 years and over), the proportion vaccinated against

influenza was 75.8 per cent. The proportion of people who reported they were vaccinated against influenza was significantly lower (64.4 per cent) among those aged 65–69 years and significantly higher (82.7 per cent) among those aged 75 years and over, than in the overall population covered by the NIPV program.

There was no significant difference between the proportion of residents aged 65 years and over reporting influenza vaccination in rural areas (73.6 per cent) and urban areas (76.6 per cent). The proportion reporting vaccination against influenza in the last 12 months did not vary significantly by level of socioeconomic disadvantage.

Rates of vaccination against flu in people covered by the NIPV program have increased significantly, from 57.1 per cent in 1997 to 75.8 per cent in 2003.

Pneumococcal vaccinations

Almost one in four (23.2 per cent) people aged 50 years and over reported having had a pneumococcal vaccination in the past five years. Of these, 11.3 per cent reported being vaccinated in the past 12 months, 11.9 per cent were vaccinated 13 months to five years ago and 1.0 per cent were vaccinated more than five years ago. More females had been vaccinated against pneumococcal disease in the last five years (25.2 per cent) than males (21.0 per cent). The proportion of people vaccinated against pneumococcal disease increased with age and also with increasing socioeconomic disadvantage. There was no significant difference in the proportion of people vaccinated against pneumococcal pneumonia in rural areas (22.9 per cent) and urban areas (23.3 per cent).

Between 2002 and 2003, there was a significant increase in the proportion of people aged 50 years and over who were vaccinated against pneumococcal pneumonia, from 20.2 per cent to 23.2 per cent.

Among people covered by the NIPV program (people aged 65 years and over), the proportion vaccinated for pneumococcal pneumonia in the past five years was 46.8 per cent (22.9 per cent in the past 12 months). There was no significant difference between the proportion of males (45.1 per cent) and females (48.2 per cent) vaccinated in the last five years. When compared to the overall population aged 65 years or over, a significantly lower proportion of people aged 65–69 years (31.1 per cent), and a significantly greater proportion of people aged 75 years and over (57.6 per cent), reported vaccination against pneumococcal disease in the last five years.

The proportion of people vaccinated against pneumococcal pneumonia did not vary significantly between urban residents (48.1 per cent) and rural residents (43.2 per cent). The proportion of people aged 65 years or over reporting pneumococcal vaccination did not vary by level of socioeconomic disadvantage.

Between 2002 and 2003, there was a significant increase in the proportion of people reporting pneumococcal vaccination in the last five years, from 39.4 per cent to 46.8 per cent. This increase was observed in both males (36.7 per cent to 45.1 per cent) and females (41.5 per cent to 48.2 per cent).

Figures 19–20 show the proportion of people aged 65 years and over who had been vaccinated for influenza in

the last 12 months by age and socioeconomic disadvantage. Figures 21–22 show the the proportion of people aged 65 years and over who had been vaccinated for pneumococcal disease in the last five years, by age and socioeconomic disadvantage.

Reference

1. National Health and Medical Research Council. *The Australian Immunisation Handbook, 7th Edition*, Canberra: NHMRC, 2000.

FIGURE 19

VACCINATED AGAINST INFLUENZA IN THE LAST 12 MONTHS BY AGE, PERSONS AGED 65 YEARS AND OVER, NSW, 2003



FIGURE 20

VACCINATED AGAINST INFLUENZA IN THE LAST 12 MONTHS BY SOCIOECONOMIC DISADVANTAGE, PERSONS AGED 65 YEARS AND OVER, NSW, 2003



FIGURE 21

VACCINATED AGAINST PNEUMOCOCCAL DISEASE IN THE LAST FIVE YEARS BY AGE, PERSONS AGED 65 YEARS AND OVER, NSW, 2003





Injury prevention

Introduction

In NSW, around 300 people are injured and around 30 people die each year as a result of house fires. Most deaths happen at night when people are sleeping, and are due to smoke inhalation rather than to burns. Smoke alarms detect low-levels of smoke, and sound an alarm before the smoke becomes too dense for people to escape. Studies have shown that the installation of smoke alarms dramatically reduces fatalities,¹ reduces damage to property and costs to the health system, and benefits the individual.²

Since 1994, all new homes built in NSW have installed electrically-wired smoke alarms. In 1996, the NSW Department of Housing commenced a program to install alarms in all its housing. As a result of these two initiatives, installation of smoke alarms in NSW has increased substantially from 24 per cent in 1994 to 64.0 per cent in 1998.^{1,3}

Although the reported ownership of smoke alarms has increased, the functional status of those alarms has not been examined. In the United States, a comparison of telephone survey responses and household surveys demonstrated that although 71 per cent of households reported having a smoke alarm, on inspection only 49 per cent of these alarms were functional.⁴

The NSW Fire Brigade operates the Smoke Alarm Battery Replacement for the Elderly (SABRE) Program. The program involves the NSW Fire Brigade forming partnerships with other community organisations, to assist senior citizens in the maintenance of fire safety devices in their home.

In the *New South Wales Adult Health Survey 2003*, respondents were asked 'Do you have any of the following fire safety measures in your home? Fire alarm (hard wired), fire alarm (battery operated only), fire sprinkler system, safety switch–circuit breaker, fire extinguisher, fire evacuation plan, external water supply, or external sprinkler'.

Results

In 2003, residents of NSW reported a range of fire safety measures in the home. Over three quarters reported an external water supply (82.2 per cent), 78.3 per cent smoke alarms, 71.9 per cent safety switches or circuit breakers,

31.6 per cent fire extinguishers, 29.5 per cent fire evacuation plans, 28.5 per cent external sprinklers and 2.3 per cent of respondents a fire sprinkler system.

Overall, in 2003, 72.7 per cent of NSW residents reported that they had a smoke alarm or detector installed in their home. A significantly greater proportion of people aged 35–44 years (77.2 per cent) reported having a smoke alarm installed compared with the overall NSW population.

The proportion of people in rural areas (75.2 per cent) who reported having a smoke alarm installed was significantly greater than in urban areas (72.0 per cent).

The proportion of people with smoke alarms installed in their home did not vary by socioeconomic status.

The proportion of respondents reporting having smoke alarms installed increased significantly from 1997 (58.2 per cent) to 2003 (72.7 per cent).

Figure 23 shows the type of fire safety measures in the home, and Figure 24 shows the the proportion of homes that have a smoke alarm, by socioeconomic disadvantage.

References

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FIGURE 23







Nutrition

Introduction

Nutrition is an important determinant of health and disease at all stages of life. Many dietary factors are linked to health and disease, either as protective influences or as risk factors. Some common chronic diseases, to which diet contributes substantially to health risk or health protection, include: coronary heart disease, stroke, cancer, non-insulin-dependent diabetes mellitus, osteoporosis, dental caries, gall bladder disease, and diverticular disease.¹

Cardiovascular disease is the major cause of death in NSW. Raised serum cholesterol, a major risk factor, is linked with excessive consumption of saturated fat. Eating patterns in relation to dairy foods, processed meats, and fried potato products, are of interest because these foods are significant sources of saturated fat.²

An adequate intake of fruit, vegetable, bread and cereals (preferably whole grain) decreases the risk of major chronic diseases.¹ However, most groups in the NSW population eat less than the recommended amounts.¹

Despite the good quality of the NSW food supply, there are some groups who lack food security (that is, they do not have sufficient access at all times to sufficient food for an active and healthy life). The New South Wales Adult Health Survey 2003 included a short dietary questionnaire on usual consumption of fruit, vegetables, breads and cereals, milk, selected foods high in saturated fats (chips and processed meats), and food security.³ Respondents were asked the following questions: 'How many serves of vegetables do you usually eat each day?', 'How many serves of fruit do you usually eat each day?', '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 (not including cooked breakfast cereals)?', 'What type of milk do you usually have?', 'How often do you eat processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon, or ham?', 'How often do you eat chips, french fries, wedges, fried potatoes, or crisps?', 'In the last 12 months, were there any times that you ran out of food and couldn't afford to buy more?'.

The *Australian Guide to Healthy Eating* was used as the source of recommended numbers of serves of fruits and vegetables for this report.¹

Results

Consumption of fruit

According to the *Australian Guide to Healthy Eating*,¹ the recommended daily consumption of fruit is three serves for people aged 16–18 years, and two serves for people aged
19 years and over. One serve is equivalent to one medium or two small pieces of fruit.

Overall, in 2003, 6.0 per cent of the population reported that they ate no fruit, 16.0 per cent had less than one serve per day, 30.6 per cent had one serve per day, 27.3 per cent had two serves per day, 12.9 per cent had three serves a day, and 7.1 per cent had more than three serves a day. Therefore, 45.8 per cent of the population ate the recommended daily intake of fruit. A significantly greater proportion of females (52.4 per cent) than males (39.0 per cent) consumed the recommended amount of fruit each day.

Consumption of the recommended daily intake of fruit increased with age. Among males, a significantly lower proportion (31.0 per cent) of those aged 25–34 years and a significantly greater proportion (46.7 per cent to 52.8 per cent) of those aged 55–74 years ate the recommended daily intake of fruit, compared with the overall male population. Among females, a significantly lower proportion (37.7 per cent) of those aged 16–24 years and a significantly greater proportion (62.8 per cent to 65.3 per cent) of those aged 55 years and over ate the recommended daily intake of fruit, compared with the overall female population.

There was no significant geographical variation in consumption of the recommended daily intake of fruit between rural residents (43.5 per cent) and urban residents (46.5 per cent).

The proportion of people consuming the recommended daily intake of fruit did not vary significantly by level of socioeconomic disadvantage.

Daily consumption of fruit did not differ significantly from 1997 (44.5 per cent) to 2003 (45.8 per cent).

Consumption of vegetables

The recommended daily intake of vegetables is defined in the *Australian Guide to Healthy Eating* as four serves for females of any age and for males aged 16–18 years or over 60 years, and five serves for males aged 19–60 years.¹ One serve is equivalent to one-half of a cup cooked vegetables or one cup of salad vegetables.

Overall, in 2003, 0.9 per cent of the population reported that they ate no vegetables, 5.1 per cent ate less than one serve a day, 22.9 per cent ate one serve a day, 29.2 per cent ate two serves a day, 18.0 per cent ate three serves a day, 14.1 per cent ate four serves a day, 4.6 per cent ate five serves a day, and 5.2 per cent ate more than five serves a day. Therefore, 19.3 per cent of the population ate the recommended daily intake of vegetables. A significantly greater proportion of females (26.7 per cent) than males (11.8 per cent) consumed the recommended amount of vegetables each day.

Consumption of the recommended daily intake of vegetables increased with age. Among males, a significantly lower proportion of those aged 25–44 years (5.7 per cent to

6.8 per cent) and a significantly greater proportion of those aged 65 years and over (26.1 per cent to 27.7 per cent) consumed the recommended daily intake of vegetables, compared with the overall male population. Among females, a significantly lower proportion (15.8 per cent to 21.5 per cent) of those aged 16–34 years and a significantly greater proportion (33.0 per cent to 36.9 per cent) of those aged 45–74 years consumed the recommended daily intake of vegetables, compared with the overall female population.

There was considerable geographical variation, with a significantly greater proportion of rural residents (22.5 per cent) consuming the recommended daily intake of vegetables compared to urban residents (18.5 per cent).

The proportion of people consuming the recommended daily intake of vegetables did not vary significantly by level of socioeconomic disadvantage.

Daily consumption of vegetables increased significantly between 1997 (16.3 per cent) and 2003 (19.3 per cent). This increase was observed only in females (21.7 per cent to 26.7 per cent).

Modified fat milk (low and reduced fat)

The *Australian Guide to Healthy Eating* recommends a diet low in fat, to reduce the overall energy intake.¹ The use of modified fat milk provides an indication of people who are maintaining a low fat diet .³

Overall, in 2003, 47.0 per cent of the population reported that they usually had regular milk (full cream), 29.1 per cent had low or reduced fat milk, 14.9 per cent had low fat milk, 0.1 per cent had evaporated or sweetened milk, 4.5 per cent had other milk, and 4.4 per cent did not drink milk. Therefore, 44.0 per cent of the population reported using modified fat milk. A significantly greater proportion of females (50.8 per cent) than males (37.1 per cent) reported using modified fat milk.

Use of modified fat milk increased with age. Among males, a significantly lower proportion of those aged 16–24 years (21.2 per cent) and a significantly greater proportion of those aged 55–74 years (50.1 per cent to 51.0 per cent) used modified fat milk, compared with the overall male population. Among females, a significantly lower proportion of those aged 16–34 years (41.0 per cent to 43.2 per cent) and a significantly greater proportion of those aged 45–74 years (56.8 per cent to 64.1 per cent) used modified fat milk compared with the overall female population.

There was significant geographical variation, with significantly greater proportions of urban (44.9 per cent) than rural residents (41.1 per cent) reportedly using modified fat milk.

The proportion of people reportedly using modified fat milk was significantly lower in the most disadvantaged quintile (36.7 per cent) and significantly greater in the least disadvantaged (52.9 per cent) and second least disadvantaged (48.6 per cent) quintiles, compared with the overall population.

Reported use of modified fat milk decreased significantly from 1997 (45.7 per cent) to 2002 (43.4 per cent), however a slight increase in the use of modified fat milk in 2003 (44.0 per cent) means that the there is no significant decrease between 1997 and 2003.

Breads and cereals

In the *New South Wales Adult Health Survey 2003*, questions were asked on the frequency of eating breakfast cereals, bread, pasta, rice, and noodles. The data from these questions has been combined to provide an overall daily frequency of eating breakfast cereals, bread, pasta, rice, and noodles.

Overall, in 2003, 0.4 per cent of the population did not eat breads and cereals, 4.1 per cent had breads and cereals less than once a day, 23.2 per cent had breads and cereals once a day, 38.3 per cent twice a day, 24.9 per cent three times a day, 6.5 per cent four times a day, 1.7 per cent five times a day, and 0.9 per cent had breads and cereals more than five times a day.

Chips

In the *New South Wales Adult Health Survey 2003*, questions were asked on the frequency of eating chips, french fries, wedges, fried potatoes, or crisps.

Overall, in 2003, 24.0 per cent of the population did not eat chips (19.0 per cent of males and 28.7 per cent of females), 24.7 per cent had chips less than once a week, 27.5 per cent had chips once a week, 12.8 per cent had chips twice a week, 5.7 per cent had chips three times a week, 2.3 per cent had chips four times a week, 0.7 per cent had chips five times a week, and 2.4 per cent had chips more than five times a week.

Processed meat products

In the *New South Wales Adult Health Survey 2003*, questions were asked on the frequency of eating processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon, or ham.

Overall, in 2003, 20.0 per cent of the population did not eat processed meat products (13.4 per cent of males and 26.3 per cent of females), 16.4 per cent had processed meat products less than once a week, 25.2 per cent had them once a week, 18.2 per cent had them twice a week, 8.5 per cent had them three times a week, 3.8 per cent had them four times a week, 1.8 per cent had them five times a week, and 6.2 per cent had processed meat products more than five times a week.

Food security

Overall, in 2003, 6.1 per cent of the population reported that they had experienced some food insecurity in the past 12 months, in that they had run out of food and couldn't afford to buy more. There was no significant difference in the proportion of males and females experiencing food insecurity.

The proportion of people who had experienced food insecurity was significantly lower among those aged 55 years and over (1.1 per cent to 4.2 per cent) compared with the overall population.

There was no significant geographical variation in the proportion of people who had experienced food insecurity between rural areas (7.1 per cent) and urban areas (5.8 per cent).

The proportion of people experiencing food insecurity was significantly lower in the least (2.9 per cent) and second least (3.9 per cent) quintiles of disadvantage, compared with the overall population.

There was no significant change in the proportion of people experiencing food insecurity between 2002 and 2003.

Figure 25 shows the proportion of people who consumed the recommended daily fruit intake by age, and Figure 26 shows the proportion of people who consumed the recommended daily vegetable intake by age. Figure 27 shows the proportion of people who usually consume low fat, reduced fat, or skim milk by age. Figures 28–30 show the frequency of eating fried potato products per week; bread, pasta and other cereals by day; and processed meat products per week. Figures 31–32 show the proportion of people who had experienced food insecurity in the last 12 months by age and socioeconomic disadvantage.

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FIGURE 26

RECOMMENDED DAILY VEGETABLE INTAKE BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





FREQUENCY OF EATING CHIPS, FRENCH FRIES, WEDGES, FRIED POTATOES OR CRISPS, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





FIGURE 30

FREQUENCY OF EATING PROCESSED MEAT PRODUCTS, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





FOOD INSECURITY IN LAST 12 MONTHS BY SOCIOECONOMIC DISADVANTAGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003



Physical activity

Introduction

Physical activity is an important factor in maintaining good health. People who participate in moderate to vigorous levels of physical activity have lower mortality rates and lower incidence of a number of diseases and conditions than those who are physically inactive. Physical activity is a preventative factor for cardiovascular disease, cancer, diabetes mellitus, injury, mental illness, and obesity.¹ In Australia, physical inactivity ranks second only to tobacco smoking in terms of burden of disease from health risk factors, and accounts for 6.7 per cent of the burden of disease and injury.²

To maintain health, it is currently recommended that exercise of moderate intensity is carried out on all or most days of the week for at least 30 minutes per day.³ Encouragingly, this can be undertaken in shorter bursts of exercise, such as three lots of 10 minutes. Exercise of moderate intensity includes brisk walking, dancing, swimming, or cycling.

In addition, journeys to and from work provide regular opportunities to engage in incidental physical activity through walking or cycling to work, or walking to public transport. As such, monitoring transport habits of the population over time provides further information about physical activity through 'active transport'.

The New South Wales Adult Health Survey 2003 included the following questions from the Active Australia Survey:⁴ '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 haven't already mentioned?', 'What do you estimate was the total time that you spent doing these activities in the last week?'. The New South Wales Adult Health Survey 2003 also included a question about active transport: 'How do you usually get to work?'

Results

Adequate physical activity

'Adequate' physical activity was calculated from the *Active Australia Survey* questions above,⁴ and is defined as undertaking physical activity for a total of 150 minutes per week over five 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 minutes doing vigorous physical activity multiplied by two. Overall, in 2003, 45.0 per cent of respondents aged 16 years and over reported adequate levels of physical activity. A significantly greater proportion of males (49.5 per cent) than females (40.6 per cent) reported adequate physical activity.

Among males, a significantly greater proportion aged 16–24 years (66.9 per cent) and a significantly lower proportion aged 75 years and over (33.0 per cent) undertook adequate physical activity, compared with the overall male population. Among females, a significantly greater proportion aged 16–24 years (54.1 per cent) and a significantly lower proportion aged 65 years and over (22.9 per cent to 33.0 per cent) undertook adequate physical activity, compared with the overall female population.

There was no significant difference between urban areas (45.6 per cent) and rural areas (42.7 per cent) in the proportion of people undertaking adequate levels of physical activity.

A significantly greater proportion of people in the least (50.0 per cent) and second least (51.8 per cent) socioeconomically disadvantaged quintile undertook adequate physical activity compared with the overall population.

There has been a significant decline in the proportion of people reporting adequate physical activity between 1998 (47.6 per cent) and 2003 (45.0 per cent).

Active transport

Overall, in 2003, the majority of respondents did not use active transport to travel to work, as 76.1 per cent commute by car, motorbike, or truck. Of those respondents using a form of active transport, 16.7 per cent use public transport (train, bus, or ferry), 6.2 per cent walk to work, and 1.7 per cent bicycle to work.

Figures 33 and 34 show the proportion of people who had undertaken adequate physical activity in the last week by age and socioeconomic disadvantage. Figure 35 shows the usual method of transportation to work.

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FIGURE 34

ADEQUATE PHYSICAL ACTIVITY BY SOCIOECONOMIC DISADVANTAGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





Smoking

Introduction

Smoking is the leading cause of mortality and morbidity in NSW. It is the main cause of, or is a significant cause of, many diseases including cancer and cardiovascular disease. Of all behavioural risk factors, tobacco use (including passive smoking) is responsible for the greatest burden of premature death and disability.¹

The adverse effects of passive smoking are well documented. In adults, exposure to environmental tobacco smoke has been linked to asthma, lung cancer, cardiovascular diseases, eye irritations, and headaches.² Children are particularly vulnerable to the effects of passive smoking. Environmental tobacco smoke has been shown to be associated with several childhood respiratory illnesses, including asthma, bronchitis, and pneumonia, as well as the development of chronic ear infections, retardation of height and weight, and Sudden Infant Death Syndrome (SIDS).²

The *New South Wales Adult Health Survey 2003* included questions on smoking prevalence, intention to quit smoking, environmental tobacco smoke exposure in the home and car, and attitudes to smoking. Respondents were asked the following questions on smoking prevalence:

'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 six months, I am planning on quitting within the next six months, I am planning on quitting within the next month, I have not smoked in the past 24 hours but was smoking six months ago,I have not been smoking in the past six months' '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.

Results

Current smoking status

Overall, in 2003, 17.9 per cent of the population reported that they smoked daily, 4.6 per cent smoked occasionally, 24.6 per cent don't smoke now but used to, 10.8 per cent have tried smoking a few times but never have smoked regularly, and 42.1 per cent have never smoked.

Current smoking prevalence included respondents who reported that they smoke daily or occasionally. In 2003, 22.5 per cent of the population reported that they are current smokers. A significantly greater proportion of males (25.0 per cent) than females (20.0 per cent) reported that they currently smoked.

For both males and females, rates of current smoking were highest in young adults. Among males, a significantly greater proportion of those aged 25–34 years (32.4 per cent) and a significantly lower proportion of those aged 55 years and over (7.4 per cent to 15.8 per cent) were current smokers, compared to the overall male population. Among females, a significantly greater proportion of those aged 25–44 years (24.7 to 25.8 per cent) and a significantly lower proportion of those aged 55 years and over (4.2 per cent to 14.7 per cent) were current smokers, compared to the overall female population.

There was significant geographic variation in current smoking, with a greater proportion of rural residents (24.8 per cent) reporting current smoking than urban residents (21.8 per cent).

The proportion of people currently smoking increased with increasing disadvantage. Compared to the overall population, the proportion of people currently smoking was significantly lower in respondents in the least disadvantaged quintile (18.1 per cent) and significantly higher in respondents in the most disadvantaged quintile (27.2 per cent).

There was a significant decrease in the prevalence of current smoking, between 1997 (24.0 per cent) and 2002 (21.4 per cent). This decrease occurred in both males (27.2 per cent to 23.9 per cent) and females (21.0 per cent) to 18.9 per cent). However, in 2003, the proportion of current smokers increased in both males (25.0 per cent) and females (20.0 per cent), to 22.5 per cent overall. While this was not a significant increase from 2002, it means that between 1997 and 2003 there was no significant decrease in the prevalence of current smoking.

Of the respondents who reported current smoking, 52.0 per cent were not planning to quit in the next six months, 32.5 per cent were planning to quit in the next six months, and 13.3 per cent were planning to quit in the next month. A further 1.7 per cent had just quit smoking (had not smoked in the last 24 hours), and 0.4 per cent had not smoked in the last six months.

Smoking in the home

In 2003, among NSW residents aged 16 years and over, 82.5 per cent reported that their home was smoke-free, 9.0 per cent reported people 'occasionally' smoked inside the home, and 8.5 per cent reported that people 'frequently' smoked inside the home.

The proportion of people living in a smoke-free home was significantly greater among people aged 65 years and over (86.0 per cent to 87.4 per cent) compared with the overall figure (82.5 per cent).

There was significant geographic variation in the proportion of smoke-free homes, with a significantly

greater proportion of urban residents (83.5 per cent) than rural residents (79.0 per cent) reporting smoke-free homes.

Compared to the overall population, the second least disadvantaged quintile (86.2 per cent) had a significantly greater proportion of smoke-free homes, and the most disadvantaged quintile (78.7 per cent) had a significantly lower proportion of smoke-free homes.

There has been a significant increase in the proportion of homes reported to be smoke-free, from 69.8 per cent in 1997 to 82.5 per cent in 2003.

Smoking in cars

In 2003, among NSW residents aged 16 years and over, 81.2 per cent reported that their car was smoke-free. A significantly greater proportion of people aged 55–74 years (84.6 per cent to 87.3 per cent) and a significantly lower proportion of people aged 16–24 years (73.9 per cent) reported that their car was smoke free.

A significantly greater proportion of people in the second least disadvantaged quintile (85.0 per cent), and a significantly lower proportion of people in the most disadvantaged quintile (77.6 per cent) reported a smokefree car.

The proportion of people in urban areas who reported a smoke-free car (81.9 per cent) was significantly greater than in rural areas (78.5 per cent).

No comparative data are available for this indicator prior to 2003.

Smoking in hotels and licensed bars

In NSW, 24.4 per cent of respondents said that they would be more likely, and 9.9 per cent of respondents said that they would be less likely, to go to hotels and licensed bars if there was a total ban on smoking in hotels and licensed bars. In total, 65.8 per cent of respondents said a total ban on smoking in hotels and licensed bars would make no difference.

There was no significant difference in the proportion of males (23.1 per cent) and females (25.6 per cent) who said they would frequent hotels and licensed bars more often if there was a total ban on smoking. A significantly lower proportion of people aged 65 years and over (11.5 per cent to 18.1 per cent) said they would frequent hotels and licensed bars more often if there was a total smoking ban.

A significantly greater proportion of people in the quintile of least socioeconomic disadvantage (30.0 per cent) said they would frequent hotels and licensed bars more often if there was a total smoking ban.

A significantly greater proportion of people in urban areas (25.6 per cent), compared to rural areas (19.8 per cent) reported they would frequent hotels and licensed bars more often if there was a total smoking ban.

There was no significant difference in the proportion of males (10.7 per cent) and females (9.1 per cent) who said they would frequent hotels and licensed bars less often if there was a total ban on smoking. A significantly greater proportion of people aged 16–34 years (13.2 per cent to 14.7 per cent) and a significantly lower proportion of people aged 55 years and over (2.2 per cent to 5.3 per cent) would frequent hotels and licensed bars less often if there was a total smoking ban.

There was no significant variation in the proportion of people who stated they would frequent hotels and licensed bars less often by socioeconomic status or by urban and rural location.

No comparative data are available for this indicator prior to 2003.

Figure 36 shows smoking status. Figure 37 shows the proportion of people who currently smoked daily or

occasionally by age. Figure 38 shows the intention to quit smoking. Figure 39 shows the proportion of smoke-free households by socioeconomic disadvantage. Figure 40 shows the proportion of smoke free cars by age. Figures 41–43 show the impact that a total smoking ban in hotels and licensed bars would have on attendance, and the positive and negative impact on attendance by age.

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FIGURE 36





FIGURE 38

INTENTION TO QUIT SMOKING, PERSONS WHO SMOKE AGED 16 YEARS AND OVER, NSW, 2003









POSITIVE IMPACT OF TOTAL BAN ON SMOKING IN HOTELS AND LICENSED BARS BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





8. HEALTH STATUS

Self-rated health status

Introduction

Self-rated health is a fundamental measure of health status and health outcomes, and 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.^{1,2} Longitudinal studies have shown that self-rated health is a strong and independent predictor of subsequent illness and premature death.³

A single self-rated health question was asked of respondents aged 16 years and over in the 1997 and 1998 NSW Health Surveys and the New South Wales Adult Health Survey 2002. The question 'In general, would you say your health is excellent, very good, good, fair, or poor' used in 1997 and 1998 was modified in 2002 to 'Overall, how would you rate your health during the past four weeks? Was it excellent, very good, good, fair, poor or very poor?'. In 2003, two additional questions were also asked: 'During the past four weeks how much difficulty did you have doing your daily work or activities? No difficulty at all, a little bit of difficulty, some difficulty, much difficulty, could not do work or activities?', and 'During the past four weeks how muchbodily pain have you generally had? No pain, very mild pain, mild pain, moderate pain, severe pain?'.

Results

Overall, in 2003, 22.6 per cent reported their health as 'excellent', 30.3 per cent as 'very good', 27.9 per cent as 'good', 13.3 per cent as 'fair', 4.6 per cent as 'poor' and 1.3 per cent as 'very poor'. Responses of 'excellent', 'very good' and 'good' were combined into a 'positive' rating of health (80.8 per cent of the population). There was no significant difference between the proportion of males (81.9 per cent) and females (79.8 per cent) who gave a positive rating of their health.

A significantly greater proportion of people aged 16–34 years (84.2 to 85.8 per cent) and a significantly lower proportion of people aged 55 years and over (66.7 per cent to 76.9 per cent) gave a positive rating of their health compared with the overall population.

The proportion of people giving a positive rating of their health did not differ significantly between urban residents (80.6 per cent) and rural residents (81.4 per cent).

A significantly greater proportion of males in the least socioeconomically disadvantaged quintile (85.7 per cent) gave a positive rating of their health status compared with the overall population.

The proportion of people who gave a positive rating of their health decreased significantly from 1997 (84.9 per cent) to 2003 (80.8 per cent), which may in part be due to the change in question. This significant decrease has occurred in both males (84.9 per cent to 81.9 per cent) and females (85.0 per cent to 79.7 per cent).

Almost two-thirds of respondents (63.7) reported no difficulty with undertaking daily work or activities. However, 17.8 per cent reported a little difficulty, 11.9 per cent reported some difficulty, 4.6 reported much difficulty, and 2.0 per cent could not undertake daily work or activities. A significantly lower proportion (60.4 per cent) of females reported no difficulty with daily activities compared to males (67.0 per cent).

Over half of respondents reported that they had experienced no pain (37.4 per cent) or very mild pain (17.6 per cent) in the last four weeks. A further 23.3 per cent reported that they had experienced mild pain, 16.3 per cent reported moderate pain, and 5.4 per cent reported severe pain in the last four weeks. A significantly lower proportion of females (35.1 per cent) than males (39.8 per cent) reported no pain.

Figure 44 shows self-rated health status. Figure 45 shows shows the proportion of people who rated their health status as excellent, very good, or good by age. Figures 46 and 47 show the proportion of people experiencing difficulty doing work or activity, and experiencing bodily pain.

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FIGURE 45

EXCELLENT, VERY GOOD , OR GOOD SELF-RATED HEALTH STATUS BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





FIGURE 47





Asthma

Introduction

Asthma is a chronic inflammatory disorder of the airways, which results in obstruction of airflow in response to specific triggers. Along with New Zealand and the United Kingdom, Australia has the highest prevalence of asthma in the world,^{1,2} with around one in nine adults, and one in seven children and teenagers, affected.³ Over the last two decades, the self-reported prevalence of asthma in Australia has increased in both children and adults,^{4,5,6} and in 2001 it was estimated that 11.6 per cent of the Australian population (representing 2.0 million people) had asthma.³ The reasons for this increasing prevalence are unclear.

The consequences of asthma can include loss of lung function, reduced participation in work and other activities, and premature death. In Australia, in 1996, asthma accounted for 2.6 per cent of total Disability Adjusted Life Years (DALYs) (2.1 per cent for males and 3.1 per cent for females).⁷

The New South Wales Adult Health Survey 2003 included questions on prevalence, severity, and management of asthma, and quality of life for people with asthma. Respondents were asked the following questions: 'Have you ever been told by a doctor or at a hospital that you have asthma?', 'Have you had symptoms of asthma or taken treatment for asthma in the last 12 months?', 'Have you had symptoms of asthma or taken treatment for asthma in the last four weeks?', 'Have you visited a general practitioner or local doctor for an attack of asthma in the last four weeks?', 'Have you visited a hospital emergency department for an attack of asthma in the last four weeks?', 'Do you have a written asthma management plan from your doctor on how to treat your asthma?', 'During the past four weeks, did your asthma interfere with your ability to manage your day to day activities?', and 'Did it interfere with these activities: a little bit, moderately, quite a lot, or extremely?'.

Results

A lifetime prevalence of asthma

In 2003, approximately one in five people (21.0 per cent) aged 16 years and over reported that they had ever been told by a doctor or at a hospital that they had asthma. A significantly greater proportion of females (22.7 per cent) than males (19.4 per cent) reported that they had ever had asthma.

The proportion of males who reported that they had ever been diagnosed with asthma was significantly greater among those aged 16–24 years (31.6 per cent), and significantly lower in males aged 65 years and over (11.9 per cent to 13.1 per cent) than in the overall male population. Among females, a significantly greater proportion of those aged 16–24 years (29.0 percent) and a significantly lower proportion of those aged 35–44 years (17.6 per cent) reported that they had ever been diagnosed with asthma.

There was no significant difference in the proportion of people reporting ever-diagnosed asthma between rural residents (22.6 per cent) and urban residents (20.6 per cent).

The proportion of people reporting ever-diagnosed asthma did not vary significantly by level of socioeconomic disadvantage.

Self-reported ever-diagnosed asthma has increased significantly from 1997 (16.6 per cent) to 2003 (21.1 per cent). This increase has occurred in both males (14.9 per cent to 19.4 per cent) and females (18.1 per cent to 22.7 per cent). Between 2002 and 2003 there has been no significant change in the proportion of people reporting that they have ever been diagnosed with asthma.

Doctor-diagnosed current asthma

Overall, 11.0 per cent of people aged 16 years and over reported that they had current doctor-diagnosed asthma. The proportion of females with current asthma (12.7 per cent) was significantly higher than males (9.2 per cent). A significantly lower proportion of females aged 75 years and over (9.2 per cent) reported current asthma compared to the overall female population.

Of the people who reported having current asthma, 0.5 per cent had visited an emergency department and 9.0 per cent had visited a general practitioner or local doctor for an attack of asthma in the previous four weeks. These rates were similar in both sexes.

There was no significant difference in the proportion of people with current asthma in urban areas (10.9 per cent) and rural areas (11.1 per cent).

The proportion of people with current doctor-diagnosed asthma did not vary significantly by level of socioeconomic disadvantage.

The proportion of people with current doctor-diagnosed asthma did not change significantly from 1997 (10.3 per cent) to 2003 (11.0 per cent), or between 2002 (10.6 per cent) and 2003 (11.0 per cent).

Written asthma management plans

Among those who had experienced asthma symptoms or taken treatment for asthma in the last four weeks, 41.2 per cent of people said that they had a written asthma management plan. There was no significant difference by age or sex, or by socioeconomic status.

Interference with daily activities

Among respondents who reported asthma symptoms or treatment in the last four weeks, over two-thirds (68.1 per cent) reported that their asthma caused 'moderate' to 'extreme' interference with their ability to undertake daily activities.

There was no significant difference between the proportion of males and females whose asthma interfered with their daily activities moderately, quite a lot, or extremely. A significantly lower proportion of males aged 45–54 years reported moderate to extreme interference with daily activities (6.7 per cent), compared to the overall male population.

A significantly lower proportion of males (2.7 per cent) in the quintile of least socioeconomic disadvantage reported moderate to extreme interference with daily activities, compared to the overall population.

Figure 48 shows the proportion of people who had ever been diagnosed with asthma by age. Figure 49 shows the proportion of people with current asthma by age. Figure 50 shows the proportion of people who had visited their general practitioner or a hospital emergency department for an asthma attack in the last four weeks. Figure 51 shows the proportion of people who had asthma symptoms, or taken treatment for asthma in the last four weeks, and who had a written asthma management plan, by age. Figures 52 and 53 show the level of interfence with daily activities associated with asthma, and the proportion of people with asthma symptoms or treatment in the last four weeks who reported moderate to extreme interference with activities.

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FIGURE 48



EVER DIAGNOSED WITH ASTHMA BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003



FIGURE 50

VISITED DOCTOR OR EMERGENCY DEPARTMENT FOR ASTHMA ATTACK IN LAST FOUR WEEKS, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





FIGURE 52

LEVEL OF INTERFERENCE WITH DAILY ACTIVITIES IN THE LAST FOUR WEEKS, PERSONS WHO CURRENTLY HAVE ASTHMA AGED 16 YEARS AND OVER, NSW, 2003



MODERATE TO EXTREME INTERFERENCE WITH DAILY ACTIVITIES BY AGE, PERSONS WHO CURRENTLY HAVE ASTHMA AGED 16 YEARS AND OVER, NSW, 2003



Diabetes

Introduction

Diabetes mellitus is a very common disease, characterised by disordered glucose and lipid metabolism. Diabetes affects a person's health in two ways: by direct metabolic complications, which can be immediately life threatening if not treated promptly; and by long-term complications involving the eyes, kidneys, nerves, and major blood vessels including those in the heart.

There are three main forms of diabetes: type 1, or insulin dependent diabetes mellitus (IDDM), which is characterised by a complete deficiency of insulin (10–15 per cent of people with diabetes); type 2, or non-insulin dependent diabetes mellitus (NIDDM), which is the most common form of diabetes (approximately 85 per cent of people with diabetes), affecting mainly people aged 45 years and over but increasingly in younger people; and gestational diabetes, which occurs during pregnancy in less than nine per cent of pregnancies among women not previously known to have diabetes.¹

The management of diabetes depends on careful control of glucose levels, blood lipid levels (especially cholesterol

levels), blood pressure, and regular screening for complications.²

Australia-wide, it is estimated that there are over 600,000 people with diabetes and this prevalence is increasing. It is estimated that there is an undiagnosed case of type 2 diabetes for every diagnosis, making the total estimated cases 1.2 million.¹ Diabetes is the main cause of around two per cent of all deaths and is a contributing cause in around eight per cent of all deaths.³

The New South Wales Adult Health Survey 2003 included questions on prevalence, type, and management of diabetes. Respondents were asked the following questions: 'Have you every been told by a doctor or at a hospital that you have diabetes?', 'Have you ever been told by a doctor or at a hospital that you have high sugar levels in your blood or urine?', 'What type of diabetes were you told you had?', 'How old were you when you were first told you had?', 'How old were you when you were first told you had diabetes or high blood sugar?', 'What are you doing now to manage your diabetes or high blood sugar?'. If female, respondents were also asked 'Were you pregnant when you were first told you had diabetes or high blood sugar?' and 'Have you ever had diabetes or high blood sugar apart from when you were pregnant?'.

Results

Prevalence of diabetes

In 2003, 6.2 per cent of people aged 16 years and over reported that a doctor had ever told them that they had diabetes. There was no significant difference between the proportion of males (6.9 per cent) and females (5.5 per cent) reporting doctor-diagnosed diabetes.

The prevalence of diabetes increased with age. A significantly lower proportion of people aged 16–44 years (0.6 per cent to 3.0 per cent) and a significantly greater proportion of people aged 55 years and over (13.3 per cent to 16.7 per cent) reported doctor-diagnosed diabetes, compared with the overall population.

There was little geographic variation in the proportion of people with doctor-diagnosed diabetes, with no significant difference between rural areas (7.0 per cent) and urban areas (6.0 per cent).

A significantly lower proportion of people in the least socioeconomically disadvantaged quintile (4.0 per cent) reported doctor-diagnosed diabetes, compared with the overall population.

The prevalence of doctor-diagnosed diabetes has increased significantly from 1997 (4.7 per cent) to 2003

(6.2 per cent). This increase occurred in both males (5.2 per cent to 6.9 per cent) and females (4.3 per cent to 5.5 per cent). There has been no significant change between 2002 and 2003.

Of those who reported doctor-diagnosed diabetes, 64.2 per cent reported following a special diet, 37.0 per cent reported taking medication, 22.5 per cent reported exercising most days, 12.5 per cent reported having insulin injections, 7.7 per cent reported losing weight, and 8.3 per cent reported not doing anything.

Figures 54–55 show the proportion of people who had been diagnosed with diabetes or high blood sugar, by age and socioeconomic disadvantage.

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FIGURE 54



DIABETES OR HIGH BLOOD SUGAR BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003



Adult incontinence

Introduction

Urinary incontinence is a condition that is often progressive and is associated with significant morbidity. It imposes a considerable social, emotional, psychological, and financial burden on affected individuals, and also imposes a significant burden on carers and health services. Women are more at risk than men and incontinence is more common and more severe in older people.¹

It has been estimated that the prevalence of incontinence in the Australian population ranges from 16.5 per cent in women aged 20–40 years of age, up to 31 per cent in women aged over 80 years.² In men, the estimated prevalence is lower, ranging from three per cent in men aged 40–49 years, and up to 16 per cent in those aged over 80 years. In total, this equates to around two million Australians.²

A single question on incontinence was asked of respondents aged 40 years and over in the *New South Wales Adult Health Survey 2003*. 'In the last four weeks, how often have you had a urine leak when you were physically active, exerted yourself, or coughed or sneezed during the day or night? Most of the time, Some of the time, None of the time?'.

Results

Overall, in 2003, 21.8 per cent of people in NSW aged 40 years and over said that they had experienced

incontinence during the last four weeks. A significantly greater proportion of females (31.9 per cent) than males (11.2 per cent) had experienced incontinence. A significantly greater proportion of males aged 65–69 years (19.4 per cent) and a significantly lower proportion of males aged 40–44 years (6.1 per cent) had experienced incontinence in the previous four weeks, compared to the overall male population. There was no significant variation by age among females.

There was no significant geographic variation in the proportion of people experiencing incontinence between urban areas (22.1 per cent) and rural areas (21.1 per cent). In addition, the proportion of people experiencing incontinence did not vary by socioeconomic status.

There are no comparative data available, for incontinence in people aged 40 years and over, prior to 2003.

Figure 56 shows the proportion of people who have been incontinent some or most of the time in the last four weeks, by age.

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Falls

Introduction

Falls are the most common cause of serious injury among older Australians.¹ In 2001, there were approximately 14,000 hospital separations for falls among older NSW residents, amounting to 182,000 hospital bed days.² In NSW, the total lifetime cost of falls in 1998–99 was estimated at \$644 million. This figure includes direct costs to the health system of \$333 million and mortality and morbidity costs of \$311 million.³

Approximately one in three Australians over the age of 65 years fall each year, and an estimated 10 per cent of these experience multiple falls, and 30 per cent need medical attention.⁴ The rate of falls and associated injuries is even higher in nursing homes and other institutions. Aside from monetary costs to the community, the effects of falls are costly to the individual in terms of health, function, disability, and quality of life.⁵

In the *New South Wales Adult Health Survey 2003*, respondents aged 65 years and over were asked 'In the last 12 months have you had a fall?' Respondents who answered 'Yes' were then asked the following questions: 'How many times did you fall in the last 12 months?', 'In the last 12 months have you had a fall that required medical treatment for injuries?' and 'Were you admitted to hospital as a result of any of your falls in the last 12 months?'.

Results

Overall, in 2003, 23.5 per cent of people aged 65 years and over reported that they had a fall in the past 12 months. A significantly greater proportion of females (27.5 per cent) than males (18.7 per cent) reported having a fall in the last 12 months. The proportion of people reporting a fall in the last 12 months increased with age, with a significantly greater proportion of people aged 75 years and over (31 per cent) reporting a fall, compared to the overall population.

There was no significant difference in the proportion of people reporting falls between rural areas (22.7 per cent) and urban areas (23.8 per cent).

There was no significant variation in the proportion of people reporting falls by level of socioeconomic disadvantage.

Of those people who reported a fall in the previous 12 months, 32.0 per cent received medical treatment. There was no significant difference in the proportion of males (29 per cent) and females (33.6 per cent) who received medical treatment for a fall.

There was no significant variation in the proportion of people who received medical treatment for a fall in the last 12 months, by level of socioeconomic disadvantage.

Among those people who reported medical treatment for a fall in the last 12 months, 28.5 per cent were hospitalised.

There was no significant variation in the proportion who were hospitalised by age or sex, or by socioeconomic status.

The proportion people aged 65 years and over reporting a fall in the past 12 months has decreased significantly between 1999 (26.8 per cent) and 2003 (23.5 per cent).⁶

Figures 57 and 58 show the proportion of people 65 years and over who have had a fall in the last 12 months, by age and socioeconomic disadvantage. Figure 59 shows falls requiring medical treatment by age.

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FIGURE 57

FALL IN THE LAST 12 MONTHS BY AGE, PERSONS AGED 65 YEARS AND OVER, NSW, 2003





FALL REQUIRING MEDICAL TREATMENT BY AGE, PERSONS WHO HAVE FALLEN IN THE PREVIOUS 12 MONTHS AGED 65 YEARS AND OVER, NSW, 2003



Mental health

Introduction

Psychological distress has a major effect on the ability of people to work, study, and manage their day-to-day activities. Mental health disorders account for nearly 30 per cent of the non-fatal burden of disease in Australia.¹ Affective disorders (including depression) are the most common, followed by substance use and anxiety disorders.² Each year, approximately 18 per cent of Australian adults experience mental illness, and 38 per cent of these people use a health service for mental health related problems.³

The Kessler 10 plus (K10+) scales were developed by Kessler and Mroczek during 1992-1994 at the Institute for Social research, University of Michigan, and subsequently by Kessler at the Department of Health Care Policy, Harvard Medical School.⁴ The measures were designed to form the mental health component of the 'core' of the annual United States National Health Interview Survey. The K10+ is a 14-item questionnaire, which is administered in two parts. The first 10 questions provide a global measure of 'non-specific psychological distress', based on questions about the level of nervousness, agitation, psychological fatigue and depression in the most recent four-week period. The resulting K10+ score is then classified into four categories: 'low psychological distress' when the K10 score is 10 to 15; 'moderate psychological distress' when the K10 score is 16 to 21; 'high psychological distress' when the K10 score is 22 to 29; and 'very high

The New South Wales Adult Health Survey 2003 included the following K10+ questions: 'In the past four weeks, about how often did you feel tired out for no good reason?', 'In the past four weeks, about how often did you feel nervous?', 'In the past four weeks, about how often did you feel so nervous that nothing could calm you down?', 'In the past four weeks, about how often did you feel hopeless?', 'In the last four weeks, about how often did you feel restless or fidgety?', 'In the past four weeks, about how often were you so restless that you could not sit still?', 'In the past four weeks, about how often did you feel depressed?', 'In the past four weeks, about how often did you feel that everything was an effort', 'In the past four weeks, about how often did you feel so sad that nothing could cheer you up?', 'In the past four weeks, about how often did you feel worthless?'.

Respondents who scored 16 points and above were asked the additional questions: 'In the last four 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 four weeks, how many days were you able to work, study, or manage you day-today activities, but had to cut down on what you did because of these feelings?', 'In the last four weeks, how many times have you seen a doctor or other health professional about these feelings?', 'In the last four weeks, how often have physical health problems been the main cause of these feelings?'

Results

Overall, in 2003, 66.9 per cent of people were classed as having 'low' levels of psychological distress, 21.5 per cent as having 'moderate' levels of psychological distress, 8.3 per cent as having 'high' levels of psychological distress, and 2.8 per cent as having 'very high' levels of psychological distress. Just over one in 10 (11.1 per cent) respondents reported 'high or very high' levels of psychological distress. A significantly greater proportion of females (12.9 per cent) than males (9.3 per cent) reported high or very high levels of psychological distress.

A significantly lower proportion of females aged 65 years and over (6.8 to 6.9 per cent) had high or very high levels of psychological distress, compared with the overall female population. Among males, a significantly lower proportion aged 65–74 years (5.0 per cent) experienced high or very high levels of psychological distress, compared to the overall male population.

The proportion of people reporting high or very high levels of psychological distress did not vary significantly between urban areas (11.1 per cent) and rural areas (11.3 per cent).

The proportion of people reporting high or very high levels of psychological distress did not vary significantly by socioeconomic disadvantage.

Reported rates of high and very high psychological distress rose significantly from 1998 (10.5 per cent) to 2002 (12.2 per cent). The rate has not changed significantly between 2002 and 2003 (11.1 per cent).

Among people aged 16 years and over who reported moderate, high, or very high levels of psychological distress (scored 16 or over on the K10) the average number of days they were totally unable to work, study, or manage their day-to-day activities because of their psychological distress was 0.54 days (0.51 days for males and 0.57 days for females). These respondents reported that they had to cut down on what they did because of their psychological distress on an average of 0.85 days (0.76 days for males and 0.95 days for females) over the last four weeks. Just under two thirds (65.3 per cent) of the people who had moderate, high, or very high psychological distress said that the problems they had were not mainly due to physical problems. The people who had moderate, high, or very high psychological distress saw a doctor or other health professional about their psychological distress on average 0.13 times (0.1 times for males and 0.16 times for females) in the past four weeks.

Figure 60 shows the proportion of people in each K10 category. Figures 61 and 62 show the proportion of people who reported high or very high psychological distress, by age and socioeconomic disadvantage. Figure 63 shows the proportion of people who said their psychological distress was due to physical problems all, most, some, a little or none of the time. Table 5 shows the effect of psychological distress on daily activities.

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FIGURE 60

PSYCHOLOGICAL DISTRESS (KESSLER 10) CATEGORIES, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





Source: NSW Adult Health Survey 2003 (HOIST), Centre for Epidemiology and Research, NSW Department of Health.

FIGURE 62





TIMES THAT PHYSICAL PROBLEMS HAVE BEEN THE CAUSE OF PSYCHOLOGICAL DISTRESS IN PAST FOUR WEEKS, PERSONS WITH MODERATE, HIGH OR VERY HIGH PSYCHOLOGICAL DISTRESS AGED 16 YEARS AND OVER, NSW, 2003



TABLE 5

EFFECT OF PSYCHOLOGICAL DISTRESS ON DAILY ACTIVITIES IN PEOPLE WITH MODERATE, HIGH OR VERY HIGH PSYCHOLOGICAL DISTRESS AGED 16 YEARS AND OVER, NSW, 2003

Effect	males	95% CI	females	95% CI	persons	95% CI
Days unable to manage daily activities	0.51	(0.40-0.62)	0.57	(0.48-0.66)	0.54	(0.47-0.61)
Days cut down on daily activities	0.76	(0.64–0.87)	0.95	(0.85–1.05)	0.85	(0.78–0.93)
Times saw a health professional	0.10	(0.08–0.12)	0.16	(0.13–0.19)	0.13	(0.11–0.15)

Source: NSW Adult Health Survey 2003 (HOIST), Centre for Epidemiology and Research, NSW Department of Health.

Oral health

Introduction

Dental caries is the most prevalent health problem, edentulism (the loss of all natural teeth) is the third most prevalent health problem, and periodontal disease is the fifth most prevalent health problem in Australia.¹ About 90 per cent of all tooth loss can be attributed to dental caries and periodontal disease, and because these conditions are preventable most of this tooth loss can be avoided.¹ Factors such as exposure to fluoride, change in diet, reduced sugar consumption, and changes in oral disease management, have improved oral health significantly, decreasing edentulism and increasing retention of natural teeth. Although Australians enjoy a relatively high standard of oral health, this is not distributed equally among different age and social groups.

Regular visits to a dental care professional (that is, at least once every two years) have a significant and positive effect on dental health. Those who visit a dental care professional regularly have significantly less severity and prevalence, and suffer fewer social and psychological effects, of dental health problems.² There is variation in the frequency of dental visits across the Australian population, and people who have a longer period of time between visits are more likely to visit a dentist because they have a problem rather than for a check up. Patterns of access for dental visits are uneven across the Australian population, with some socially-disadvantaged groups in the community, including health card holders, migrant groups, and indigenous populations, experiencing problems with access to oral health services.²

In the *New South Wales Adult Health Survey 2003*, respondents were asked 'Are any of your natural teeth missing?', 'Do you have dentures or false teeth?', 'In the last 12 months, how often have you had a toothache or other problem with your mouth or dentures?', 'In the last four weeks, 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 for that problem?', 'When did you last see a dental professional about your teeth, dentures, or gums?', 'Where was your last dental visit made?', and 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?'.

Results

Retention of natural teeth

Overall, in 2003, 37.3 per cent of people reported that they had all of their natural teeth, 56.9 per cent reported that they had some natural teeth missing, and 5.8 per cent reported that they had all their natural teeth missing.

A significantly greater proportion of females (7.4 per cent) than males (4.2 per cent) had all their natural teeth missing. The proportion of people who had all their natural teeth missing increased significantly with age in both males and females. A significantly greater proportion of males (6.6 per cent to 26.2 per cent) and females (12.1 per cent to 36.3 per cent) aged 55 years and over had all their natural teeth missing, compared with the overall male and female population. A significantly lower proportion of males aged 16–44 years (0 per cent to 0.6 per cent) and females aged 16–54 years (0.1 per cent to 3.8 per cent) had all their natural teeth missing, compared with the respective male and female populations.

The proportion of respondents reporting having all their natural teeth missing was significantly lower in urban areas (5.0 per cent) than in rural areas (8.8 per cent).

A significantly lower proportion of people in the least (2.0 per cent) and second least (4.2 per cent) socioeconomically disadvantaged quintiles, and a significantly greater proportion in the second most disadvantaged quintile (7.7 per cent), were likely to have all their natural teeth missing than the overall population.

The proportion of people who had all their natural teeth missing decreased significantly from 1998 (8.3 per cent) to 2003 (5.8 per cent). There was also a significant decrease in the proportion of people with all their natural teeth missing between 2002 and 2003 (6.9 per cent to 5.8 per cent).

Toothache and other oral health problems

Overall, in 2003, 51.7 per cent of people reported that they 'never' had oral health problems, 27.3 per cent of people 'hardly ever' had problems, 14.8 per cent of people 'sometimes' had problems, 3.9 per cent 'often' had problems, and 2.3 per cent of people had oral health problems 'very often'. The proportion of females (2.9 per cent) having oral health problems 'very often' was significantly greater than males (1.7 per cent).

Of those who reported an oral health problem, 36.6 per cent did not see a dentist for the problem. Of those who did see a dentist, the most common treatments were dental fillings (22.3 per cent), tooth extractions (11.6 per cent), or simply a check up (12.0 per cent).

Frequency of visits to dental professionals

Overall, in 2003, 39.6 per cent of people had seen a dentist less than 12 months ago, 23.1 per cent had seen a dentist one to less than two years ago, 20.1 per cent had seen a dentist two to less than five years ago, 8.8 per cent had seen a dentist five to less than 10 years ago, 7.3 per cent had seen a dentist 10 years ago or more, and 1.1 per cent of people had never seen a dentist. A significantly lower proportion of males (36.8 per cent) than females (42.4 per cent) reported having seen a dentist in the last 12 months.

Dental providers used

In 2003, 88.3 per cent of people used a private dental provider, 8.3 per cent used a public dental clinic, and 3.3 per cent of people used other dental services.

Figure 64 shows the range and times since the last dental visit. Figures 65 and 66 show the proportion of people who have all natural teeth missing, by age and socioeconomic disadvantage.

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FIGURE 64

TIME SINCE LAST DENTAL VISIT, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





ALL NATURAL TEETH MISSING BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003



Overweight or obesity

Introduction

The prevalence of obesity is rising worldwide and NSW is no exception. Being overweight or obese increases the risk of a wide range of health problems, including cardiovascular disease, non-insulin dependent diabetes mellitus, breast cancer, gallstones, degenerative joint disease, obstructive sleep apnoea, and impaired psychosocial functioning.¹ Weight gain and obesity develop when the energy intake from food and drink exceeds energy expenditure from physical activity and other metabolic processes.

In the *New South Wales Adult Health Survey 2003*, respondents were asked 'How tall are you without shoes?' and 'How much do you weigh without clothes or shoes?'. These answers were used to estimate body mass index (BMI). The BMI provides the most useful and practical method for classifying overweight or obesity in adults. BMI is calculated by dividing a person's weight (in kilograms) by their height (in metres) squared. The resulting BMI is then classified into four 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 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

Studies have shown that relying on self-reported height and weight results in an underestimation of the true prevalence of overweight or obesity. In one study, the reliability of self-reported height and weight improved when the person had recently weighed themselves.³ Therefore, respondents were also asked 'How often do you weigh yourself?' and 'Do you consider yourself to be acceptable weight, underweight, or overweight?'.

Results

Overall, in 2003, 9.1 per cent of the population were categorised as 'underweight', 42.5 per cent as 'acceptable weight', 32.4 per cent as 'overweight', and 16.0 per cent as 'obese'. Of the people whose BMI was calculated, 27.5 per cent weighed themselves at least weekly, 26.7 per cent weighed themselves monthly, 31.8 per cent weighed themselves a few times a year, and 14.1 per cent never weighed themselves.

In 2003, 48.3 per cent of the NSW population were classified as overweight or obese. A significantly greater proportion of males (55.6 per cent) than females (41.0 per cent) were classified as overweight or obese. When asked to rate their own weight as acceptable, overweight, or underweight, 52.2 per cent of the respondents categorised themselves as being overweight, with a significantly greater proportion of females (45.7 per cent) considering themselves to be overweight than males (38.4 per cent).

Among males, a significantly lower proportion of those aged 16–24 years (27.1 per cent) and 75 years and over (47.1 per cent), and a significantly greater proportion aged 35–64 years (63.7 per cent to 67.7 per cent) were classified as overweight or obese, compared with the overall male population. Among females, a significantly lower proportion of those aged 16–34 years (21.6 per cent to 33.8 per cent) and a significantly greater proportion of those aged 45–74 years (49.5 per cent to 54.4 per cent) were classified as overweight or obese, compared with the overall male population.

There was geographic variation in the proportion of residents classified as overweight or obese, with a significantly greater proportion of rural residents (53.2 per cent) being overweight or obese than urban residents (47.0 per cent).

The two most socioeconomically disadvantaged quintiles included significantly greater proportions of overweight or obese people (52.7 per cent to 53.5 per cent) than the overall population. The two least disadvantaged quintiles included a significantly lower proportion of overweight or obese people (39.4 per cent to 43.9 per cent) than the overall population. In men, there was no significant variation in the proportion of people classified as overweight or obese by socioeconomic quintile.

The proportion of people classified as overweight or obese has risen significantly from 1997 (42.2 per cent) to 2003 (48.3 per cent). This increase has occurred in both males (49.7 per cent to 55.6 per cent) and females (34.5 per cent to 41.0 per cent).

In 2003, 16.0 per cent of the population were classified as obese. There was no significant difference in the proportion of males (15.5 per cent) and females (16.5 per cent) who were classified as obese. A significantly lower proportion of people aged 16–24 years (7.4 per cent) and 75 years and over (12 per cent), and a significantly greater proportion of people aged 45–64 years (20.7 per cent to 24.0 per cent) were classified as obese.

The two least socioeconomically disadvantaged quintiles included significantly lower proportions of obese people (10.3 per cent to 12.6 per cent) compared to the overall NSW population. A significantly greater proportion of people in the second most disadvantaged quintile were classified as obese (18.6 per cent) compared to the overall population.

A significantly greater proportion of people in rural areas were classified as obese (18.7 per cent) compared to urban areas (15.3 per cent).

Overall the proportion of people classified as obese has increased significantly between 1997 (11.3 per cent) and 2003 (16.0 per cent). Whilst the proportion classified as
obese increased between 2002 and 2003 (14.6 per cent to 16.0 per cent), the increase between these two years was not significant.

Figure 67 shows the proportion of people in each BMI category. Figures 68–69 show the proportion of people who are overweight or obese, by age and socioeconomic disadvantage. Figures 70–71 show the proportion of people who are obese, by age and socioeconomic disadvantage.

References

- 1. NSW Centre for Public Health Nutrition. *Report on the weight status of NSW: 2003.* Sydney: CPHN, 2003.
- 2. World Health Organization. *Obesity: Preventing and managing the global epidemic: Report of a WHO consultation.* WHO Technical Report Series 894. Geneva: World Health Organization, 2000.
- 3. Flood V, Webb K, Lazarus R, Pang G. Use of self-report to monitor overweight and obesity in populations: Some issues for consideration. *Aust NZJ Public Health* 2000; 24: 96–99.

FIGURE 67

BODY MASS INDEX (BMI) CATEGORIES, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





OVERWEIGHT OR OBESITY BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003









9. HEALTH SERVICES

Difficulties getting health care

Introduction

In order to identify some of the issues around access to health services, the *New South Wales Adult Health Survey* 2003 included questions about difficulties that people may have had getting health care. 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'.

Results

Only 13.3 per cent of people reported having difficulties getting health care. The main difficulties reported were waiting time for an appointment with a general practitioner (36.3 per cent), cost of health care services (12.7 per cent), waiting time for dental services (11.9 per cent), shortage of general practitioners in the local area (11.8 per cent), and difficulty accessing specialists (11.7 per cent).

A significantly greater proportion of females (15.1 per cent) than males (11.3 per cent) reported difficulties in getting health care. Among females, a significantly lower proportion of those aged 16–24 years (10.5 per cent) and 65 years and over (8.0 per cent to 10.3 per cent), and a significantly greater proportion of those aged 35–44 years (20.3 per cent) reported having difficulties getting health care, compared with the overall female population. The

proportion of males reporting difficulties getting health care was significantly lower among those aged 16–24 years (6.2 per cent), compared with the overall male population.

There was significant geographic variation in the reporting of difficulties in getting health care, with a significantly greater proportion of rural residents (22.7 per cent) than urban residents (10.6 per cent) reporting difficulties getting health care.

Overall, a significantly lower proportion of people in the least disadvantaged (6.0 per cent) and the second least disadvantaged (9.9 per cent) quintiles reported difficulty getting health care compared with the overall population. A significantly greater proportion of people in the second most disadvantaged quintile (17.7 per cent) reported difficulties in getting health care compared with the overall population.

There has been a significant increase in the proportion of people having difficulties getting health care, from 10.0 per cent in 1997 to 13.3 per cent in 2003. This increase was greater in females (11.1 per cent to 15.1 per cent) than males (8.9 per cent to 11.3 per cent).

Figure 72 shows health services attended in the last 12 months. Figures 73 and 74 show the proportion of people experiencing difficulties getting health care when they need it, by age and socioeconomic disadvantage. Figure 75 shows the type of difficulties experienced.





DIFFICULTIES GETTING HEALTH CARE WHEN NEEDING IT BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





Emergency departments

Introduction

In 2003, there were approximately 1.5 million attendances to emergency departments in NSW hospitals.¹ In order to identify issues affecting the quality of care received in emergency departments, the *New South Wales Adult Health Survey 2003* included questions on attendance at an emergency department and satisfaction with that service. Respondents were asked the following questions: 'In the last 12 months, have you attended a hospital emergency department (or casualty) for your own medical care?', 'Which hospital's emergency department did you last attend?', 'Overall, what do you think of the care you received at this emergency department?' (if care was rated as fair or poor then respondents were also asked 'Could you briefly describe why you rated the care you received as fair or poor?').

Results

Attendance

The *New South Wales Adult Health Survey 2003* estimated that about 673,400 persons (348,100 males and 331,600 females) had attended an emergency department at least once in the previous 12 months, representing 13.5 per

cent of the population overall. There was no significant difference between the proportion of males (13.9 per cent) and females (13.1 per cent) attending. A significantly greater proportion of people aged 75 years and over (18.3 per cent) attended an emergency department compared to the overall population.

There was geographic variation in emergency department attendances in the last 12 months, with a significantly greater proportion of rural residents (18.1 per cent) than urban residents (12.2 per cent) reporting attendance at an emergency department.

A significantly lower proportion of people in the least disadvantaged quintile (9.5 per cent) and a significantly greater proportion of males in the second most disadvantaged quintile (17.0 per cent) reported emergency department attendance, compared with the overall population.

Emergency department attendance did not differ significantly from 1997 (13.8 per cent) to 2003 (13.5 per cent).

Rating of emergency department care

Those who had attended an emergency department in the last 12 months were asked to rate the care they received

during the attendance. Of these, 31.3 per cent rated the care received as 'excellent', 27.4 per cent as 'very good', 20.3 per cent as 'good', 11.3 per cent as 'fair', and 9.8 per cent as 'poor'. There was no difference in the proportion of males (9.6 per cent) and females (9.9 per cent) rating the care received as 'poor'. The main reason for rating the care as 'fair' or 'poor' was waiting time in emergency departments (70.2 per cent). Other issues included poor technical skill of clinical staff (25.0 per cent) and poor attitude of clinical staff (18.7 per cent).

Responses of 'excellent', 'very good' and 'good' were combined into a 'positive' rating of care. Overall, 77.7 per cent of people gave a positive rating of the care they received at an emergency department. There was no significant difference in positive rating of emergency department care between males (80.2 per cent) and females (77.6 per cent). A significantly greater proportion of males aged 65–74 years (91.8 per cent) and females aged 75 years and over (94.7 per cent) gave a positive rating of their emergency department care, compared with the overall population.

Overall, a significantly greater proportion of people in rural areas (85.5 per cent) gave a positive rating of emergency department care compared to people in urban areas (76.2 per cent).

There was no significant variation in the proportion of people giving a positive rating of emergency department care by socioeconomic disadvantage.

Overall, the proportion of people who gave a positive rating of emergency department care did not differ significantly from 1997 (80.3 per cent) to 2003 (78.9 per cent). While the proportion of females who gave a positive rating decreased significantly from 1997 (79.9 per cent) to 2002 (73.2 per cent), the increase in 2003 resulted in no significant difference overall between 1997 and 2003.

Figure 76 shows the proportion of people attending an emergency department in the last 12 months, by socioeconomic disadvantage. Figure 77 shows the proportion of people rating the care in the emergency department as excellent, very good, or good. Figure 78 shows the reason for rating the most recent emergency department visit as fair or poor.

References

1. NSW Emergency Department Data 2003 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

FIGURE 76







FIGURE 78

REASON FOR RATING MOST RECENT EMERGENCY VISIT AS FAIR OR POOR, PERSONS WHO ATTENDED AN EMERGENCY DEPARTMENT IN THE PREVIOUS 12 MONTHS AGED 16 YEARS AND OVER, NSW, 2003



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Hospital admissions

Introduction

In the 2002–03 financial year, there were approximately 1.4 million hospital admissions to NSW hospitals.¹ In order to identify issues affecting the quality of care received in public hospitals, the New South Wales Adult Health Survey 2003 included questions on admission to hospital and satisfaction with hospital services. Respondents were asked the following questions: 'In the last 12 months, have you stayed for at least one night in hospital?', 'In which hospital was your most recent overnight stay?', 'Can you tell me if that is a public or private hospital?', 'During your overnight hospital admission were you admitted as a public or private patient?', 'Overall, what do you think of the care you received at this hospital?' (if the 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?'), 'Did someone at this hospital tell you how to cope with this condition when you returned home?' (if 'yes', the respondent was also asked 'How adequate was this information once you went home?').

Results

Hospital admissions

The *New South Wales Adult Health Survey 2003* estimated that about 672,200 people (297,600 males and 374,600 females) were admitted to hospital at least once in the previous 12 months, representing 13.5 per cent of the overall population.

A significantly greater proportion of females (14.8 per cent) than males (12.1 per cent) reported being admitted to hospital. Among females, a significantly lower proportion of those aged 16–24 years (7.7 per cent) and 45–54 years (10.1 per cent), and a significantly greater proportion of those aged 25–34 years (22.4 per cent) and 75 years and over (22.6 per cent) were admitted to hospital, compared to the overall female population. A significantly lower proportion of males aged 16–24 years (7.2 per cent) and a significantly greater proportion of males aged 16–24 years (7.2 per cent) and a significantly greater proportion of males aged 65 years and over (22.6 per cent to 30.6 per cent) were admitted to hospital, compared to the overall male population.

A significantly greater proportion of people in rural areas (15.2 per cent) than urban areas (13.0 per cent) reported hospital admissions in the last 12 months.

Overall, the proportion of people reporting hospital admissions did not vary significantly by level of socioeconomic disadvantage.

Rates of hospital admissions did not differ significantly from 1997 (13.0 per cent) to 2003 (13.5 per cent).

Rating of hospital care

Those who had been admitted to hospital in the last 12 months were asked to rate the care they received during

the admission. Overall, 45.0 per cent rated the care they received as 'excellent', 29.5 per cent as 'very good', 16.9 per cent as 'good', 6.2 per cent as 'fair', and 2.6 per cent rated the care received as 'poor'. The main reasons for rating the care as fair or poor were not enough staff (29.7 per cent), poor quality accommodation (29.3 per cent), the poor attitude of clinical staff (28.9 per cent), and the poor technical skill of clinical staff (27.5 per cent). Other issues included communication problems (15.1 per cent) and excessive time waiting for care (13.6 per cent).

Responses of 'excellent', 'very good', and 'good' were combined into a 'positive' rating of care. Overall, 91.2 per cent of people gave a positive rating of the care they had received at hospital. There was no significant difference between the proportions of males (92.9 per cent) and females (89.9 per cent) giving positive ratings. A significantly greater proportion of people aged 75 years and over (95.7 per cent) gave positive ratings of the care they received at a hospital, compared with the overall population.

There was no significant geographical variation in positive ratings of hospital care between rural residents (91.7 per cent) and urban residents (91.1 per cent).

There was no significant difference in positive ratings of hospital care based on socioeconomic disadvantage.

Overall, the rates of people giving positive ratings of hospital care did not differ significantly from 1997 (90.1 per cent) to 2003 (91.2 per cent).

In 2003, 79.7 per cent of people were given information on how to cope with their condition on discharge from their most recent overnight hospital admission. There was no difference in the proportion of males and females who received information on how to cope with their condition. Of the people who received information, 53.1 per cent rated the information they received as very adequate, 43.6 per cent rated it as adequate, 2.7 per cent as inadequate, and 0.6 per cent as completely inadequate. There was no difference between males and females in the rating of the adequacy of information received at discharge from the most recent overnight hospital stay.

Figure 79 shows the proportion of people who were admitted to hospital in the previous 12 months by age. Figure 80 shows the proportion rating their care as excellent, very good, good, fair or poor. Figure 81 shows the reasons for rating care fair or poor. Figure 82 shows the adequacy of discharge advice for most recent overnight hospital stay.

References

1. Centre for Epidemiology and Research. Inpatient Statistics Collection 2002 and 2003 (HOIST). Sydney: NSW Department of Health, 2004.



HOSPITAL CARE RATINGS, PERSONS WHO ATTENDED HOSPITAL IN THE PREVIOUS 12 MONTHS AGED 16 YEARS AND OVER, NSW, 2003



FIGURE 81 REASON FOR RATING MOST RECENT OVERNIGHT HOSPITAL STAY AS FAIR OR POOR, PERSONS WHO ATTENDED HOSPITAL IN THE PREVIOUS 12 MONTHS AGED 16 YEARS AND OVER, NSW, 2003



FIGURE 82

ADEQUACY OF DISCHARGE ADVICE FOR MOST RECENT OVERNIGHT HOSPITAL STAY, PERSONS WHO ATTENDED A PUBLIC HOSPITAL IN THE PREVIOUS 12 MONTHS AGED 16 YEARS AND OVER, NSW, 2003



Community health centres

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 health nursing, sexual assault services, child and family team counselling, selected allied health services, dental services for adults and children, outreach clinics, child protection services, child development services, physical disabilities services, day and respite care, and health promotion.

The New South Wales Adult Health Survey 2003 included questions on attendance at a community health centre and satisfaction with that service. Respondents were asked the following questions: 'In the last 12 months, have you been to a government-run community health centre?', 'Overall, what do you think of the care you received at that community health centre?' (if the 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?'), 'If you had to use a community health centre again, would you prefer to return to this same community health centre, or go to a different community health centre?', 'Did someone at this community health centre tell you how to cope with your condition when you returned home?' (if 'yes', respondents were also asked 'How adequate was this information once you went home?').

Results

Attendance at community health centres

The *New South Wales Adult Health Survey 2003* estimated that about 253,300 persons (89,600 males and 163,700 females) attended a community health centre in the previous 12 months, representing 5.1 per cent of the overall population.¹

A significantly lower proportion of males (3.6 per cent) than females (6.5 per cent) attended a community health centre. Among females, a significantly lower proportion of those aged 45–54 years (4.4 per cent) attended a community health centre, compared with the overall female population. There was no significant variation in the proportion of males who attended a community health centre, compared with the overall male population.

There was geographic variation in community health centre attendance, with a significantly greater proportion of rural residents (7.8 per cent) than urban residents (4.3 per cent) having attended a community health centre.

A significantly lower proportion (3.5 per cent) of people in the second least socioeconomically disadvantaged quintile have visited a community health centre, compared with the overall population.

Between 2002 and 2003, there has been a significant decrease in the proportion of people who attended a community health centre, from 6.9 per cent in 2002 to 5.1 per cent in 2003.

Rating of care at community health centres

Those who had attended a community health centre in the last 12 months were asked to rate the care they received during the visit. Of those who had attended a community health centre, 36.2 per cent rated the care they received as 'excellent', 32.0 per cent as 'very good', 25.5 per cent as 'good', 4.5 per cent as 'fair', and 1.9 per cent rated the care received as 'poor'. The main reasons for rating the care as fair or poor were insufficient services offered or staff shortages (36.1 per cent), poor attitude of staff (19.8 per cent), waiting time (18.9 per cent), and poor technical skill of staff (17.1 per cent).

Responses of 'excellent', 'very good', or 'good' were then combined into 'positive' ratings of care. Overall, 93.6 per cent of people who had attended a community health centre gave a positive rating of the care they received. There was no significant difference in the proportion of males (94.2 per cent) and females (93.3 per cent) who gave positive ratings.

There was no significant geographical variation in positive ratings of care received at a community health centre between rural residents (93.6 per cent) and urban residents (93.6 per cent).

There was no significant difference in the proportion of people giving positive ratings of care received at a community health centre by socioeconomic disadvantage.

There was no significant change in the proportion of people giving positive ratings of care received at a community health centre between 2002 (92.9 per cent) and 2003 (93.6 per cent).

In 2003, 67.8 per cent of people were given information on how to cope with their condition following their most recent community health centre visit. There was no difference in the proportion of males and females who received information on how to cope with their condition. Of these, 49.4 percent rated the information they received as very adequate, 49.3 per cent rated it as adequate, 1.0 per cent as inadequate, and 0.3 per cent as completely inadequate.There was no difference between males and females in the rating of the adequacy of information received at the most recent community health centre visit.

Figure 83 shows the proportion of people attending a community health centre in the previous 12 months, by age. Figure 84 shows community health centre care ratings, and Figure 85 shows the reasons for rating the most recent visit to a community health centre as fair or poor. Figure 86 shows the adequacy of discharge advice for most recent community health centre visit.

Reference

 Centre for Epidemiology and Research, NSW Health Survey 1997, 1998, 2002 and 2003 (HOIST). Sydney: NSW Department of Health, 2004.



COMMUNITY HEALTH CENTRE CARE RATINGS, PERSONS WHO ATTENDED A COMMUNITY HEALTH CENTRE IN THE PREVIOUS 12 MONTHS AGED 16 YEARS AND OVER, NSW, 2003



REASON FOR RATING MOST RECENT COMMUNITY HEALTH CENTRE VISIT AS FAIR OR POOR, PERSONS WHO ATTENDED A COMMUNITY HEALTH CENTRE IN THE PREVIOUS 12 MONTHS AGED 16 YEARS AND OVER, NSW, 2003



FIGURE 86

ADEQUACY OF DISCHARGE ADVICE FOR MOST RECENT COMMUNITY HEALTH CENTRE VISIT, PERSONS WHO ATTENDED A COMMUNITY HEALTH CENTRE IN THE PREVIOUS 12 MONTHS AGED 16 YEARS AND OVER, NSW, 2003



Public dental services

Introduction

People in NSW with a Health Care Concession Card or a Pensioner Concession Card are eligible for public dental care. In order to identify issues affecting the quality of care received in public dental services, the New South Wales Adult Health Survey 2003 included questions on attendance at a public dental service and satisfaction with that service. Respondents were asked the following questions: '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 the public dental service?' (if the care was rated as fair or poor, the respondent was also asked 'Could you briefly describe why you rated the care you received as fair or poor?'), 'Did someone at this public dental service tell you how to cope with your condition when you returned home?' (if 'yes', the respondent was then asked 'How adequate was this information once you went home?').

Results

Attendance at public dental services

The *New South Wales Adult Health Survey 2003* estimated that about 213,900 people (93,300 males and 120,600 females) attended a public dental service in the previous 12 months. This represented 4.3 per cent of the overall population.¹

There was no significant difference in the proportion of females (4.8 per cent) or males (3.8 per cent) attending a public dental service. A significantly lower proportion of males aged 35–54 years (2.1 per cent to 2.6 per cent) attended a public dental service in the previous 12 months, compared with the overall population.

A significantly greater proportion of people in rural areas (5.8 per cent) attending a public dental service compared to urban areas (3.9 per cent).

The proportion of people attending public dental services was significantly lower (2.2 per cent) among those in the least socioeconomically disadvantaged quintile. A greater proportion of females (6.6 per cent) in the most socioeconomically disadvantaged quintile were likely to attend public dental services.

There has been no significant change in the proportion of people attending a public dental service between 2002 (4.5 per cent) and 2003 (4.3 per cent).

Rating of care at public dental services

People who had attended a public dental service in the last 12 months were asked to rate the care they received during the attendance. Of these, 31.5 per cent rated the care they received as 'excellent', 32.7 per cent as 'very good', 21.2 per cent as 'good', 7.7 per cent as 'fair', and 6.9 per cent rated the care they received as 'poor'. The main reasons for rating the care as 'fair' or 'poor' were the waiting time for an appointment (50.2 per cent), followed by insufficient services (37.3 per cent), and poor technical skill of clinical staff (28.4 per cent).

Responses of 'excellent', 'very good' and 'good' were combined into 'positive' ratings of care. Overall, 85.4 per cent of people gave positive ratings of the care they received at a public dental service. There was no significant difference in the proportion of males (85.9 per cent) and females (85.0 per cent) giving positive ratings of care.

In 2003, 66.0 per cent of people were given information on how to cope with their condition following their most recent public dental service visit. There was no difference in the proportion of males and females who received information on how to cope with their condition. Of the people who received information, 58.8 per cent rated the information they received as very adequate, 37.0 per cent rated it as adequate, 3.0 per cent as inadequate, and 1.2 per cent as completely inadequate. There was no difference between males and females in the rating of the adequacy of information received at the most recent public dental service visit.

Figure 87 shows the proportion of people attending a public dental service in the previous 12 months, by age. Figure 88 shows public dental service care ratings. Figure 89 shows the proportion of people rating the care received in public dental services as excellent, very good, or good, by age. Figure 90 shows the reasons for rating the most recent visit to a public dental service as fair or poor. Figure 91 shows the adequacy of discharge advice for the most recent public dental service visit.

Reference

 NSW Health Survey 1997, 1998, 2002 and 2003 (HOIST). Centre for Epidemiology and Research, Sydney: NSW Department of Health, 2004.



FIGURE 88

PUBLIC DENTAL SERVICE CARE RATINGS, PERSONS WHO ATTENDED A PUBLIC DENTAL SERVICE IN THE PREVIOUS 12 MONTHS AGED 16 YEARS AND OVER, NSW, 2003



PUBLIC DENTAL SERVICE CARE RATED AS EXCELLENT, VERY GOOD OR GOOD BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003



FIGURE 90

REASON FOR RATING MOST RECENT PUBLIC DENTAL SERVICE VISIT AS FAIR OR POOR, PERSONS WHO ATTENDED A PUBLIC DENTAL SERVICE IN THE PREVIOUS 12 MONTHS AGED 16 YEARS AND OVER, NSW, 2003





10. SOCIAL CAPITAL

Introduction

The term 'social capital' refers to the institutions, relationships, and norms, that shape social networks, foster trust, and facilitate coordination and cooperation for mutual benefit.¹ A key concept of social capital is the notion of interlocking networks of relationships between individuals and groups.

Social reciprocity and neighbourhood connection are characterised by a combination of short-term altruism and long-term self interest, where people help each other or act for the benefit of other people at a personal cost with the general expectation that this help will be returned in the future when they might need help themselves.²

Trust involves a willingness to take risks in a social context. This willingness is based on a confidence that others will respond as expected and will act in mutually supportive ways, or at least that others will not intend harm. The overall level of trust that people attribute to others has been explored in conjunction with perceptions of safety within the individual's local community.

Individuals acting on their own do not generate social capital; it is generated by people in communities engaging with others through a variety of associations that are voluntary and possibly equitable. Participation in the local community depends on a tendency among people to be social and to form new associations and networks.

The New South Wales Adult Health Survey 2003 included questions on social reciprocity and neighbourhood connection, feelings of trust and safety, and participation in the local community. Respondents were asked the following questions: 'In the past three 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?', 'In the past six months, how often have you attended a local community event such as a church or school fete, school concert, or a street fair?', 'Are you an active member of a local organisation, church, or club such as a sport or craft or social club?', '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, "Most people can be trusted"?', 'Do you agree or disagree with the statement, "My area has a reputation for being a safe place"?', 'If you were caring for a child and needed to go out for a while, and could not take the child with you, would you ask someone in your neighbourhood for help?', 'How often have you visited someone in your neighbourhood in the past 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?'.

Results

Social reciprocity and neighbourhood connection

Responses to the questions on social reciprocity and neighbourhood connection were grouped into positive and negative responses. Responses of 'yes' to the questions 'If you were caring for a child and needed to go out for a while, and could not take the child with you, would you ask someone in your neighbourhood for help?' and 'Would you be sad if you had to leave this neighbourhood', as well as responses of at least 'once' to the question 'How often have you visited someone in your neighbourhood in the last week', and responses of at least 'some of the time' to the question 'When you go shopping in your local area, how often are you likely to run into friends and acquaintances?' were combined into positive responses. The question 'How often have you visited someone in your neighbourhood in the past week?" has been used as an example of social reciprocity and neighbourhood connection and analysed further.

Overall, in 2003, 73.0 per cent of the population said they would ask someone in their neighbourhood for help with caring for a child if they needed to go out for a while. There was no significant difference between the proportion of males (74.2 per cent) and females (71.9 per cent) who would ask someone in their neighbourhood for help with a child.

Nearly three-quarters (73.1 per cent) of the population stated they would be sad if they had to leave their neighbourhood. A significantly greater proportion of females (76.8 per cent) than males (69.4 per cent) said they would be sad to leave their neighbourhood.

A total of 81.6 per cent of the population stated that they run into friends and acquaintances in their local area at least 'sometimes'. There was no significant difference between the proportion of females (82.8 per cent) and males (80.3 per cent) who said they ran into friends and acquaintances in their local area.

Almost two-thirds (65.4 per cent) of the population reported that they had visited someone in their neighbourhood in the past week. There was no significant difference between the proportion of males (67 per cent) and females (63.8 per cent) who had visited someone in their neighbourhood. The proportion of people who visited a neighbour did not vary significantly by age.

There was significant geographic variation in the proportion of residents who had visited someone in their neighbourhood in the past week, with a significantly greater proportion of rural residents (72.3 per cent) than urban residents (63.5 per cent) having visited someone in their neighbourhood.

A significantly greater proportion of people in the second most disadvantaged quintile (68.8 per cent) were likely to have visited their neighbours in the last week.

There was no significant change in the proportion of people visiting neighbours between 2002 (65.9 per cent) and 2003 (65.4 per cent).

Trust and safety

In analysing the trust and safety questions, responses of 'strongly agree' and 'agree' to the questions 'I feel safe walking down my street after dark', 'Most people can be trusted', and 'My area has a reputation for being a safe place', were combined into 'positive' responses. The question 'Most people can be trusted' has been used as an example of trust and safety and analysed further.

Overall, in 2003, 68.3 per cent of the population strongly agreed or agreed with the statement that 'I feel safe walking down my street after dark'. There was a significantly greater proportion of males (80.2 per cent) than females (56.6 per cent) who felt safe walking down their street after dark.

Nearly three-quarters (74.8 per cent) of the population strongly agreed or agreed with the statement 'My area has a reputation for being a safe place'. A significantly greater proportion of males (76.5 per cent) than females (73.1 per cent) agreed that their area was safe.

A total of 69.6 per cent of the population strongly agreed or agreed with the statement 'Most people can be trusted'. A significantly greater proportion of males (71.5 per cent) than females (67.9 per cent) agreed that most people could be trusted. Among females, a significantly lower proportion aged 16–24 years (59.9 per cent) and a significantly greater proportion aged 75 years and over (76.6 per cent) agreed that most people can be trusted, compared to the overall female population. Among males, a significantly greater proportion aged 75 years and over (78.3 per cent) agreed that most people can be trusted, compared to the overall female population.

There was no significant variation in the proportion of residents in rural areas (71.7 per cent) and urban areas (69.1 per cent) who strongly agreed or agreed with the statement 'Most people can be trusted'.

There was significant variation based on socioeconomic disadvantage. The proportion of people who agreed that 'Most people can be trusted' decreased as socioeconomic disadvantage increased. A significantly greater proportion of people in the least (79.2 per cent) and second least disadvantaged quintiles (73.8 per cent), and a significantly lower proportion of people in the most disadvantaged quintile (57.4 per cent) agreed that most people can be trusted, compared to the overall population.

The proportion of people who felt most people can be trusted increased significantly between 2002 (65.9 per cent) and 2003 (69.6 per cent).

Participation in the local community

Responses to the questions on participation in the local community were grouped into positive or negative responses. Responses of 'at least once' to the questions 'In the past three months, how often have you helped out any local group or organisation such as a school, scouts and brownies, a sporting club or a hospital as a volunteer, or other organisation?', and 'In the past three months, how often have you attended a local community event such as a church fete, school fete, school concert, or street fair?', and of 'yes' to the question 'Are you an active member of a local organisation, church or club such as a sport, craft, or social club?', were combined into 'positive' responses. The question 'In the past six months, how often have you attended a local community event such as a church or school fete, school concert, or a street fair?' has been used as an example of participation in the local community and analysed further.

Overall, in 2003, almost one-third (32.1 per cent) of the population reported that they had helped out a local group or organisation in the past three months. There was no significant difference in the proportion of males (31.2 per cent) and females (32.9 per cent) who had helped out any local group or organisation in the past three months. Nearly half (43.5 per cent) of the population said they were active members of a local organisation. A significantly greater proportion of males (45.4 per cent) reported that they were active members of a local organisation than females (41.7 per cent).

More than half (58.1 per cent) of the population reported that they had attended a local community event in the past six months. A significantly greater proportion of females (62.0 per cent) than males (54.1 per cent) had attended a local community event in the last six months. Among females, a significantly lower proportion aged 65 years and over (46.2 per cent to 52.4 per cent), and a significantly greater proportion aged 35–44 years (74.6 per cent), had attended a local community event in the last six months, compared to the overall female population. A significantly lower proportion of males aged 65 years and over (44.3 per cent to 44.6 per cent) and a significantly greater proportion of males aged 35–44 years (65.9 per cent) had attended a local community event, compared to the overall male population.

A significantly greater proportion of rural residents (63.7 per cent) than urban residents (56.5 per cent) had attended a local community event in the last six months.

There was significant variation in the proportion of people participating in local community events based on level of socioeconomic disadvantage. A significantly greater proportion of people in the quintile of least socioeconomic disadvantage (62.8 per cent) and a significantly lower proportion of people in the quintile of most socioeconomic disadvantage (51.6 per cent) were likely to have participated in a local community event. The proportion of people attending a local community event did not change significantly between 2002 (56.8 per cent) and 2003 (58.1 per cent).

Figure 92 shows participation in the local community and Figures 93–94 show attendance at a community event at least once in the last six months by age and socioeconomic disadvantage score. Figure 95 shows trust and safety in the local area and Figures 96–97 show the proportion of people who say most people can be trusted, by age and socioeconomic disadvantage score. Figure 98 shows reciprocity–social engagement and Figures 99–100 show the proportion of people who visit neighbours, by age and socioeconomic disadvantage score.

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FIGURE 92

PARTICIPATE IN THE LOCAL COMMUNITY, PERSONS AGED 16 YEARS AND OVER, NSW, 2003



Source: NSW Adult Health Survey 2003 (HOIST), Centre for Epidemiology and Research, NSW Department of Health.



ATTENDED A COMMUNITY EVENT AT LEAST ONCE IN THE LAST SIX MONTHS BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003





FIGURE 96





MOST PEOPLE CAN BE TRUSTED, BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003



FIGURE 98





FIGURE 100

VISIT NEIGHBOURS, BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2003



11. CONCLUSION

Conclusion

The New South Wales Continuous Health Survey program commenced in 2002. This report, the *New South Wales Adult Health Survey 2003*, on the health of adults aged 16 years and over, is the second annual report from this program.

Data were collected on a range of health behaviours, health status, use of and satisfaction with health services, social capital, and demographic information. Where possible, indicators have been aligned with those collected in previous NSW health surveys, so that time series trends can be examined. Some of the trends and changes over the last six years are highlighted below and presented in Tables 6–9.

Health behaviours

Health behaviours are known to influence health and wellbeing. Between 1997 and 2003 there have been changes in some health behaviours with discernible effects (Table 6). The proportion of smoke-free households (69.8 per cent to 82.5 per cent), and the proportion of homes with a smoke alarm or detector (58.2 per cent to 72.7 per cent) has increased significantly. There has been a significant decrease in the proportion of people who participate in any alcohol risk drinking behaviour between 1997 and 2003 (42.3 per cent to 35.7 per cent) but with no significant difference between 2002 and 2003. There was also a significant decrease in the proportion of people who were current smokers between 1997 and 2002 (24.0 per cent and 21.4 per cent). However, in 2003 the proportion has increased to 22.5 per cent and is now not significantly different to the previous years.

Overall, there was a significant increase in the proportion of people who were eating the recommended daily vegetable intake between 1997 and 2003 (16.3 per cent and 19.3 per cent) with a significantly higher proportion of people eating the recommended vegetable intake in 2003 compared to 2002 (16.2 per cent and 19.3 per cent). Between 1997 and 2002, there was a significant decrease in the proportion of people who consumed reduced- or low-fat milk (45.7 per cent to 43.4 per cent). However, in 2003 the proportion increased to 44.0 per cent and is now not significantly different to the previous years.

Between 1997 and 2003, the proportion of people aged 65 years and over who were immunised against influenza in the previous 12 months increased significantly, (57.1 per cent to 75.8 per cent). Similarly, between 2002 and 2003 the proportion of people aged 65 years and over who were immunised against pneumococcal disease in the last 5 years also increased significantly (39.4 per cent to 46.8 per cent).

Overall, there was a significant decrease in the proportion of people who undertook adequate physical activity in 2003 compared to 1997 (47.6 per cent and 45.0 per cent). Although the decrease has continued in 2003 (45.0 per cent), the proportions were not significantly lower than in 2002.

Several health behaviours have remained unchanged. The proportion of people eating the recommended daily serves of fruit (45.8 per cent) was unchanged, as was high risk drinking in the last four weeks (14.7 per cent), and use of public water as a usual water supply (81.1 per cent).

In 2003, a new indicator on hand washing when preparing raw meat has been reported for the first time and trends in this additional indicator will continue to be monitored.

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. There have been some obvious changes in the health status of the population between 1997 and 2003 (Table 7).

Overall, in 2003 compared to 1997 there was a significant increase in the proportion of people who had been diagnosed with diabetes (4.7 per cent and 6.2 per cent), ever diagnosed with asthma (16.6 per cent to 21.0 per cent), and who were overweight or obese (42.2 per cent to 48.3 per cent). Although the increases continued in 2003, the proportions were not significantly higher than in 2002. Between 1997 and 2002, there was also a significant increase in the proportion of people who reported high and very high physiological stress as measured by the Kessler 10 score (10.5 per cent to 12.2 per cent). However, in 2003, the proportion decreased to 11.1 per cent and is now not significantly different to the previous years.

Overall, in 2003, there was a significant decrease in the proportion of people who rated their health status as excellent, very good, or good, compared to 1997 (84.9 per cent and 80.8 per cent), but the proportions in 2003 and 2002 were not significantly different. The proportion who reported all their natural teeth missing declined significantly between 1998 and 2003 (8.3 per cent to 5.8 per cent).

The only indicator of health status to remain unchanged between 1997 and 2003 was current asthma (10.3 per cent to 11.0 per cent).

For the first time, information on adult incontinence, falls in people 65 years and over, and additional health status information covering limitation of daily activities, and bodily pain experienced in the previous four weeks, has been collected. These indicators will continue to be monitored.

Health services

As part of the continuing commitment to monitoring satisfaction with health services in NSW, questions were asked about the use of and satisfaction with a range of services. These included difficulties getting health care when needed, admission to hospital, or attendance at an emergency department, or use of community health centres or public dental services.

Overall, there was a significant increase in the proportion of people who reported having difficulties getting health care when needing it in 2003 compared to 1997 (10.0 per cent to 13.3 per cent). Although the increase has continued in 2003, the proportion was not significantly higher than 2002 (Table 8).

There were no changes in the proportion of people who gave positive ratings of hospital inpatient care (91.2 per cent) and emergency department care (78.9 per cent) between 1997 and 2003, and community health care between 2002 and 2003 (92.9 per cent to 93.6 per cent). While the proportion of people giving positive ratings of public dental care increased between 2002 and 2003 (81.2 per cent to 85.4 per cent), the increase was not significant.

Emergency department attendance in the previous 12 months (13.5 per cent) and hospital admission in the previous 12 months (13.5 per cent) both remained unchanged between 1997 and 2003, as did public dental service attendance in the previous 12 months (4.3 per cent) between 2002 and 2003. The proportion of people attending a comunity health centre in the previous 12 months decreased between 2002 and 2003 (6.9 per cent to 5.1 per cent).

Social capital

The term 'social capital' refers to the institutions, relationships, and norms that shape social networks, foster trust, and facilitate coordination and cooperation for mutual benefit. The New South Wales Continuous Health Survey included questions on social reciprocity and neighbourhood connection, feelings of trust and safety, and participation in the local community. Between 2002 and 2003 there was no change in any of the indicators of social capital (Table 9).

The future

There are a number of changes for the 2004 Continuous Health Survey. In the health status section, an expanded module on diabetes (focusing on complications and screening) will be included. The expanded asthma module will not be incorporated in the 2004 survey. Under health behaviours, cancer screening (mammographic, bowel and cervical) will be included again along with rate of hysterectomy. In addition a module on summer sun protection and shade policy will be included.

In addition to these changes, there are new modules on interpersonal safety and violence in young adults aged 18–25 years, and sight and hearing.

The continued monitoring of indicators via the New South Wales Continuous Health Survey will provide information that will assist health professionals, health planners and those involved in policy development to plan, implement and evaluate health programs and initiatives within the community and within population and target groups.

TRENDS IN INDICATORS OF HEALTH BEHAVIOURS, BY SEX, NSW, 1997–2003

Indicator	Year	Males (95% CI)	Females (95% Cl)	Persons (95% CI)
Alcohol risk drinking (Guideline 1)	1997	50.7 (49.3-52.2)	34.1 (32.9-35.4)	42.3 (41.3-43.3)
	1998	50.5 (49.0-52.1)	36.2 (34.9-37.5)	43.2 (42.2-44.2)
	2002	39.2 (37.3-41.1)	29.7 (28.1-31.2)	34.4 (33.1-35.6)
	2003	41.3 (39.4-43.2)	30.3 (28.9–31.8)	35.7 (34.5-36.9)
High risk drinking in the past 4 weeks	2002	16.7 (15.0–18.4)	11.7 (10.3–13.1)	14.4 (13.3–15.5)
	2003	17.9 (16.2–19.6)	10.9 (9.7–12.2)	14.7 (13.6–15.7)
Use public water as usual source of water	2002		81.1 (79.5-82.7)	
	2003		81.1 (80.2-82.0)	
Vaccinated against influenza in the last 12				
months	1997	55.8 (52.3–59.2)	58.2 (55.3-61.0)	57.1 (54.9–59.3)
	1998	61.9 (58.5–65.3)	64.5 (61.8–67.2)	63.3 (61.2–65.5)
	2002	75.3 (72.4–78.3)	75.7 (73.0–78.3)	75.5 (73.5–77.5)
	2003	76.1 (73.0–79.1)	75.6 (73.2–78.1)	75.8 (73.9–77.8)
Vaccinated against pneumococcal disease	2002			
in the last 5 years	2002	36.7 (33.3-40.1)	41.5 (38.5-44.4)	39.4 (37.2-41.6)
Lience with a second statement of data star.	2003	45.1 (41.6–48.6)	48.2 (45.4-51.1)	46.8 (44.6-49.1)
Homes with a smoke alarm or detector	1997		58.2 (57.2 - 59.1)	
	1998		64.0 (63.0-65.0)	
	2002		72.9 (71.0-74.0)	
Recommended deily fruit intoke	2003		72.7 (71.0-73.9)	
Recommended daily mult intake	1997	37.8 (30.4-39.2)	51.1 (49.8 - 52.4)	44.5 (43.0-45.5)
	1990	30.0 (30.3 - 39.3)	49.2 (47.9-30.5)	45.7 (42.7 - 44.7)
	2002	40.3 (30.4 - 42.2)	50.1 (40.4 - 51.7)	45.3 (44.0-40.3)
Recommended vegetable inteke	2003	39.0 (37.1 - 40.9)	52.4 (50.6 - 54.0)	45.0 (44.0-47.1)
Recommended vegetable intake	1997	10.0 (10.0 - 11.7)	21.7 (20.0-22.7)	10.3 (10.0 - 17.0)
	1990	9.0 (0.9-10.0)	20.5 (19.5 - 21.0)	15.2 (14.0 - 15.9) 16.2 (15.2 17.0)
	2002	9.2 (0.2 - 10.3)	22.9 (21.0-24.2)	10.2 (10.3 - 17.0)
Liquid use of low fat, reduced fat or skim milk	2003	11.0 (10.7 - 12.9)	20.7 (20.3 - 20.0)	19.3 (10.4 - 20.3)
Usual use of low fat, reduced fat of skill flink	1000	37.3 (30.0-30.9)	55.0 (52.4 - 55.1)	45.7 (44.7 - 40.7)
	2002	35.8 (37.3 - 40.3)	52.4 (51.1-55.6) 50.7 (40.0-52.4)	43.7 (44.7 - 40.7)
	2002	33.0 (34.0-37.0) 37.1 (35.2-38.0)	50.7 (49.0-52.4)	43.4 (42.1-44.0)
Food insecurity last 12 months	2003	5.2 (1.4 - 6.0)	6.1 (5.3-6.9)	57 (51-62)
	2002	5.2 (4.5-6.2)	6.9 (6.1–7.6)	6.1 (5.1-0.2)
Adequate physical activity	1008	52.2(50.7-53.7)	131(118-114)	47.6 (46.6-48.6)
	2002	50.4 (48.4 - 52.3)	42 9 (41 2-44 5)	46.6 (45.3-47.8)
	2002	49.5 (47.6-51.5)	42.3 (41.2 - 44.3)	45.0 (43.3 - 47.0)
Current daily or occasional smoking	1997	27 2 (25 9–28 5)	21 0 (20 0-22 0)	240(232-249)
ourion daily of coordional officiality	1998	26.2 (24.8–27.5)	21.3 (20.2 - 22.4)	23.7 (22.9–24.6)
	2002	23.9 (22.2–25.6)	18.9 (17.6-20.2)	21.4 (20.3 - 22.4)
	2003	25.0 (23.3–26.8)	20.0 (18.7–21.3)	22.5 (21.4–23.6)
Smoke-free households	1997	20.0 (20.0 20.0)	69.8 (68.9–70.6)	22.0 (21.1 20.0)
	1998		73.2 (72.3-74.1)	
	2002		81.0 (80.0-82.0)	
	2003		82.5 (81.6-83.4)	
Hand washing when preparing raw meat	2003	56.3 (54.2-58.5)	64.4 (62.9–65.9)	60.8 (59.5-62.0)

Source: NSW Health Survey 1997, 1998, 2002, and 2003 (HOIST), Centre for Epidemiology and Research, NSW Department of Health

TRENDS IN INDICATORS OF HEALTH STATUS, BY SEX, NSW, 1997–2003

Indicator	Year	Males (95% CI)	Females (95% Cl)	Persons (95% CI)
	ioui			
Excellent, very good, or good self-rated	1007	84 0 (83 0 85 8)	85.0 (84.1_85.0)	81 0 (81 3-85 6)
licalifi status	1997	84.9 (83.9-85.9)	83.0 (82.1-83.9)	83.9 (83.2-84.6)
	2002	81.8 (80.3-83.3)	79.7 (78.5-81.0)	80.7 (70.7-81.7)
	2002	81.0 (80.5-83.3)	79.7 (70.5-01.0)	80.8 (70.0-81.7)
Ever diagnosed with asthma	1997	1/ 9 (13 9-16 0)	18 1 (17 1_10 2)	16.6 (15.8 - 17.3)
Ever diagnosed with astima	1998	15.4 (14.3 - 16.5)	18.0 (17.0-19.0)	16.7 (16.0 - 17.5)
	2002	18.3 (16.8-10.0)	20.9 (19.6-22.3)	10.7 (10.0 - 17.3) 19.6 (18.6-20.7)
	2002	10.3 (10.0 - 13.3) 10 / (17 8-21 0)	20.3 (13.0-22.3) 22 7 (21 $A_2A 0$)	13.0 (10.0-20.7) 21.0 (20.0-22.1)
Current asthma	1997	87 (79-95)	11.9(11.0-12.8)	10.3 (9.7-10.9)
	1998	8.9 (8.0-9.8)	10.9 (10.1 - 11.7)	9.9 (9.3-10.5)
	2002	9.1 (8.0-10.2)	12.0 (11.0 - 13.0)	10.6 (9.8-11.3)
	2002	9.2 (8.0–10.3)	12.7 (11.7–13.7)	10.0 (0.0 11.0) 11.0 (10.2-11.7)
Diabetes or high blood sugar	1997	5.2 (0.0-10.3) 5.2 (4.6-5.8)	43 (38-48)	4.7 (4.3-5.1)
Diabetes of high blood sugar	1998	4.9 (4.2-5.5)	4.0 (3.5-4.5)	4.5 (4.0-4.9)
	2002	6.6 (5.8-7.4)	5.7 (5.0-6.4)	6.1 (5.6-6.7)
	2002	6.9 (6.1-7.8)	5.5 (4.9-6.2)	6.2 (5.7–6.7)
High and very high psychological distress	1997	9.2 (8.4–10.0)	12.9 (12.0–13.8)	11.1 (10.5 - 11.7)
high and very high poyonological distress	1998	9.0 (8.1-9.9)	12.0 (11.1–12.8)	10.5 (9.9–11.1)
	2002	10.5 (9.3–11.6)	14.0 (12.8–15.1)	12.2 (11.4–13.1)
	2003	9.3 (8.2–10.4)	12.9 (11.8–14.0)	11.1 (10.3 - 11.9)
All natural teeth missing	1998	5.8 (5.2-6.4)	10.7 (10.0–11.4)	8.3 (7.8–8.8)
· · · · · · · · · · · · · · · · · · ·	2002	5.2 (4.6-5.9)	8.6 (7.8–9.4)	6.9 (6.4-7.5)
	2003	4.2 (3.6–4.8)	7.4 (6.8–8.0)	5.8 (5.4–6.2)
Overweight and obesity	1997	49.7 (48.3–51.2)	34.5 (33.3–35.8)	42.2 (41.2-43.1)
	1998	50.3 (48.7–51.8)	34.5 (33.2–35.7)	42.5 (41.4-43.5)
	2002	53.9 (52.0-55.9)	38.5 (36.9-40.1)	46.3 (45.0-47.6)
	2003	55.6 (53.7-57.6)	41.0 (39.4–42.6)	48.3 (47.1–49.6)
Obese	1997	11.1 (10.2–12.0)	11.5 (10.7–12.3)	11.3 (10.7–11.9)
	1998	12.6 (11.6–13.6)	11.6 (10.8–12.4)	12.1 (11.5–12.7)
	2002	14.8 (13.4–16.2)	14.4 (13.3–15.6)	14.6 (13.7–15.5)
	2003	15.5 (14.2–16.8)	16.5 (15.4–17.7)	16.0 (15.1–16.9)
Fall in the last 12 months	2003	18.7 (16.0–21.5)	27.5 (24.9–30.1)	23.5 (21.7–25.4)
Incontinence in the last 4 weeks	2003	11.2 (9.8–12.6)	31.9 (30.1–33.7)	21.8 (20.6–23.0)
Source: NSW Health Survey 1997, 1998, 2002, and 2003 (HOIST), Centre for Epidemiology and Research, NSW Department of Health				

TRENDS IN INDICATORS OF USE AND SATISFACTION WITH HEALTH SERVICES, BY SEX, NSW, 1997–2003

Indicator	Year	Males (95% CI)	Females (95% CI)	Persons (95% CI)
Difficulties aetting health care when			. ,	
needing it	1997	8.9 (8.1–9.7)	11.1 (10.4–11.9)	10.0 (9.5–10.6)
0	1998	8.6 (7.8–9.4)	11.9 (11.1–12.6)	10.3 (9.7–10.8)
	2002	10.9 (9.7–12.0)	14.2 (13.1–15.3)	12.6 (11.8–13.4)
	2003	11.3 (10.2–12.5)	15.1 (14.0–16.2)	13.3 (12.5–14.0)
Emergency department attendance in the		· · · · ·	· · · · ·	· · · ·
previous 12 months	1997	15.7 (14.7–16.7)	11.9 (11.1–12.7)	13.8 (13.1–14.4)
	1998	13.9 (12.9–14.9)	12.0 (11.2–12.8)	12.9 (12.3–13.6)
	2002	14.7 (13.4–16.0)	13.8 (12.8–14.9)	14.3 (13.4–15.1)
	2003	13.9 (12.6–15.2)	13.1 (12.1–14.1)	13.5 (12.7–14.3)
Emergency department care rated as				
excellent, very good or good	1997	80.5 (77.7-83.4)	79.9 (77.0-82.9)	80.3 (78.2-82.3)
	1998	82.6 (79.5-85.6)	78.6 (75.7–81.5)	80.7 (78.6-82.8)
	2002	79.8 (75.9-83.7)	73.2 (69.3–77.0)	76.5 (73.8–79.3)
	2003	80.2 (76.1-84.3)	77.6 (74.0-81.3)	78.9 (76.2-81.7)
Hospital admission in the previous 12				
months	1997	11.3 (10.4–12.2)	14.7 (13.8–15.5)	13.0 (12.4–13.6)
	1998	11.5 (10.6–12.4)	15.4 (14.5–16.3)	13.5 (12.8–14.1)
	2002	11.3 (10.1–12.4)	16.3 (15.1–17.6)	13.8 (13.0–14.7)
	2003	12.1 (10.9–13.3)	14.8 (13.7–15.9)	13.5 (12.7–14.3)
Hospital care rated as excellent, very good				
or good	1997	90.3 (87.9–92.7)	89.9 (87.9–91.9)	90.1 (88.5–91.6)
	1998	92.5 (90.3-94.6)	90.0 (88.1–91.9)	91.0 (89.6–92.5)
	2002	93.5 (90.7–96.2)	89.3 (86.4–92.2)	91.0 (88.9–93.0)
	2003	92.9 (90.2–95.6)	89.9 (87.6–92.3)	91.2 (89.5–93.0)
Community health centre attendance in the				
previous 12 months	2002	4.8 (4.0–5.6)	8.9 (8.0–9.9)	6.9 (6.3-7.5)
	2003	3.6 (3.0–4.3)	6.5 (5.8–7.2)	5.1 (4.6–5.6)
Community health centre care rated as	0000			
excellent, very good or good	2002	91.6 (86.8-96.3)	93.7 (91.0-96.4)	92.9 (90.5-95.4)
Dublic dentel convice attendence in the	2003	94.2 (90.0-98.4)	93.3 (90.6–96.1)	93.6 (91.3-96.0)
Public dental service attendance in the	2002	30 (31-16)	5.2 (1.1-5.9)	4.5 (4.0-5.0)
	2002	3.3 (3.1-4.0)	3.2 (4.4-3.3)	4.3 (4.0-3.0)
Public dental service care rated as	2003	5.0 (5.2-4.4)	4.0 (4.1-5.4)	4.3 (3.0-4.0)
excellent very good or good	2002	81.7 (74.4-89.1)	80.7 (75.1-86.4)	81.2 (76.7-85.6)
	2003	85.9 (80.4–91.3)	85.0 (80.1–90.0)	85.4 (81.7-89.1)

Source: NSW Health Survey 1997, 1998, 2002, and 2003 (HOIST), Centre for Epidemiology and Research, NSW Department of Health

TRENDS IN INDICATORS OF SOCIAL CAPITAL, BY SEX, NSW, 1997–2003

Year	Males (95% CI)	Females (95% CI)	Persons (95% CI)
2002	52.9 (51.0-54.9)	60.5 (58.9-62.1)	56.8 (55.5-58.0)
2003	54.1 (52.2-56.0)	62.0 (60.4-63.5)	58.1 (56.9-59.3)
2002	30.5 (28.7-32.2)	35.7 (34.1–37.3)	33.1 (32.0-34.3)
2003	31.2 (29.4–33.0)	32.9 (31.4-34.4)	32.1 (30.9–33.2)
2002	45.5 (43.6–47.5)	42.3 (40.7-43.9)	43.9 (42.6-45.1)
2003	45.4 (43.5-47.4)	41.7 (40.1–43.3)	43.5 (42.3-44.8)
2002	69.0 (67.2-70.8)	62.9 (61.3-64.6)	65.9 (64.7-67.2)
2003	71.5 (69.7–73.2)	67.9 (66.3-69.4)	69.6 (68.5-70.8)
2002	78.0 (76.4–79.5)	55.8 (54.2-57.5)	66.8 (65.6-67.9)
2003	80.2 (78.8-81.7)	56.6 (55.1-58.2)	68.3 (67.2-69.4)
2002	75.2 (73.6-76.9)	71.6 (70.1–73.1)	73.4 (72.3-74.5)
2003	76.5 (74.8-78.1)	73.1 (71.7–74.5)	74.8 (73.7-75.9)
2002	68.7 (66.9-70.5)	63.2 (61.6-64.8)	65.9 (64.7-67.1)
2003	67.0 (65.2-68.9)	63.8 (62.3-65.4)	65.4 (64.2-66.6)
		· · · ·	· · · ·
2002	73.3 (71.5–75.1)	68.0 (66.4-69.6)	70.6 (69.4–71.8)
2003	74.2 (72.4-76.0)	71.9 (70.5-73.4)	73.0 (71.9-74.2)
2002	80.4 (78.8-82.0)	83.7 (82.4-84.9)	82.0 (81.1-83.0)
2003	80.3 (78.8-81.9)	82.8 (81.6-84.1)	81.6 (80.6-82.6)
2002	71.2 (69.4-73.0)	75.7 (74.3-77.2)	73.5 (72.4-74.7)
2003	69.4 (67.5–71.2)	76.8 (75.4–78.2)	73.1 (72.0–74.3)
	Year 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003 2002 2003	Year Males (95% CI) 2002 52.9 (51.0-54.9) 2003 54.1 (52.2-56.0) 2002 30.5 (28.7-32.2) 2003 31.2 (29.4-33.0) 2002 45.5 (43.6-47.5) 2003 45.4 (43.5-47.4) 2002 69.0 (67.2-70.8) 2003 71.5 (69.7-73.2) 2002 78.0 (76.4-79.5) 2003 80.2 (78.8-81.7) 2002 75.2 (73.6-76.9) 2003 67.0 (65.2-68.9) 2002 73.3 (71.5-75.1) 2003 74.2 (72.4-76.0) 2002 80.4 (78.8-81.9) 2003 80.3 (78.8-81.9) 2003 80.3 (78.8-81.9) 2003 80.4 (78.8-81.9) 2003 80.3 (78.8-81.9) 2003 80.3 (78.8-81.9) 2003 80.4 (78.8-81.9) 2	YearMales(95% CI)Females(95% CI)2002 52.9 $(51.0-54.9)$ 60.5 $(58.9-62.1)$ 2003 54.1 $(52.2-56.0)$ 62.0 $(60.4-63.5)$ 2002 30.5 $(28.7-32.2)$ 35.7 $(34.1-37.3)$ 2003 31.2 $(29.4-33.0)$ 32.9 $(31.4-34.4)$ 2002 45.5 $(43.6-47.5)$ 42.3 $(40.7-43.9)$ 2003 45.4 $(43.5-47.4)$ 41.7 $(40.1-43.3)$ 2002 69.0 $(67.2-70.8)$ 62.9 $(61.3-64.6)$ 2003 71.5 $(69.7-73.2)$ 67.9 $(66.3-69.4)$ 2002 78.0 $(76.4-79.5)$ 55.8 $(54.2-57.5)$ 2003 80.2 $(78.8-81.7)$ 56.6 $(55.1-58.2)$ 2002 75.2 $(73.6-76.9)$ 71.6 $(70.1-73.1)$ 2003 76.5 $(74.8-78.1)$ 73.1 $(71.7-74.5)$ 2002 68.7 $(66.9-70.5)$ 63.2 $(61.6-64.8)$ 2003 67.0 $(65.2-68.9)$ 63.8 $(62.3-65.4)$ 2002 73.3 $(71.5-75.1)$ 68.0 $(66.4-69.6)$ 2003 74.2 $(72.4-76.0)$ 71.9 $(70.5-73.4)$ 2002 80.4 $(78.8-82.0)$ 83.7 $(82.4-84.9)$ 2003 80.3 $(78.8-81.9)$ 82.8 $(81.6-84.1)$ 2002 71.2 $(69.4-73.0)$ 75.7 $(74.3-77.2)$ 2003 69.4 $(67.5-71.2)$ 76.8 $(75.4-78.2)$

Source: NSW Health Survey 1997, 1998, 2002, and 2003 (HOIST), Centre for Epidemiology and Research, NSW Department of Health

12. QUESTION MODULES

The survey questions used in the *New South Wales Adult Health Survey 2003* are available as individual question modules. This includes modules on alcohol, asthma, community health centres, demographics, diabetes, difficulties in getting health care, emergency departments, environmental health, food handling, hospitals, immunisation, incontinence, injury prevention (falls), mental health, nutrition, oral health, overweight or obesity, physical activity, public dental services, selfrated health, smoking, and social capital.

Alcohol question module

Now I would like to ask you some questions about alcohol.

- 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
 - →END OF MODULE
 - X Don't know
 - R Refused
- 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 past four weeks have you had more than [four if male-two if female] drinks in a day? [PROMPT IF NECESSARY]
 - 1. Yes
 - 2. No \rightarrow END OF MODULE
 - X Don't know \rightarrow END OF MODULE
 - R Refused \rightarrow END OF MODULE
- Q4. In the past four weeks how often have you had [11 or more if male–seven 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 past four weeks how often have you had [7–10 if male or 5–6 if female] drinks in a day?
 - 1. ____Number of times
 - 2. Not at all
 - X Don't know
 - R Refused

Asthma question module

The next few questions are about asthma.

- Q1. Have you ever been told by a doctor or at a hospital that you have asthma?
 - 1. Yes
 - 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 asthma or taken treatment for asthma in the last 12 months?
 - 1. Yes
 - 2. No \rightarrow END OF MODULE
 - X Don't know \rightarrow END OF MODULE
 - $R \qquad \text{Refused} \rightarrow \text{END OF MODULE}$
- Q3. Have you had symptoms of asthma or taken treatment for asthma in the last four weeks?
 - 1. Yes
 - 2. No \rightarrow END OF MODULE
 - X Don't know \rightarrow END OF MODULE
 - $R \qquad \text{Refused} \rightarrow \text{END OF MODULE}$
- Q4. Do you use reliever medication (puffer or nebulizer) such as Ventolin, Respolin, Asmol, Airomir, or Bricanyl?
 - 1. Yes
 - 2. No \rightarrow Q6
 - X Don't know \rightarrow Q6
 - R Refused \rightarrow Q6
- Q5. In the last four weeks how often have you used reliever medication? [READ OUT]
 - 1. Every day
 - 2. Most days
 - 3. About half the days
 - 4. Less than half the days
 - 5. Not at all
 - X Don't know
 - R Refused

- Q6. Do you use Serevent or Foradile? (PROMPT: These medications are inhaled and their effects last for 12 hours)
 - 1. Yes
 - 2. No \rightarrow Q8
 - X Don't know \rightarrow Q8
 - R Refused \rightarrow Q8
- Q7. In the last four weeks, how often have you used Serevent or Foradile?(READ OPTIONS 1–5: SINGLE RESPONSE)
 - 1. Every day
 - 2. Most days
 - 3. About half the days
 - 4. Less than half the days
 - 5. Not at all
 - X Don't know
 - R Refused
- Q8. Do you use preventer medication such as Becotide, Aldecin, Pulmicort, Flixotide, Intal, Intalforte, Cromogen or Tilade?
 - 1. Yes
 - 2. No \rightarrow Q10
 - X Don't know \rightarrow Q10
 - R Refused \rightarrow Q10
- Q9. In the last four weeks how often have you used preventer medication?[READ OUT]
 - 1. Every day
 - 2. Most days
 - 3. About half the days
 - 4. Less than half the days
 - 5. Not at all
 - X Don't know
 - R Refused
- Q10. Do you have a written asthma management plan from your doctor on how to treat your asthma?
 - 1. Yes
 - 2. No
 - X Don't know
 - R Refused
- Q11. Have you visited your GP or local doctor for an attack of asthma in the last four weeks?
 - 1. Yes
 - 2. No
 - X Don't know
 - R Refused
- Q12. Have you visited a hospital emergency department for an attack of asthma in the last four weeks?

- 1. Yes
- 2. No
- X Don't know
- R Refused
- Q13. During the past four weeks, did your asthma interfere with your ability to manage your day to day activities?
 - 1. Yes
 - 2. No
 - X Don't know
 - R Refused
- Q14. Did it interfere with these activities [READ OUT]:
 - 1. A little bit
 - 2. Moderately
 - 3. Quite a lot
 - 4. Extremely
 - X Don't know
 - R Refused

Community health centre question module

The next questions are about your use of health services.

- Q1. In the last 12 months, have you attended a government run community health centre?
 - 1. Yes
 - 2. No \rightarrow END OF MODULE
 - X Don't know \rightarrow END OF MODULE
 - R Refused \rightarrow END OF MODULE
- Q2. Overall, what do you think of the care you received at the community health centre? [READ OUT]
 - 1. Excellent \rightarrow Q4
 - 2. Very good \rightarrow Q4
 - 3. Good \rightarrow Q4
 - 4. Fair
 - 5. Poor
 - X Don't know \rightarrow Q4
 - R Refused \rightarrow Q4
- Q3. Could you briefly describe why you rated the care you received as fair–poor?

1. Description_

- Q4. Did someone at this community health centre tell you how to cope with your condition when you returned home?
 - 1. Yes
 - 2. No \rightarrow END OF MODULE
 - 3. Not applicable \rightarrow END OF MODULE
 - X Don't know \rightarrow END OF MODULE
 - $R \qquad \text{Refused} \rightarrow \text{END OF MODULE}$

Q5.	How adequate was t went home? [READ	his information once you OUT]		
	1. Very ad	equate		
	2. Adequat	te		
	3. Inadequ	ate		
	4. Comple	tely inadequate		
	X Don't ki	now		
	R Refused			
Dem	ographics questio	n module		
Q1.	[RECORD LANGUAG	GE SURVEY RECORDED IN]	Q9.	W
	1. English			
	2. Arabic			
	3. Chinese			
	4. Greek			
	5. Italian			
	6. Vietnam	lese		
Q2.	A letter was sent to about this study. It this letter?	your household recently To you remember receiving	Q10.	In
	1. Yes			
	2. No \rightarrow 0	Q6		
	X Don't ki	$now \rightarrow Q6$		
	R Refused	$\rightarrow Q6$		
Q3.	How many people, your household?	including yourself, live in	Q11.	WI her
	1 Nur	nber of people		
Q4.	How many children in this household?	under six years of age live		
	1 Nur	nber of people	Q12.	Do
Q5.	How many people a live in this househo	ged 65 years old or over, ld?		En
	1 Nur	nber of people		
Q6.	Could you please te today?	ll me how old you are		
	1Age	in years	Q13.	W
	X Don't ki	now		
	R Refused			
Q7.	Are you male or fem UNSURE]	ale? [ONLY ASK IF	014	X 71
	1. Male		Q14.	sch
	2. Female			NE
Q8.	Besides yourself, wi household? [MULTI	ho else lives in your PLE RESPONSE]		
	1. No-one-	-lives alone		
	2. Mother			
	3. Father			
	4. Respond	lent's partner		

- 5. Stepmother
- 6. Stepfather
- 7. Grandparents
- 8. Sons-daughters
- 9. Brothers and sisters
- 10. Stepbrothers-stepsisters
- 11. Other relatives
- 12. Non-family members
- 13. Other [SPECIFY]
- X Don't know
- R Refused
- Q9. 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
- Q10. In which country were you born?
 - 1. Australia
 - 2. _____ Other country [SPECIFY]
 - X Don't know
 - R Refused
- Q11. When did you first arrive in Australia to live here for one year or more?
 - 1. ____ Year
 - X Don't know
 - R Refused
- Q12. Do you usually speak a language other than English at home?
 - 1. Yes
 - 2. No
 - X Don't know
 - R Refused
- Q13. What langauge do you usually speak at home?
 - 1. _____Language [SPECIFY]
 - X Don't know
 - R Refused
- Q14. What is the highest level of primary or high school that you have completed? [PROMPT IF NECESSARY]
 - 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–Leaving)
- X Don't know
- R Refused
- Q15. What is the level of the highest qualification you have completed?
 - 1. Completed School Certificate– Intermediate–Year 10–4th Form
 - 2. Completed HSC–Leaving–Year 12– 6th Form
 - 3. TAFE Certificate or Diploma
 - 4. University, CAE or some other tertiary institute degree or higher
 - 5. Other [SPECIFY]____
 - 6. Completed Primary School
 - 7. Completed Years 7–9
 - 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
 - 2. Worked for payment or profit, but absent on paid leave, holidays, on strike or stood down
 - 3. Unpaid work in a family business
 - 4. Other unpaid work
 - 5. Other unpaid work
 - 6. Did not have a job
 - X Don't know
 - R Refused
- Q18. Were you actively looking for work in the last week?
 - 1. Yes—looked for full-time work
 - 2. Yes—looked for part-time work
 - 3. No—did not look for work
 - X Don't know
 - R Refused
- Q19. 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 recieving wages
 - X Don't know
 - R Refused

- Q20. In the last week, how many hours did you work in all jobs?
 - 1. _____Number of hours[SPECIFY]
- Q21. How do you usually get to work? [MULTIPLE RESPONSE]
 - 1. Train
 - 2. Bus
 - 3. Ferry
 - 4. Tram (including light rail)
 - 5. Taxi
 - 6. Car—as driver
 - 7. Car—as passenger
 - 8. Truck
 - 9. Motorbike or motor scooter
 - 10. Bicycle
 - 11. Walk only
 - 12. Work at home
 - 13. Other
 - X Don't know
 - R Refused
- Q22. Do you currently recieve a government pension, allowance, or benefit?
 - 1. Yes
 - 2. No
 - X Don't know
 - R Refused
- Q23. I would like to ask you some questions about your housing arrangments. Are you: [READ OUT]
 - 1. Paying rent or board
 - 2. Paying off this dwelling
 - 3. Outright owner–fully owned
 - 4. Living rent free
 - 5. Purchasing under a rent–buy scheme
 - 6. Occupying your dwelling under a life tenure scheme
 - 7. Other [SPECIFY]
 - X Don't know
 - R Refused

Q24. What type of accommodation do you live in? [PROMPT IF NECESSARY]

- 1. Separate house
- 2. Semi-detached-townhouseterraced house-villa
- 3. Unit, flat or apartment–granny flat
- 4. Caravan, cabin, houseboat
- 5. Improvised home, tent, sleepout
- 6. House–flat attached to a shop–office
- 7. Other [SPECIFY] (for example: hotel, retirement village)

- X Don't know
- R Refused
- Q25. 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 \$10,000
 - 2. \$10,000-\$20,000
 - 3. \$20,000-\$40,000
 - 4. \$40,000-\$60,000
 - 5. \$60,000-\$80,000
 - 6. More than \$80,000
 - X Don't know
 - R Refused
- Q26. How long have you lived in your local area?
 - 1. ____ years
 - X Don't know
 - R Refused
- Q27. What is the name of your Local Council or Shire?
 - 1. _____
 - X Don't know
 - R Refused
- Q27. What is the name of the town or suburb where you live?
 - 1. _____X Don't know
 - R Refused
- Q28. Could you tell me your postcode?
 - 1. ____
 - X Don't know
 - R Refused
- Q29. Do you have more than one telephone number in your household?
 - 1. Yes
 - 2. No
 - X Don't know
 - R Refused
- Q30. 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

Diabetes question module

The next few questions are about diabetes and high blood sugar. Diabetes is a disease where there is too much sugar in the blood.

- Q1. Have you ever been told by a doctor or at a hospital that you have diabetes?
 - 1. Yes [If female adult \rightarrow Q3; If child or 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 at a hospital that you have high sugar levels in your blood or urine?
 - 1. Yes—[If female adult \rightarrow Q3; If child or male \rightarrow Q6]
 - 2. No \rightarrow END OF MODULE
 - 3. Borderline—If male \rightarrow Q6
 - 4. Only during pregnancy \rightarrow END OF MODULE
 - X Don't know \rightarrow END OF MODULE
 - $R \qquad \text{Refused} \rightarrow \text{END OF MODULE}$
- Q3. [If female then ask] Were you pregnant when you were first told you had diabetes-high blood sugar?
 - 1. Yes
 - 2. No \rightarrow Q5
 - X Don't know \rightarrow Q5
 - R Refused \rightarrow Q5
- Q4. [If female then ask] Have you ever had diabetes-high blood sugar apart from when you were pregnant?
 - 1. Yes
 - 2. No \rightarrow END OF MODULE
 - X Don't know
 - R Refused
- Q5. What type of diabetes were you told you had?
 - 1. Type 1
 - 2. Type 2
 - 3. Gestational
 - 4. Other [SPECIFY]
 - X Don't know
 - R Refused
- Q6. How old were you when you were first told you had diabetes-high blood sugar? [If ongoing diabetes since pregnancy, then age of diagnosis during pregnancy]
 - 1. ____ years
 - X Don't know
 - R Refused
- Q7. What are you doing now to manage your diabetes-high blood sugar? [MULTIPLE RESPONSE]
- 1. Having insulin injections
- 2. On tablets for diabetes or high blood sugar
- 3. Following a special diet [for example: reducing sugar and or fat in the diet]
- 4. Losing weight
- 5. Exercising most days
- 6. Doing anything else to manage your diabetes-high blood sugar
- 7. Other [SPECIFY]
- 8. Not doing anything to control diabetes
- X Don't know
- R Refused
- Q8. Have you been given a blue and orange card about managing your diabetes?
 - 1. Yes
 - 2. No
 - X Don't know
 - R Refused

Difficulties getting health care question module

- Q1. Do you have any difficulties getting health care when you need it?
 - 1. Yes \rightarrow Q2
 - 2. No \rightarrow END OF MODULE
 - 3. Don't need health care \rightarrow END OF MODULE
 - $X \quad \text{ Don't know} \to \text{ END OF MODULE}$
 - $R \qquad \text{Refused} \rightarrow \text{END OF MODULE}$
- Q2. Please describe the difficulties you have.
 - 1. Description

$\rightarrow \, \text{END OF MODULE}$

- Q3. Do you have any comments on the health services in your local area?
 - 1. Comments

Emergency department question module

The next questions are about your use of health services.

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
- $R \qquad \text{Refused} \rightarrow \text{END OF MODULE}$
- Q2. Which hospital's emergency department did you last attend?
 - 1. Name of hospital
- Q3. Overall, what do you think of the care you received at this emergency department? [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
 - $R \qquad \text{Refused} \rightarrow \text{END OF MODULE}$
- Q4. Could you briefly describe why you rated the care you received as fair–poor?
 - 1. Reasons

Environmental health question module

Now I have some questions about water usage.

- 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

Food handling question module

Q1. Thinking about the last time that you prepared raw meat or chicken when cooking, after preparing it did you ...

[READ OUT 1-3 ONLY]

- Wipe your hands or rinse them 1. WITHOUT using soap OR
- 2. Wash your hands with soap OR
- Continue cooking without cleaning 3. your hands
- 4. Don't handle raw meat-don't cook
- Х Don't know
- R Refused

Hospital question module

The next questions are about your use of health services.

- 01. In the last 12 months, have you stayed for at least one night in hospital?
 - 1. Yes
 - 2. $No \rightarrow END OF MODULE$
 - Х Don't know \rightarrow END OF MODULE
 - R Refused \rightarrow END OF MODULE
- In which hospital was your most recent Q2. overnight stay?
 - 1. Name of hospital
- Q3. Can you tell me if that is a public or private hospital?
 - 1. Public hospital
 - 2. Private hospital
 - 3. Private hospital attached to a public hospital
 - Don't know Х
 - Refused R
- Q4. During your overnight hospital admission were you admitted as a private or public patient?
 - Private patient 1. [that is, private health insurance]
 - 2. Public patient
 - Х Don't know
 - R Refused
- Q5. Overall, what do you think of the care you received at this hospital? [READ OUT]
 - 1. Excellent \rightarrow Q7
 - 2. Very good \rightarrow Q7
 - 3. $\text{Good} \rightarrow \ Q7$
 - 4. Fair

- 5. Poor
- Х Don't know \rightarrow Q7

R Refused \rightarrow Q7

- Q6. Could you briefly describe why you rated the care you received as fair-poor?
 - 1. Description
- 07. Did someone at this hospital tell you how to cope with your condition when you returned home?
 - 1. Yes
 - 2. $No \rightarrow END OF MODULE$
 - 3. Not applicable \rightarrow END OF MODULE
 - Х Don't know \rightarrow END OF MODULE
 - Refused \rightarrow END OF MODULE R
- Q8. How adequate was this information once you went home? [READ OUT]
 - 1. Very adequate
 - 2. Adequate
 - 3. Inadequate
 - Completely inadequate 4.
 - Х Don't know
 - R Refused

Immunisation guestion module

I now have a few questions about immunisation.

- Q1. Has a health professional ever advised you to be vaccinated against flu?
 - 1. Yes
 - 2. No
 - X Don't know
 - R Refused
- Q2. Were you vaccinated or immunised against flu in the past 12 months?
 - 1. Yes
 - 2. No
 - Х Don't know
 - R Refused
- Q3. Has a health professional ever advised you to be vaccinated against pneumonia?
 - 1. Yes
 - 2. No
 - Х Don't know
 - R Refused
- Q4. When were you last vaccinated or immunised against pneumonia?
 - 1 Within the last 12 months

- 2. 12 months to five years ago
- 3. More than five years ago
- 4. Never vaccinated
- X Don't know
- R Refused

Adult incontinence question module

- Q1. In the last four weeks how often have you had a urine leak when you were physically active, exerted yourself, coughed or sneezed during the day or night?
 - 1. Most of the time
 - 2. Some of the time
 - 3. None of the time
 - X Don't know
 - R Refused

Injury: Falls in older people question module

- Q1. In the last 12 months have you had a fall?
 - 1. Yes
 - 2. No \rightarrow END OF MODULE
 - X Don't know \rightarrow END OF MODULE
 - R Refused \rightarrow END OF MODULE
- Q2. How many times did you fall in the last 12 months?
 - 1. Once
 - 2. Twice
 - 3. Three times or more
 - X Don't know
 - R Refused
- Q3. In the last 12 months have you had a fall which required medical treatment for injuries?
 - 1. Yes
 - 2. No \rightarrow END OF MODULE
 - $X \quad \text{ Don't know} \to \text{ END OF MODULE}$
 - $R \qquad \text{Refused} \rightarrow \text{END OF MODULE}$
- Q4. Were you ADMITTED to hospital as a result of any of your falls in the last 12 months?
 - 1. Yes
 - 2. No
 - X Don't know
 - R Refused

Injury prevention question module

The next few questions are about safety issues.

Q1. Do you have any of the following fire safety measures in your home? [READ OUT]

[External water supply refers to water tankers, swimming pools, dams, storm water retention pits, garden hoses, and fixed sprinklers].

[Hard wired smoke alarms are wired into your electricity supply and have battery back up].

- 1. Fire alarm (hard wired)
- 2. Fire alarm (battery operated only)
- 3. Fire sprinkler system
- 4. Safety switch–circuit breaker
- 5. Fire extinguisher
- 6. Fire evacuation plan
- 7. External water supply
- 8. External sprinkler
- 9. Other [SPECIFY]
- 10. None of the above
- Q2. Are you aware of the NSW Fire Brigades program to change or install battery operated fire alarms in homes?
 - 1. Yes
 - 2. No \rightarrow END OF MODULE
 - $X \quad \text{ Don't know} \to \text{ END OF MODULE}$
 - $R \qquad \text{Refused} \rightarrow \text{END OF MODULE}$
- Q3. Have you had one installed through this program?
 - 1. Yes
 - 2. No
 - X Don't know
 - R Refused

Mental health question module

The next 10 questions are about how you have been feeling in the past four weeks

- Q1. In the past four 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 past four 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
- Q3. In the past four 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 past four 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 past four 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 $\rightarrow Q7$
 - X Don't know \rightarrow Q7
 - R Refused \rightarrow Q7
- Q6. In the past four 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 past four 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
- 5. None of the time
- X Don't know
- R Refused
- Q8. In the past four 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 past four weeks, about how often did you feel so sad that nothing could cheer you up? [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
- Q10. In the past four 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 four weeks, how many days were you TOTALLY UNABLE to work, study or manage your day-to-day activities because of these feelings?

1. ____ Number of days

- Q12. Aside from [that day-those (#) days], in the last four weeks, how many days were you ABLE to work, study or manage your day-today activities, but had to CUT DOWN on what you did because of these feelings?
 - 1. ____ Number of days
- Q13. In the last four weeks, how many times have you seen a doctor or other health professional about these feelings?

1. ____ Number of consultations

Q14. In the last four 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 question module

The next few questions are about food. I'm going to read you a list of different food and drinks. Please tell me how much of these foods and drinks you usually consume per day or per week.

- Q1. How many serves of vegetables do you usually eat each day? [One serve = 1/2 cup cooked or one cup of salad vegetables]
 - 1. ____ Serves per day
 - 2. ____ Serves per week
 - 3. Don't eat vegetables
 - X Don't know
 - R Refused
- Q2. How many serves of fruit do you usually eat each day? [One serve = one medium piece or two 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
- Q3. 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
- Q4. 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
- Q5. How often do you eat pasta, rice, noodles or other cooked cereals?(not including cooked breakfast cereals).

- 1. ____ Times per day
- 2. ____ Times per week
- 3. ____ Times per month
- 4. Rarely or never
- X Don't know
- R Refused
- Q6. What type of milk do you usually have?
 - 1. Regular milk (whole or full cream)
 - 2. Low–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
- Q7. 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
- Q8. How often do you eat chips, french fries, wedges, fried potatoes or crisps?
 - 1. ____ Times per day
 - 2. Times per week
 - 3. ____ Times per month
 - 4. Rarely or never
 - X Don't know
 - R Refused
- Q9. In the last twelve 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 question module

The next questions are about your teeth and dental 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
- Q3. In the last 12 months, how often have you had a toothache or other problem with your mouth or dentures? [READ OUT]
 - 1. Very often
 - 2. Often
 - 3. Sometimes
 - 4. Hardly ever
 - 5. Never (during the last 12 months) $\rightarrow Q7$
 - X Don't know \rightarrow Q7
 - R Refused \rightarrow Q7
- Q4. In the last four weeks, how often have you had a toothache or other problem with your mouth or dentures? [READ OUT]
 - 1. Very often
 - 2. Often
 - 3. Sometimes
 - 4. Never (during the last four weeks)
 - X Don't know
 - R Refused
- Q5. What was the most recent problem you had?
 - 1. Toothache
 - 2. Bleeding gums
 - 3. Loose or broken tooth or other problem as a result of an injury
 - 4. Loose or broken tooth—not due to injury
 - 5. Lost a filling
 - 6. Problem with jaw or bite
 - 7. Other [SPECIFY]
 - X Don't know \rightarrow Q7
 - R Refused \rightarrow Q7
- Q6. What treatment did you receive for [problem in Q5]? [MULTIPLE RESPONSE]
 - 1. Check up \rightarrow Q8
 - 2. Dental filling \rightarrow Q8
 - 3. Amalgam replacement $\rightarrow Q8$
 - 4. Root canal filling $\rightarrow Q8$
 - 5. Crown \rightarrow Q8
 - 6. Tooth extracted $\rightarrow Q8$
 - 7. Fluoride treatment $\rightarrow Q8$

- 8. Gum treatment $\rightarrow Q8$
- 9. Teeth straightened–braces \rightarrow Q8
- 10. New or replacement dentures $\rightarrow Q8$
- 11. Teeth cleaned $\rightarrow Q8$
- 12. Fissure sealant $\rightarrow Q8$
- 13. Whitening-bleaching $\rightarrow Q8$
- 14. Denture repair $\rightarrow Q8$
- 15. None—did not visit Dentist
- 16. Other treatment [SPECIFY] $\rightarrow Q8$
- X Don't know \rightarrow Q8
- R Refused \rightarrow Q8
- Q7. 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
 - 2. One year to less than two years ago \rightarrow Q9
 - 3. Two to less than five years ago \rightarrow Q9
 - 4. Five to less than 10 years ago $\rightarrow Q9$
 - 5. 10 years ago or more $\rightarrow Q9$
 - 6. Never $\rightarrow Q9$
 - X Don't know \rightarrow Q9
 - R Refused \rightarrow END OF MODULE
- Q8. Where was your last dental visit made? [READ OUT]
 - 1. Government dental clinic or hospital \rightarrow END OF MODULE
 - 2. School dental service (SOKS) \rightarrow END OF MODULE
 - 3. Dental technician (includes dental mechanic and denturist practising independently of a dentist) → END OF MODULE
 - 4. Other [SPECIFY] \rightarrow END OF MODULE
 - X Don't know \rightarrow END OF MODULE
 - $R \qquad \text{Refused} \rightarrow \text{END OF MODULE}$
- Q9. 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

Overweight or obesity question module

Now a few questions about height and weight.

- Q1. How tall are you without shoes?
 - 1. ____ centimetres
 - X Don't know
 - R Refused

OR

- 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

Q3. Do you consider yourself to be: [READ OUT]

- 1. Acceptable weight
- 2. Underweight
- 3. Overweight
- X Don't know
- R Refused
- Q4. How often do you weigh yourself?
 - 1. At least once a day
 - 2. Several times a week
 - 3. About once a week
 - 4. About once or twice a month
 - 5. A few times a year
 - 6. I never weigh myself
 - X Don't know
 - R Refused

Physical activity question module

Now I'm going to ask some questions about the physical activity you did in the last week.

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]
 - 1. ____ hours ____ minutes
 - 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
 - $[If = 0 \rightarrow END \text{ OF MODULE}]$
 - X Don't know \rightarrow END OF MODULE
 - $R \qquad \text{Refused} \rightarrow \text{END OF MODULE}$
- 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 ____ minutes
 - X Don't know
 - R Refused

Public dental service question module

The next questions are about your use of health 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 Don't know \rightarrow END OF MODULE

R Refused \rightarrow END OF MODULE

- Q2. Overall, what do you think of the care you received at the public dental service? [READ OUT]
 - 1. Excellent $\rightarrow Q4$
 - 2. Very good $\rightarrow 04$
 - 3. $Good \rightarrow Q4$
 - 4. Fair
 - 5. Poor

R

- Х Don't know $\rightarrow Q4$
 - Refused $\rightarrow 04$
- Could you briefly describe why you rated the 03. care you received as fair-poor?
 - 1. Description
- Q4. Did someone at this public dental service tell you how to cope with your condition when you returned home?
 - 1. Yes
 - 2. $No \rightarrow END OF MODULE$
 - 3. Not applicable \rightarrow END OF MODULE
 - Х Don't know \rightarrow END OF MODULE
 - R Refused \rightarrow END OF MODULE
- Q5. How adequate was this information once you went home? [READ OUT]
 - 1. Very adequate
 - 2. Adequate
 - 3. Inadequate
 - 4. Completely inadequate
 - Х Don't know
 - R Refused

Self-rated health status question module

Now I am going to read some statements about aspects of your health.

- Q1. Overall, how would you rate your health during the past four weeks? [READ OUT]
 - Excellent 1.
 - 2. Very good
 - 3. Good
 - 4. Fair
 - 5. Poor
 - 6. Very poor
 - X Don't know
 - R Refused
- During the past four weeks how much Q2. difficulty did you have doing your daily work or activities? [READ OUT]

- 1. No difficulty at all
- 2. A little bit of difficulty
- 3. Some difficulty
- 4. Much difficulty
- 5. Could not do work-activities
- Х Don't know
- R Refused
- During the past four weeks how much bodily 03. pain have you generally had? [READ OUT]
 - 1. No pain
 - 2. Very mild pain
 - 3. Mild pain
 - 4. Moderate pain
 - 5. Severe pain
 - Х Don't know
 - Refused R

Smoking question module

The following questions are about tobacco smoking. This includes cigarettes, cigars and pipes.

- Q1. Which of the following best describes your smoking status? [READ OUT]
 - 1. I smoke daily
 - 2. I smoke occasionally
 - 3. I don't smoke now, but I used to \rightarrow 03
 - 4. I've tried it a few times but never smoked regularly $\rightarrow Q3$
 - 5. I've never smoked $\rightarrow Q3$
 - Х Don't know \rightarrow Q3
 - Refused \rightarrow Q3 R
- Which of the following best describes how you O2. feel about your smoking? [READ OUT]
 - 1. I am not planning on quitting within the next six months
 - I am planning on quitting within the 2. next six months
 - 3. I am planning on quitting within the next month
 - 4. I have not smoked in the past 24 hours but was smoking six months ago
 - 5. I have not been smoking in the past six months
 - Х Don't know
 - R Refused
 - Which of the following best describes your home situation? [READ OUT]
 - 1. My home is smoke-free (includes smoking is allowed outside only)

- Q3.

- 2. People occasionally smoke in the house
- 3. People frequently smoke in the house
- X Don't know
- R Refused
- Q4. Are people allowed to smoke in your car?
 - 1. Yes
 - 2. No
 - 3. Don't have a car
 - X Don't know
 - R Refused
- Q5. In registered clubs, such as leagues clubs and bowling clubs, do you think smoking should be allowed? [READ OUT]
 - 1. Anywhere
 - 2. Only in special areas
 - 3. Nowhere
 - X Don't know
 - R Refused
- Q6. And in hotels, bars, and pubs, do you think smoking should be allowed [READ OUT]
 - 1. Anywhere
 - 2. Only in special areas
 - 3. Nowhere
 - X Don't know
 - R Refused
- Q7. If there was a total ban on smoking in hotels and licensed bars, would you be likely to go
 - 1. More often
 - 2. Less often
 - 3. It would make no difference
 - X Don't know
 - R Refused

Social capital question module

The next questions are about your involvement in your local community and neighbourhood.

- Q1. In the past three 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 2–3 weeks
 - 3. Once a month or less
 - 4. No, not at all
 - X Don't know
 - R Refused

- Q2. In the past six months, how often have you attended a local community event such as a church or school fete, school concert, or a street fair? [READ OUT]
 - 1. Three times or more
 - 2. Twice
 - 3. Once
 - 4. Never
 - X Don't know
 - R Refused
- Q3. Are you an active member of a local organisation, church or club, such as a sport, craft, or social club? [READ OUT]
 - 1. Yes, very active
 - 2. Yes, somewhat active
 - 3. Yes, a little active
 - 4. No, not an active member
 - X Don't know
 - R Refused
- Q4. I'm now going to read you some statements about safety in your local area. 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
- Q5. 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
- Q6. 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
- Q7. If you were caring for a child and needed to go out for a while, and could not take the child with you, would you ask someone in your neighbourhood for help? [READ OUT]

- 1. Yes, definitely
- 2. Yes, possibly
- 3. No, probably not
- 4. No, definitely not
- X Don't know
- R Refused
- Q8. 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 week)
 - X Don't know
 - R Refused
- Q9. 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
- Q10. Would you be sad if you had to leave this neighbourhood?
 - 1. Yes
 - 2. No
 - X Don't know
 - R Refused