

Volume 14 , Number S-4
December, 2003

NSW Public **Health** *Bulletin Supplement*

NSW HEALTH
Working as a Team

ISSN 1034 7674

State Health Publication PH 030279

The New South Wales Adult Health Survey 2002

NSW DEPARTMENT OF HEALTH

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State Health Publication No: PH030279

ISSN 1034 7674

suggested citation:

Centre for Epidemiology and Research, NSW Department of Health. New South Wales Adult Health Survey 2002. *N S W Public Health Bull* 2003; 14(S-4).

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The electronic report of the *New South Wales Adult Health Survey 2002*, 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.

NSW HEALTH
Working as a Team

CONTENTS

1	FOREWORD	7
2	ACKNOWLEDGEMENTS	8
3	EXECUTIVE SUMMARY	9
4	SNAPSHOT OF ADULT HEALTH, NSW, 2002	11
5	METHODS	12
	Table 1: Outcomes of telephone calls	13
	Table 2: Completed interviews and response rates by health area	13
	Table 3: Completed interviews by language	13
	Map of NSW area health services	15
6	REPRESENTATIVENESS OF SAMPLE	16
	Figure 1: Age distribution of unweighted survey sample versus NSW population: Males	16
	Figure 2: Age distribution of unweighted survey sample versus NSW population: Females	17
	Table 4: Survey sample size and NSW population: by age and sex	17
	Figure 3: Percentage of weighted sample persons aged 16 years and over in each SEIFA quintile	18
	Figure 4: Aboriginal or Torres Strait Islander origin, persons aged 16 years and over, NSW, 2002	18
	Figure 5: Country of birth, persons aged 16 years and over, NSW, 2002	19
	Figure 6: Speak a language other than English at home, persons aged 16 years and over, NSW, 2002	19
	Figure 7: Current employment status, persons aged 16 years and over, NSW, 2002	20
	Figure 8: Highest level of school completed, persons aged 16 years and over, NSW, 2002	20
	Figure 9: Household income, persons aged 16 years and over, NSW, 2002	21
7	HEALTH BEHAVIOURS	22
	Alcohol	22
	Figure 10: Any alcohol risk drinking by age, persons aged 16 years and over, NSW, 2002	23
	Figure 11: Any alcohol risk drinking behaviour by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	24
	Figure 12: Any alcohol risk drinking behaviour by health area, persons aged 16 years and over, NSW, 2002	24
	Table 5: Any alcohol risk drinking behaviour by health area, persons aged 16 years and over, NSW, 2002	25
	Figure 13: Short-term alcohol risk in the past 4 weeks, persons who consume alcohol, aged 16 years and over, NSW, 2002	25
	Figure 14: High risk drinking in the past 4 weeks, persons who consume alcohol, aged 16 years and over, NSW, 2002	26
	Cancer screening	26
	Figure 15: Screening mammogram within the last 2 years by age, females aged 50–69 years, NSW, 2002	28
	Figure 16: Screening mammogram within the last 2 years by socioeconomic disadvantage score, females aged 50–69 years, NSW, 2002	28
	Figure 17: Screening mammogram within the last 2 years by health area, females aged 50–69 years, NSW, 2002	29
	Table 6: Screening mammogram within the last 2 years by health area, females aged 50–69 years, NSW, 2002	29
	Figure 18: Pap test within the last 2 years by age, females aged 20–69 years, NSW, 2002	30
	Figure 19: Pap test within the last 2 years by socioeconomic disadvantage score, females aged 20–69 years, NSW, 2002	30
	Figure 20: Pap test within the last 2 years by health area, females aged 20–69 years, NSW, 2002	31
	Table 7: Pap test within the last 2 years by health area, females aged 20–69 years, NSW, 2002	31
	Figure 21: Hysterectomy rate by age, females aged 20–69 years, NSW, 2002	32

Environmental health	32
Figure 22: Water treatment before drinking, public water supply, persons who treat their public water supply, aged 16 years and over, NSW, 2002	34
Figure 23: Use public water as usual source of water by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	35
Figure 24: Use public water as usual source of water by health area, persons aged 16 years and over, NSW, 2002	35
Table 8: Use public water as usual source of water by health area, persons aged 16 years and over, NSW, 2002	36
Figure 25: Recreational water use limited by blue green algae in last 12 months by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	36
Figure 26: Recreational water use limited by blue green algae in last 12 months by health area, persons aged 16 years and over, NSW, 2002	37
Table 9: Recreational water use limited by blue green algae in last 12 months by health area, persons aged 16 years and over, NSW, 2002	37
Figure 27: Support re-use of treated effluent water, persons aged 16 years and over, NSW, 2002	38
Figure 28: Gas cooking without ventilation by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	38
Figure 29: Gas cooking without ventilation by health area, persons aged 16 years and over, NSW, 2002	39
Table 10: Gas cooking without ventilation by health area, persons aged 16 years and over, NSW, 2002	39
Figure 30: Exposure to unflued heating by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	40
Figure 31: Exposure to unflued heating by health area, persons aged 16 years and over, NSW, 2002	40
Table 11: Exposure to unflued heating by health area, persons aged 16 years and over, NSW, 2002	41
Figure 32: Internally accessed garages by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	41
Figure 33: Internally accessed garages by health area, persons aged 16 years and over, NSW, 2002	42
Table 12 : Internally accessed garages by health area, persons aged 16 years and over, NSW, 2002	42
Immunisation	43
Figure 34: Vaccinated against influenza in the last 12 months by age, persons aged 65 years and over, NSW, 2002	44
Figure 35: Vaccinated against influenza in the last 12 months by socioeconomic disadvantage score, persons aged 65 years and over, NSW, 2002	45
Figure 36: Vaccinated against influenza in the last 12 months by health area, persons aged 65 years and over, NSW, 2002	45
Table 13: Vaccinated against influenza in the last 12 months by health area, persons aged 65 years and over, NSW, 2002	46
Figure 37: Vaccinated against pneumococcal disease in last 5 years by age, persons aged 65 years and over, NSW, 2002	46
Figure 38: Vaccinated against pneumococcal disease in last 5 years by socioeconomic disadvantage score, persons aged 65 years and over, NSW, 2002	47
Figure 39: Vaccinated against pneumococcal disease in last 5 years by health area, persons aged 65 years and over, NSW, 2002	47
Table 14: Vaccinated against pneumococcal disease in last 5 years by health area, persons aged 65 years and over, NSW, 2002	48
Injury prevention	49
Figure 40: Homes with a smoke alarm or detector by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	50
Figure 41: Homes with a smoke alarm or detector by health area, persons aged 16 years and over, NSW, 2002	50
Table 15: Homes with a smoke alarm or detector by health area, persons aged 16 years and over, NSW, 2002	51

Nutrition	51
Figure 42: Recommended daily fruit intake by age, persons aged 16 years and over, NSW, 2002	54
Figure 43: Recommended daily fruit intake by health area, persons aged 16 years and over, NSW, 2002	54
Table 16: Recommended daily fruit intake by health area, persons aged 16 years and over, NSW, 2002	55
Figure 44: Recommended daily vegetable intake by age, persons aged 16 years and over, NSW, 2002	55
Figure 45: Recommended daily vegetable intake by health area, persons aged 16 years and over, NSW, 2002	56
Table 17: Recommended daily vegetable intake by health area, persons aged 16 years and over, NSW, 2002	56
Figure 46: Usual use of low fat, reduced fat or skim milk by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	57
Figure 47: Usual use of low fat, reduced fat or skim milk by health area, persons aged 16 years and over, NSW, 2002	57
Table 18: Usual use of low fat, reduced fat or skim milk by health area, persons aged 16 years and over, NSW, 2002	58
Figure 48: Frequency of eating chips, french fries, wedges, fried potatoes or crisps per week, persons aged 16 years and over, NSW, 2002	58
Figure 49: Frequency of eating breakfast cereal, breads, pasta, rice and noodles per day, persons aged 16 years and over, NSW, 2002	59
Figure 50: Frequency of eating processed meat products per week, persons aged 16 years and over, NSW, 2002	59
Figure 51: Food insecurity in last 12 months by age, persons aged 16 years and over, NSW, 2002	60
Figure 52: Food insecurity in last 12 months by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	60

Physical activity	61
Figure 53: Adequate physical activity by age, persons aged 16 years and over, NSW, 2002	62
Figure 54: Adequate physical activity by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	62
Figure 55: Adequate physical activity by health area, persons aged 16 years and over, NSW, 2002	63
Table 19: Adequate physical activity by health area, persons aged 16 years and over, NSW, 2002	63
Figure 56: Usual transport to work, persons aged 16 years and over, NSW, 2002	64

Smoking	65
Figure 57: Smoking status, persons aged 16 years and over, NSW, 2002	66
Figure 58: Current daily or occasional smoking by age, persons aged 16 years and over, NSW, 2002	67
Figure 59: Intention to quit smoking, persons who smoke aged 16 years and over, NSW, 2002	67
Figure 60: Environmental tobacco household exposure, persons aged 16 years and over, NSW, 2002	68
Figure 61: Smoke-free households by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	68
Figure 62: Smoke-free households by health area, persons aged 16 years and over, NSW, 2002	69
Table 20: Smoke-free households by health area, persons aged 16 years and over, NSW, 2002	69

8 HEALTH STATUS 70

Self-rated health status	70
Figure 63: Self-rated health status, persons aged 16 years and over, NSW, 2002	71
Figure 64: Excellent, very good, or good self-rated health status by age, persons aged 16 years and over, NSW, 2002	71
Figure 65: Excellent, very good, or good self-rated health status by health area, persons aged 16 years and over, NSW, 2002	72
Table 21: Excellent, very good, or good self-rated health status by health area, persons aged 16 years and over, NSW, 2002	72

Asthma	73
Figure 66: Ever diagnosed with asthma by age, persons aged 16 years and over, NSW, 2002	74
Figure 67: Current asthma by age, persons aged 16 years and over, NSW, 2002	74
Figure 68: Current asthma by health area, persons aged 16 years and over, NSW, 2002	75
Table 22: Current asthma by health area, persons aged 16 years and over, NSW, 2002	75
Figure 69: Visited doctor or emergency department for asthma attack in last 4 weeks, persons who currently have asthma, aged 16 years and over, NSW, 2002	76
Cardiovascular disease precursors	76
Figure 70: Blood pressure measured within the last 2 years by age, persons aged 16 years and over, NSW, 2002	78
Figure 71: High blood pressure by socioeconomic disadvantage score, persons who have had their blood pressure measured in the last 2 years, aged 16 years and over, NSW, 2002	79
Figure 72: High blood pressure by health area, persons who have had their blood pressure measured in the last 2 years, aged 16 years and over, NSW, 2002	79
Table 23: High blood pressure by health area, persons who have had their blood pressure measured in the last 2 years, aged 16 years and over, NSW, 2002	80
Figure 73: Cholesterol measured within last 2 years by age, persons aged 16 years and over who have had their cholesterol measured in the last 2 years, NSW, 2002	80
Figure 74: High cholesterol by age, persons aged 16 years and over who have had their cholesterol measured in the last 2 years, NSW, 2002	81
Chemical sensitivity	81
Diabetes	82
Figure 75: Diabetes or high blood sugar by age, persons aged 16 years and over, NSW, 2002	83
Figure 76: Diabetes or high blood sugar by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	84
Work-related injury	84
Figure 77: Work-related injury in last 12 months by age, persons who worked in the previous 12 months, aged 16–65 years, NSW, 2002	85
Figure 78: Work-related injury in last 12 months by socioeconomic disadvantage score, persons who worked in the previous 12 months, aged 16–65 years, NSW, 2002	86
Figure 79: Work-related injury in last 12 months by health area, persons who worked in the previous 12 months, aged 16–65 years, NSW, 2002	86
Table 24: Work-related injury in last 12 months by health area, persons who worked in the previous 12 months, aged 16–65 years, NSW, 2002	87
Figure 80: Workers' compensation for work-related injury in last 12 months, persons with a work-related injury, aged 16–65 years, NSW, 2002	87
Figure 81: Type of work-related injury, persons who had a work-related injury, aged 16–65 years, NSW, 2002	88
Mental health	88
Figure 82: Psychological distress (Kessler 10) categories, persons aged 16 years and over, NSW, 2002	90
Figure 83: High and very high psychological distress by age, persons aged 16 years and over, NSW, 2002	90
Figure 84: High and very high psychological distress by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	91
Table 25: High and very high psychological distress by health area, persons aged 16 years and over, NSW, 2002	91
Figure 85: High and very high psychological distress by health area, persons aged 16 years and over, NSW, 2002	92
Figure 86: Times that physical problems have been the cause of psychological distress in past 4 weeks, persons with moderate, high, or very high psychological distress, aged 16–64 years, NSW, 2002	92
Table 26: Effect of psychological distress on daily activities in people with moderate, high, or very high psychological distress, aged 16–64 years, NSW, 2002	92

Oral health	93
Figure 87: No natural teeth missing by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	94
Figure 88: No natural teeth missing by health area, persons aged 16 years and over, NSW, 2002	94
Table 27: No natural teeth missing by health area, persons aged 16 years and over, NSW, 2002	95
Figure 89: Time since last dental visit, persons aged 16 years and over, NSW, 2002	95
Overweight or obesity	96
Figure 90: Body Mass Index (BMI) categories, persons aged 16 years and over, NSW, 2002	97
Figure 91: Overweight or obesity by age, persons aged 16 years and over, NSW, 2002	97
Figure 92: Overweight or obesity by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	98
Figure 93: Overweight or obesity by health area, persons aged 16 years and over, NSW, 2002	98
Table 28: Overweight or obesity by health area, persons aged 16 years and over, NSW, 2002	99
9 HEALTH SERVICES	100
Difficulties getting health care	100
Figure 94: Health services attended in last 12 months, persons aged 16 years and over, NSW, 2002	101
Figure 95: Difficulties getting health care when needing it by age, persons aged 16 years and over, NSW, 2002	101
Figure 96: Difficulties getting health care when needing it by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	102
Figure 97: Difficulties getting health care when needing it by health area, persons aged 16 years and over, NSW, 2002	102
Table 29: Difficulties getting health care when needing it by health area, persons aged 16 years and over, NSW, 2002	103
Figure 98: Types of difficulties getting health care when needing it, persons aged 16 years and over, NSW, 2002	103
Emergency departments	104
Figure 99: Emergency department attendance in the previous 12 months by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	105
Figure 100: Emergency department attendance in the previous 12 months by health area, persons aged 16 years and over, NSW, 2002	105
Table 30: Emergency department attendance in the previous 12 months by health area, persons aged 16 years and over, NSW, 2002	106
Figure 101: Emergency department care rated as excellent, very good or good by age, persons who attended an emergency department in the previous 12 months, aged 16 years and over, NSW, 2002	106
Figure 102: 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, 2002	107
Hospital admissions	107
Figure 103: Hospital admission in the previous 12 months by age, persons aged 16 years and over, NSW, 2002	108
Figure 104: Hospital care rated as excellent, very good or good by health area, persons who attended hospital in the previous 12 months, aged 16 years and over, NSW, 2002	109
Table 31: Hospital care rated as excellent, very good or good by health area, persons who attended hospital in the previous 12 months, aged 16 years and over, NSW, 2002	109
Figure 105: 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, 2002	110
Figure 106: Hospital care ratings, persons who attended hospital in the previous 12 months, aged 16 years and over, NSW, 2002	110

Community health centres	111
Figure 107: Community health centre attendance in the previous 12 months by age, persons aged 16 years and over, NSW, 2002	112
Figure 108: Community health centre care ratings, persons who attended a community health centre in the previous 12 months, aged 16 years and over, NSW, 2002	112
Figure 109: 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, 2002	113
Public dental services	113
Figure 110: Public dental service attendance in the previous 12 months by age, persons aged 16 years and over, NSW, 2002	114
Figure 111: Public dental service care rating, persons who attended a public dental service in the previous 12 months, aged 16 years and over, NSW, 2002	115
Figure 112: Public dental service care rated as excellent, very good or good by age, persons who attended a public dental service in the previous 12 months, aged 16 years and over, NSW, 2002	115
Figure 113: 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, 2002	116
10 SOCIAL CAPITAL	117
Figure 114: Participation in the local community, persons aged 16 years and over, NSW, 2002	119
Figure 115: Attended a community event at least once in the last 6 months by age, persons aged 16 years and over, NSW, 2002	120
Figure 116: Attended a community event at least once in the last 6 months by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	120
Figure 117: Attended a community event at least once in the last 6 months by health area, persons aged 16 years and over, NSW, 2002	121
Table 32: Attended a community event at least once in the last 6 months by health area, persons aged 16 years and over, NSW, 2002	121
Figure 118: Trust and safety in local area, persons aged 16 years and over, NSW, 2002	122
Figure 119: Most people can be trusted by age, persons aged 16 years and over, NSW, 2002	122
Figure 120: Most people can be trusted by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	123
Figure 121: Most people can be trusted by health area, persons aged 16 years and over, NSW, 2002	123
Table 33: Most people can be trusted by health area, persons aged 16 years and over, NSW, 2002	124
Figure 122: Reciprocity–social engagement, persons aged 16 years and over, NSW, 2002	124
Figure 123: Visit neighbours by age, persons aged 16 years and over, NSW, 2002	125
Figure 124: Visit neighbours by socioeconomic disadvantage score, persons aged 16 years and over, NSW, 2002	125
Figure 125: Visit neighbours by health area, persons aged 16 years and over, NSW, 2002	126
Table 34: Visit neighbours by health area, persons aged 16 years and over, NSW, 2002	126
11 CONCLUSION	127
Table 35: Trends in indicators, NSW, 1997–2002	128
12 QUESTION MODULES	131

1. FOREWORD

I am pleased to present this report of the *New South Wales Adult Health Survey 2002*, which provides information on health behaviours, health status, access to health services, and social capital, for people aged 16 years and over.

In 2002, 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 2002* were collected from March to December 2002.

After describing the survey methods, this report presents information on health behaviours relating to alcohol, cancer screening, environmental health, immunisation, injury prevention, nutrition, physical activity, and smoking. This is followed by a chapter on health status including self-rated health status, asthma, precursors for cardiovascular disease, chemical sensitivity, diabetes, injury, mental health, oral health, and overweight and obesity. Next there is a chapter on health services including difficulties getting health care, and access to and satisfaction with hospital services, 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, health area, 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. More specific reports on topics of interest can also be produced on 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 of the *New South Wales Adult Health Survey 2002*, 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 2002*.



Greg Stewart

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December 2003

2. ACKNOWLEDGEMENTS

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3. EXECUTIVE SUMMARY

In 2002, the NSW Department of Health, in conjunction with the 17 area health services, completed the first year of the New South Wales Continuous Health Survey, an ongoing survey of the health of people in NSW using computer-assisted telephone interviewing (CATI). The main aims of the New South Wales 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 2002*, a major activity of the New South Wales Continuous Health Survey.

The content of the *New South Wales Adult Health Survey 2002* was developed by the Health Survey Program Steering Committee (HSPSC), in consultation with the 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 March and December 2002. The target population for the *New South Wales Adult Health Survey 2002* 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 randomly-selected for interview. Information was collected on a total of 12,622 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 2002* included alcohol intake, fruit and vegetable consumption, physical activity, smoking, and smoking in the home.

More than one-third of the overall population reported undertaking risk-drinking behaviours. The proportion of males with higher levels of risk-drinking behaviours was greater than the proportion of females, and young adults of both sexes were more likely to undertake risk-drinking 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 behaviour since 1997.

Just under a half of all respondents reported eating the recommended daily fruit intake, while only one in seven respondents reported consuming the recommended daily minimum quantity of vegetables. Under a half of the 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 under 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.

Just under a 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 2002, just over one in five adults aged 16 and over reported that they are current smokers. The proportion of males reporting that they currently smoke was greater than females. Encouragingly, this represents a decrease in prevalence of smoking from 1997. More than 80 per cent of respondents reported that their home was smoke-free, while just under 10 per cent reported people 'occasionally' smoked inside the house, and just under 10 per cent reported that people 'frequently' smoked inside the house.

Health status

The *New South Wales Adult Health Survey 2002* collected information on a range of health indicators including: self-rated health status, asthma, diabetes, oral health, overweight and 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 rated their health status positively.

Overall, 10 per cent of respondents aged 16 years and over reported current doctor-diagnosed asthma. A greater proportion of females than males reported current asthma, and young females had higher rates of current asthma than the overall population. The rate of current asthma was higher among rural residents than urban residents but has not altered since 1997.

Approximately six per cent of people aged 16 years and over reported that a doctor had ever told them that they had diabetes. There was no difference between male and female rates. The prevalence of diabetes increased with age and has increased since 1997.

Over one-third of all respondents reported that they had all their natural teeth.

Just under half of all respondents reported being either overweight or obese. A 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 eight respondents reported either 'high' or 'very high' levels of psychological distress. Females were more likely to report 'high' or 'very high' levels of psychological distress than males. Rates of 'high' and 'very high' psychological distress have risen from 1998.

Health services

The *New South Wales Adult Health Survey 2002* collected information on the use of, and satisfaction with, health services including emergency departments, hospital admission, community health centres; and information on difficulties obtaining health care when needed.

One in eight respondents reported experiencing difficulties getting health care when needed. Females were more likely to report 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, three-quarters 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 under one in 13 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 2002* included questions on social reciprocity and neighbourhood connection, feelings of trust and safety, and participation in the local community.

Seventy per cent of the population reported that they could ask someone in their neighbourhood for help with caring for a child, if they needed to; and nearly three-quarters of the population said they would be sad if they had to leave their neighbourhood. Two-thirds of respondents reported feeling safe walking down their street after dark, and males were more likely to report feeling safe than females.

Overall, one-third of the population 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, 2002

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, 2002

Topic	Issue	Indicator	Male	Female	Persons
Health behaviours	Alcohol	Alcohol risk drinking	39.2	29.7	34.4
	Fruit	Recommended daily fruit intake	40.3	50.1	45.3
	Vegetables	Recommended vegetable intake	9.2	22.9	16.2
	Physical Activity	Adequate physical activity	50.4	42.9	46.6
	Smoking	Current daily or occasional smoking	23.9	18.9	21.4
	Smoke free households	Smoke-free households	.	.	81.0
Health status	Health status	Excellent, very good, or good self-rated health status	81.8	79.7	80.7
	Asthma	Current asthma	9.1	12.0	10.6
	Diabetes	Diabetes or high blood sugar	6.6	5.7	6.1
	Psychological distress	High and very high psychological distress	10.5	14.0	12.2
	Oral Health	No natural teeth missing	37.9	36.6	37.2
	Overweight and obesity	Overweight and obesity	53.9	38.5	46.3
Health services	Difficulty getting health care	Difficulties getting health care when needing it	10.9	14.2	12.6
	Emergency department care rating	Emergency department care rated as excellent, very good or good	79.8	73.2	76.5
	Hospital care rating	Hospital care rated as excellent, very good or good	93.5	89.3	91.0
Social capital	Participation	Attended a community event at least once in the last 6 months	52.9	60.5	56.8
	Trust	Most people can be trusted	69.0	62.9	65.9
	Safety	Feel safe walking down their street after dark	78.0	55.8	66.8
	Reciprocity–Social engagement	Visit neighbours	68.7	63.2	65.9

5. METHODS

Introduction

In 2002, the NSW Department of Health, in conjunction with the 17 area health services, completed the first year of the New South Wales Continuous Health Survey, an ongoing survey of the health of people in NSW using computer-assisted telephone interviewing (CATI). The main aims of the New South Wales 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 New South Wales 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 2002*, which reports on the health of NSW residents aged 16 and over.

New South Wales Adult Health Survey 2002

Survey instrument

The survey instrument for the New South Wales Adult Health Survey 2002 was developed by the Health Survey Program in conjunction with the Health Survey Program Steering Committee (HSPSC) and topic experts. The HSPSC includes representatives from: Centre for Health Protection; Centre for Mental Health; Centre for Research and Development; Drug Programs Bureau; Centre for Epidemiology and Research; Centre for Health Promotion; Communication Directorate; Information Management Directorate; Policy Division, Quality and Clinical Policy Directorate; the Council of Ethnic Communities; the directors of divisions of population health; general practice; rural primary care; the directors of rural public health units; the directors of metropolitan public health units; the directors of rural health promotion units; the directors of metropolitan health promotion units; and the directors of health service development.

The survey instrument included: questions previously used by the NSW Health Survey Program; new questions developed specifically for the *New South Wales Adult Health Survey 2002*; and questions developed specifically for the area health services. Following approval by the NSW Department of Health Ethics Committee, the initial questionnaire was piloted in February 2002. After piloting, any additional questions were 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, precursors of cardiovascular disease, cancer screening, oral health, and mental health;
- population groups with special needs including children, 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 2002* 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 geo-coded telephone numbers were assigned to statistical local areas and area health services. The proportion of numbers for each telephone prefix by area health service was calculated. All prefixes were expanded with suffixes ranging from 0000 to 9999. The resulting list was then matched back to the electronic phone book. All numbers that matched numbers in the electronic phone book were flagged and the number was assigned to the relevant geo-coded area health service. Unlisted numbers were assigned to the area health service containing the greatest proportion of numbers with that prefix. Numbers were then filtered to eliminate contiguous unused blocks of greater than 10 numbers. The remaining numbers were then checked against 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 March and December 2002. 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 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. When a child under the age of 16 years was selected, the main carer, known as the 'proxy respondent', was interviewed on behalf of the child.

Call outcomes and response rates

During the survey, 78,081 telephone numbers were called. The outcome for these telephone numbers is shown in Table 1. Only 33,720 (43 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, 15,442 interviews were conducted, with at least 830 interviews in each area health service and 12,622 with people aged 16 years or over. The overall response rate was 67.6 per cent (completed interviews divided by completed interviews and refusals). Response rates varied by health area, from 57.6 per cent in South East Sydney Area Health Service to 74.5 per cent in Northern Rivers 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.

'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

TABLE 1

OUTCOMES OF TELEPHONE CALLS

Number of telephone numbers	Outcome
33125	No answer (after 7 call backs) or not connected
10724	Business telephone or fax number
512	Household not in NSW or holiday house
8904	Selected respondent away during survey
1232	Selected respondent confused or deaf
754	Selected respondent spoke other language
7388	Refusal to participate
15442	Completed interview
78081	Total telephone numbers called

TABLE 2

COMPLETED INTERVIEWS AND RESPONSE RATES BY HEALTH AREA

Health area	Total respondents	Response rate (%)
Central Coast	851	66.2
Central Sydney	933	59.3
Far West	865	71.4
Greater Murray	892	74.2
Hunter	862	69.3
Illawarra	938	67.7
Macquarie	912	72.3
Mid North Coast	869	74.3
Mid Western	965	73.5
New England	898	74.2
Northern Rivers	962	74.5
North Sydney	832	64
South East Sydney	931	57.6
South West Sydney	1069	73.7
Southern NSW	917	60.5
Wentworth	896	62.6
Western Sydney	850	60.6
All	15442	67.6

TABLE 3

COMPLETED INTERVIEWS BY LANGUAGE

Language	Number of respondents
English	15259
Arabic	6
Chinese	89
Italian	17
Greek	27
Vietnamese	44
All	15442

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 2002*, 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 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 2002* 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. To minimise the burden on people aged 65 years and over, only six of the 10 questions were asked. This resulted in a K6 score, which was converted into a K10 score using the relationship between K6 and K10 scores from the 1997 and 1998 New South Wales adult health surveys.

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 2002 data is the Index of Relative Socio-Economic Disadvantage. This index is calculated on attributes such as low income and educational attainment, high unemployment, and people working in unskilled occupations.

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 2002*, based on respondents' postcode of residence. Rates for each ARIA category and SEIFA quintile were calculated for several health indicators included in this report, to enable geographic and socioeconomic comparisons.

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1. Public Health Division. *Healthy People 2005: New Directions for Public Health in New South Wales*. NSW Department of Health, Sydney, 2000.
2. Australia on Disc [software]. Sydney: Australia on Disc, 2000.
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MAP OF NSW AREA HEALTH SERVICES



6. REPRESENTATIVENESS OF SAMPLE

Males were under-represented in the survey, making up 43.9 per cent of the survey sample, compared with 49.7 per cent of the NSW population. Conversely, females were over-represented, making up 56.1 per cent of the survey sample, compared with 50.3 per cent of the NSW population. Among both sexes, people aged 49 or younger were under-represented in the sample, while people aged 50 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 2.6 per cent of the survey sample, which is slightly higher than their representation in the NSW population (1.9 per cent), and people born in Australia comprised 83 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

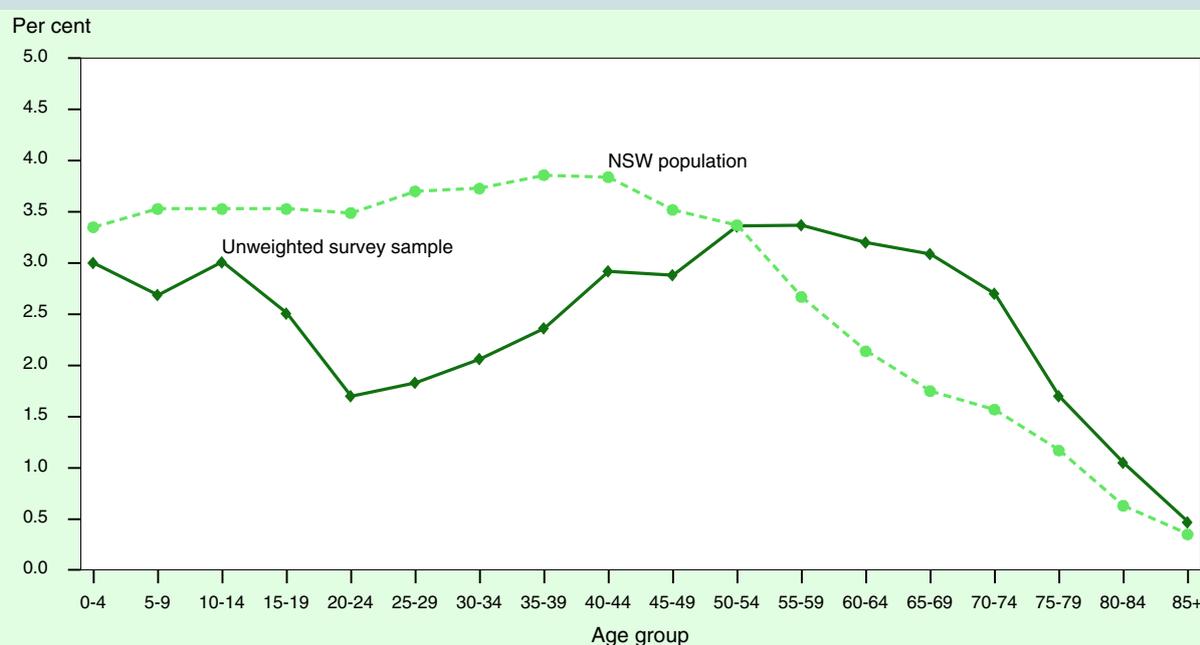
Figures 1–2 and Table 4 provide information on the age distribution of unweighted survey sample versus the NSW population for males and females. Figures 3–9 show the distribution of the survey sample by SEIFA quintile, Aboriginal and Torres Strait Islander status, country of birth, people who speak a language other than English at home, current employment status, highest level of schooling completed, and household income.

References

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, 2002.

FIGURE 1

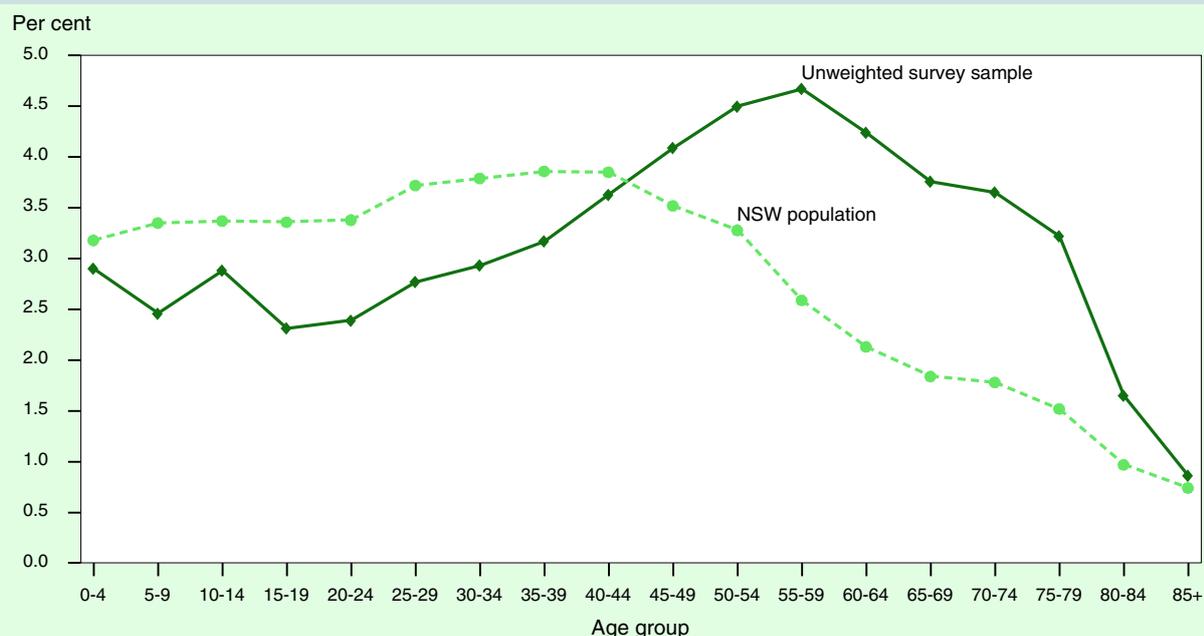
AGE DISTRIBUTION OF UNWEIGHTED SURVEY SAMPLE VERSUS NSW POPULATION: MALES



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

FIGURE 2

AGE DISTRIBUTION OF UNWEIGHTED SURVEY SAMPLE VERSUS NSW POPULATION: FEMALES



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

TABLE 4

SURVEY SAMPLE SIZE AND NSW POPULATION: BY AGE AND SEX

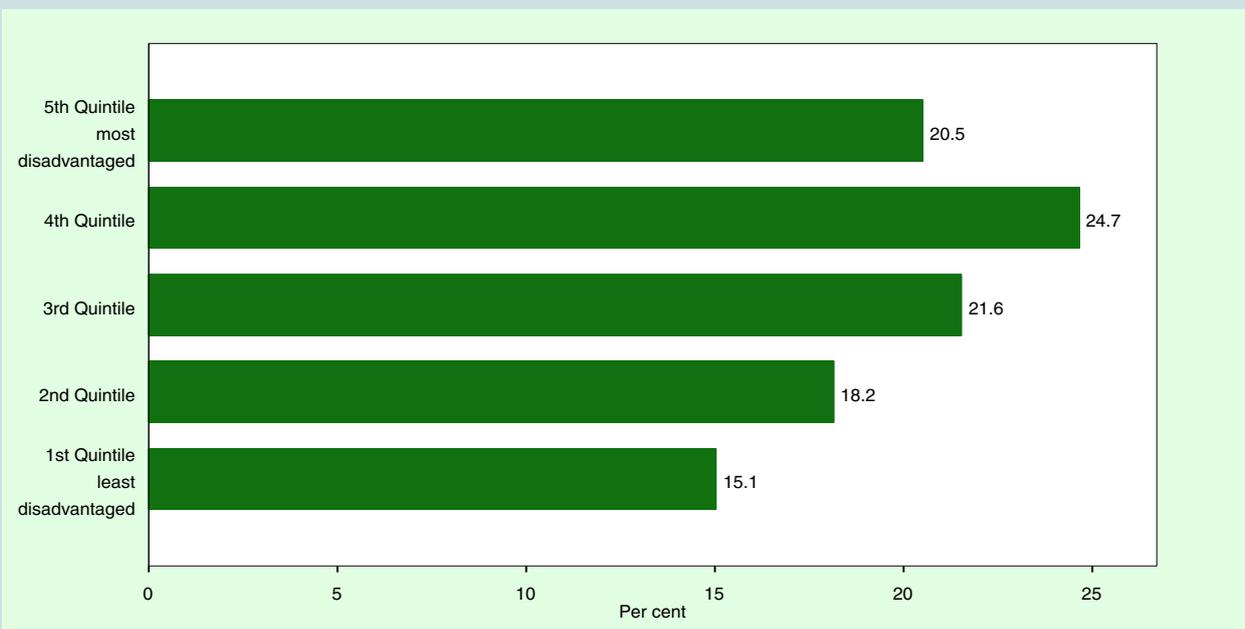
Age group	Survey Sample (unweighted)						NSW Population June 2001					
	Males		Females		Persons		Males		Females		Persons	
	no	%	no	%	no	%	no	%	no	%	no	%
0-4	463	3	447	2.9	910	5.9	216165	3.35	205368	3.18	421533	6.53
5-9	415	2.69	380	2.46	795	5.15	227812	3.53	216394	3.35	444206	6.88
10-14	465	3.01	444	2.88	909	5.89	227588	3.53	217375	3.37	444963	6.9
15-19	388	2.51	357	2.31	745	4.83	227721	3.53	216977	3.36	444698	6.89
20-24	263	1.7	369	2.39	632	4.09	225099	3.49	218248	3.38	443347	6.87
25-29	282	1.83	428	2.77	710	4.6	239049	3.7	240309	3.72	479358	7.43
30-34	318	2.06	452	2.93	770	4.99	240531	3.73	244466	3.79	484997	7.52
35-39	365	2.36	490	3.17	855	5.54	249066	3.86	249049	3.86	498115	7.72
40-44	451	2.92	561	3.63	1012	6.56	247580	3.84	248446	3.85	496026	7.69
45-49	444	2.88	632	4.09	1076	6.97	227174	3.52	227345	3.52	454519	7.04
50-54	518	3.36	694	4.5	1212	7.85	217425	3.37	211700	3.28	429125	6.65
55-59	520	3.37	721	4.67	1241	8.04	172154	2.67	167097	2.59	339251	5.26
60-64	494	3.2	655	4.24	1149	7.44	138303	2.14	137548	2.13	275851	4.28
65-69	477	3.09	581	3.76	1058	6.85	113093	1.75	118969	1.84	232062	3.6
70-74	417	2.7	563	3.65	980	6.35	101442	1.57	114794	1.78	216236	3.35
75-79	262	1.7	497	3.22	759	4.92	75318	1.17	98246	1.52	173564	2.69
80-84	162	1.05	255	1.65	417	2.7	40945	0.63	62783	0.97	103728	1.61
85+	73	0.47	133	0.86	206	1.33	22863	0.35	47739	0.74	70602	1.09
Total	6777	43.9	8659	56.1	15436	100	3209328	49.74	3242853	50.26	6452181	100

Note: 6 respondents had a missing value for age

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

FIGURE 3

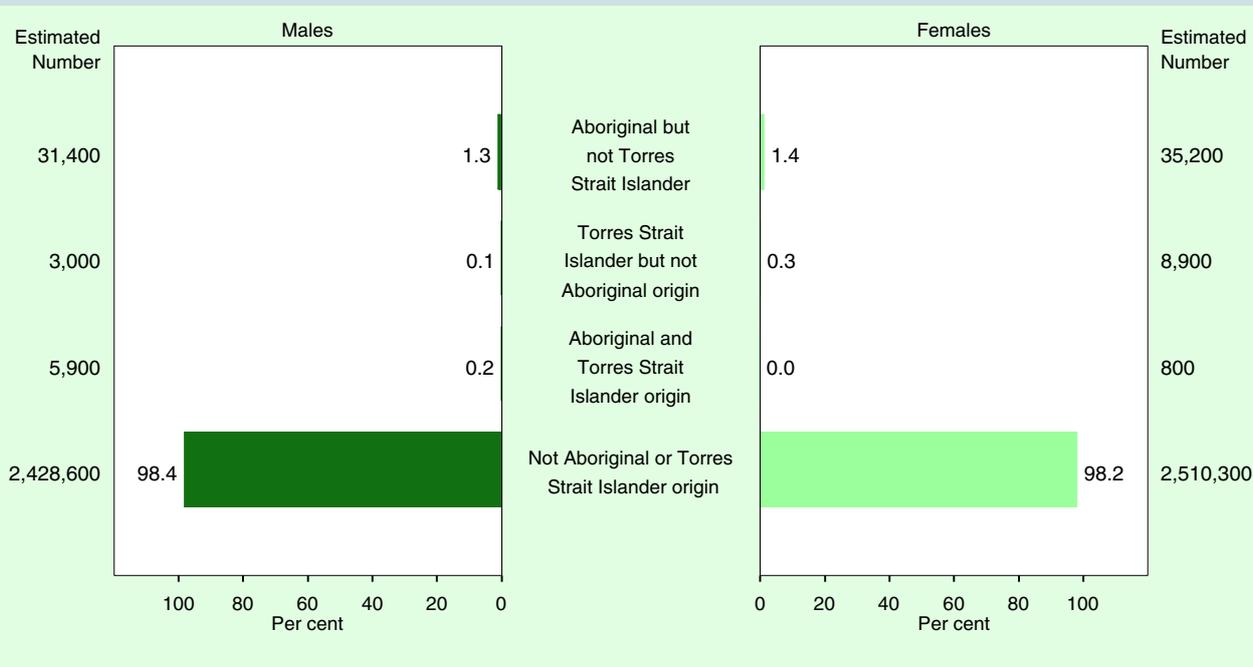
PERCENTAGE OF WEIGHTED SAMPLE PERSONS AGED 16 YEARS AND OVER IN EACH SEIFA QUINTILE



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

FIGURE 4

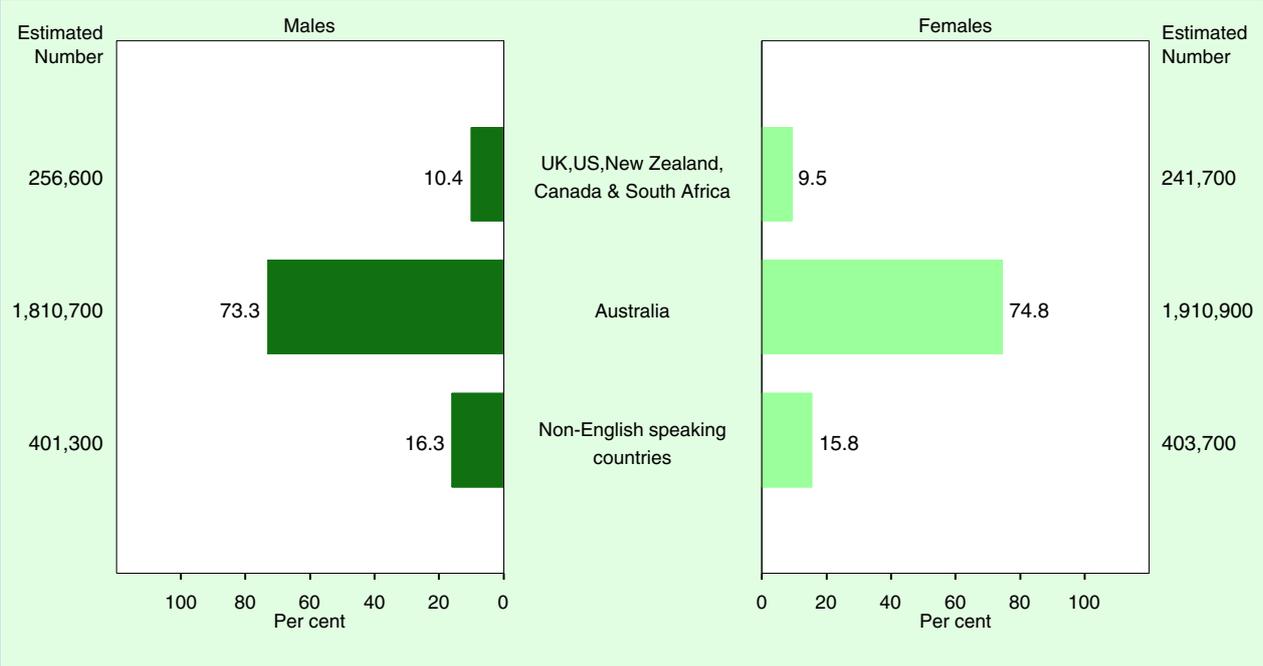
ABORIGINAL OR TORRES STRAIT ISLANDER ORIGIN, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 5

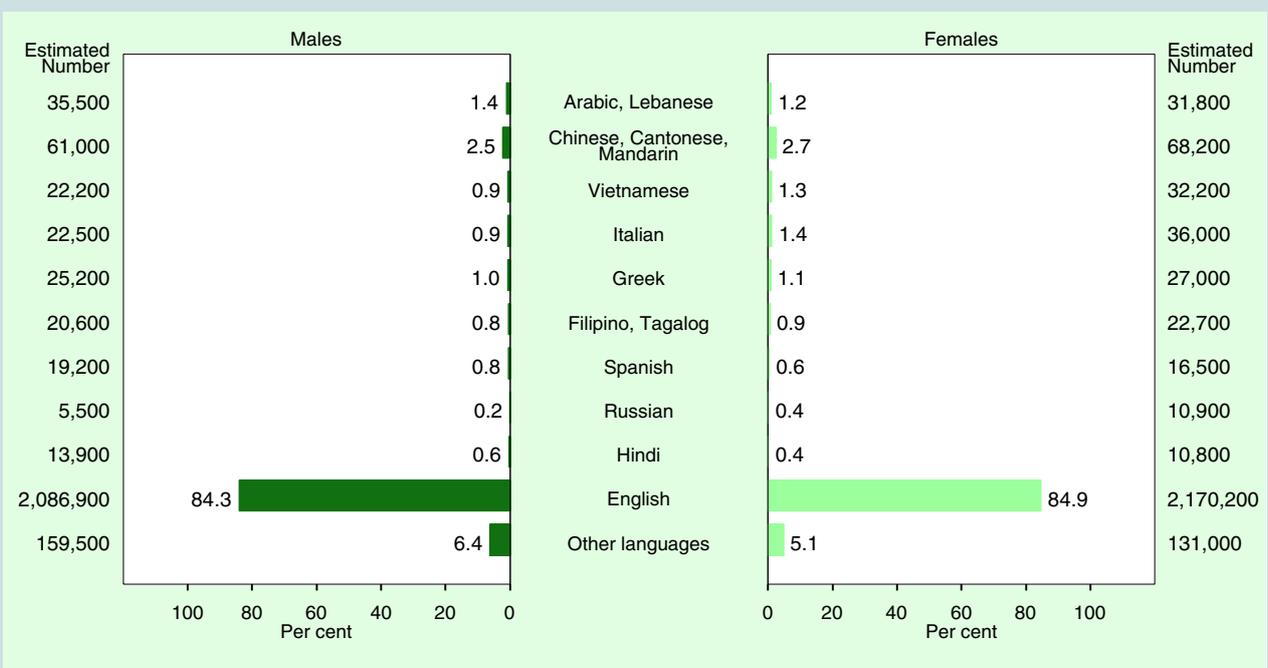
COUNTRY OF BIRTH, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 6

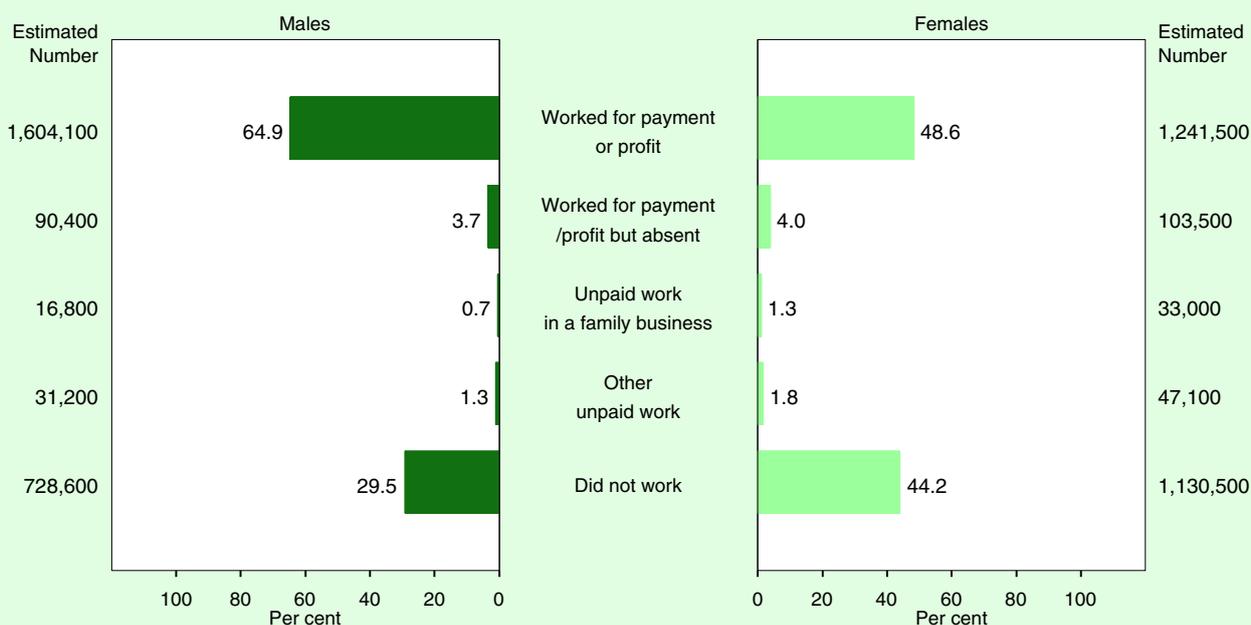
SPEAK A LANGUAGE OTHER THAN ENGLISH AT HOME, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 7

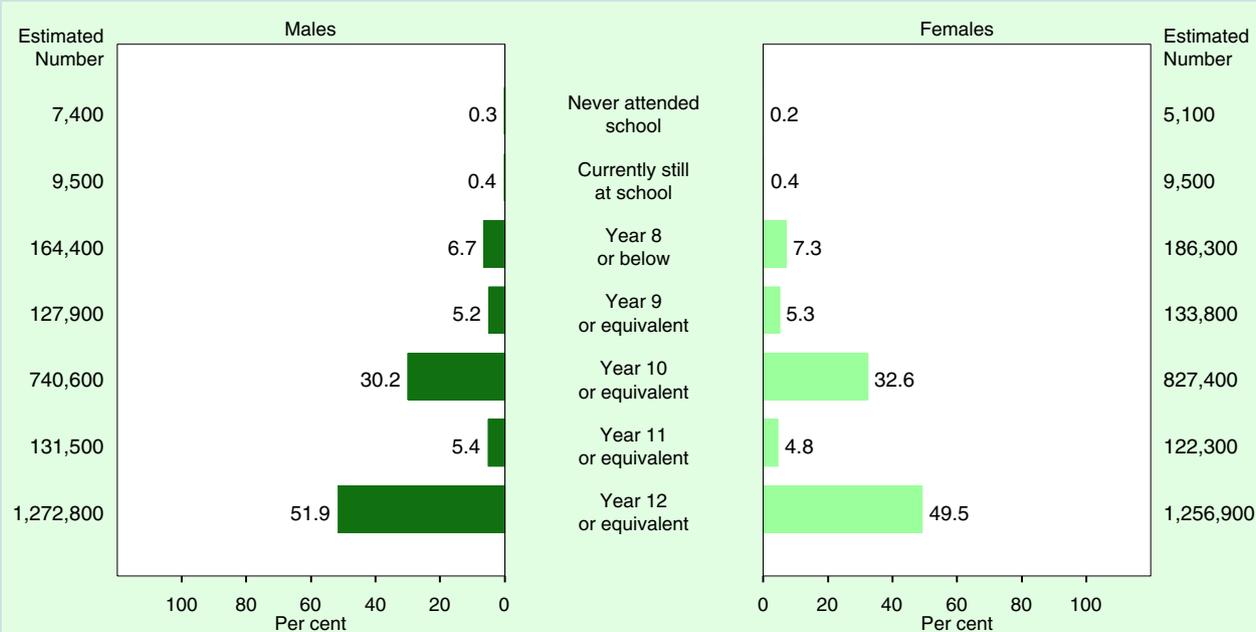
CURRENT EMPLOYMENT STATUS, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 8

HIGHEST LEVEL OF SCHOOL COMPLETED, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 9

HOUSEHOLD INCOME, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

7. HEALTH BEHAVIOURS

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

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.³

To monitor levels of alcohol use in the community, the *New South Wales Adult Health Survey 2002* 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,⁴ 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 2002, more than one-third of the overall population (34.4 per cent) reported 'any risk drinking behaviour'. The proportion of males (39.2 per cent) engaging in any risk drinking behaviours was significantly higher than the proportion of females (29.7 per cent).

Among males, a significantly higher proportion of those aged 16–24 years (47.9 per cent) and a significantly lower proportion of those aged 65–74 years (29.4 per cent) reported any risk-drinking behaviour, compared with the overall male population. Among females, a significantly greater proportion of those aged 16–24 years (47.2 per cent) and a significantly lower proportion of those aged 45 years and over (14.0 per cent to 23.8 per cent) reported 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 (38.1 per cent) reporting any risk-drinking behaviour than urban residents (33.3 per cent). Residents in the South Western Sydney Area Health Service (22.3 per cent) had significantly lower levels of risk-drinking behaviours than the residents of other urban area health services. There was no significant difference within rural area health services.

A significantly greater proportion of females in the least socioeconomically disadvantaged quintile (38.2 per cent) and a significantly lower proportion in the most socioeconomically disadvantaged quintile (23.0 per cent) were likely to report risk-drinking behaviours than the overall female population. There was no significant difference in the proportion of males reporting 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 2002 (34.4 per cent). This decrease was greater in males (50.7 per cent to 39.2 per cent) than females (34.1 per cent to 29.7 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 standard 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*.⁵

Overall in 2002, 73.4 per cent of people who consumed alcohol were classified as at 'low' risk as a result of their drinking behaviour, 12.1 per cent as 'risky', and 14.4 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 (16.7 per cent) was significantly higher than the proportion of females (11.7 per cent).

Among males who consumed alcohol, a significantly higher proportion of those aged 16–34 years (28.5 per cent to 29.2 per cent), and a significantly lower proportion of those aged 55 years and over (0.5 per cent to 8.0 per cent) were likely to report short-term high-risk drinking than the overall population of males who consumed alcohol. Among females who consumed alcohol, a significantly higher proportion aged 16–34 years (18.2 per cent to 28.1 per cent) and a significantly lower proportion aged 45 years and over (0.1 per cent to 6.7 per cent) were likely to report short-term high-risk drinking than the overall female population who consumed alcohol.

Among people who consume alcohol, there was no significant difference in the levels of short-term high-risk drinking between urban residents (14.1 per cent) and rural residents (15.7 per cent); however, in the Far West Area Health Service the proportion of males who consumed alcohol, and had short-term high-risk levels of drinking (31.1 per cent), was significantly higher than the overall male population who drink alcohol.

There was no difference in short-term high-risk drinking according to socioeconomic disadvantage.

There were no comparative data for short-term high-risk drinking in 1997 and 1998.

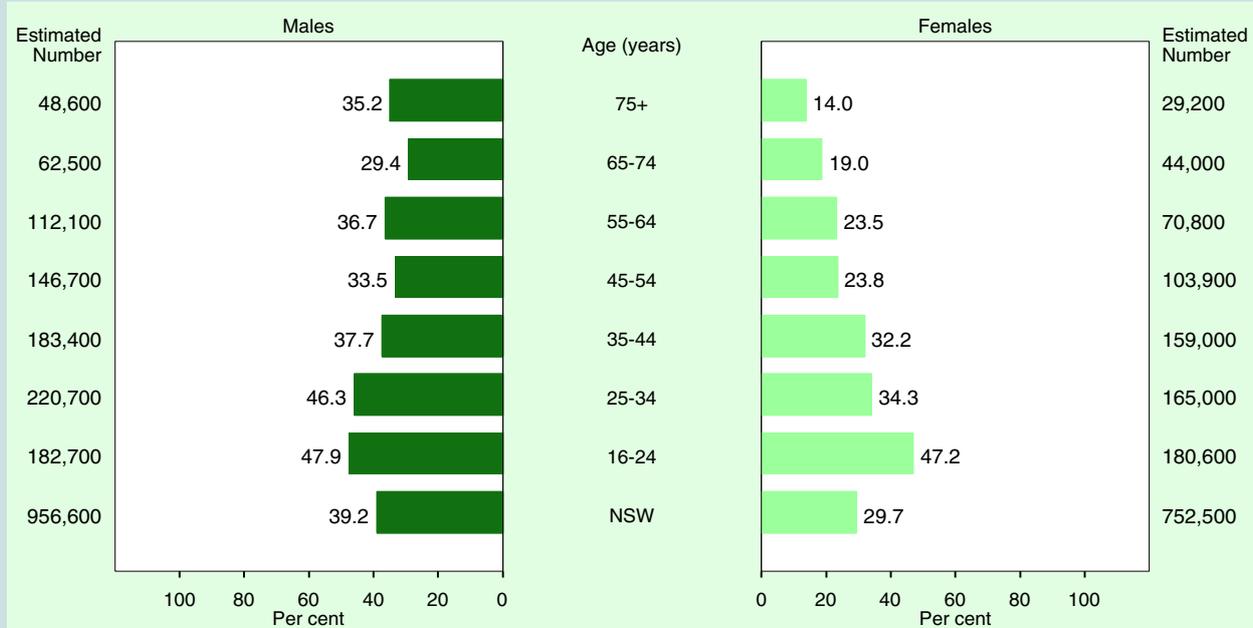
Figures 10–12 and Table 5 show the proportion of people reporting any alcohol risk-drinking by age, socioeconomic disadvantage, and health area. Figures 13–14 provide information on short-term alcohol risk in the past four weeks and the proportion of people reporting high risk-drinking in the last four weeks by age.

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4. National Health and Medical Research Council. *Australian Alcohol Guidelines: Health Risks and Benefits*. Canberra: NHMRC, 2001.
5. World Health Organization. *International Guide for Monitoring Alcohol Consumption and Related Harm*. Geneva: WHO, 2000.

FIGURE 10

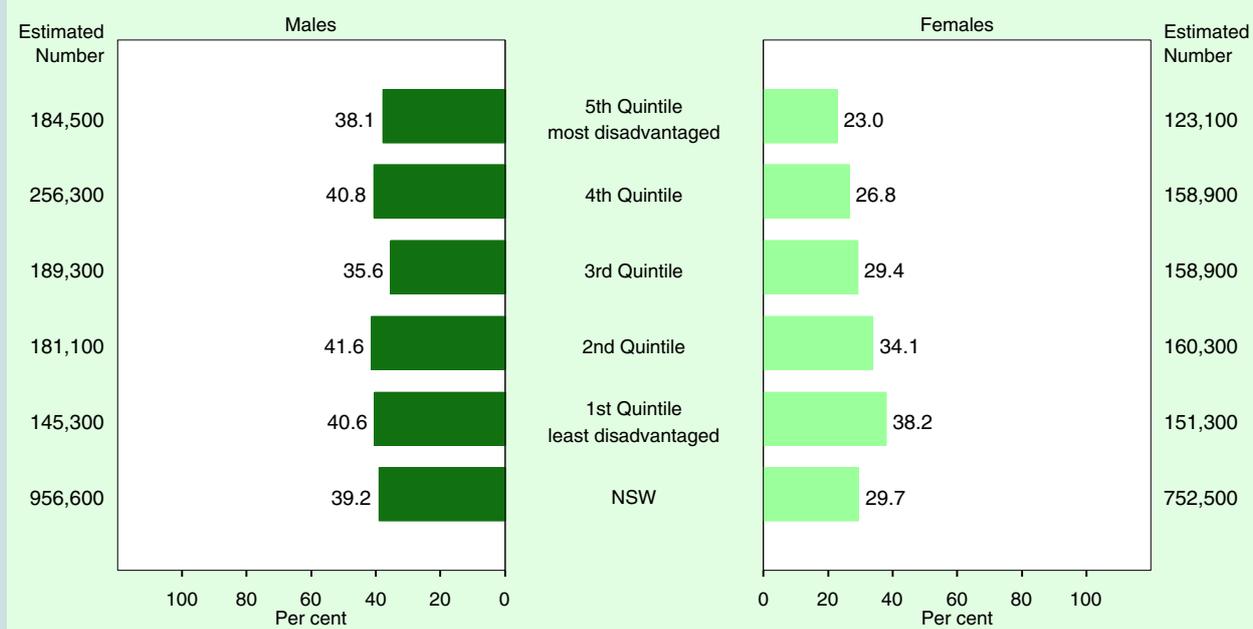
ANY ALCOHOL RISK DRINKING BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 11

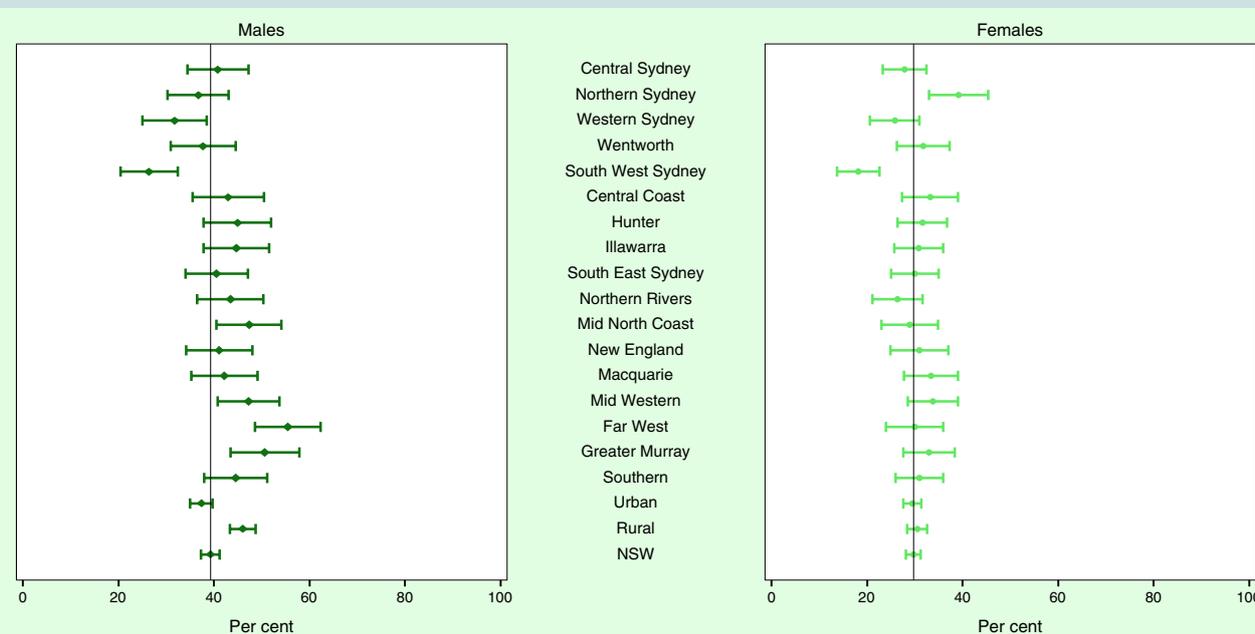
ANY ALCOHOL RISK DRINKING BEHAVIOUR BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 12

ANY ALCOHOL RISK DRINKING BEHAVIOUR BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 5

ANY ALCOHOL RISK DRINKING BEHAVIOUR BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Males			%	Females			%	Persons		
		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	40.8	34.5	47.2	81100	27.9	23.3	32.4	56700	34.3	30.3	38.2	137800
Northern Sydney	36.7	30.3	43.1	111500	39.1	33	45.3	127400	38	33.5	42.4	238900
Western Sydney	31.8	25.1	38.4	78900	25.8	20.6	30.9	67900	28.7	24.5	32.9	146700
Wentworth	37.7	30.9	44.5	43000	31.7	26.2	37.3	37600	34.7	30.3	39.1	80600
South West Sydney	26.4	20.4	32.4	78400	18.1	13.7	22.6	53700	22.3	18.5	26	132100
Central Coast	43	35.5	50.5	46200	33.2	27.3	39.1	38600	37.9	33.2	42.6	84800
Hunter	44.9	37.8	52	92500	31.6	26.3	36.8	66800	38.1	33.7	42.6	159300
Illawarra	44.7	37.8	51.5	57900	30.8	25.7	36	41600	37.6	33.3	41.9	99500
South East Sydney	40.6	34	47.1	124000	30	25	34.9	94400	35.2	31.1	39.3	218300
Northern Rivers	43.4	36.5	50.4	40700	26.3	21.1	31.6	26900	34.5	30.2	38.9	67600
Mid North Coast	47.3	40.5	54.2	45400	28.9	23	34.8	29400	37.9	33.3	42.4	74800
New England	41.1	34.2	48.1	25700	30.9	24.8	36.9	20200	35.9	31.3	40.5	45900
Macquarie	42.2	35.2	49.1	15500	33.4	27.7	39.1	12300	37.8	33.3	42.3	27800
Mid Western	47.2	40.7	53.7	28300	33.8	28.5	39	20800	40.4	36.2	44.6	49100
Far West	55.5	48.6	62.3	10200	30	24	36	5300	43	38.2	47.7	15400
Greater Murray	50.7	43.4	57.9	46900	33	27.6	38.3	31400	41.7	37.1	46.3	78300
Southern	44.6	38	51.1	30400	31	25.9	36	21700	37.7	33.5	41.8	52200
Urban	37.4	35	39.7	713400	29.5	27.6	31.3	584600	33.3	31.8	34.8	1298000
Rural	46	43.4	48.7	243200	30.5	28.4	32.6	167900	38.1	36.4	39.8	411100
NSW	39.2	37.3	41.1	956600	29.7	28.1	31.2	752500	34.4	33.1	35.6	1709100

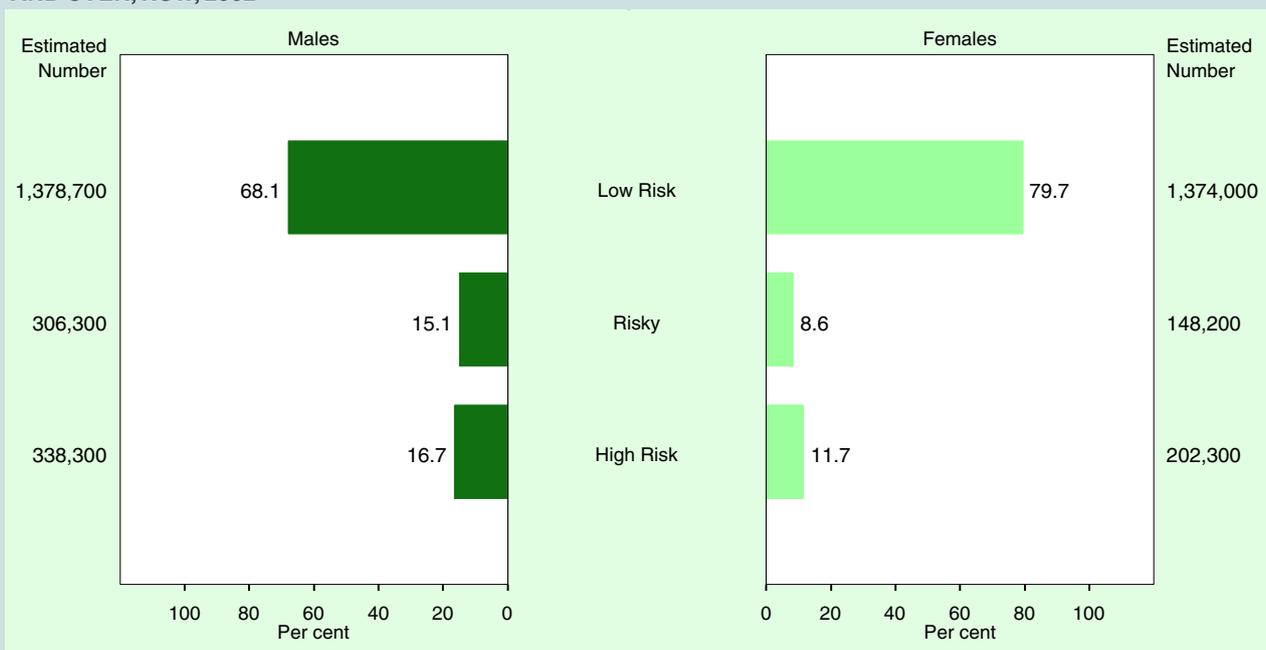
Notes: Estimates are based on 12,475 respondents in NSW.

147 (1.16 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

Any alcohol risk drinking behaviour was defined as per Guideline 1 of the NHMRC Australian Alcohol Guidelines, as one or more of the following: consuming alcohol every day, consuming on average more than [4 if male; 2 if female] standard drinks, consuming more than [6 if male; 4 if female] on any one occasion or day. Questions used to define the indicator were 'How often do you usually drink alcohol?', 'On a day when you drink alcohol, how many standard drinks do you usually have?', 'In the past 4 weeks have you had more than [7-10 if male; 5-6 if female] drinks in a day?', and 'In the past 4 weeks how often have you had [11 or more if male; 7 or more if female] drinks in a day?'.

FIGURE 13

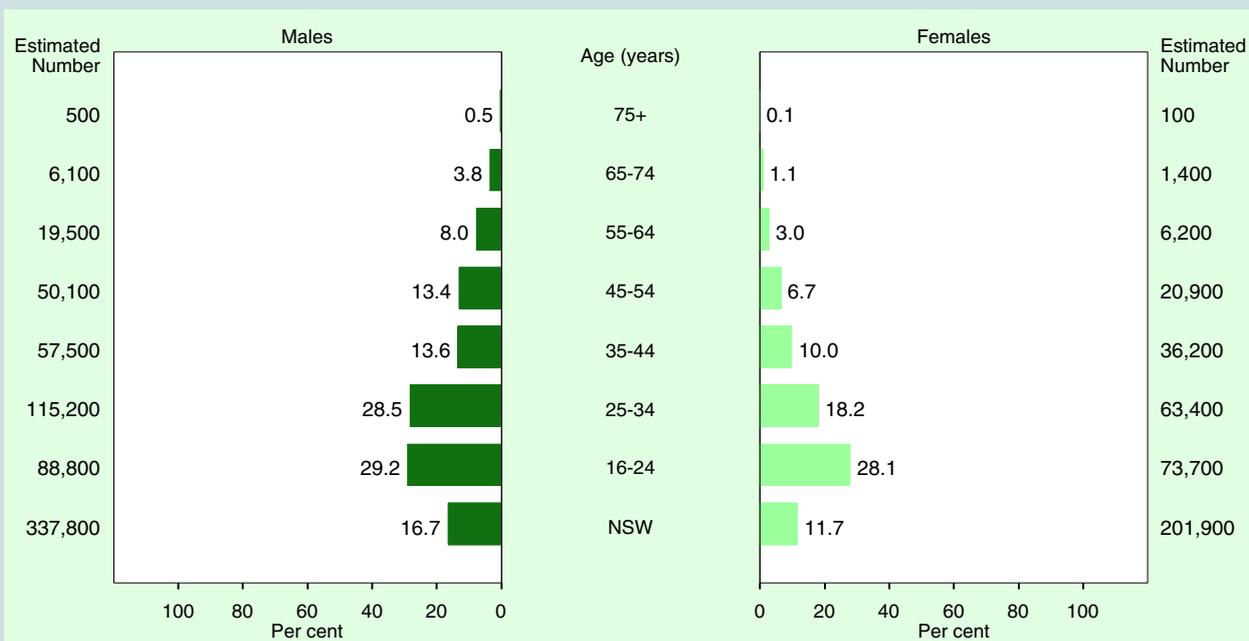
SHORT-TERM ALCOHOL RISK IN THE PAST 4 WEEKS, PERSONS WHO CONSUME ALCOHOL, AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 14

HIGH RISK DRINKING IN THE PAST 4 WEEKS, PERSONS WHO CONSUME ALCOHOL, AGED 16 YEARS AND OVER, NSW, 2002



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

Cancer screening

Introduction

Australia currently supports two population cancer screening programs: BreastScreen Australia, a population-based breast cancer screening program for females aged over 40 years, targeting females in the 50–69 years age group; and the National Cervical Screening Program for cervical cancer, a population screening program, targeting all females aged 18–70 years who have ever been sexually active.

The aim of screening for cancer is to reduce mortality and disability from the disease. Mortality, and not five-year survival, is the outcome indicator for screening, because survival may be extended purely as a consequence of the cancers being diagnosed earlier, before symptoms are apparent.

In 2001, breast cancer was the most common cancer in women, comprising 29 per cent of all female cancers. Between 1990 and 2001, the age-standardised incidence rate of breast cancer increased by 19 per cent in females; however, the mortality rate fell by 24 per cent in this period.¹ Part of the increasing incidence of breast cancer is explained by the earlier detection of cancers through mammographic screening. This explanation is supported by evidence that the average size of breast cancer tumours has decreased.²

The BreastScreen NSW program (part of BreastScreen Australia) began in 1991, and offers females aged 50–69

years a screening mammogram every two years. BreastScreen NSW has set a target rate for two-yearly screening of 70 per cent of females aged 50–69 years. A screening mammogram differs from a diagnostic mammogram in that screening is conducted on females who have no history of breast cancer, and no breast problems or symptoms at the time the mammogram is taken.

The incidence of cervical cancer has been decreasing steadily in the last three decades. Between 1972 and 2001, cervical cancer declined from the fourth to the fourteenth most common cancer in females.¹

The Pap test is effective at detecting precancerous lesions in the cervix, and regular two-yearly testing with appropriate follow up treatment can prevent cervical cancer from developing in most cases.³ This is why cervical screening can reduce both cancer incidence and mortality. The target population for the Pap test is all females aged between 18 and 70 years who have ever been sexually active.

The *New South Wales Adult Health Survey 2002* asked females aged 50–69 years the following questions: ‘Have you ever had a mammogram?’, ‘When did you last have a mammogram?’, ‘Can you tell me all the reasons why you had your last mammogram?’, ‘Do you have mammograms regularly?’, ‘What is the usual time period between your mammograms?’. Females aged 20–69 years were also asked the following questions: ‘Have you ever had a Pap

test?', 'When did you last have a Pap test?', 'Do you have a Pap test regularly?', 'What is the usual time period between your Pap tests?'

Results

Breast Cancer Screening

To establish the proportion of females who have screening mammograms, females who had a breast problem or had had breast cancer in the past were excluded from the data.

In 2002, 75.2 per cent of females aged 50–69 years reported having a screening mammogram within the past two years. A significantly higher proportion of females aged 60–64 years (82.1 per cent) reported having a screening mammogram within the last two years compared with the overall female population aged 50–69 years.

There was no significant difference between the proportions of females who reported having a screening mammogram in the last two years in urban areas (75.0 per cent) and rural areas (75.8 per cent). There was no significant difference among area health services.

A significantly greater proportion of females aged 50–69 years in the least socioeconomically disadvantaged quintile (84.4 per cent) reported having a screening mammogram within the past two years compared with the overall female population aged 50–69 years.

There was no significant difference in the proportion of females aged 50–69 years who had a screening mammogram in the last two years between 1997 (73.3 per cent) and 2002 (75.2 per cent).

The survey prevalence estimates for breast screening may differ to those published by BreastScreen NSW, due to the inclusion of private-sector screening in the survey estimates, and possible over-reporting in the survey.

Cervical Screening

To establish the proportion of females who have Pap tests, females who have had a hysterectomy were excluded from the data.

In 2002, 74.6 per cent of females aged 20–69 years reported having a Pap test in the past two years. A significantly

lower proportion of females aged 20–29 years (65.4 per cent) and 60–69 years (67.6 per cent) had a Pap test within the last two years compared with the overall female population aged 20–69 years.

There was no significant difference between proportions of females who reported having a Pap test in the last two years in urban areas (73.8 per cent) and rural areas (77.8 per cent). There was no significant difference among area health services.

A significantly higher proportion of females aged 20–69 years in the least disadvantaged quintile (82.9 per cent) reported having a Pap test within the last two years compared with the overall female population aged 20–69 years.

There was no significant difference in the proportion of females who reported having a Pap test in the last two years between 1998 (77.3 per cent) and 2002 (74.6 per cent).

The survey prevalence estimates for cervical screening may differ from those published by the New South Wales Pap Test Register, because of differences in the populations included in the data collections, and possible over-reporting in the survey.

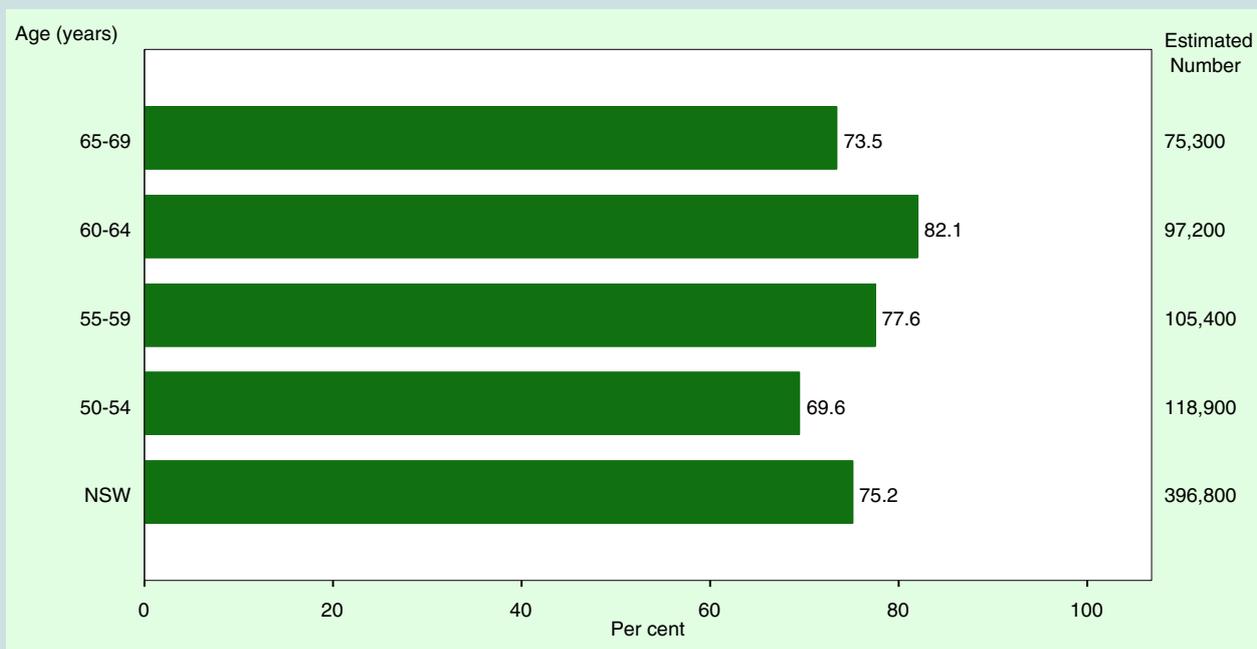
Figures 15–17 and Table 6 present information on the proportion of females aged 50–69 years who have had a mammogram in the last two years by age, socioeconomic disadvantage and health area. Figures 18–20 and Table 7 show the proportion of females aged 20–69 years who have had a Pap test within the last two years by age, socioeconomic disadvantage and health area. Figure 21 shows the proportion of females aged 20–69 years who report they have had a hysterectomy.

References

1. Tracey EA, Supramaniam R. *Cancer in NSW: Incidence and mortality 2000*. Sydney: The Cancer Council NSW, 2002.
2. Kricke A, Farac K, Smith D, Sweeny A, McCredie M, and Armstrong BK. Breast Cancer in New South Wales in 1972–1995: Tumour size and the impact of mammographic screening. *Int J Cancer* 1999; 81: 877–81.
3. Cervical Cancer Screening Evaluation Steering Committee. *The interim evaluation of the organised approach to preventing cancer of the cervix 1991–1995*. Canberra: Commonwealth Department of Human Services and Health, 1995.

FIGURE 15

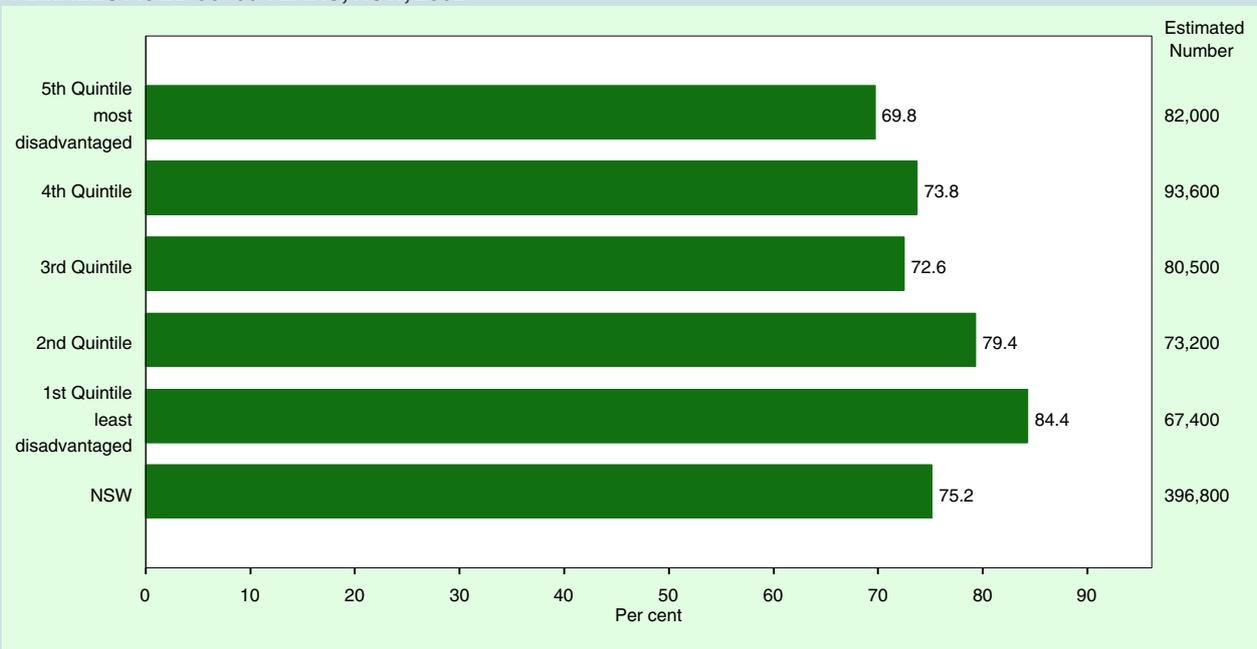
SCREENING MAMMOGRAM WITHIN THE LAST 2 YEARS BY AGE, FEMALES AGED 50–69 YEARS, NSW, 2002



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

FIGURE 16

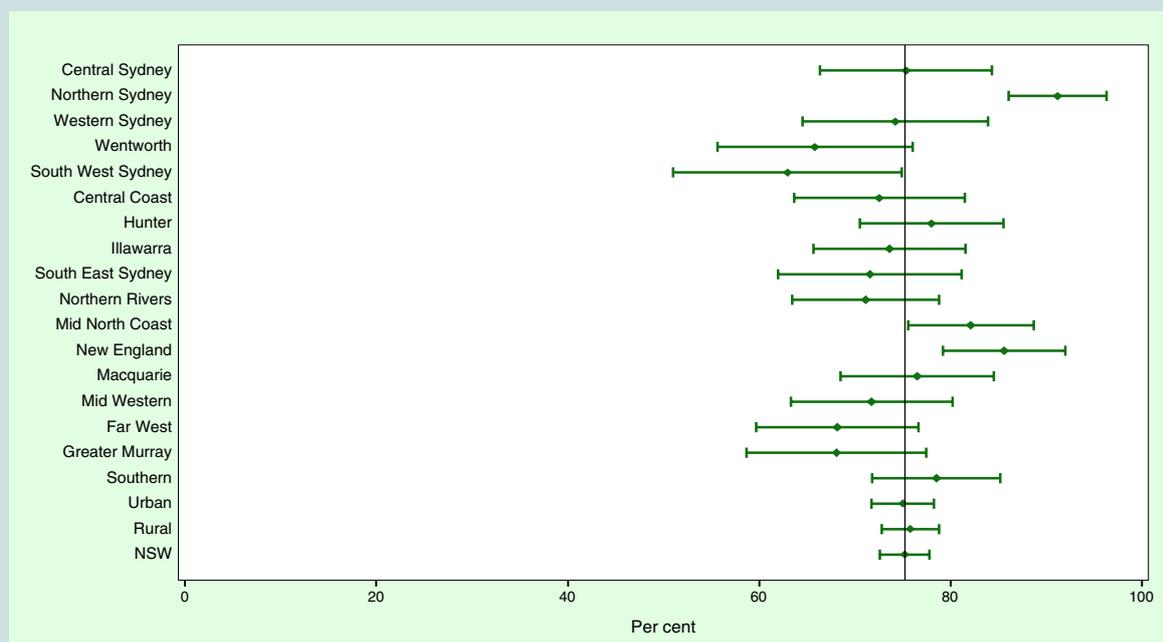
SCREENING MAMMOGRAM WITHIN THE LAST 2 YEARS BY SOCIOECONOMIC DISADVANTAGE SCORE, FEMALES AGED 50–69 YEARS, NSW, 2002



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

FIGURE 17

SCREENING MAMMOGRAM WITHIN THE LAST 2 YEARS BY HEALTH AREA, FEMALES AGED 50–69 YEARS, NSW, 2002



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

TABLE 6

SCREENING MAMMOGRAM WITHIN THE LAST 2 YEARS BY HEALTH AREA, FEMALES AGED 50–69 YEARS, NSW, 2002

Area	%	Females		(est no.)
		LL95%CI	UL95%CI	
Central Sydney	75.4	66.4	84.3	28200
Northern Sydney	91.2	86.1	96.3	60500
Western Sydney	74.2	64.5	83.9	38300
Wentworth	65.8	55.6	76	14200
South West Sydney	63	51	74.9	35600
Central Coast	72.6	63.6	81.5	19000
Hunter	78	70.5	85.6	37800
Illawarra	73.6	65.7	81.6	21800
South East Sydney	71.6	62	81.2	42400
Northern Rivers	71.2	63.5	78.8	18100
Mid North Coast	82.1	75.6	88.7	21300
New England	85.6	79.2	92	13600
Macquarie	76.5	68.5	84.5	6400
Mid Western	71.8	63.3	80.2	10000
Far West	68.2	59.7	76.6	2500
Greater Murray	68.1	58.7	77.5	14600
Southern	78.5	71.8	85.2	12400
Urban	75	71.8	78.3	297800
Rural	75.8	72.8	78.8	99000
NSW	75.2	72.6	77.8	396800

Notes: Estimates are based on 2651 respondents in NSW.

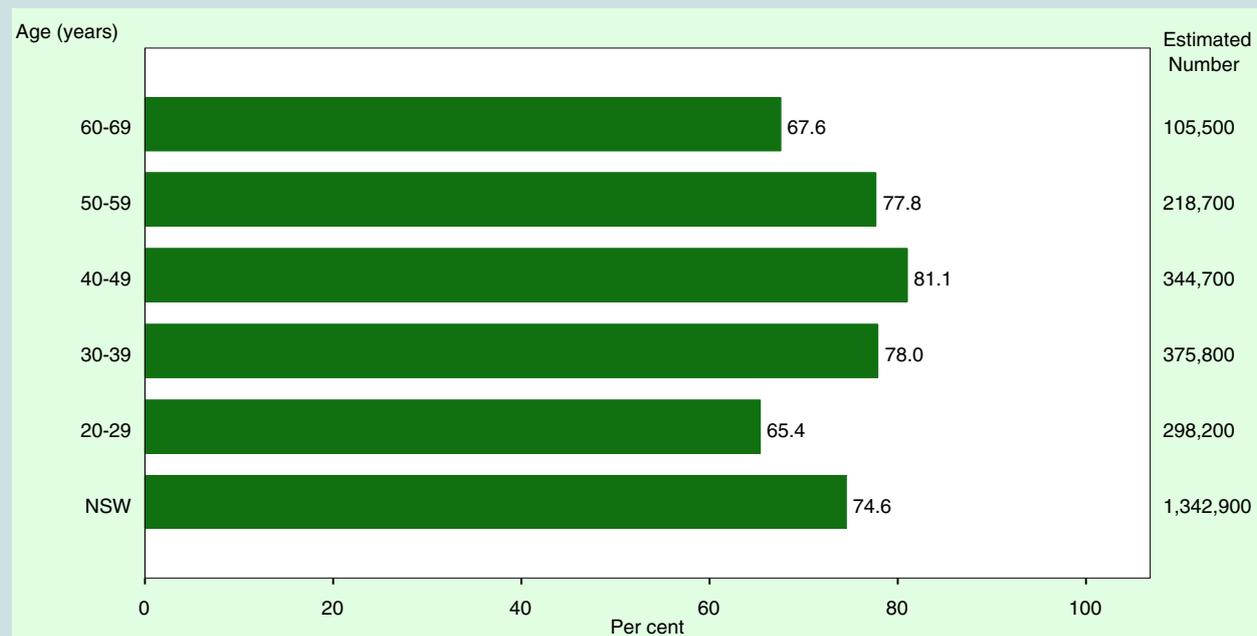
5 (0.19 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who have had a screening mammogram in the last 2 years. The questions used to define the indicator were 'Have you ever had a mammogram?' and 'When did you last have a mammogram?' and 'Can you tell me all the reasons why you had your last mammogram?'.

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

FIGURE 18

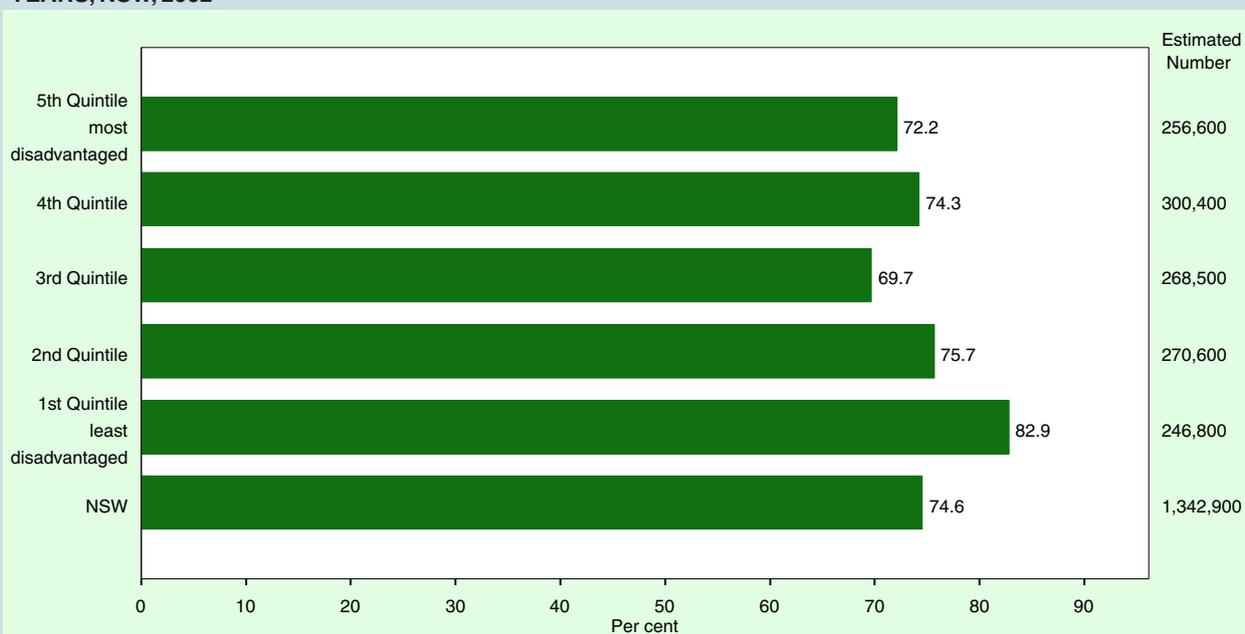
PAP TEST WITHIN THE LAST 2 YEARS BY AGE, FEMALES AGED 20–69 YEARS, NSW, 2002



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

FIGURE 19

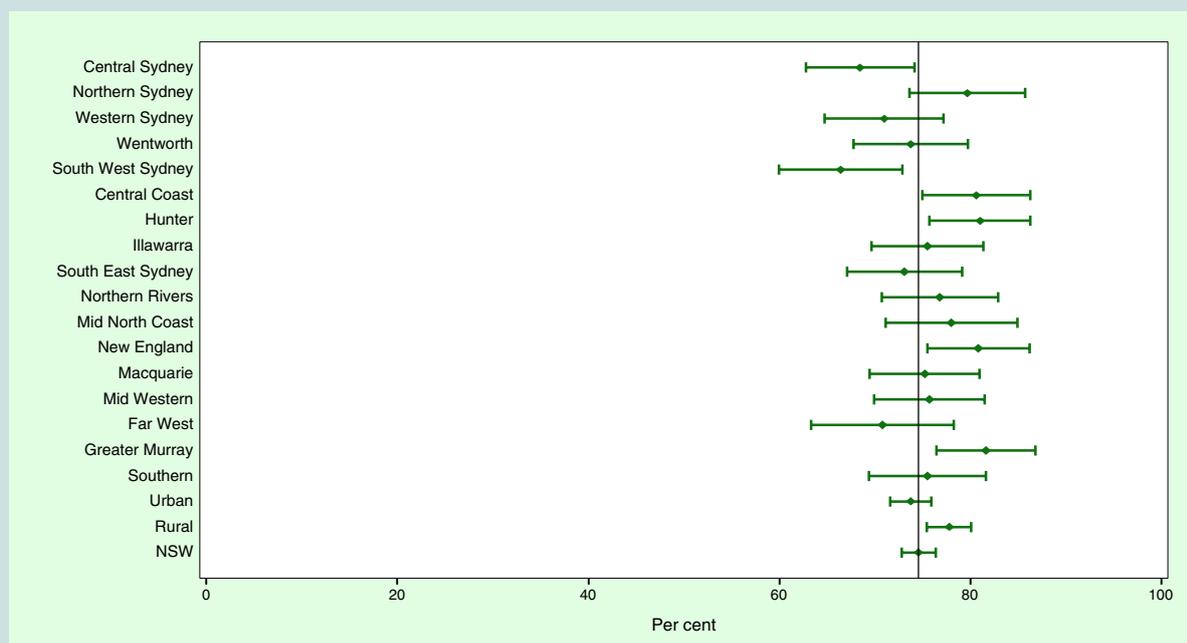
PAP TEST WITHIN THE LAST 2 YEARS BY SOCIOECONOMIC DISADVANTAGE SCORE, FEMALES AGED 20–69 YEARS, NSW, 2002



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

FIGURE 20

PAP TEST WITHIN THE LAST 2 YEARS BY HEALTH AREA, FEMALES AGED 20–69 YEARS, NSW, 2002



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

TABLE 7

PAP TEST WITHIN THE LAST 2 YEARS BY HEALTH AREA, FEMALES AGED 20–69 YEARS, NSW, 2002

Area	%	Females		(est no.)
		LL95%CI	UL95%CI	
Central Sydney	68.5	62.8	74.2	105000
Northern Sydney	79.7	73.7	85.7	187900
Western Sydney	71	64.7	77.2	143800
Wentworth	73.8	67.8	79.8	64400
South West Sydney	66.4	60	72.9	140100
Central Coast	80.6	75	86.3	62800
Hunter	81	75.7	86.3	111700
Illawarra	75.5	69.7	81.4	67100
South East Sydney	73.1	67.1	79.1	171100
Northern Rivers	76.8	70.7	82.9	52900
Mid North Coast	78	71.2	84.9	50900
New England	80.9	75.5	86.2	36100
Macquarie	75.2	69.4	81	20000
Mid Western	75.7	69.9	81.5	31000
Far West	70.8	63.3	78.3	8300
Greater Murray	81.6	76.4	86.9	53700
Southern	75.5	69.4	81.7	36200
Urban	73.8	71.6	75.9	1053900
Rural	77.8	75.5	80.1	289000
NSW	74.6	72.8	76.4	1342900

Notes: Estimates are based on 4509 respondents in NSW.

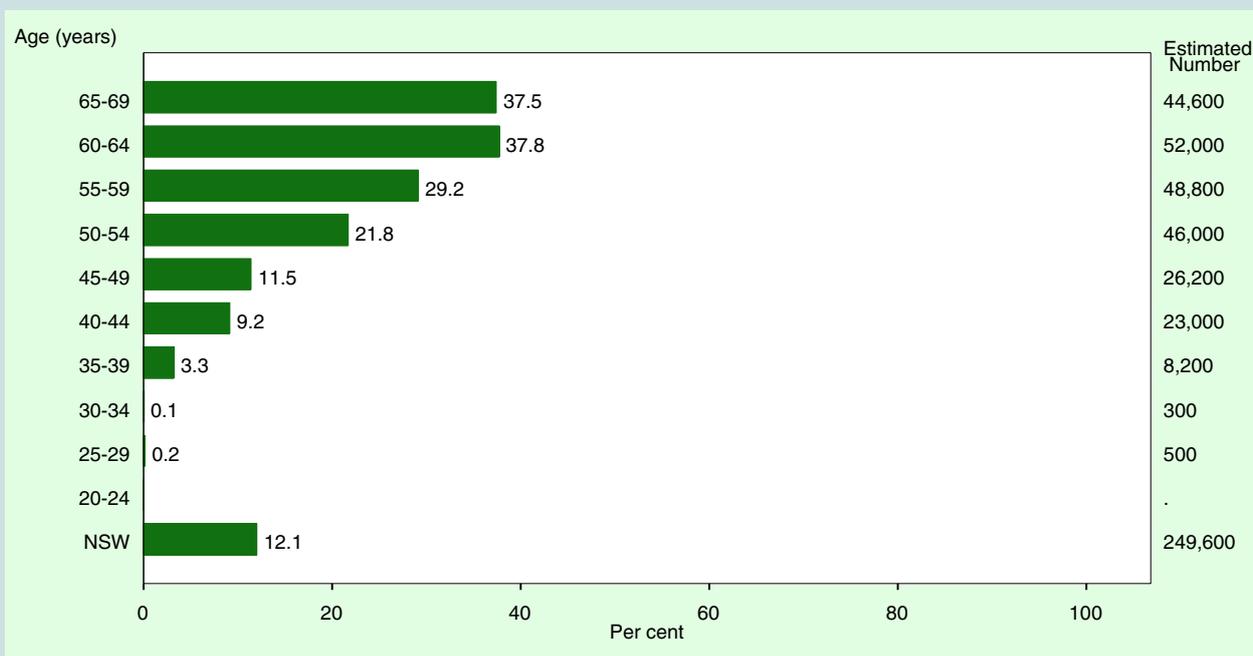
23 (0.51 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who have had a Pap test in the last 2 years and have not had a hysterectomy. The questions used to define the indicator were 'Have you ever had a Pap test?', 'When did you last have a Pap test?' and 'Have you ever had a hysterectomy?'.

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

FIGURE 21

HYSTERECTOMY RATE BY AGE, FEMALES AGED 20–69 YEARS, NSW, 2002



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

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 status.¹ Increasingly, the effect on human health of global phenomena, such as population growth and climate change, are recognised at a local level.²

The *New South Wales Adult Health Survey 2002* asked respondents about drinking water, recreational water use, and attitudes towards the reuse of treated effluent. In order to assess the prevalence of home exposure to some exhaust gases, respondents were asked about their kitchen ventilation, fuel used for cooking and heating, and whether they had a garage attached to their house. They were also asked what measures were taken to avoid mosquito bites.

Respondents were asked the following questions on environmental risk: ‘What is your normal source of drinking water?’, ‘Do you treat your water before drinking?’, ‘In the past 12 months has blue-green algae ever stopped you from using your usual recreational lake or river for purposes such as fishing, swimming or water skiing?’, ‘“Effluent” is wastewater or sewage, “Treated effluent water” is the water that comes from wastewater (or sewage) after treatment. Which of the following do you support: re-use of treated effluent water directly into rivers and waterways to maintain water levels, re-use of treated effluent water in public parks and gardens, re-use of treated effluent water by combining it with

drinking water supply in reservoirs, re-use of treated effluent water for crop irrigation?’, ‘How are steam and fumes removed when you cook?’ and, for respondents who use an exhaust fan or open doors and windows, ‘How often do you use the fan when cooking?’ and/or ‘How often do you open windows or an external door when cooking?’. Respondents were also asked about fuels used in the home: ‘What is the usual way you heat the living areas of your home?’, ‘What type of cooktop do you have?’ and ‘What type of oven do you have?’, ‘Do you have a garage?’ and ‘Which of the following best describes the access to your garage: The garage can be accessed internally from the house, the garage is attached but there is no internal access from the house, or the garage is separate?’. Respondents were also asked: ‘When mosquitoes are around, how often do you take measures to avoid being bitten?’, ‘What measures do you take to avoid being bitten by mosquitos?’ and, for respondents who said they never avoid being bitten by mosquitos, ‘Can you tell me the main reason that you don’t try to stop mosquitoes from biting you when they are around?’.

Results

Drinking water

Overall, in 2002, 81.1 per cent of respondents used a public water supply as their usual source of drinking water. The next most prevalent sources of drinking water were bottled water (9.0 per cent) and rain water (7.3 per cent).

Of the respondents whose usual source of drinking water is a public water supply, 65.3 per cent did not treat their drinking water, while 31.9 per cent reported that they either filter (19.7 per cent) or boil (12.2 per cent) their water before drinking.

The proportion of people in rural areas (60.8 per cent) using public water as their usual water supply was significantly lower than the proportion in urban areas (86.7 per cent). A significantly greater proportion of people (71.5 per cent) used public water supply in the Northern Rivers Area Health Service compared to the overall rural population.

A significantly greater proportion of people in the first (89.9 per cent) and second (86.3 per cent) least disadvantaged quintile, and a significantly lower proportion (75 per cent) of people in the second most disadvantaged quintile, used public water as their usual water supply compared to the overall population.

Recreational water use

In 2002, 55.8 per cent of respondents used their local lake or river for recreational purposes, 37.3 per cent didn't use rivers or lakes for recreational purposes (26.6 per cent in rural areas and 40.2 per cent in urban areas), and 6.9 per cent had stopped using lakes or rivers in the last 12 months because of blue-green algae.

A significantly greater proportion of people in rural areas (14.6 per cent) had stopped using their rivers and lakes in the last 12 months because of blue-green algae than people in urban areas (4.8 per cent). A significantly greater proportion of people in the Far West Area Health Service (24.4 per cent), and a significantly lower proportion of people in the Mid North Coast Area Health Service (2.5 per cent), had stopped using their waterways because of blue-green algae, compared to the overall rural population.

A significantly lower proportion of people in the least disadvantaged quintile (2.6 per cent) stopped using their rivers and lakes for recreation in the last 12 months because of blue-green algae.

Reuse of treated effluent

Overall, in 2002, only 5.3 per cent of respondents did not support reuse of treated water effluent. The majority of respondents supported use in public parks and gardens (87.1 per cent) and for crop irrigation (81.4 per cent). Less than half of the respondents (41.8 per cent) supported returning treated effluent water directly into rivers and waterways to maintain water levels, and only 14.4 per cent supported combining it with drinking water in reservoirs.

Home exposure to some gases

Burning fuels (like natural gas or wood) in the home releases products of combustion, which includes water vapour, carbon monoxide, and other gases. In homes where this occurs, it is important to ensure adequate ventilation and proper maintenance of appliances.

Overall, in NSW, 13.3 per cent of people used gas for cooking but had no means of removing fumes when cooking in the home. There was no significant variation by age in the proportion of people who had no means of removing cooking fumes.

There was significant variation between rural areas (47.8 per cent) and urban areas (57.6 per cent) in the proportion of people using gas cooking without ventilation. A significantly

greater proportion of people in the Central Sydney Area Health Service (74.0 per cent), and a significantly lower proportion of people in the Hunter Area Health Service (42.8 per cent) used gas for cooking without ventilation, compared to the overall urban population. The proportion of people cooking without ventilation was significantly greater in the Southern Area Health Service (61.5 per cent), compared with the overall rural population.

A significantly lower proportion of people in the second most disadvantaged quintile (47.0 per cent) used gas cooking without ventilation, compared to the overall population.

When asked about how they heat their homes, 49.2 per cent of respondents reported using some form of electrical heater, 19.4 per cent of people reported they use a gas heater without a flue, seven per cent used a gas heater with a flue, and 3.2 per cent used an open fireplace.

In 2002, the proportion of people using unflued or partially-unflued heating (an open fireplace or an unflued gas heater) did not vary significantly by age.

A significantly greater proportion of people in the least disadvantaged quintile (32.5 per cent) used unflued heating to heat their home, compared to the overall population.

There was no significant difference between rural and urban areas, in the proportion of people using unflued heating in their home. A significantly greater proportion of people in the Illawarra (39.1 per cent) and Far West (35.6 per cent) Area Health Services used unflued heating in their home, compared to the overall population.

Benzene is a volatile gas found in petrol. In 2002, the National Industrial Chemicals Notification and Assessment Scheme reviewed the use of benzene as a priority chemical in Australia. This review identified that attached garages may be an exposure pathway for benzene to enter homes.³

While further research to estimate the level of risk is required, the NSW Continuous Health Survey asked questions that provided information on housing structure. This information can inform further investigation into benzene exposure through internally-accessed garages.

In the *New South Wales Adult Health Survey 2002*, 72.7 per cent of respondents had a garage, of these almost one-third (30.6 per cent) could be accessed internally from the house. The proportion of people with internal access to a garage did not vary significantly with age.

There was no significant difference in the proportion of people in rural areas (23.6 per cent) and urban areas (21.8 per cent) with internally attached garages. A significantly greater proportion of people in the Northern Rivers (34.7 per cent) and Mid North Coast (34.2 per cent) Area Health Services, and a significantly lower proportion of people in the Far West (9.9 per cent) and Central Sydney (8.6 per cent) Area Health Services, had internally attached garages, compared with the overall population.

A significantly greater proportion of people in the least disadvantaged quintile (33.8 per cent) had internally attached garages, compared to the overall population.

Mosquito bites

In NSW, some mosquito species can carry human diseases including Ross River virus or Barmah Forest virus. Regular use of personal protective measures, such as mosquito repellent and screening doors and windows, is effective against mosquito bites.

Overall, in 2002, 36.1 per cent of respondents reported that they 'always' took measures to avoid or stop being bitten when mosquitoes are around, 19.1 per cent 'often' took measures, 23.7 per cent 'sometimes' took measures, 10.1 per cent 'rarely' took measures, and 10.9 per cent 'never' took measures to avoid being bitten. A significantly greater proportion of females were likely to 'always' take measures and a significantly lower proportion of females were likely to 'rarely' or 'never' take protective measures.

Of the measures taken to avoid mosquito bites, 76.2 per cent of respondents used personal insect repellents, 32.4 per cent used screens or netting on windows and doors, 22.5 per cent used mosquito zappers, insect lights and candles, 17.8 per cent covered up exposed parts of their body, 17.6 per cent stayed indoors at dawn or dusk, 7.5 per cent used insecticides, and 1.9 per cent reduced breeding sites on their property or home.

The main reasons given by respondents who did not take measures to prevent mosquito bites are that the bites don't bother them (36.2 per cent), they don't get bitten (31.0 per

cent), and they can't be bothered to take measures (12.3 per cent).

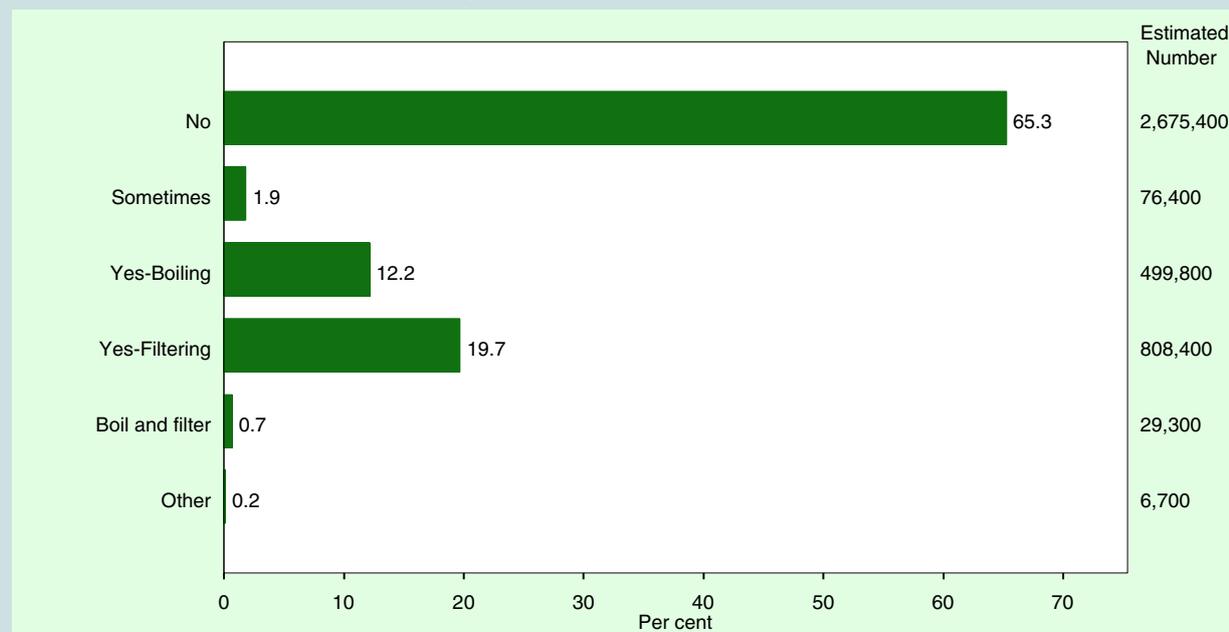
Figures 22–24 and Table 8 show the proportion of people who treat their public water supply before drinking, and the proportion who use public water as their usual source of water, by socioeconomic disadvantage and health area. Figures 25–26 and Table 9 show the proportion of people who have had their recreational water use limited by blue green algae in the last 12 months, by socioeconomic disadvantage and health area. Figure 27 shows the proportion of people who support the reuse of treated effluent water. Figures 28–29 and Table 10 show the proportion of people who use gas cooking without ventilation, by socioeconomic disadvantage and health area. Figures 30–31 and Table 11 show the proportion of people exposed to unflued heating, by socioeconomic disadvantage and health area. Figures 32–33 and Table 12 show the proportion of people with internally-accessed garages, by socioeconomic disadvantage and health area.

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1. Frumkin H. Urban Sprawl and Public Health. *Public Health Reports* 2002; 177.
2. Commonwealth Department of Health and Ageing. *Human Health and Climate Change in Oceania: A Risk Assessment 2002*. Canberra: CDHA, 2003.
3. National Industrial Chemicals Notification and Assessment Scheme. *Benzene: Priority Existing Chemical Assessment Report No. 21*. Canberra: NICNAS, 2001.

FIGURE 22

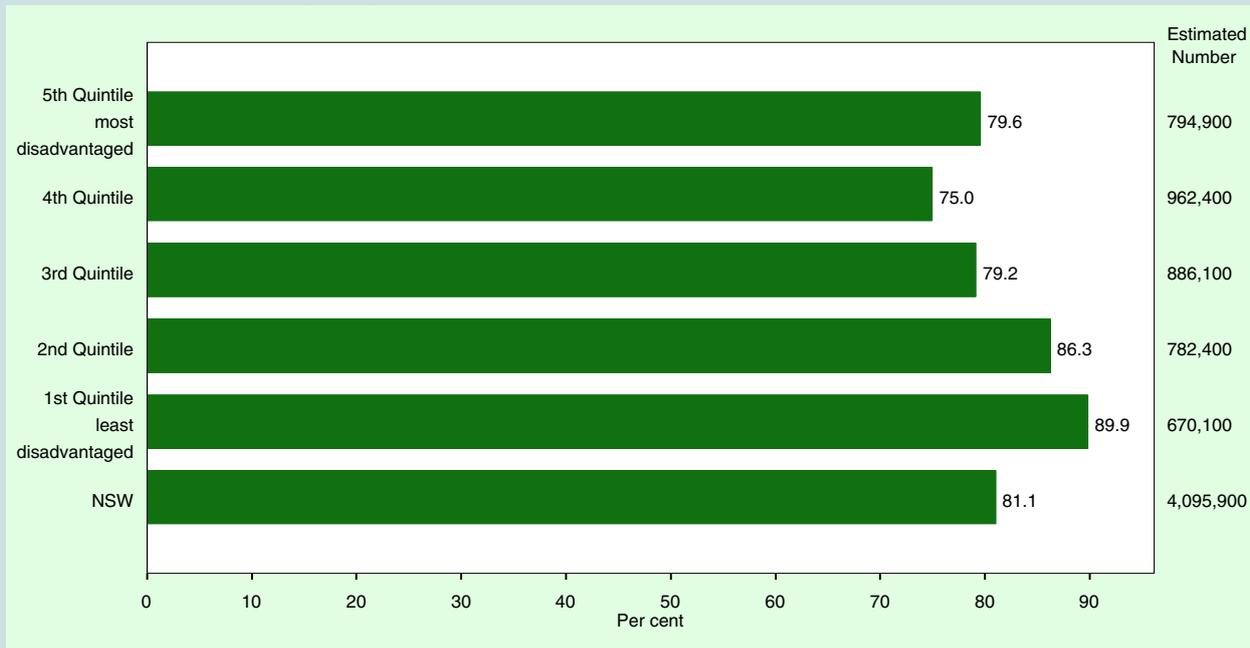
WATER TREATMENT BEFORE DRINKING, PUBLIC WATER SUPPLY, PERSONS WHO TREAT THEIR PUBLIC WATER SUPPLY, AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 23

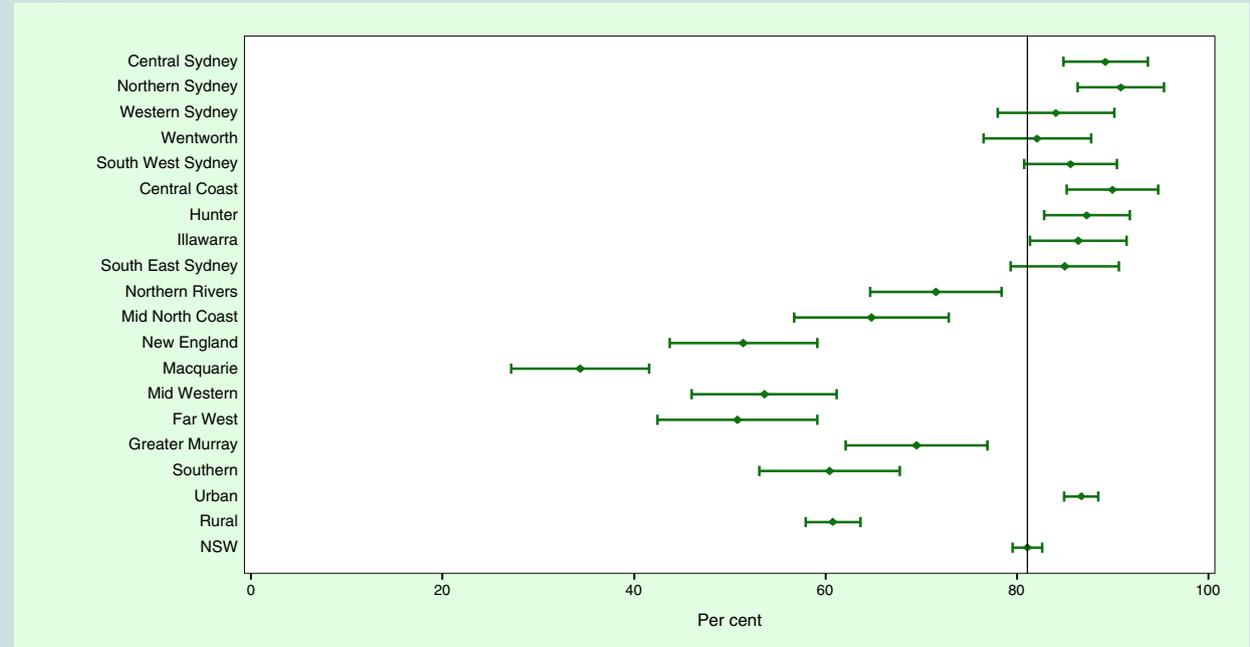
USE PUBLIC WATER AS USUAL SOURCE OF WATER BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 24

USE PUBLIC WATER AS USUAL SOURCE OF WATER BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 8**USE PUBLIC WATER AS USUAL SOURCE OF WATER BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002**

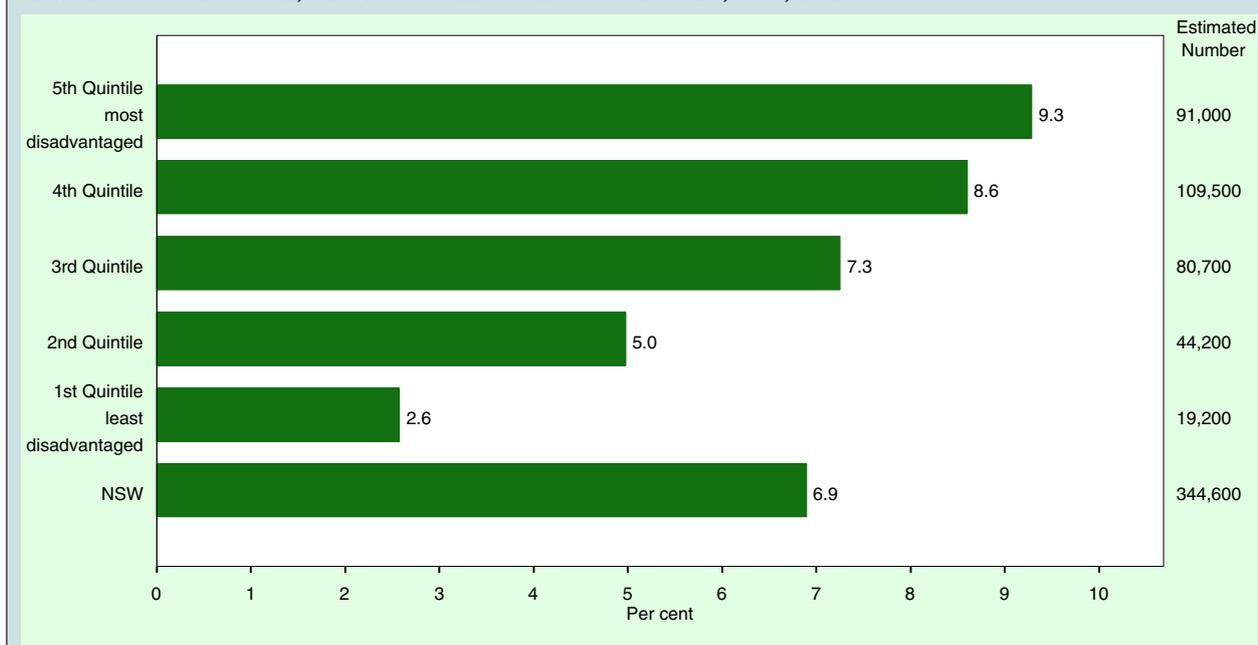
Area	%	Persons		(est no.)
		LL95%CI	UL95%CI	
Central Sydney	89.3	84.9	93.7	321300
Northern Sydney	90.9	86.3	95.4	552400
Western Sydney	84.1	78	90.2	450300
Wentworth	82.1	76.5	87.8	207600
South West Sydney	85.6	80.8	90.5	543700
Central Coast	90	85.2	94.7	204700
Hunter	87.3	82.8	91.8	382700
Illawarra	86.4	81.4	91.4	242700
South East Sydney	85	79.3	90.7	523300
Northern Rivers	71.5	64.7	78.4	145100
Mid North Coast	64.8	56.7	72.9	127900
New England	51.4	43.7	59.1	71300
Macquarie	34.4	27.2	41.6	27100
Mid Western	53.6	46	61.2	62100
Far West	50.8	42.5	59.2	19200
Greater Murray	69.5	62.1	76.9	130700
Southern	60.5	53.1	67.8	83800
Urban	86.7	84.9	88.5	3428700
Rural	60.8	57.9	63.6	667200
NSW	81.1	79.5	82.6	4095900

Notes: Estimates are based on 3759 respondents in NSW.

2 (0.05 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The estimates based on this sub-sample are subject to high standard errors and should be used with caution. The indicator includes those who use public water as their usual source of water. The question used was 'What is your normal source of drinking water?'

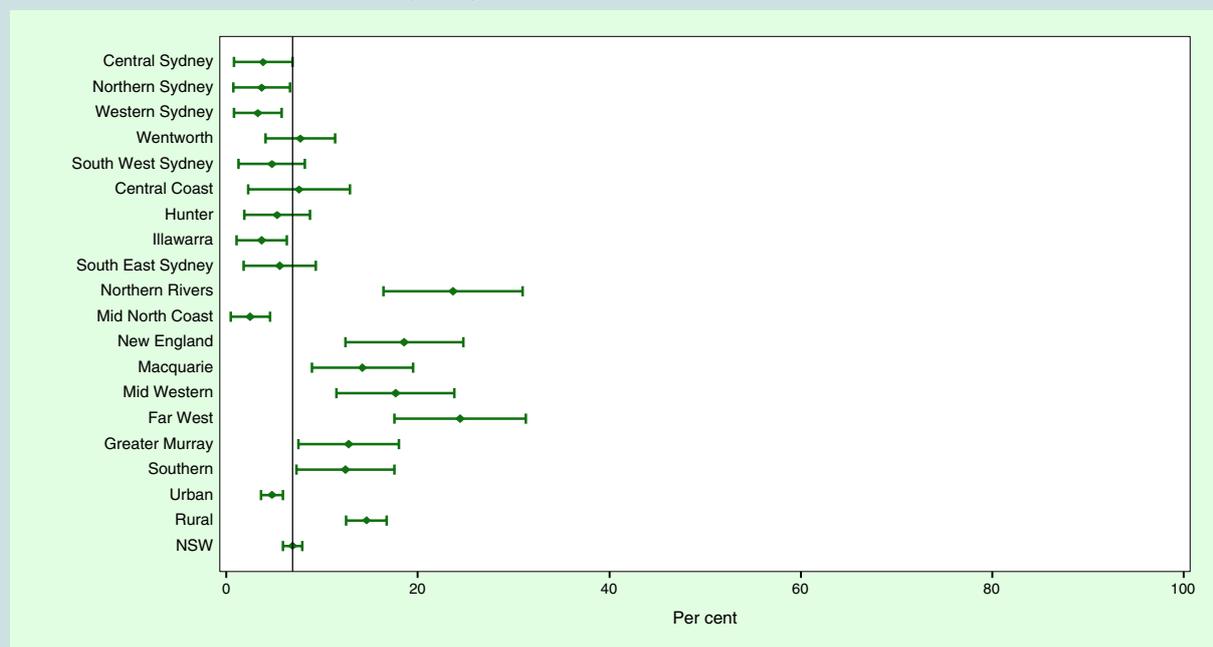
Source: NSW Health Survey 2002 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

FIGURE 25**RECREATIONAL WATER USE LIMITED BY BLUE GREEN ALGAE IN LAST 12 MONTHS BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002**

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

FIGURE 26

RECREATIONAL WATER USE LIMITED BY BLUE GREEN ALGAE IN LAST 12 MONTHS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 9

RECREATIONAL WATER USE LIMITED BY BLUE GREEN ALGAE IN LAST 12 MONTHS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Persons		(est no.)
		LL95%CI	UL95%CI	
Central Sydney	3.8	0.8	6.9	13300
Northern Sydney	3.7	0.7	6.6	22300
Western Sydney	3.3	0.8	5.7	17400
Wentworth	7.7	4.1	11.4	19400
South West Sydney	4.7	1.3	8.2	29800
Central Coast	7.6	2.2	12.9	17200
Hunter	5.3	1.9	8.7	23100
Illawarra	3.7	1.1	6.3	10300
South East Sydney	5.6	1.8	9.3	33300
Northern Rivers	23.6	16.4	30.9	46800
Mid North Coast	2.5	0.4	4.5	4900
New England	18.6	12.4	24.7	25700
Macquarie	14.2	8.9	19.5	11100
Mid Western	17.7	11.5	23.8	20500
Far West	24.4	17.6	31.3	9200
Greater Murray	12.8	7.5	18	23400
Southern	12.4	7.3	17.6	17000
Urban	4.8	3.6	5.9	186100
Rural	14.6	12.5	16.7	158600
NSW	6.9	5.9	7.9	344600

Notes: Estimates are based on 3729 respondents in NSW.

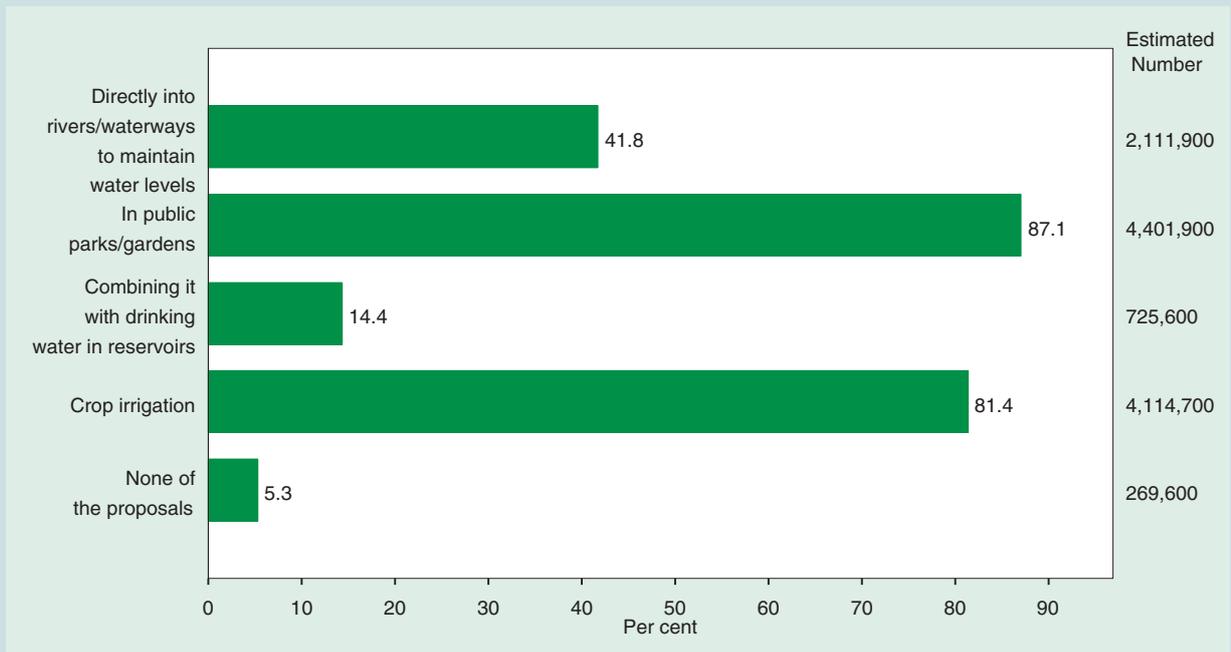
32 (0.85 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The estimates based on this sub-sample are subject to high standard errors and should be used with caution. The indicator includes those who had their recreational water use limited by blue green algae. The question used was 'In the past 12 months has blue-green algae ever stopped you from using your usual recreational lake or river for purposes such as fishing, swimming or water skiing?' If responders responded 'No' prompted for difference between 'not stopped from using' and 'don't use waterways'.

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

FIGURE 27

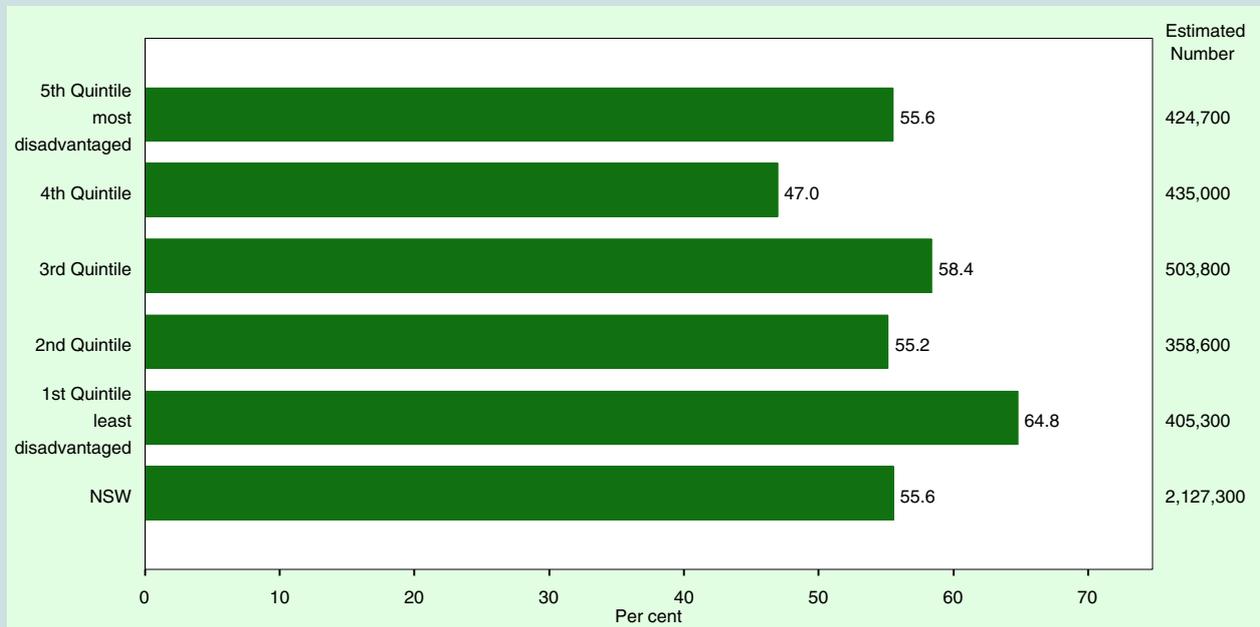
SUPPORT RE-USE OF TREATED EFFLUENT WATER, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 28

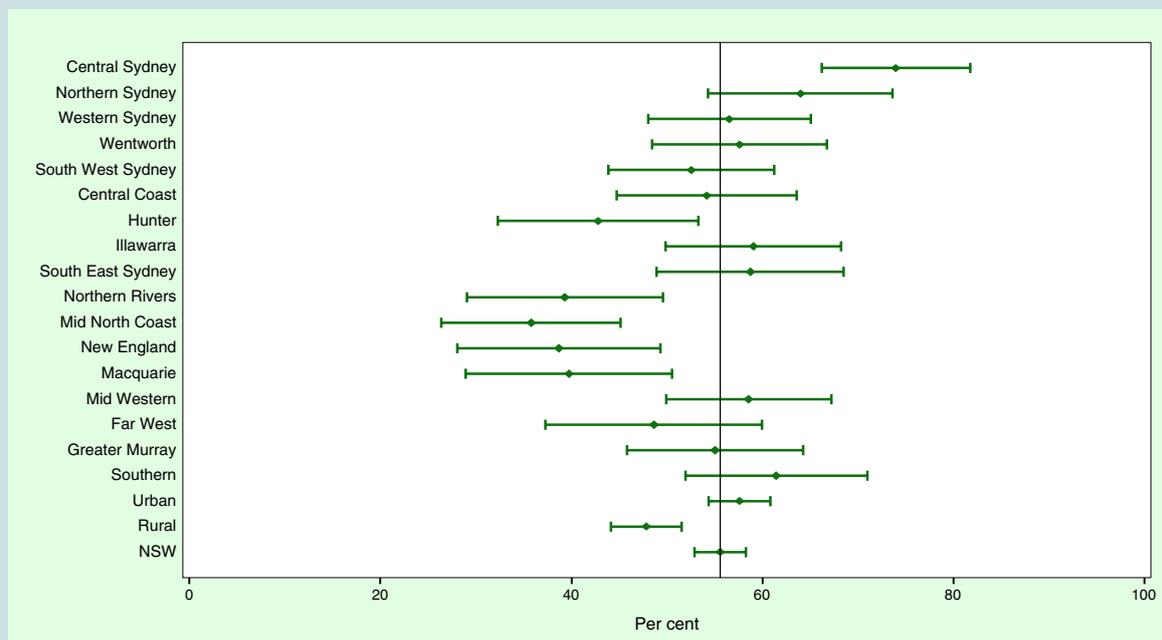
GAS COOKING WITHOUT VENTILATION BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 29

GAS COOKING WITHOUT VENTILATION BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 10

GAS COOKING WITHOUT VENTILATION BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Persons		(est no.)
		LL95%CI	UL95%CI	
Central Sydney	3.8	0.8	6.9	13300
Central Sydney	74	66.2	81.8	214000
Northern Sydney	64	54.3	73.6	312000
Western Sydney	56.5	48	65	257700
Wentworth	57.6	48.4	66.7	105400
South West Sydney	52.6	43.9	61.3	271100
Central Coast	54.2	44.8	63.6	102800
Hunter	42.8	32.3	53.3	141300
Illawarra	59.1	49.9	68.2	106800
South East Sydney	58.7	48.9	68.5	243200
Northern Rivers	39.3	29.1	49.6	43600
Mid North Coast	35.8	26.4	45.2	48200
New England	38.7	28.1	49.4	31000
Macquarie	39.7	28.9	50.6	21400
Mid Western	58.6	49.9	67.2	59300
Far West	48.6	37.3	60	10800
Greater Murray	55.1	45.8	64.3	97500
Southern	61.5	51.9	71	61200
Urban	57.6	54.4	60.8	1754300
Rural	47.8	44.1	51.6	373000
NSW	55.6	52.9	58.3	2127300

Notes: Estimates are based on 2546 respondents in NSW.

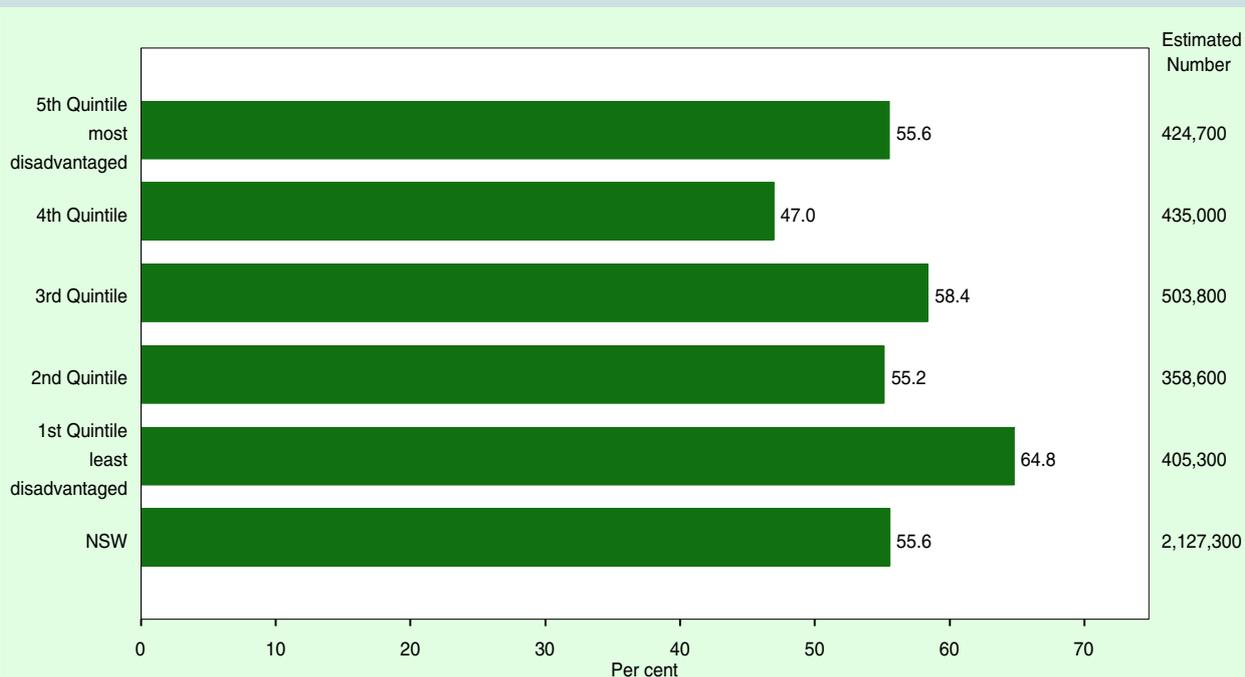
23 (0.9 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The estimates based on this sub-sample are subject to high standard errors and should be used with caution. The indicator includes those who cook with gas without ventilation. The questions used were 'What type of cooktop do you have?', 'What type of oven do you have?', 'How are steam and fumes removed when you cook?', 'How often do you use the fan when cooking?' and 'How often do you open windows or an external door when cooking?'.

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

FIGURE 30

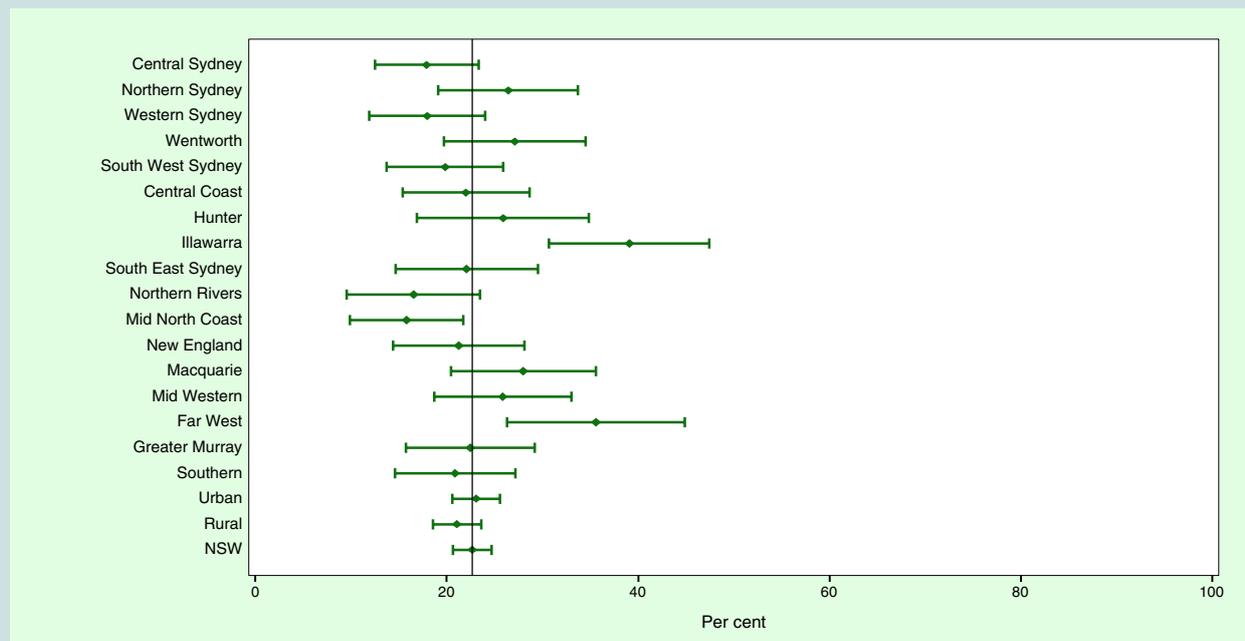
EXPOSURE TO UNFLUED HEATING BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 31

EXPOSURE TO UNFLUED HEATING BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 11**EXPOSURE TO UNFLUED HEATING BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002**

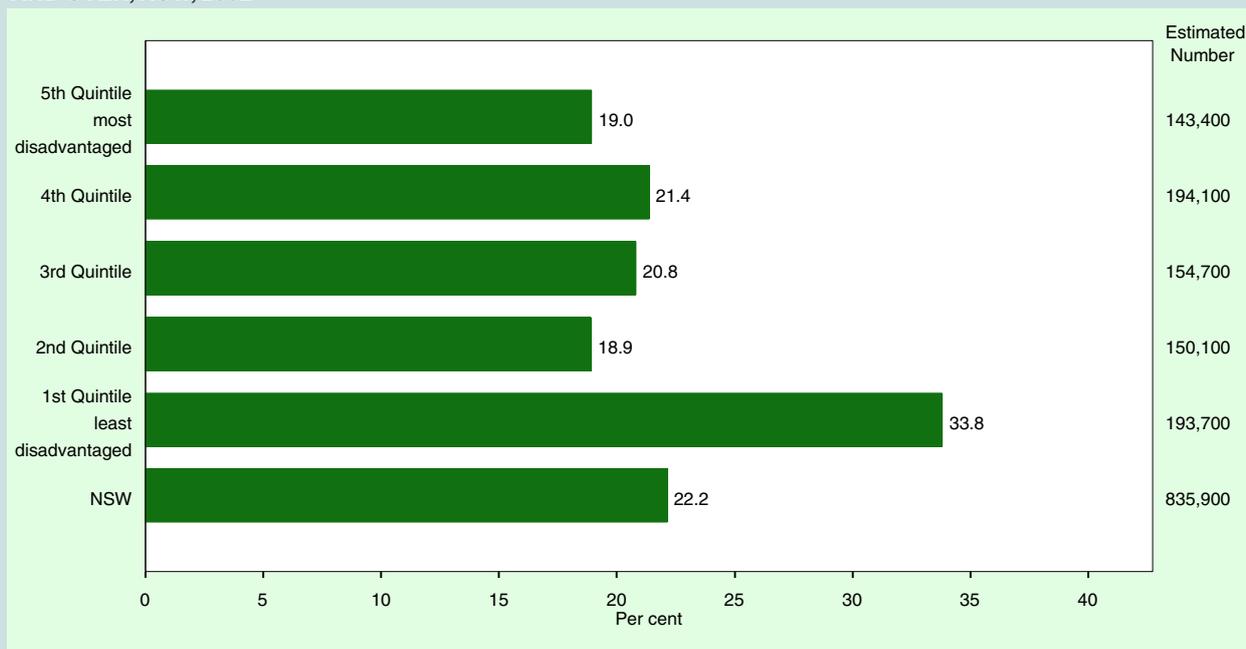
Area	%	Persons		(est no.)
		LL95%CI	UL95%CI	
Central Sydney	17.9	12.5	23.3	75800
Northern Sydney	26.4	19.1	33.7	174000
Western Sydney	18	11.9	24	106800
Wentworth	27.1	19.7	34.5	63200
South West Sydney	19.8	13.7	25.9	129700
Central Coast	22	15.4	28.6	49800
Hunter	25.9	16.9	34.9	108700
Illawarra	39.1	30.7	47.5	92800
South East Sydney	22.1	14.6	29.5	119900
Northern Rivers	16.5	9.6	23.5	27400
Mid North Coast	15.8	9.9	21.7	32000
New England	21.2	14.4	28.1	25800
Macquarie	28	20.4	35.6	20500
Mid Western	25.9	18.7	33	31700
Far West	35.6	26.3	44.8	10900
Greater Murray	22.5	15.7	29.2	47000
Southern	20.9	14.6	27.2	27400
Urban	23.1	20.6	25.5	920600
Rural	21.1	18.5	23.6	222800
NSW	22.6	20.6	24.7	1143400

Notes: Estimates are based on 3398 respondents in NSW.

9 (0.07 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The estimates based on this sub-sample are subject to high standard errors and should be used with caution. The indicator includes those who are exposed to unflued heating. The question used was 'What is the usual way you heat the living areas of your home?'

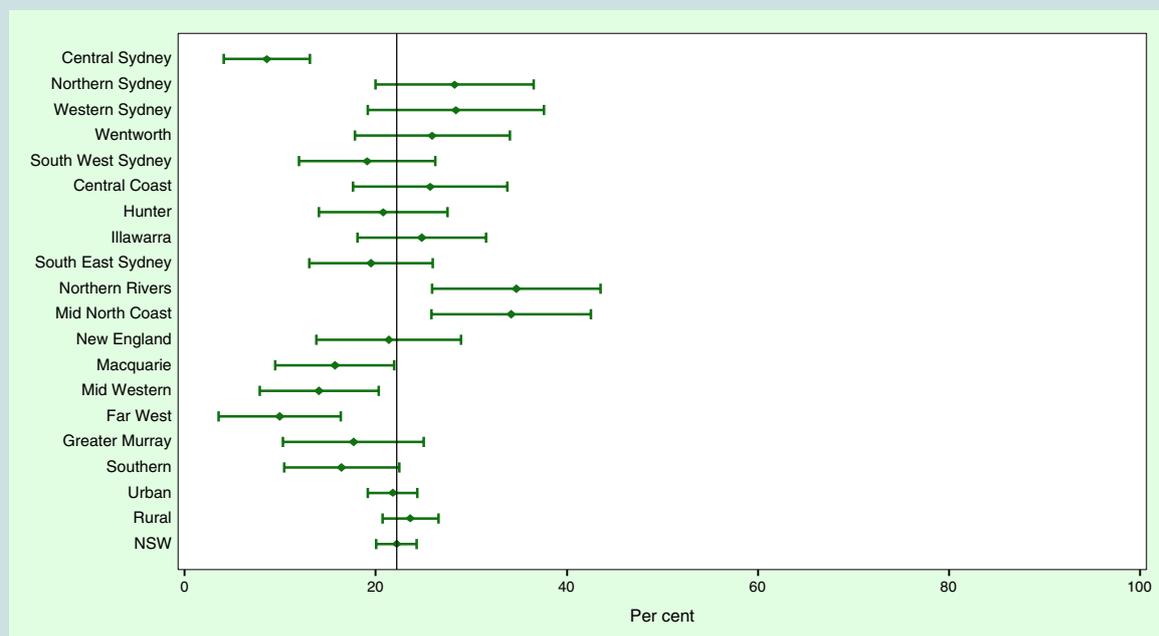
Source: NSW Health Survey 2002 (HOIST) Centre for Epidemiology and Research, NSW Department of Health.

FIGURE 32**INTERNALLY ACCESSED GARAGES BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002**

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

FIGURE 33

INTERNALLY ACCESSED GARAGES BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 12

INTERNALLY ACCESSED GARAGES BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Persons		(est no.)
		LL95%CI	UL95%CI	
Central Sydney	8.6	4.1	13.1	27300
Northern Sydney	28.2	20	36.5	134200
Western Sydney	28.4	19.2	37.6	89700
Wentworth	25.9	17.8	34	45000
South West Sydney	19.1	11.9	26.2	82300
Central Coast	25.7	17.6	33.8	37300
Hunter	20.8	14	27.5	62400
Illawarra	24.8	18.1	31.6	51500
South East Sydney	19.5	13	26	118800
Northern Rivers	34.7	25.9	43.6	56200
Mid North Coast	34.2	25.8	42.5	50400
New England	21.4	13.8	28.9	17900
Macquarie	15.7	9.5	21.9	7100
Mid Western	14.1	7.8	20.3	12800
Far West	9.9	3.5	16.3	2900
Greater Murray	17.7	10.3	25	22500
Southern	16.4	10.4	22.5	17600
Urban	21.8	19.2	24.4	648400
Rural	23.6	20.7	26.6	187400
NSW	22.2	20	24.3	835900

Notes: Estimates are based on 2861 respondents in NSW.

15 (0.12 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The estimates based on this sub-sample are subject to high standard errors and should be used with caution. The indicator includes those who are exposed to benzene through internally accessed garages. The questions used were 'Do you have a garage' and 'Which of the following best describes the access to your garage?'.

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

Immunisation

Introduction

In New South Wales, 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 to pneumonia. 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 2002* 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 2002, 47.7 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 (50.9 per cent) reported having had an influenza vaccination than males (44.3 per cent). The proportion of people vaccinated against influenza did not vary geographically or by level of socioeconomic status. Influenza vaccination coverage has increased significantly overall, between 1997 (34.6 per cent) and 2002 (47.7 per cent).

In people covered by the NIPV program (those aged 65 years and over) the proportion vaccinated against influenza was 75.5 per cent. The proportion of people

aged 65–69 years who reported they were vaccinated against influenza (67.9 per cent) was significantly lower 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 (73.1 per cent) and urban areas (76.4 per cent); however, the proportion of residents in the Central Coast Area Health Service (83.0 per cent) reporting vaccination against influenza in the last 12 months was significantly greater than in the overall population covered by the NIPV program.

The proportion of people aged 65 years and over vaccinated against influenza did not vary 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 75.5 per cent in 2002.

Pneumococcal Vaccinations

Just over one in five (20.2 per cent) people aged 50 years and over reported having had a pneumococcal vaccination in the past five years. Of these, 9.7 per cent reported being vaccinated in the past 12 months, 10.5 per cent were vaccinated 13 months to five years ago, and 1.3 per cent were vaccinated more than five years ago. A significantly greater proportion of females had been vaccinated against pneumococcal disease in the last five years (22.2 per cent) than males (18.1 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 (19.7 per cent) and urban areas (20.4 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 39.4 per cent (19.8 per cent in the past 12 months). There was no significant difference between the proportion of males vaccinated (36.7 per cent) and females vaccinated (41.5 per cent). When compared to the overall population aged 65 years or over, a significantly lower proportion of people aged 65–69 years (25.6 per cent), and a significantly greater proportion of people aged 75 years and over (47.7 per cent), were likely to report vaccination against pneumococcal disease in the last five years.

The proportion of people vaccinated against pneumococcal pneumonia did not vary significantly between urban residents (40.4 per cent) and rural residents (36.5 per cent); however, the proportion of residents vaccinated against pneumococcal disease in the Central Coast Area Health Service (53.3 per cent) was significantly greater than in the overall population covered by the NIPV program.

The proportion of people aged 65 years or over reporting pneumococcal vaccination did not vary by level of socioeconomic disadvantage.

Trend data are unavailable, as pneumococcal vaccination was not included in the 1997 and 1998 New South Wales health surveys.

Figures 34–36 and Table 13 show the proportion of people aged 65 years and over who have been vaccinated against influenza in the last 12 months by age, socioeconomic

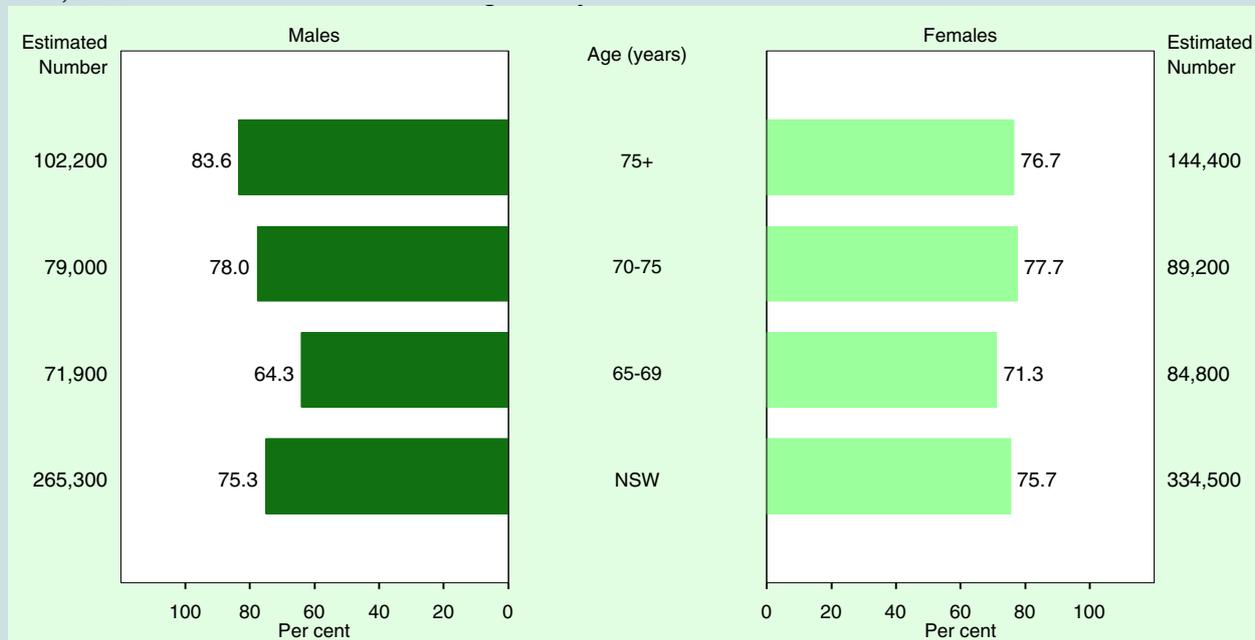
disadvantage, and health area. Figures 37–39 and Table 14 show the proportion of people aged 65 years and over who have been vaccinated against pneumococcal disease in the last 12 months by age, socioeconomic disadvantage, and health area.

Reference

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

FIGURE 34

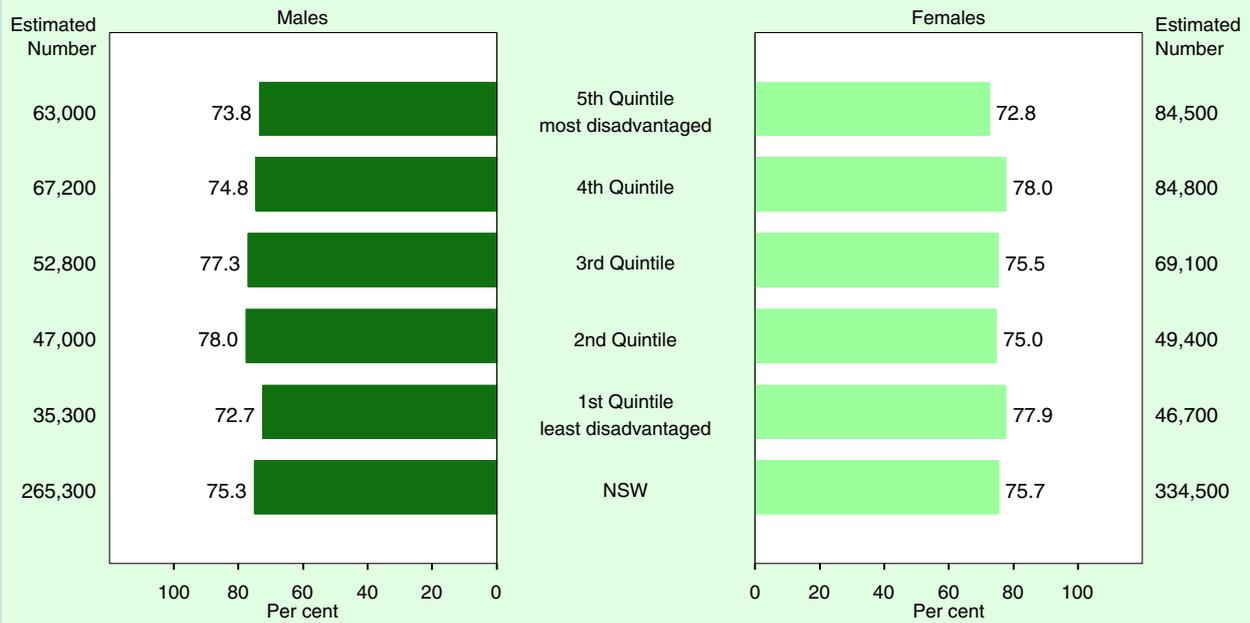
VACCINATED AGAINST INFLUENZA IN THE LAST 12 MONTHS BY AGE, PERSONS AGED 65 YEARS AND OVER, NSW, 2002



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

FIGURE 35

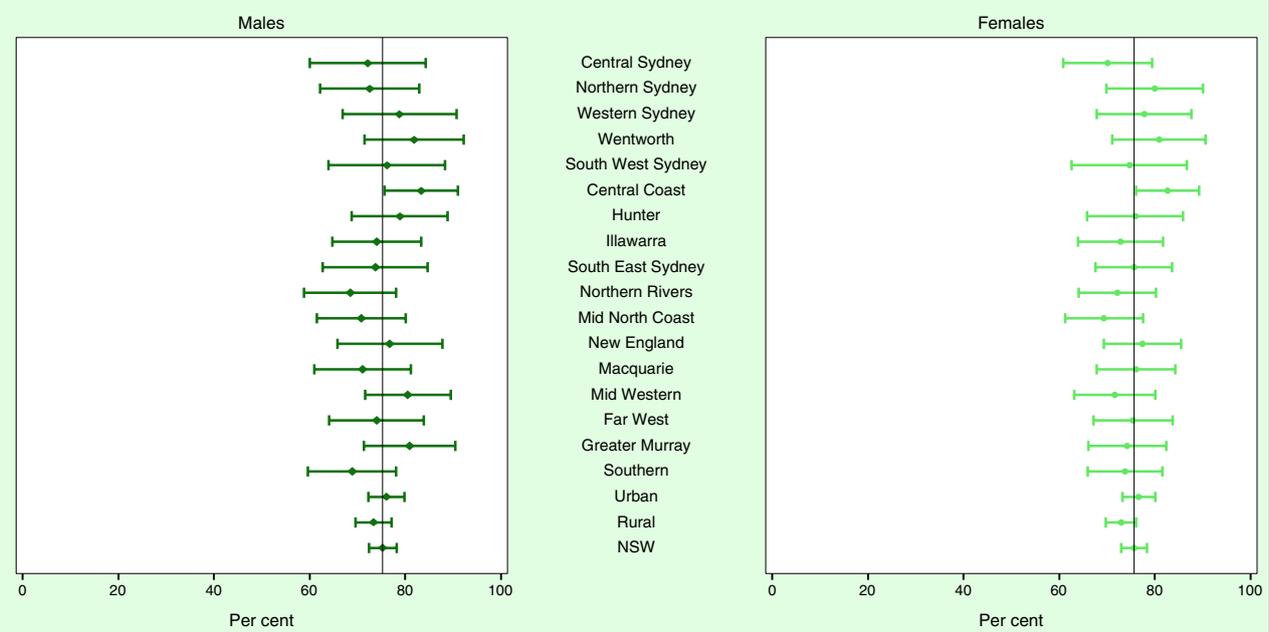
VACCINATED AGAINST INFLUENZA IN THE LAST 12 MONTHS BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 65 YEARS AND OVER, NSW, 2002



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

FIGURE 36

VACCINATED AGAINST INFLUENZA IN THE LAST 12 MONTHS BY HEALTH AREA, PERSONS AGED 65 YEARS AND OVER, NSW, 2002



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

TABLE 13

VACCINATED AGAINST INFLUENZA IN THE LAST 12 MONTHS BY HEALTH AREA, PERSONS AGED 65 YEARS AND OVER, NSW, 2002

Area	%	Males			%	Females			%	Persons		
		LL	UL	(est. no.)		LL	UL	(est. no.)		LL	UL	(est. no.)
		95%CI	95%CI		95%CI	95%CI		95%CI	95%CI			
Central Sydney	72.2	60.1	84.2	17900	70.1	60.9	79.4	21000	71.1	63.6	78.5	38900
Northern Sydney	72.5	62.1	82.9	31000	80	69.9	90.1	46600	76.8	69.6	84.1	77600
Western Sydney	78.8	66.9	90.7	21500	77.8	67.9	87.7	26900	78.2	70.6	85.9	48400
Wentworth	81.9	71.5	92.3	9200	80.9	71.1	90.7	11700	81.3	74.2	88.5	20900
South West Sydney	76.1	63.9	88.4	23700	74.7	62.6	86.7	30100	75.3	66.6	84	53800
Central Coast	83.4	75.7	91.1	18300	82.6	76.1	89.2	23000	83	78	87.9	41300
Hunter	78.8	68.8	88.9	25000	75.9	65.9	85.9	30700	77.2	70	84.3	55600
Illawarra	74	64.7	83.3	16900	72.8	63.9	81.8	19800	73.4	66.9	79.8	36600
South East Sydney	73.7	62.8	84.7	31200	75.6	67.6	83.6	41700	74.8	68.2	81.4	72900
Northern Rivers	68.5	58.9	78.1	13100	72.1	64.1	80.2	16300	70.5	64.3	76.7	29400
Mid North Coast	70.8	61.5	80.1	15600	69.4	61.2	77.5	17600	70.1	63.9	76.2	33200
New England	76.8	65.8	87.8	7600	77.4	69.3	85.5	9500	77.1	70.5	83.7	17100
Macquarie	71	61	81.1	4200	76	67.8	84.2	5300	73.7	67.3	80.2	9500
Mid Western	80.6	71.6	89.5	7500	71.6	63.1	80.1	8300	75.6	69.4	81.8	15800
Far West	74	64.1	83.9	2100	75.4	67.2	83.7	2400	74.8	68.4	81.1	4600
Greater Murray	80.9	71.3	90.5	12100	74.2	66	82.4	13500	77.2	71	83.5	25600
Southern	68.9	59.7	78.1	8300	73.7	65.9	81.5	10200	71.5	65.5	77.5	18400
Urban	76	72.3	79.8	194800	76.6	73.2	80	251300	76.4	73.8	78.9	446100
Rural	73.3	69.5	77.1	70500	72.9	69.7	76.1	83200	73.1	70.6	75.6	153600
NSW	75.3	72.4	78.3	265300	75.7	73	78.3	334500	75.5	73.5	77.5	599800

Notes: Estimates are based on 3417 respondents in NSW.

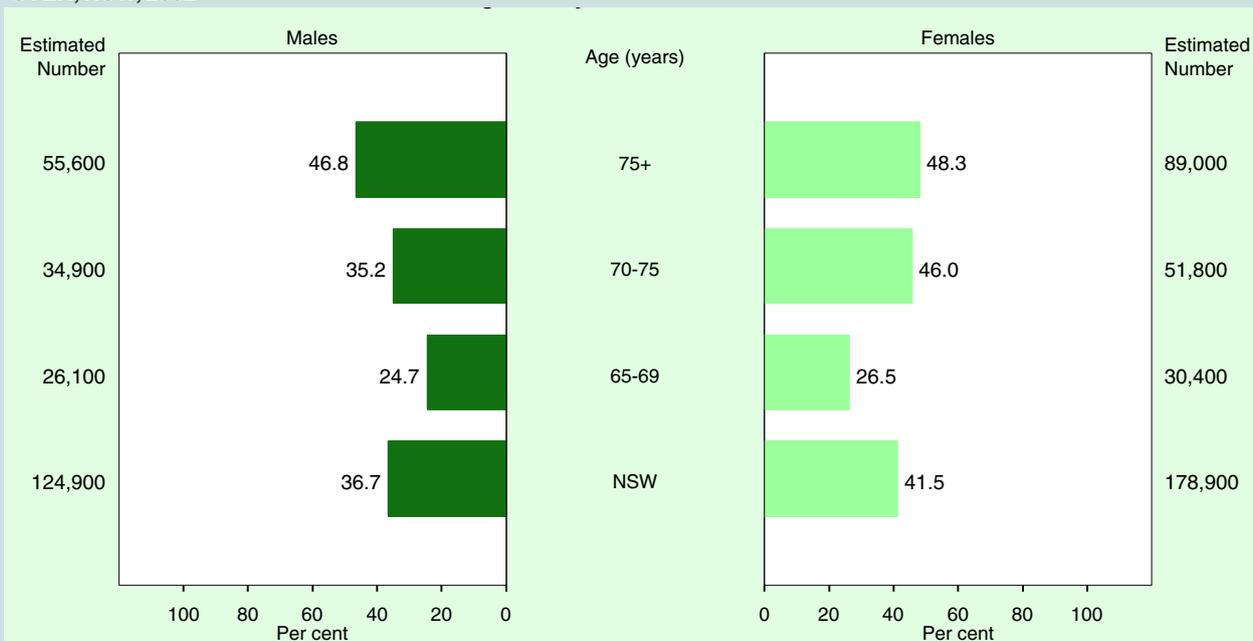
3 (0.09 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who have been vaccinated for flu in the past 12 months. The question used was 'Were you vaccinated or immunised against flu in the past 12 months?'.

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

FIGURE 37

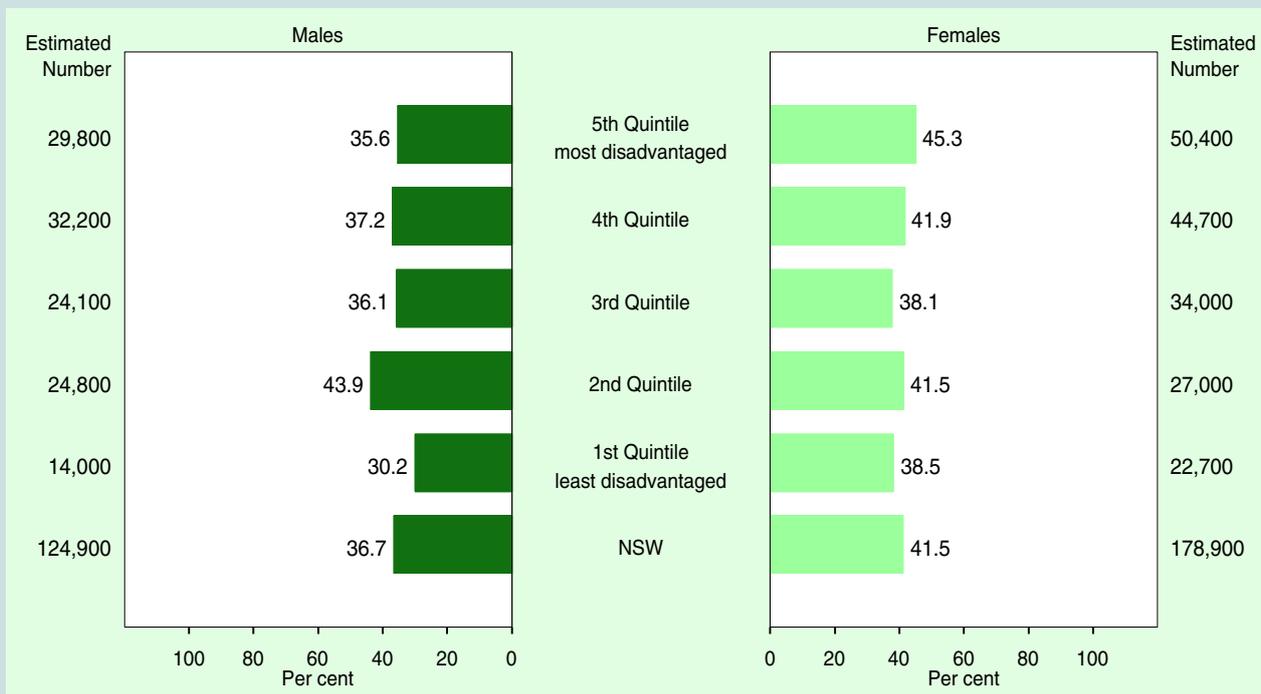
VACCINATED AGAINST PNEUMOCOCCAL DISEASE IN LAST 5 YEARS BY AGE, PERSONS AGED 65 YEARS AND OVER, NSW, 2002



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

FIGURE 38

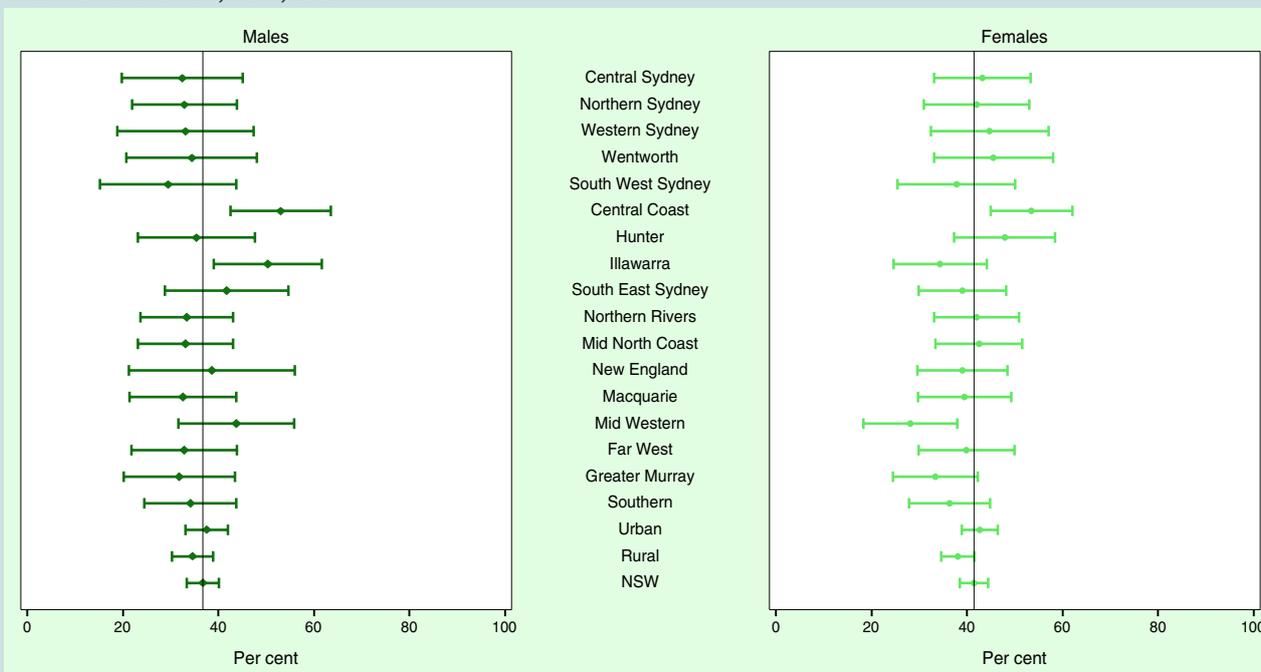
VACCINATED AGAINST PNEUMOCOCCAL DISEASE IN LAST 5 YEARS BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 65 YEARS AND OVER, NSW, 2002



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

FIGURE 39

VACCINATED AGAINST PNEUMOCOCCAL DISEASE IN LAST 5 YEARS BY HEALTH AREA, PERSONS AGED 65 YEARS AND OVER, NSW, 2002



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

TABLE 14**VACCINATED AGAINST PNEUMOCOCCAL DISEASE IN LAST 5 YEARS BY HEALTH AREA, PERSONS AGED 65 YEARS AND OVER, NSW, 2002**

Area	%	Males			%	Females			%	Persons		
		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	72.2	60.1	84.2	17900	70.1	60.9	79.4	21000	71.1	63.6	78.5	38900
Central Sydney	32.4	19.7	45.1	8000	43.2	33	53.3	13000	38.3	30.3	46.3	21000
Northern Sydney	32.9	22	43.8	13300	42	30.9	53.1	24000	38.2	30.3	46.2	37300
Western Sydney	33.1	18.8	47.4	8800	44.7	32.4	57.1	15400	39.6	30.2	49.1	24200
Wentworth	34.4	20.8	48.1	3800	45.5	33.1	58	6600	40.7	31.5	50	10300
South West Sydney	29.5	15.2	43.8	8800	37.8	25.4	50.1	14000	34.1	24.7	43.4	22800
Central Coast	53	42.5	63.5	11200	53.5	45	62	14600	53.3	46.6	59.9	25800
Hunter	35.4	23.2	47.6	11100	47.9	37.3	58.5	19200	42.4	34.3	50.5	30300
Illawarra	50.4	39.1	61.7	10700	34.4	24.6	44.1	8800	41.6	34.1	49.1	19500
South East Sydney	41.7	28.8	54.7	17100	39	29.8	48.2	20700	40.2	32.5	47.9	37800
Northern Rivers	33.4	23.7	43.1	6300	42	33.1	50.9	9400	38.1	31.4	44.7	15700
Mid North Coast	33.1	23.2	43.1	7000	42.5	33.3	51.6	10500	38.1	31.4	44.9	17500
New England	38.7	21.3	56	3600	39	29.6	48.5	4700	38.9	29.6	48.1	8200
Macquarie	32.6	21.4	43.8	1800	39.5	29.7	49.2	2700	36.4	29	43.8	4500
Mid Western	43.7	31.7	55.8	3800	28.1	18.2	38	3200	34.8	27.1	42.5	7000
Far West	32.9	21.8	43.9	900	39.9	29.8	49.9	1200	36.7	29.2	44.2	2100
Greater Murray	31.8	20.2	43.4	4700	33.3	24.5	42.2	6000	32.7	25.5	39.8	10700
Southern	34.1	24.5	43.8	4000	36.4	27.9	44.9	5000	35.3	29	41.7	9000
Urban	37.5	33.1	41.9	92900	42.7	38.9	46.5	136200	40.4	37.6	43.3	229100
Rural	34.6	30.3	39	32000	38.1	34.5	41.6	42700	36.5	33.7	39.3	74700
NSW	36.7	33.3	40.1	124900	41.5	38.5	44.4	178900	39.4	37.2	41.6	303800

Notes: Estimates are based on 3325 respondents in NSW.

95 (2.78 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who have been vaccinated against pneumococcal disease in the last 5 years. The question used was 'When were you last vaccinated or immunised against pneumonia?'

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

Injury prevention: Smoke alarms

Introduction

In New South Wales, 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. Consequently, 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 SABRE (Smoke Alarm Battery Replacement for the Elderly) 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 2002*, respondents were asked 'How many smoke alarms or detectors are installed in your home?'. Respondents who reported having at least one smoke alarm were then asked the following questions: 'Has there ever been a fire in your home that has activated a smoke alarm or detector?', 'When was the last time this occurred?', 'Thinking about the last time this happened, was the fire extinguished without calling the fire brigade?'.

Results

Overall, in 2002, 72.9 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 (77.1 per cent) reported having a smoke alarm installed compared with the overall NSW population.

There was no significant difference between the proportions of people who reported having a smoke alarm installed in urban areas (72.3 per cent) and rural areas (74.9 per cent). The proportion of residents who had a smoke alarm installed in their home in the Central Sydney (60.0 per cent), Northern Sydney (65.8 per cent), and South Eastern Sydney (65.5 per cent) Area Health Services was significantly lower compared with the overall NSW population. The proportion of people who had a smoke alarm installed in their home in the Central Coast (81.7 per cent), Hunter (88.9 per cent), Mid Western (77.8 per cent), and Greater Murray (79.3 per cent) Area Health Services was significantly greater compared with the overall population.

The proportion of people with smoke alarms installed in their home was significantly lower in the least socioeconomically disadvantaged quintile (68.0 per cent) and significantly higher in the second most disadvantaged quintile (76.5 per cent), compared with the overall population.

The proportion of respondents reporting having smoke alarms installed increased significantly from 1997 (58.2 per cent) to 2002 (72.9 per cent). This increase occurred both in males (57.6 per cent to 72.4 per cent) and females (58.7 per cent to 73.3 per cent).

Of those people who had a smoke alarm installed in their home, 3.4 per cent had had a fire in their home that activated a smoke alarm (48.1 per cent within the past 12 months) and 75.8 per cent of the fires were extinguished without calling the fire brigade.

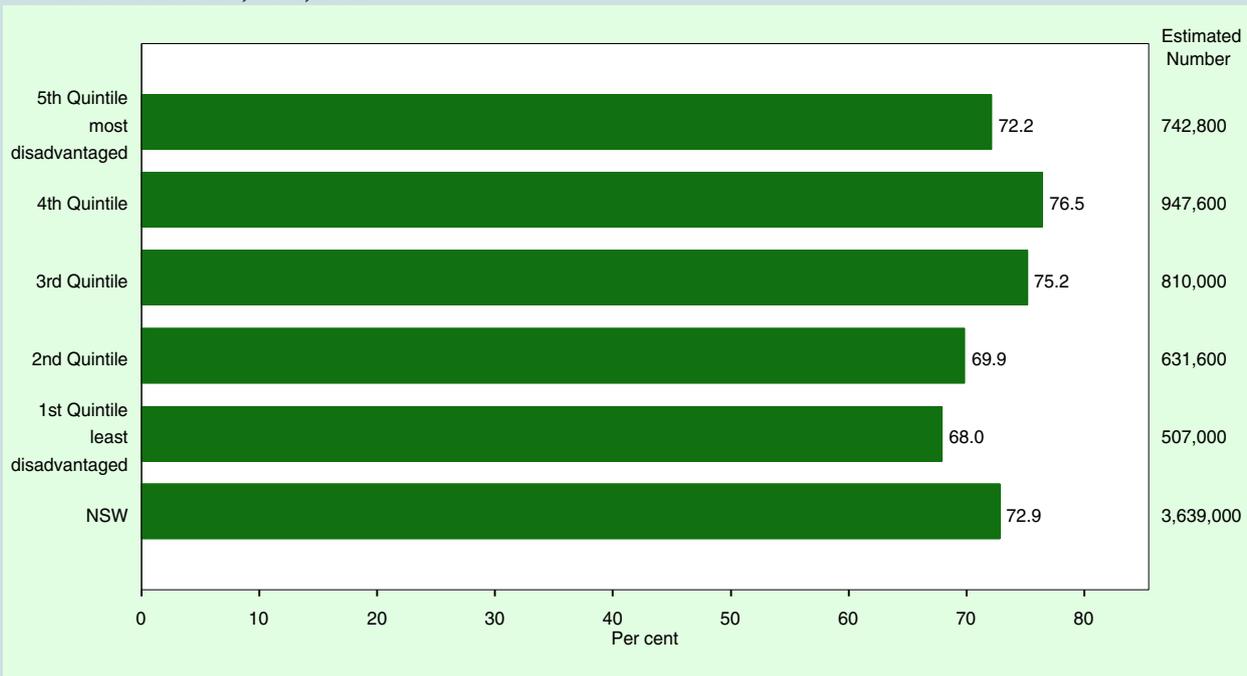
Figure 40–41 and Table 15 show the proportion of homes that have a smoke alarm or detector by socioeconomic disadvantage and health area.

References

1. Fisher J, Burns L, and Hahn A. *An evaluation of the 1996 Smoke Alarm Winter Campaign*. Sydney: NSW Department of Health, 1997.
2. Maddix A, Mallonee S, Waxweiler R, Douglas M. Cost effectiveness analysis of a smoke alarm give away program in Oklahoma City, Oklahoma. *Injury Prevention* 2001; 7: 276–281.
3. Centre for Epidemiology and Research. Electronic Report of the New South Wales Health Surveys 1997 and 1998. Sydney: NSW Department of Health, 1999. Available online at www.health.nsw.gov.au/public-health/nswhs/hsindex, accessed July 2003.
4. Douglas M, Mallonee S, Istre G. Estimating the proportion of homes with functioning smoke alarms: A comparison of telephone survey and household survey results. *Am J Public Health* 1999; 89(7): 1112–14.

FIGURE 40

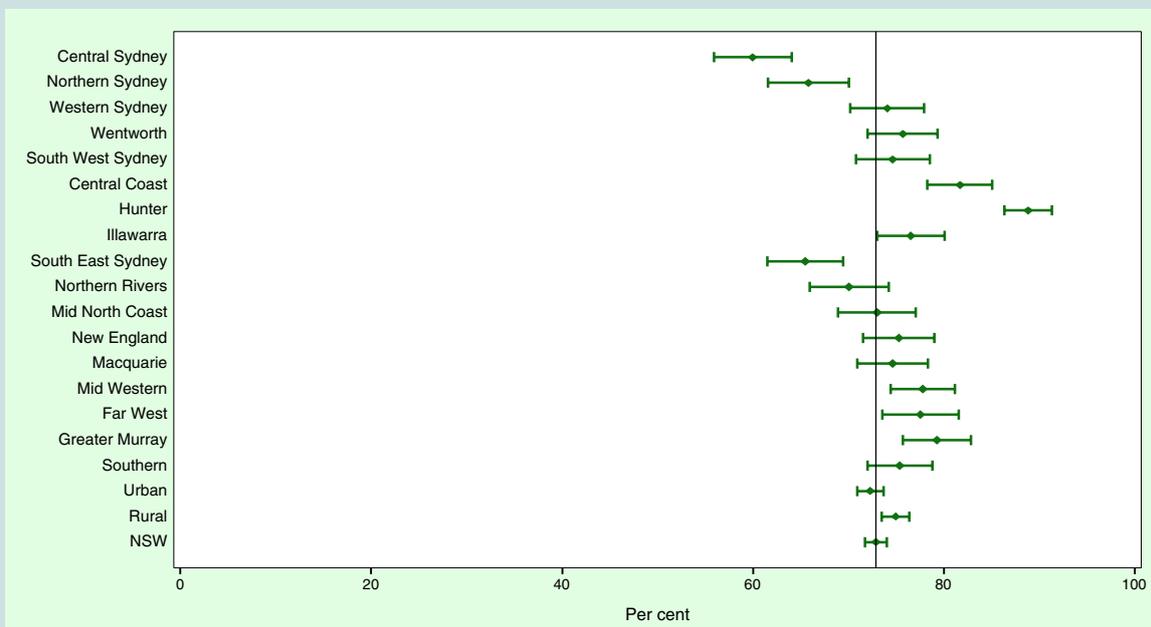
HOMES WITH A SMOKE ALARM OR DETECTOR BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 41

HOMES WITH A SMOKE ALARM OR DETECTOR BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 15

HOMES WITH A SMOKE ALARM OR DETECTOR BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Persons		(est no.)
		LL95%CI	UL95%CI	
Central Sydney	60	55.9	64.1	240900
Northern Sydney	65.8	61.6	70.1	408800
Western Sydney	74.1	70.2	78	382400
Wentworth	75.7	72	79.4	176700
South West Sydney	74.7	70.8	78.5	445500
Central Coast	81.7	78.3	85.1	184200
Hunter	88.9	86.3	91.4	370500
Illawarra	76.6	73	80.1	202700
South East Sydney	65.5	61.5	69.4	407300
Northern Rivers	70.1	65.9	74.2	140500
Mid North Coast	73	68.9	77.1	146100
New England	75.3	71.5	79	96500
Macquarie	74.7	71	78.3	55800
Mid Western	77.8	74.5	81.2	95100
Far West	77.6	73.6	81.5	28300
Greater Murray	79.3	75.7	82.9	152000
Southern	75.4	72	78.8	105400
Urban	72.3	70.9	73.7	2819100
Rural	74.9	73.5	76.4	819900
NSW	72.9	71.8	74	3639000

Notes: Estimates are based on 12622 respondents in NSW.

0 (0 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who have a smoke alarm or detector in their home. The question used to define the indicator was 'How many smoke alarms or detectors are installed in your home?'

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

Nutrition

Introduction

Nutrition is an important determinant of health 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

Excessive consumption of energy and fat contribute to the burden of illness from obesity, and a high intake of saturated fat is linked to a high serum cholesterol. Inadequate consumption of fruits, vegetables, and several micronutrients contained in these and other foods, contribute to the overall burden of illness from many diseases.²

The *New South Wales Adult Health Survey 2002* included the 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 *Dietary Guidelines for Australian Adults* 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 *Dietary Guidelines for Australian Adults*,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 piece or two small pieces of fruit.

Overall, in 2002, 6.7 per cent of the population reported that they ate no fruit, 15.6 per cent had less than one serve

per day, 31.3 per cent had one serve per day, 26.0 per cent had two serves per day, 13.5 per cent had three serves a day, and 7.0 per cent had more than three serves a day. Therefore, 46.5 per cent of the population ate the recommended daily intake of fruit. A significantly greater proportion of females (51.5 per cent) than males (41.3 per cent) consume the recommended amount of fruit each day.

Consumption of the recommended daily intake of fruit increased with age. Among males, a significantly lower proportion (31.3 per cent) of those aged 25–34 years and a significantly greater proportion (49.2 per cent to 50.2 per cent) of those aged 65 years and over were likely to eat the recommended daily intake of fruit, compared with the overall male population. Among females, a significantly lower proportion (35.3 per cent to 43.5 per cent) of those aged 16–34 years and a significantly greater proportion (60.4 per cent to 63.7 per cent) of those aged 55 years and over were likely to eat 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 (43.7 per cent) and urban residents (45.7 per cent). However, the proportion of residents consuming the recommended daily intake of fruit was significantly lower in Macquarie (38.8 per cent), Mid Western (38.9 per cent), and Far West (36.9 per cent) Area Health Services, compared with the overall population.

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 2002 (45.3 per cent).

Consumption of Vegetables

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

Overall, in 2002, 0.9 per cent of the population reported that they ate no vegetables, 6.3 per cent ate less than one serve per day, 24.5 per cent ate one serve per day, 30.4 per cent ate two serves a day, 17.9 per cent ate three serves a day, 12.5 per cent ate four serves a day, 3.8 per cent ate five serves a day, and 3.8 per cent ate more than five serves a day. Therefore, 16.2 per cent of the population ate the recommended daily intake of vegetables. A significantly greater proportion of females (22.9 per cent) than males (9.2 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 (4.5 per cent to 5.1 per cent) of those aged 25–44 years and a significantly greater

proportion (13.8 per cent to 25.0 per cent) of those aged 55 years and over were likely to consume the recommended daily intake of vegetables, compared with the overall male population. Among females a significantly lower proportion (12.4 per cent to 19.9 per cent) of those aged 16–44 years and a significantly greater proportion (29.1 per cent to 34.3 per cent) of those aged 45–74 years were likely to consume the recommended daily intake of vegetables, compared with the overall female population.

There was significant geographical variation, with a significantly greater proportion of rural residents (20.6 per cent) consuming the recommended daily intake of vegetables compared to urban residents (14.9 per cent). A significantly lower proportion of residents in the Western Sydney Area Health Service (10.4 per cent) consumed the recommended daily intake of vegetables, compared with the overall urban population. There was no significant difference in consumption of the recommended daily intake of vegetables among rural area health services.

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

Daily consumption of vegetables did not differ significantly from 1997 (16.3 per cent) to 2002 (16.2 per cent).

Modified Fat Milk (low and reduced fat)

The *Dietary Guidelines for Australian Adults* recommend a diet low in fat, to reduce the overall energy intake.¹ An indicator of people who are maintaining a low fat diet is the use of modified fat milk.³

Overall, in 2002, 48.5 per cent of the population had regular milk (whole or full cream), 28.7 per cent had low or reduced fat milk, 14.7 per cent had low fat milk, 0.2 per cent had evaporated or sweetened milk, 3.8 per cent had other milk, and 4.2 per cent did not drink milk. Therefore, 43.4 per cent of the population used modified fat milk. A significantly greater proportion of females (50.7 per cent) than males (35.8 per cent) used modified fat milk.

Use of modified fat milk increased with age. Among males, a significantly lower proportion (20.9 per cent) of those aged 16–24 years and a significantly greater proportion (45.5 per cent to 48.9 per cent) of those aged 55 years and over were likely to use modified fat milk, compared with the overall male population. Among females, a significantly lower proportion (39.8 per cent to 43.9 per cent) of those aged 16–34 years and a significantly greater proportion (63.7 per cent to 64.0 per cent) of those aged 55–74 years were likely to use modified fat milk compared with the overall female population.

There was significant geographical variation, with significantly greater proportions of urban residents (44.6 per cent) than rural residents (39.1 per cent) using modified fat milk. The proportion of residents using modified fat milk was significantly lower in the South West Sydney Area Health Service (36.6 per cent) and

significantly greater in the Northern Sydney Area Health Service (52.3 per cent), compared with the overall urban population. There was no significant difference in the proportion of people using modified fat milk among rural area health services.

The proportion of people using modified fat milk was significantly lower in the most disadvantaged (37.6 per cent) and second most disadvantaged (39.1 per cent) quintiles, and significantly greater in the least disadvantaged (55.0 per cent) and second least disadvantaged (48.1 per cent) quintiles, compared with the overall population.

Use of modified fat milk decreased significantly from 1997 (45.7 per cent) to 2002 (43.4 per cent).

Breads and Cereals

In the *New South Wales Adult Health Survey 2002*, 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 2002, 1.2 per cent of the population did not eat breads and cereals (0.9 per cent of males and 1.4 per cent of females), 0.5 per cent had breads and cereals less than once a day, 18.6 per cent had breads and cereals once a day, 36.8 per cent twice a day, 25.8 per cent three times a day, 8.9 per cent four times a day, 3.6 per cent five times a day, and 4.6 per cent had breads and cereals more than five times a day. The proportions did not differ significantly between males and females.

Chips

In the *New South Wales Adult Health Survey 2002*, questions were asked on the frequency of eating chips, french fries, wedges, fried potatoes, or crisps.

Overall, in 2002, 49.0 per cent of the population did not eat chips (45.2 per cent of males and 52.7 per cent of females), 15.7 per cent had chips less than once a week, 16.3 per cent had chips once a week, 9.0 per cent had chips twice a week, 4.2 per cent had chips three times a week, 1.4 per cent had chips four times a week, 0.8 per cent had chips five times a week, and 3.6 per cent had chips more than five times a week. The proportion of males eating chips at least weekly was higher than females.

Processed Meat Products

In the *New South Wales Adult Health Survey 2002*, questions were asked on the frequency of eating processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon, or ham.

Overall, in 2002, 29.1 per cent of the population did not eat processed meat products (21.8 per cent of males and 36.1 per cent of females), 10.1 per cent had processed meat products less than once a week, 23.8 per cent had them once a week, 15.7 per cent had them twice a week, 8.9 per cent had them three times a week, 4.0 per cent had

them four times a week, 2.0 per cent had them five times a week, and 6.6 per cent had processed meat products more than five times a week. The proportion of males eating processed meat at least twice a week was significantly higher than females.

Food Security

Overall, in 2002, 5.7 per cent of the population 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 (5.2 per cent) and females (6.1 per cent) who had experienced food insecurity.

The proportion of people who had experienced food insecurity was significantly greater among people aged 35–44 years (8.1 per cent), and significantly lower among people aged 55 years and over (1.5 per cent to 3.2 per cent) and males aged 45–54 years (3.7 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 (6.6 per cent) and urban areas (5.4 per cent). Only residents of the Northern Sydney Area Health Service (3.0 per cent) were significantly less likely to have experienced food insecurity, compared with the overall population.

People in the most socioeconomically disadvantaged quintile (8.4 per cent) were significantly more likely and people in the least disadvantaged quintile (3.0 per cent) were significantly less likely to have experienced food insecurity, compared with the overall population.

Trend data are unavailable, as food security was not included in the 1997 and 1998 New South Wales health surveys.

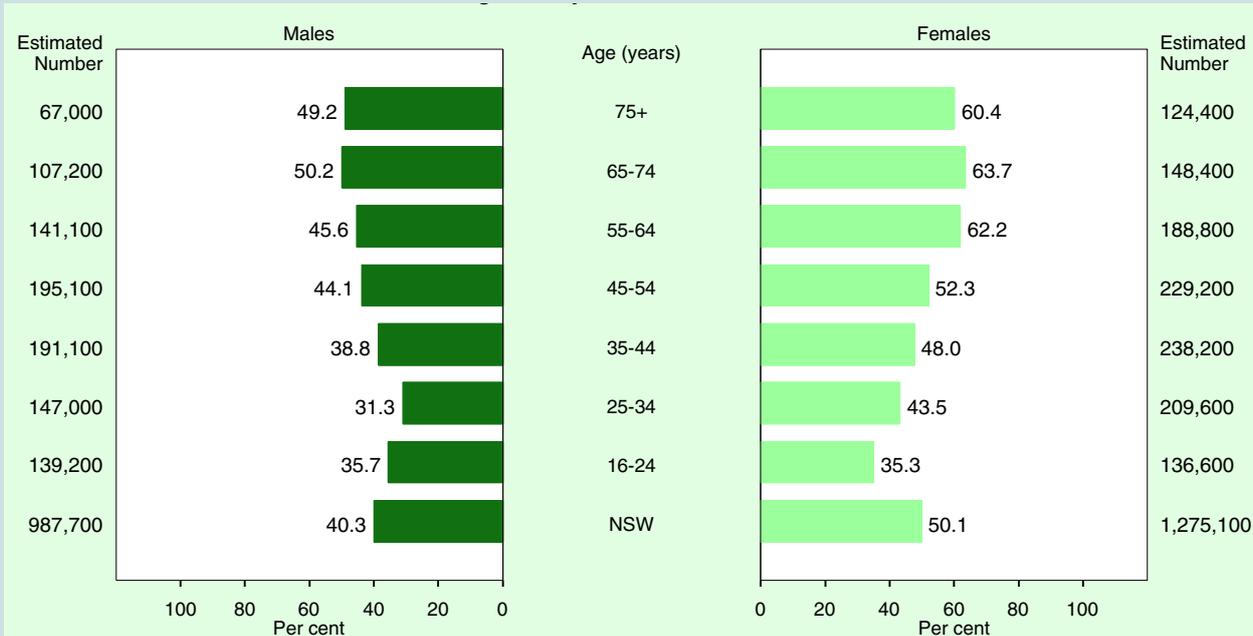
Figures 42–43 and Table 16 show the proportion of people who consume the recommended daily fruit intake by age and health area. Figures 44–45 and Table 17 show the proportion of people who consume the recommended daily vegetable intake by age and health area. Figures 46–47 and Table 18 show the proportion of people who usually ate low fat, reduced fat, or skim milk by socioeconomic disadvantage and health area. Figures 48–50 show the frequency of eating fried potato products per week; bread, pasta and other cereals by day; and processed meat products per week. Figures 51–52 show the proportion of people who have experienced food insecurity in the last 12 months by age and socioeconomic disadvantage.

References

1. National Health and Medical Research Council. *Dietary Guidelines for Australian Adults*. Canberra: NHMRC, 2003.
2. Mathers C, Vos T, Stevenson C. *The burden of disease and injury in Australia*. Canberra: Australian Institute of Health and Welfare, 1999. Available online at www.aihw.gov.au.
3. Mark GC, Webb K, Rutishauser IHE, Riley M. *Monitoring food habits in the Australian population using short questions*. Canberra: Commonwealth Department of Health and Aged Care, 2001.

FIGURE 42

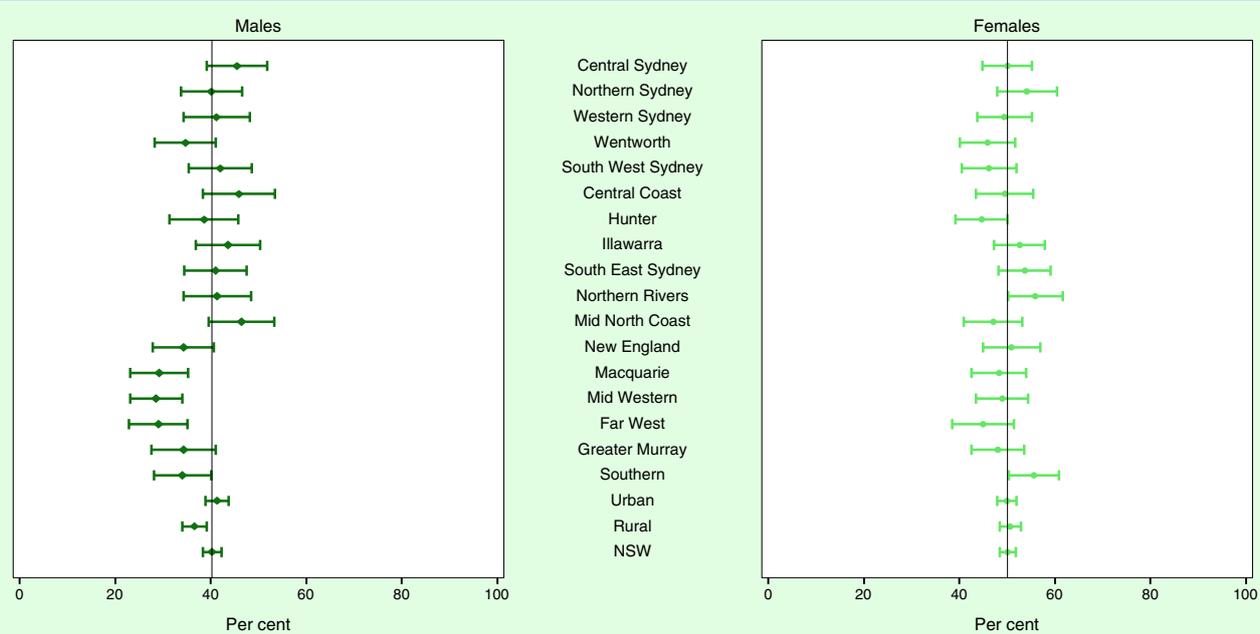
RECOMMENDED DAILY FRUIT INTAKE BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 43

RECOMMENDED DAILY FRUIT INTAKE BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 16

RECOMMENDED DAILY FRUIT INTAKE BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Males			%	Females			%	Persons		
		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	45.5	39.1	51.8	89700	50	44.8	55.2	102900	47.8	43.7	51.9	192700
Northern Sydney	40.1	33.8	46.5	122300	54.1	47.9	60.4	175200	47.4	42.8	51.9	297500
Western Sydney	41.2	34.3	48.1	104500	49.5	43.7	55.2	130200	45.4	41	49.9	234700
Wentworth	34.7	28.3	41.1	40100	45.9	40.1	51.6	54600	40.4	36	44.7	94800
South West Sydney	42	35.3	48.6	123600	46.2	40.5	52	139200	44.1	39.7	48.5	262900
Central Coast	45.9	38.4	53.4	49800	49.5	43.5	55.5	57600	47.7	43	52.5	107400
Hunter	38.6	31.4	45.8	79000	44.6	39.1	50.1	94100	41.6	37.2	46.1	173100
Illawarra	43.6	36.8	50.4	56700	52.6	47.3	57.9	71000	48.2	43.9	52.5	127700
South East Sydney	41	34.4	47.5	127200	53.7	48.2	59.1	169600	47.4	43.1	51.7	296800
Northern Rivers	41.3	34.3	48.4	40500	55.9	50.1	61.6	57400	48.8	44.3	53.3	97800
Mid North Coast	46.4	39.5	53.2	44400	47	40.9	53.2	47600	46.7	42.1	51.3	92000
New England	34.3	27.8	40.7	21400	50.9	44.9	56.9	33300	42.8	38.3	47.3	54800
Macquarie	29.2	23.1	35.3	10800	48.3	42.5	54	18100	38.8	34.5	43.1	28900
Mid Western	28.6	23.1	34	17200	49	43.5	54.4	30500	38.9	35	42.9	47800
Far West	29	22.9	35.1	5200	44.9	38.4	51.4	8000	36.9	32.3	41.4	13200
Greater Murray	34.3	27.5	41	31500	48	42.5	53.5	46700	41.3	37	45.7	78200
Southern	34.1	28.1	40.1	23700	55.6	50.3	60.9	38900	44.9	40.7	49.1	62600
Urban	41.3	39	43.7	793000	49.9	47.9	52	994600	45.7	44.2	47.3	1787600
Rural	36.5	34	39.1	194700	50.6	48.4	52.8	280500	43.7	42	45.4	475200
NSW	40.3	38.4	42.2	987700	50.1	48.4	51.7	1275100	45.3	44	46.5	2262900

Notes: Estimates are based on 12534 respondents in NSW.

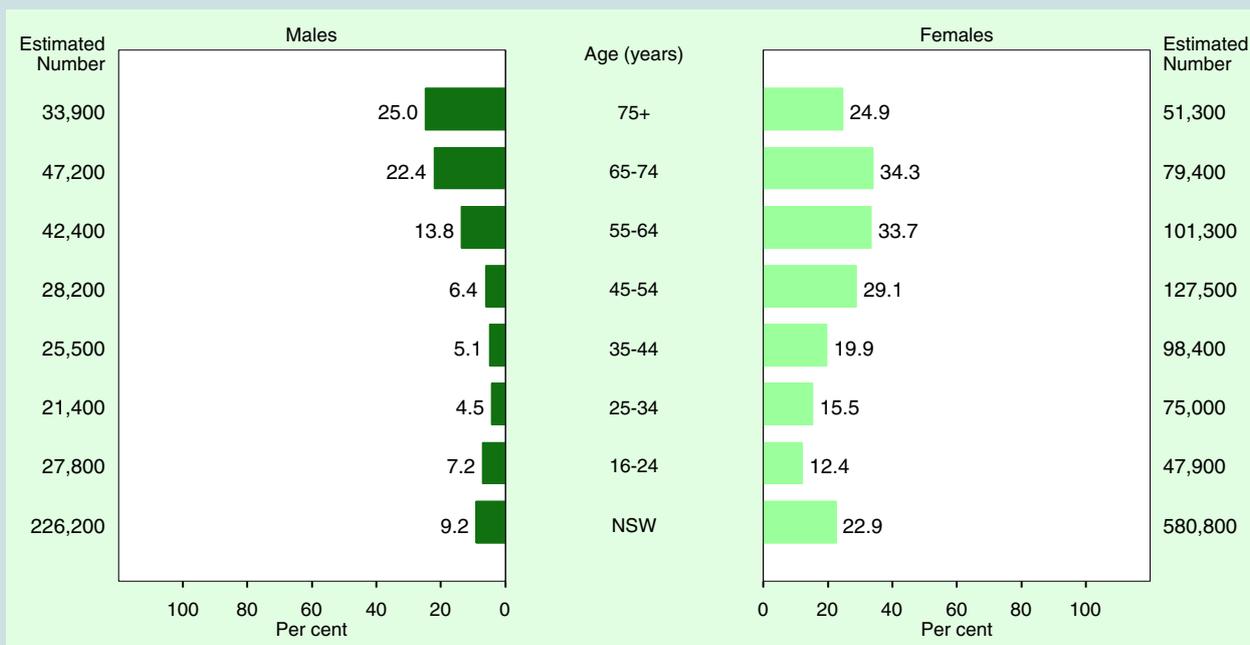
88 (0.7 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who meet the recommended daily consumption of fruit. The recommended daily consumption of fruit according to the NHMRC Dietary Guidelines for Australian Adults is 3 serves for people aged 16 to 18, and 2 serves for people aged 19 and over. One serve is equivalent to one medium piece or 2 small pieces of fruit. The question used to define the indicator was 'How many serves of fruit do you usually eat each day?'

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

FIGURE 44

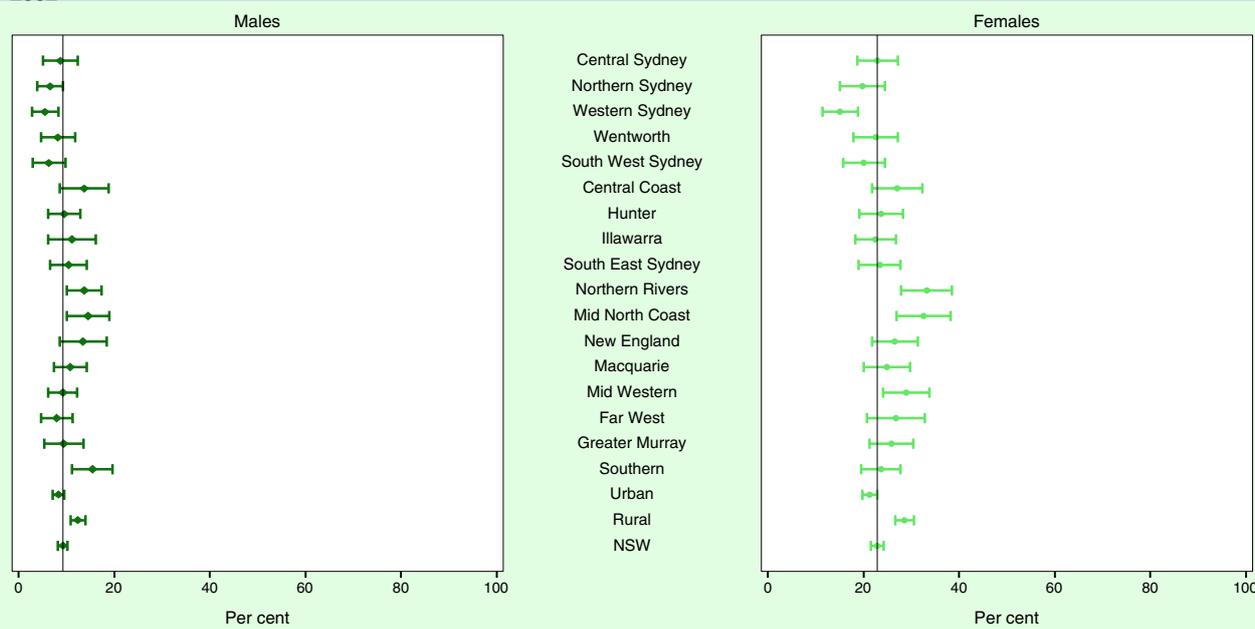
RECOMMENDED DAILY VEGETABLE INTAKE BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 45

RECOMMENDED DAILY VEGETABLE INTAKE BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 17

RECOMMENDED DAILY VEGETABLE INTAKE BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	Males				Females				Persons			
	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	8.7	5.1	12.4	17100	22.9	18.7	27.2	46500	16	13.1	18.8	63600
Northern Sydney	6.6	3.8	9.3	20100	19.8	15.1	24.5	64500	13.4	10.6	16.2	84500
Western Sydney	5.5	2.8	8.3	13900	15.1	11.4	18.8	39600	10.4	8	12.8	53600
Wentworth	8.2	4.7	11.8	9500	22.5	17.9	27.2	26800	15.5	12.5	18.5	36300
South West Sydney	6.4	2.9	9.8	18700	20.1	15.7	24.5	60400	13.3	10.5	16.1	79200
Central Coast	13.7	8.5	18.9	14700	27.1	21.8	32.3	31400	20.7	16.9	24.4	46100
Hunter	9.5	6.1	12.9	19400	23.6	19.1	28.2	49400	16.7	13.7	19.6	68800
Illawarra	11.1	6.2	16.1	14400	22.5	18.3	26.7	30200	16.9	13.7	20.1	44600
South East Sydney	10.4	6.6	14.2	32200	23.3	19	27.7	73800	17	14	19.9	106000
Northern Rivers	13.7	10	17.3	13300	33.2	27.8	38.5	33700	23.6	20.2	27.1	46900
Mid North Coast	14.5	10.1	18.9	14000	32.5	26.9	38.2	33500	23.8	20.1	27.5	47500
New England	13.5	8.6	18.4	8500	26.6	21.8	31.3	17300	20.1	16.7	23.5	25800
Macquarie	10.8	7.3	14.3	3900	24.9	20	29.7	9400	17.9	14.8	21.1	13300
Mid Western	9.2	6.2	12.3	5600	28.9	24.1	33.8	18100	19.3	16.2	22.3	23600
Far West	8	4.7	11.3	1500	26.8	20.7	32.8	4700	17.2	13.6	20.8	6200
Greater Murray	9.5	5.3	13.6	8800	25.9	21.3	30.5	25100	17.8	14.7	21	33900
Southern	15.4	11.1	19.7	10700	23.6	19.5	27.8	16500	19.5	16.5	22.5	27200
Urban	8.4	7.1	9.6	160000	21.3	19.7	22.8	422700	14.9	13.9	16	582600
Rural	12.4	10.8	14	66300	28.5	26.6	30.5	158100	20.6	19.3	21.9	224400
NSW	9.2	8.2	10.3	226200	22.9	21.6	24.2	580800	16.2	15.3	17	807000

Notes: Estimates are based on 12486 respondents in NSW.

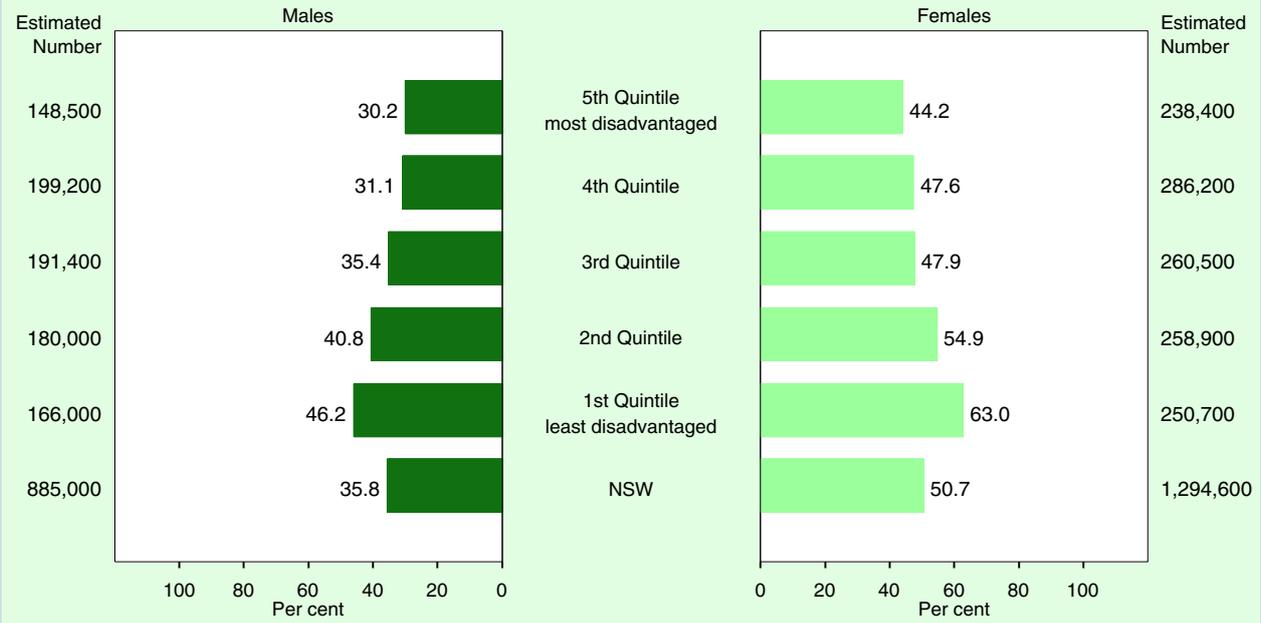
136 (1.08 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who meet the recommended daily consumption of vegetables. The recommended daily vegetable intake is defined as 4 serves per day for females of any age and for males aged 16 to 18 years or over 60 years, and 5 serves per day for males aged 19 to 60 years. One serve is equivalent to 1/2 cup of cooked vegetables or 1 cup of salad vegetables. The question used to define the indicator was: 'How many serves of vegetables do you usually eat each day?'

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

FIGURE 46

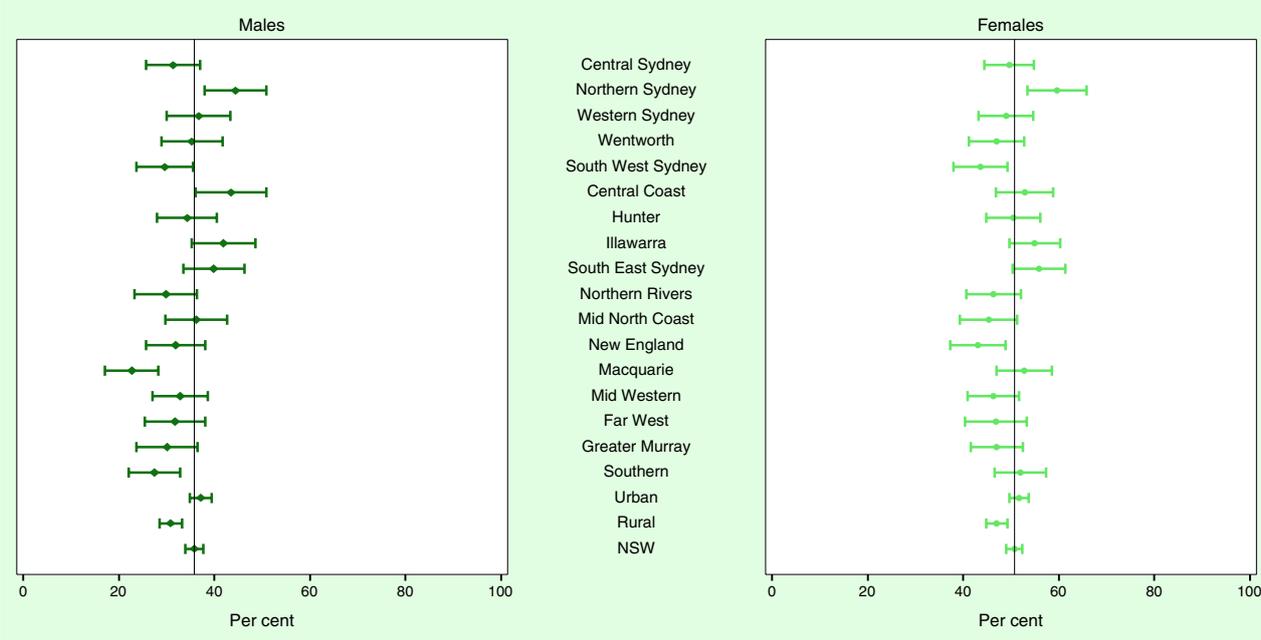
USUAL USE OF LOW FAT, REDUCED FAT OR SKIM MILK BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 47

USUAL USE OF LOW FAT, REDUCED FAT OR SKIM MILK BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 18

USUAL USE OF LOW FAT, REDUCED FAT OR SKIM MILK BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Males			%	Females			%	Persons		
		LL	UL	(est. no.)		LL	UL	(est. no.)		LL	UL	(est. no.)
		95%CI	95%CI		95%CI	95%CI		95%CI	95%CI		95%CI	95%CI
Central Sydney	31.4	25.7	37	62600	49.6	44.5	54.8	102100	40.6	36.7	44.6	164800
Northern Sydney	44.4	37.9	50.9	135400	59.6	53.5	65.8	193900	52.3	47.7	56.8	329400
Western Sydney	36.7	30	43.3	93700	48.9	43.2	54.6	129300	42.9	38.5	47.3	223000
Wentworth	35.3	28.9	41.7	40900	47	41.2	52.8	56100	41.2	36.9	45.5	97100
South West Sydney	29.6	23.6	35.6	88600	43.6	37.9	49.3	131400	36.6	32.5	40.8	220000
Central Coast	43.5	36.1	50.9	47300	52.8	46.8	58.9	61700	48.3	43.6	53.1	109000
Hunter	34.3	28	40.6	70600	50.5	44.8	56.1	106500	42.5	38.2	46.8	177200
Illawarra	41.9	35.3	48.6	54600	55	49.7	60.2	74700	48.6	44.3	52.9	129300
South East Sydney	39.9	33.5	46.3	125000	55.8	50.3	61.3	176900	47.9	43.6	52.2	301900
Northern Rivers	29.8	23.3	36.4	29300	46.4	40.6	52.1	47400	38.3	33.9	42.6	76800
Mid North Coast	36.2	29.7	42.7	35200	45.3	39.3	51.3	46800	40.9	36.5	45.3	82000
New England	31.9	25.7	38.1	20200	43.1	37.3	48.8	28200	37.6	33.4	41.8	48400
Macquarie	22.7	17.1	28.3	8400	52.8	47	58.6	19900	37.8	33.6	42.1	28300
Mid Western	32.8	27	38.7	19900	46.2	40.9	51.6	28800	39.6	35.6	43.6	48600
Far West	31.8	25.5	38.2	5900	46.8	40.4	53.3	8300	39.1	34.6	43.7	14200
Greater Murray	30.1	23.7	36.5	28200	47	41.6	52.5	46000	38.7	34.5	43	74100
Southern	27.4	22	32.8	19000	52	46.6	57.3	36500	39.8	35.8	43.8	55500
Urban	37.2	34.9	39.4	718900	51.7	49.7	53.8	1032700	44.6	43	46.1	1751600
Rural	30.9	28.5	33.3	166100	47	44.8	49.2	261900	39.1	37.5	40.7	428100
NSW	35.8	34	37.6	885000	50.7	49	52.4	1294600	43.4	42.1	44.6	2179600

Notes: Estimates are based on 12599 respondents in NSW.

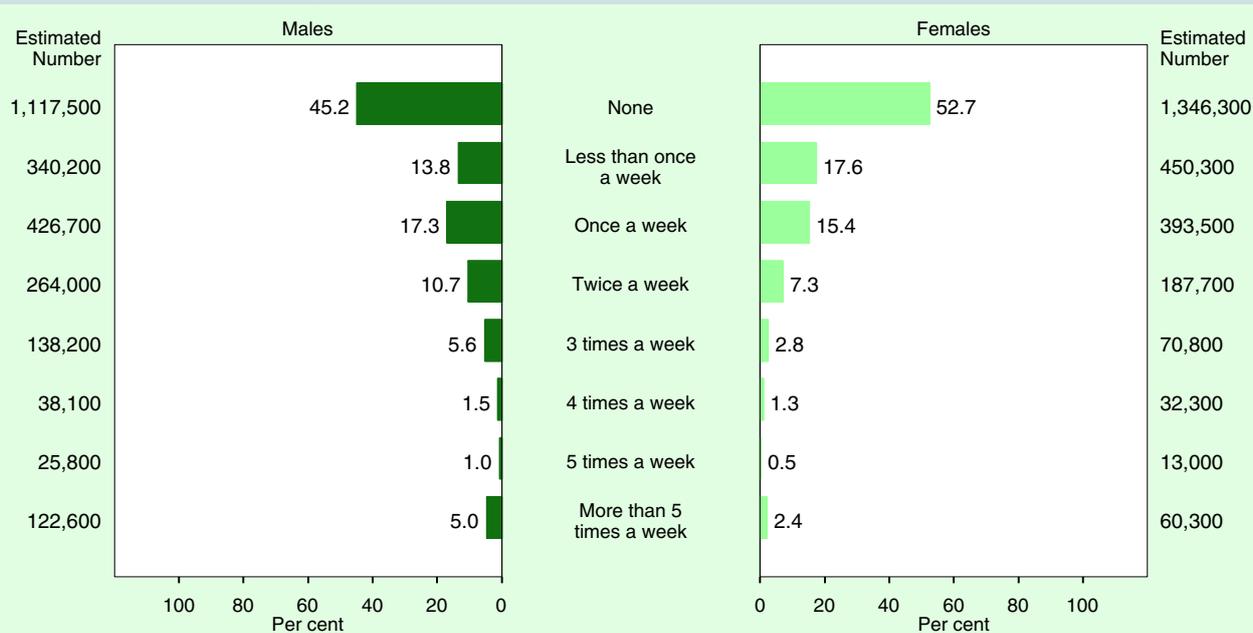
23 (0.19 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who usually use low fat, reduced fat or skim milk. The question used to define the indicator was 'What type of milk do you usually have?'

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

FIGURE 48

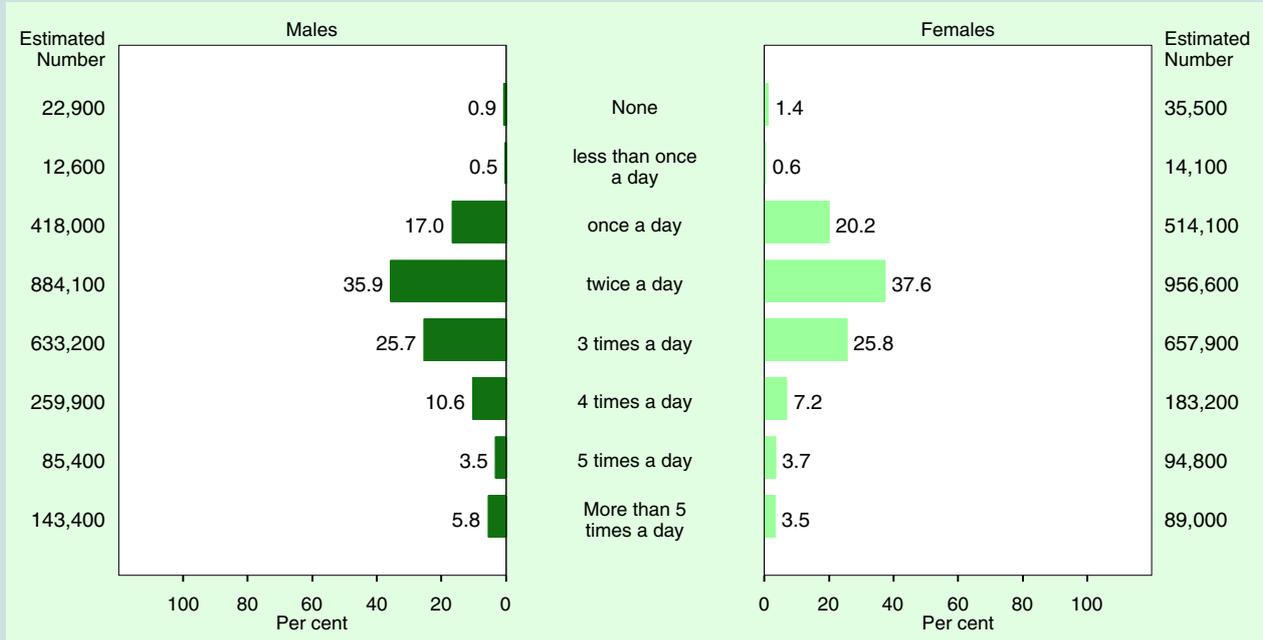
FREQUENCY OF EATING CHIPS, FRENCH FRIES, WEDGES, FRIED POTATOES OR CRISPS PER WEEK, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 49

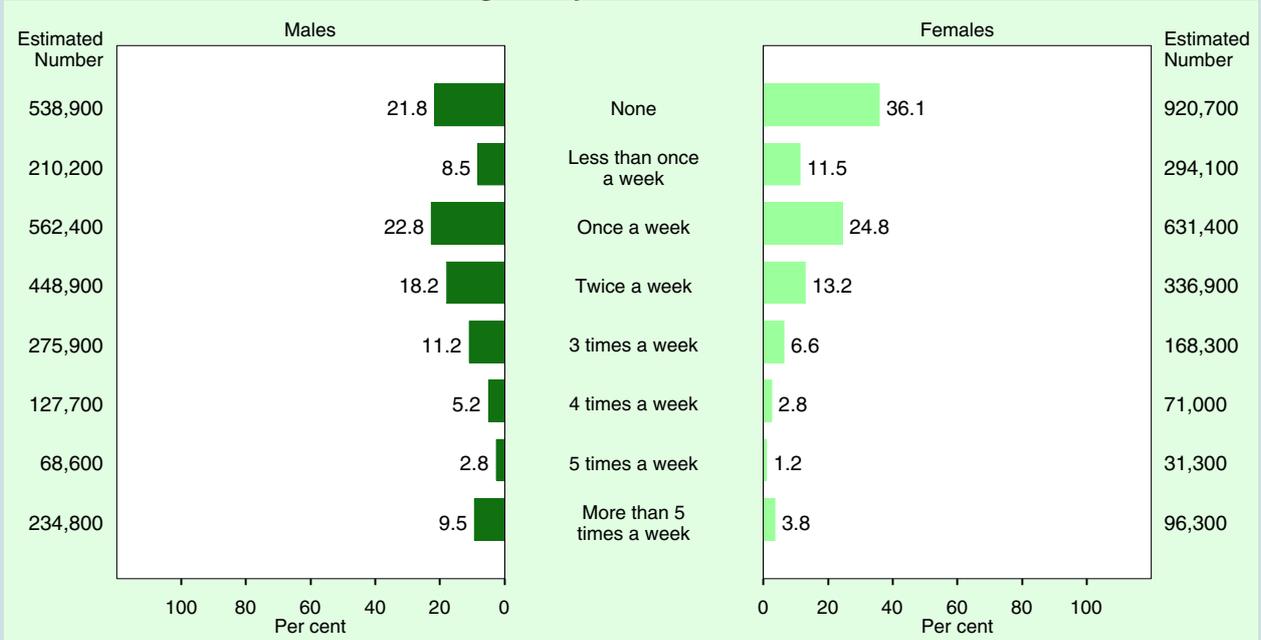
FREQUENCY OF EATING BREAKFAST CEREAL, BREADS, PASTA, RICE AND NOODLES PER DAY, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 50

FREQUENCY OF EATING PROCESSED MEAT PRODUCTS PER WEEK, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 51

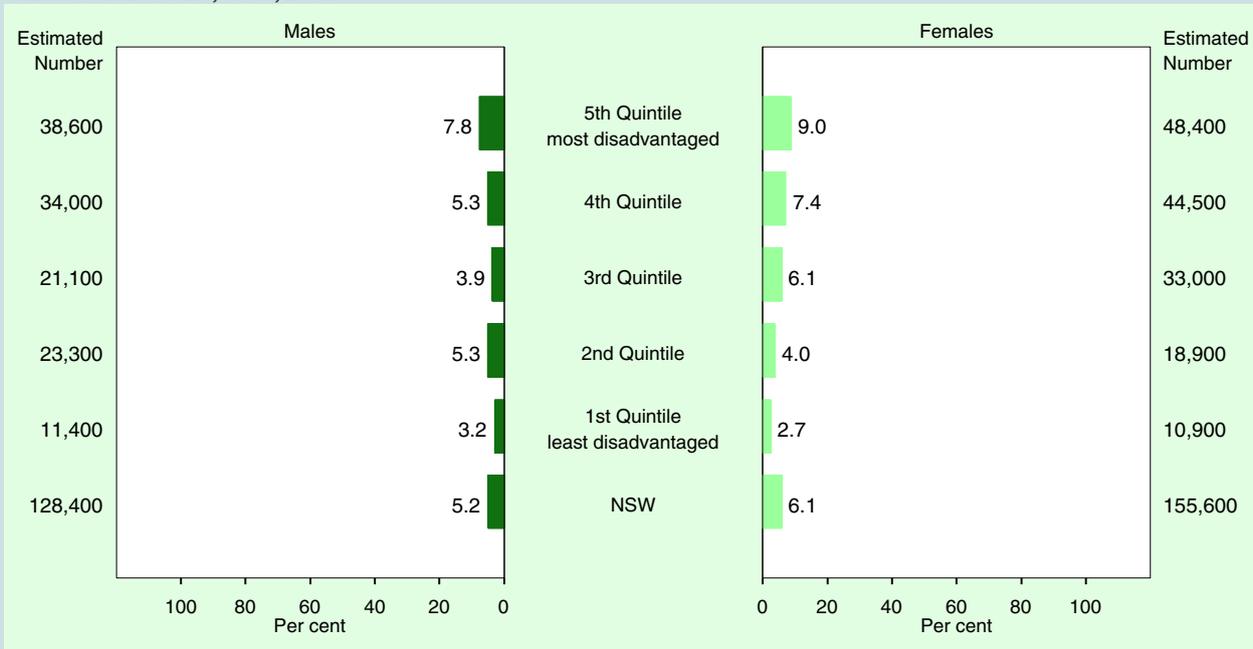
FOOD INSECURITY IN LAST 12 MONTHS BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 52

FOOD INSECURITY IN LAST 12 MONTHS BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

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 of benefit in six out of the seven National Health Priorities,¹ and is a preventative factor for cardiovascular disease, cancer, mental illness, diabetes mellitus, obesity, and injury. 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 2002* included the following *Active Australia Survey* questions: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 2002* 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 x 2 minutes doing vigorous physical activity.

Overall, in 2002, 46.6 per cent of respondents aged 16 years and over reported adequate levels of physical activity. A significantly greater proportion of males (50.4 per cent)

were likely to undertake adequate physical activity than females (42.9 per cent).

Among males, a significantly greater proportion aged 16–24 years (64.5 per cent) and a significantly lower proportion aged 75 years and over (37.2 per cent) were likely to undertake 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 (27.3 per cent to 36.3 per cent) were likely to undertake adequate physical activity, compared with the overall female population.

There was no significant difference between urban areas (46.5 per cent) and rural areas (46.8 per cent) in the proportion of people undertaking adequate levels of physical activity. Compared with the overall population, the proportion of residents undertaking adequate levels of physical activity was significantly higher in the Central Sydney (53.3 per cent) and South Eastern Sydney (55.7 per cent) Area Health Services, and significantly lower in the Western Sydney (37.7 per cent), South West Sydney (39.7 per cent), and Central Coast (39.4 per cent) Area Health Services.

A significantly greater proportion of people in the least socioeconomically disadvantaged quintile undertook adequate physical activity (52.0 per cent), compared with the overall population.

There has been no change in levels of adequate physical activity reported, between 1998 (47.6 per cent) and 2002 (46.6 per cent).

Active transport

Overall, in 2002, the majority of respondents do not use active transport to travel to work, as 76.3 per cent commute by car, motorbike, or truck. Of those respondents using a form of active transport, 17.9 per cent use public transport (train, bus or ferry), 6.5 per cent walk to work, and 1.4 per cent bicycle to work.

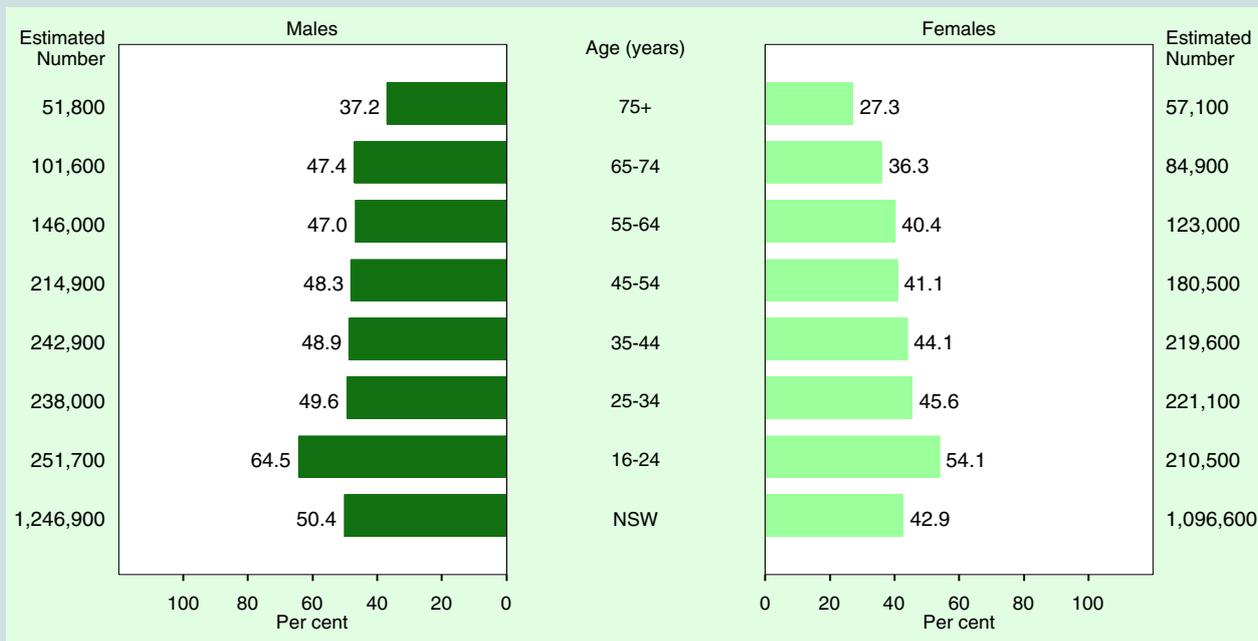
Figures 53–55 and Table 19 show the proportion of people who undertake adequate physical activity in the last week by age, socioeconomic disadvantage, and health area. Figure 56 shows usual method of transportation to work.

References

1. Bauman A, Bellew B, Vita P, Brown W, and Owen T. *Getting Australia Active: Towards better practice for the promotion of physical activity*. Melbourne: National Public Health Partnership, 2002.
2. Mathers C, Vos T, Stevenson C. *The burden of disease and injury in Australia*. Canberra: Australian Institute of Health and Welfare, 1999. Available online at www.aihw.gov.au, accessed July 2003.
3. Commonwealth Department of Health and Aged Care. *National Physical Activity Guidelines for Australians*. Canberra: Commonwealth Department of Health and Aged Care. Available online at www.health.gov.au/publth/publicat/document/physguide.pdf, accessed 7 August 2003.
4. Australian Institute of Health and Welfare. *The Active Australia Survey: A guide and manual for implementation, analysis and reporting*. Canberra: AIHW, 2003.

FIGURE 53

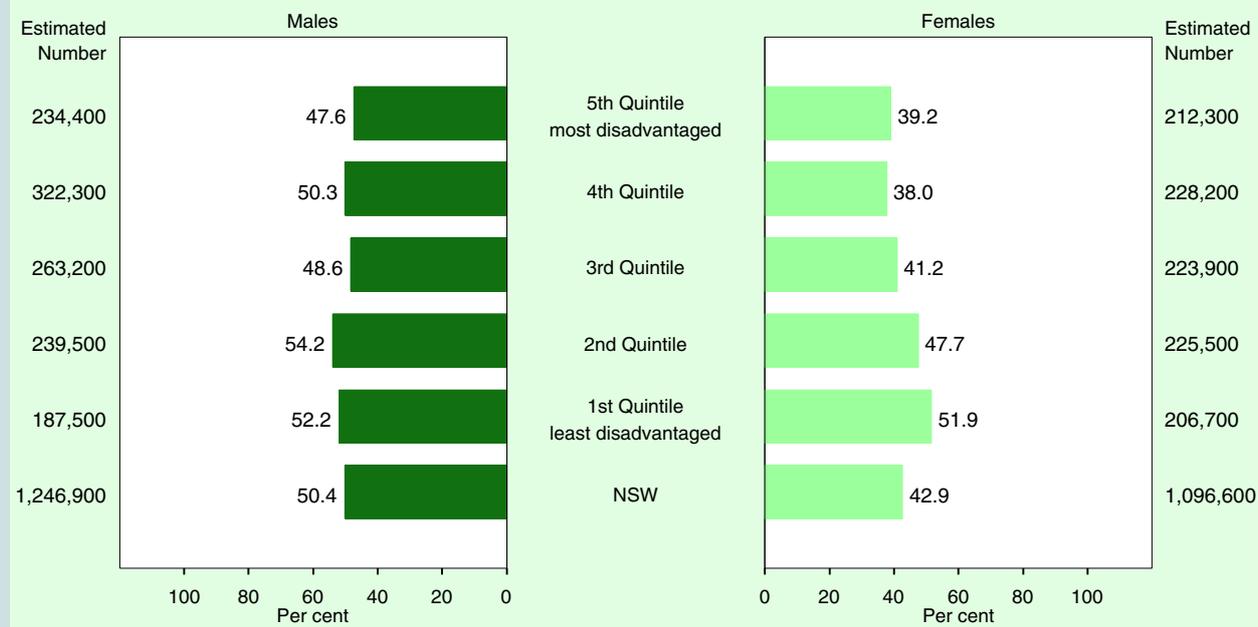
ADEQUATE PHYSICAL ACTIVITY BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 54

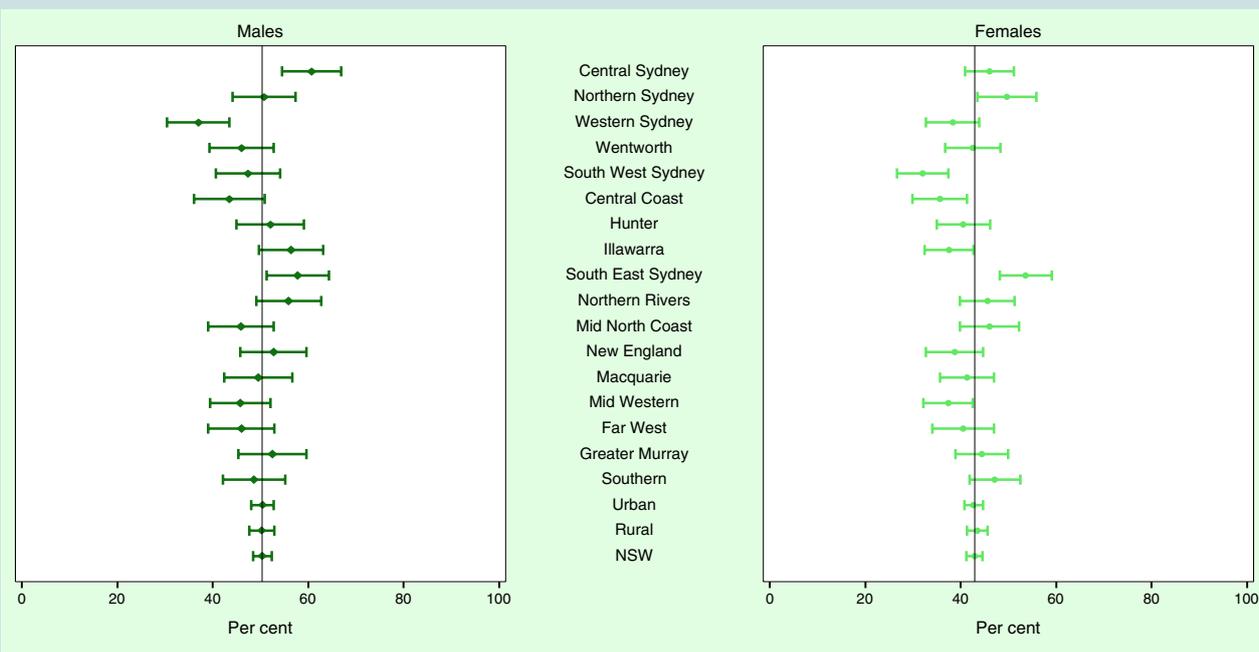
ADEQUATE PHYSICAL ACTIVITY BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 55

ADEQUATE PHYSICAL ACTIVITY BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 19

ADEQUATE PHYSICAL ACTIVITY BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	Males				Females				Persons			
	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	60.7	54.5	66.8	121500	46	40.9	51.2	94800	53.3	49.2	57.3	216300
Northern Sydney	50.8	44.2	57.3	155200	49.6	43.4	55.9	161600	50.2	45.7	54.7	316800
Western Sydney	37	30.4	43.5	94400	38.3	32.7	43.9	101300	37.7	33.4	41.9	195600
Wentworth	46	39.3	52.7	53400	42.6	36.7	48.4	51000	44.3	39.8	48.7	104400
South West Sydney	47.4	40.7	54.1	141900	32	26.7	37.4	96600	39.7	35.3	44.1	238500
Central Coast	43.5	36.1	50.9	47300	35.6	29.9	41.3	41600	39.4	34.8	44	89000
Hunter	52	45	59.1	107300	40.5	35	46.1	86100	46.2	41.7	50.7	193400
Illawarra	56.4	49.7	63.2	73500	37.5	32.4	42.6	51000	46.8	42.5	51.1	124500
South East Sydney	57.8	51.3	64.3	181300	53.6	48.2	59	170200	55.7	51.5	59.9	351500
Northern Rivers	55.9	49.1	62.7	55000	45.6	39.8	51.3	46800	50.6	46.1	55.1	101800
Mid North Coast	45.9	39	52.7	44700	46	39.9	52.2	47600	46	41.4	50.6	92200
New England	52.7	45.8	59.7	33400	38.7	32.7	44.7	25400	45.6	41	50.2	58800
Macquarie	49.5	42.3	56.6	18400	41.3	35.6	47	15600	45.4	40.8	49.9	34000
Mid Western	45.7	39.4	52.1	27700	37.4	32.2	42.6	23400	41.5	37.4	45.6	51000
Far West	46	39.1	52.9	8600	40.5	34.1	46.9	7200	43.3	38.6	48	15800
Greater Murray	52.5	45.4	59.6	49500	44.4	38.9	49.9	43400	48.4	43.9	52.9	92900
Southern	48.7	42.1	55.2	33900	47.1	41.8	52.4	33100	47.9	43.7	52.1	67000
Urban	50.4	48	52.8	975800	42.7	40.7	44.7	854200	46.5	45	48.1	1829900
Rural	50.3	47.6	52.9	271100	43.5	41.3	45.7	242500	46.8	45.1	48.5	513600
NSW	50.4	48.4	52.3	1246900	42.9	41.2	44.5	1096600	46.6	45.3	47.8	2343500

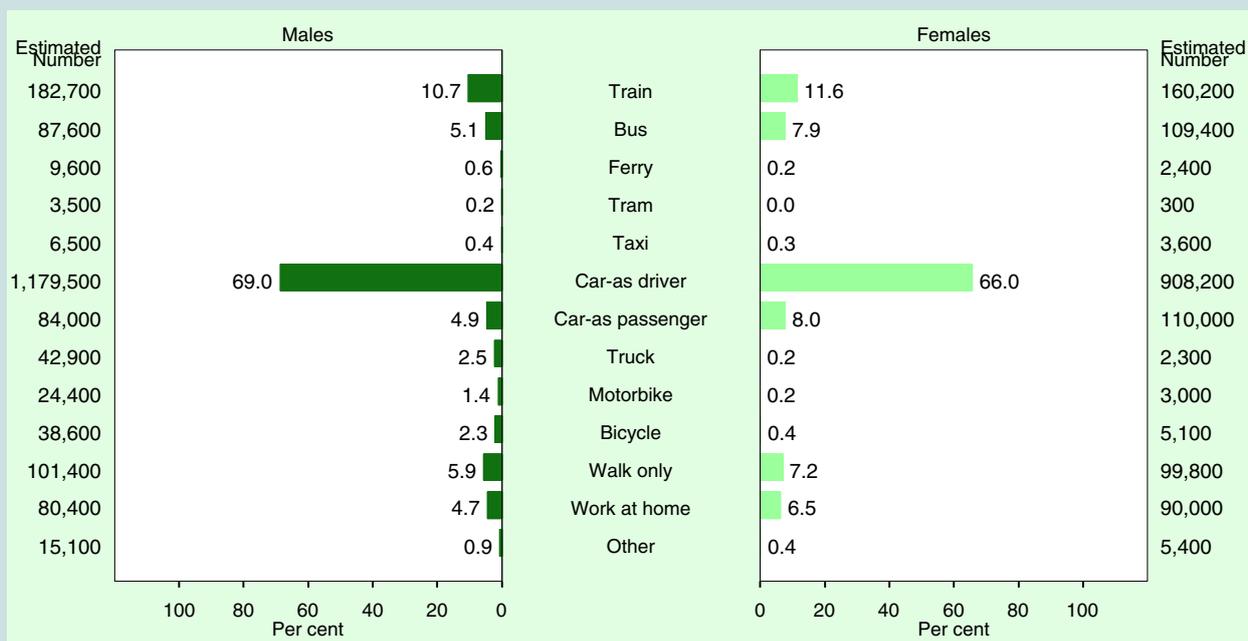
Notes: Estimates are based on 12622 respondents in NSW.

0 (0%) were 'not stated' (Don't know or Refused) for this indicator in NSW.

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

FIGURE 56

USUAL TRANSPORT TO WORK, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

Smoking

Introduction

Smoking is the main cause, 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 2002* included questions on smoking prevalence, intention to quit smoking, and smoking in the home. Respondents were asked the following questions: 'Which of the following best describes your smoking status?', 'Which of the following best describes how you feel about your smoking?', 'Which of the following best describes your home situation?', 'Can you tell me what percentage of the population you think are smokers?'

Results

Current smoking status

Overall, in 2002, 16.3 per cent of the population reported that they smoked daily, 5.1 per cent smoked occasionally, 25.1 per cent don't smoke now but used to, 10.8 per cent have tried smoking a few times but have never smoked regularly, and 42.8 per cent have never smoked.

Current smoking prevalence included respondents who reported that they smoke daily or occasionally. In 2002, 21.4 per cent of the population reported that they are current smokers. Significantly, more males (23.9 per cent) than females (18.9 per cent) reported that they currently smoke.

For both males and females, rates of current smoking were highest in young adults. Among males, a significantly greater proportion of those aged 25–44 years (30.4 per cent to 34.7 per cent) and a significantly lower proportion of those aged 55 years and over (4.2 per cent to 15.4 per cent) were likely to be current smokers, compared to the overall male population. Among females a significantly greater proportion of those aged 16–24 years (27.4 per cent) and a significantly lower proportion of those aged 45 years and over (3.9 per cent to 17.5 per cent) were likely to be current smokers, compared to the overall female population.

There was significant geographic variation in current smoking, with a significantly greater proportion of rural

residents (23.5 per cent) likely to currently smoke than urban residents (20.8 per cent). A significantly lower proportion of residents in the Northern Sydney Area Health Service (14.2 per cent), and a significantly greater proportion of residents in the Wentworth Area Health Service (26.1 per cent) reported current smoking, compared to the overall urban population.

Compared to the overall population, the proportion of people currently smoking was significantly lower in respondents in the least disadvantaged quintile (14.0 per cent) and significantly higher in respondents in the second most disadvantaged quintile (24.7 per cent).

There has been a significant decrease in the prevalence of current smoking, from 24.0 per cent in 1997 to 21.4 per cent in 2002. This decrease has occurred in both males (27.2 per cent to 23.9 per cent) and females (21.0 per cent to 18.9 per cent).

Of the respondents who reported current smoking, 49.6 per cent were not planning to quit in the next six months, 32.9 per cent were planning to quit in the next six months, and 12.7 per cent were planning to quit in the next month. A further 3.7 per cent had just quit smoking (had not smoked in the last 24 hours), and 1.1 per cent had not smoked in the last six months.

Smoking in the home

In the *New South Wales Adult Health Survey 2002*, respondents were asked 'Which of the following best describes your home situation: "my home is smoke free", "people occasionally smoke in the home", or "people frequently smoke in the home"?'.

In 2002, among NSW residents aged 16 years and over, 81.0 per cent reported that their home was smoke-free, 9.8 per cent reported people 'occasionally' smoked inside the home, and 9.2 per cent reported that people 'frequently' smoked inside the home.

The proportion of people living in a smoke-free home (81.0 per cent) was significantly lower among people aged 16–24 years and significantly greater among people aged 75 years and over (89.4 per cent).

There was significant geographic variation in the proportion of smoke-free homes, with urban residents (81.9 per cent) reporting a significantly greater proportion of smoke-free homes than rural residents (77.9 per cent). Residents in Northern Sydney Area Health Service (88.7 per cent) had a significantly higher proportion of smoke free homes, compared to the overall urban population.

The proportion of people reporting that their home was smoke-free decreased with increasing levels of socioeconomic disadvantage. Compared to the overall population, the least disadvantaged quintile (88.5 per cent) had a significantly greater proportion of smoke-free homes, and the most disadvantaged quintile (74.4 per cent) had a significantly lower proportion of smoke-free homes.

There has been a large and significant increase in the proportion of homes reported to be smoke-free, from 69.8 per cent in 1997 to 81.0 per cent in 2002.

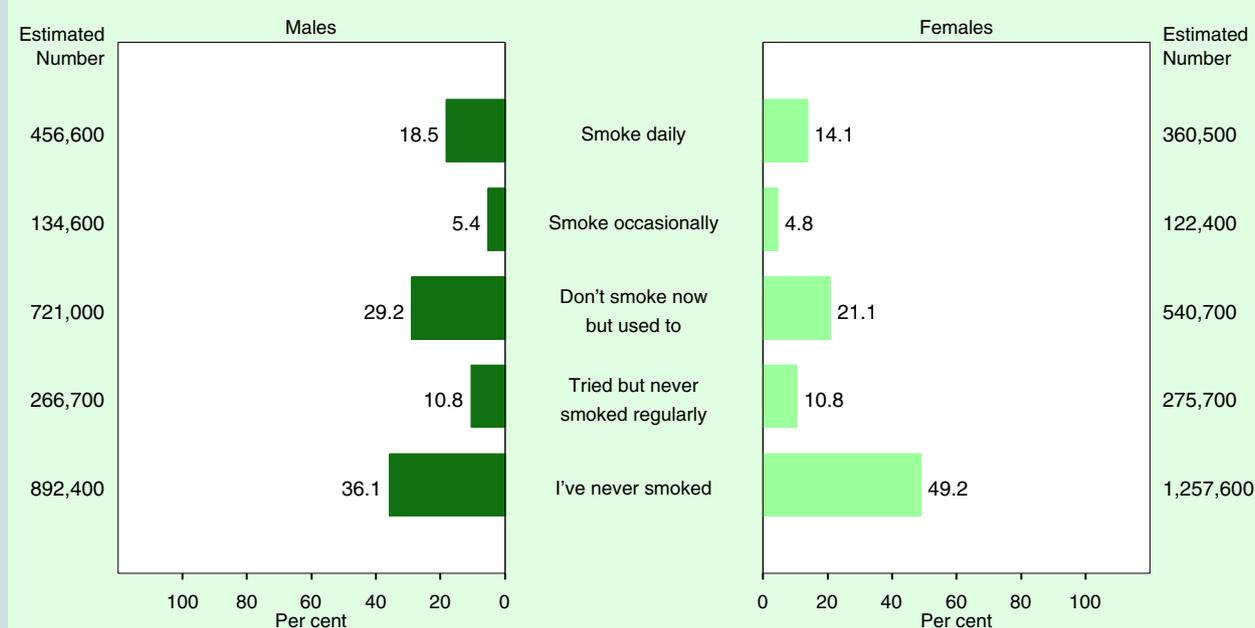
Figure 57 shows smoking status. Figure 58 shows the proportion of people who currently smoke daily or occasionally by age. Figure 59 shows the intention to quit smoking. Figure 60 shows household tobacco exposure. Figures 61–62 and Table 20 shows the proportion of smoke-free households by socioeconomic disadvantage and health area.

References

1. Mathers C, Vos T, Stevenson C. *The burden of disease and injury in Australia*. Canberra: Australian Institute of Health and Welfare, 1999. Available online at www.aihw.gov.au, accessed July 2003.
2. National Health and Medical Research Council. *The Health Effects of Passive Smoking*. Canberra: Publications Production Unit, Commonwealth Department of Health and Family Services, November 1997.

FIGURE 57

SMOKING STATUS, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 58

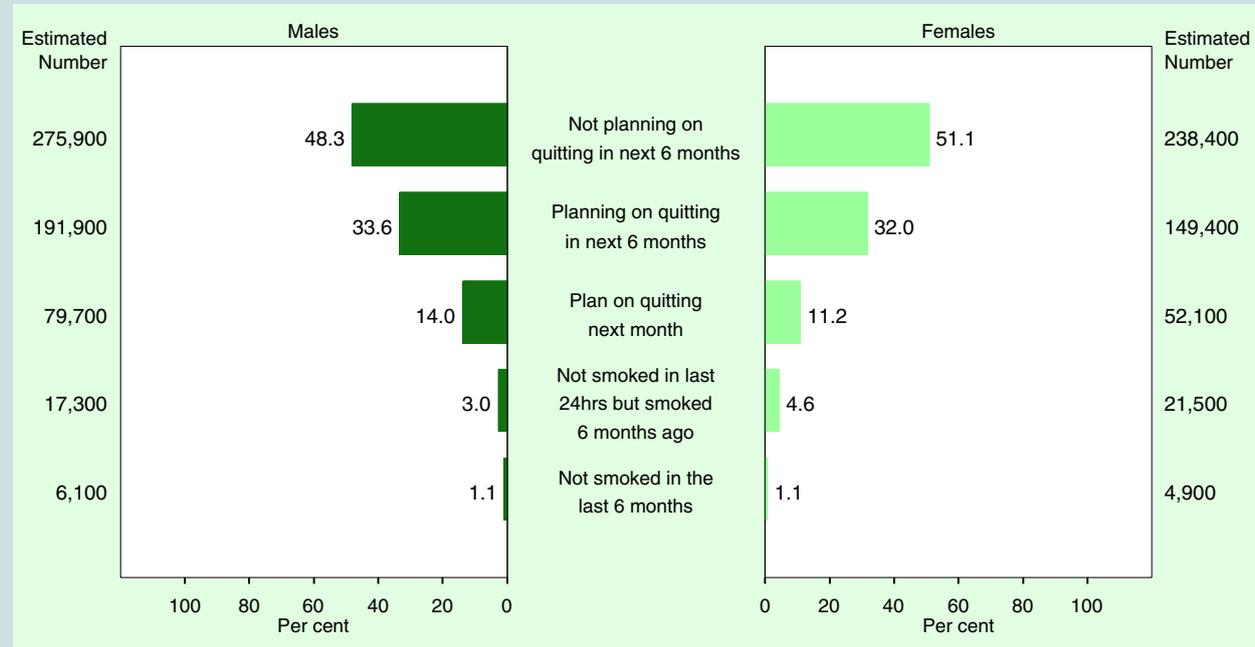
CURRENT DAILY OR OCCASIONAL SMOKING BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 59

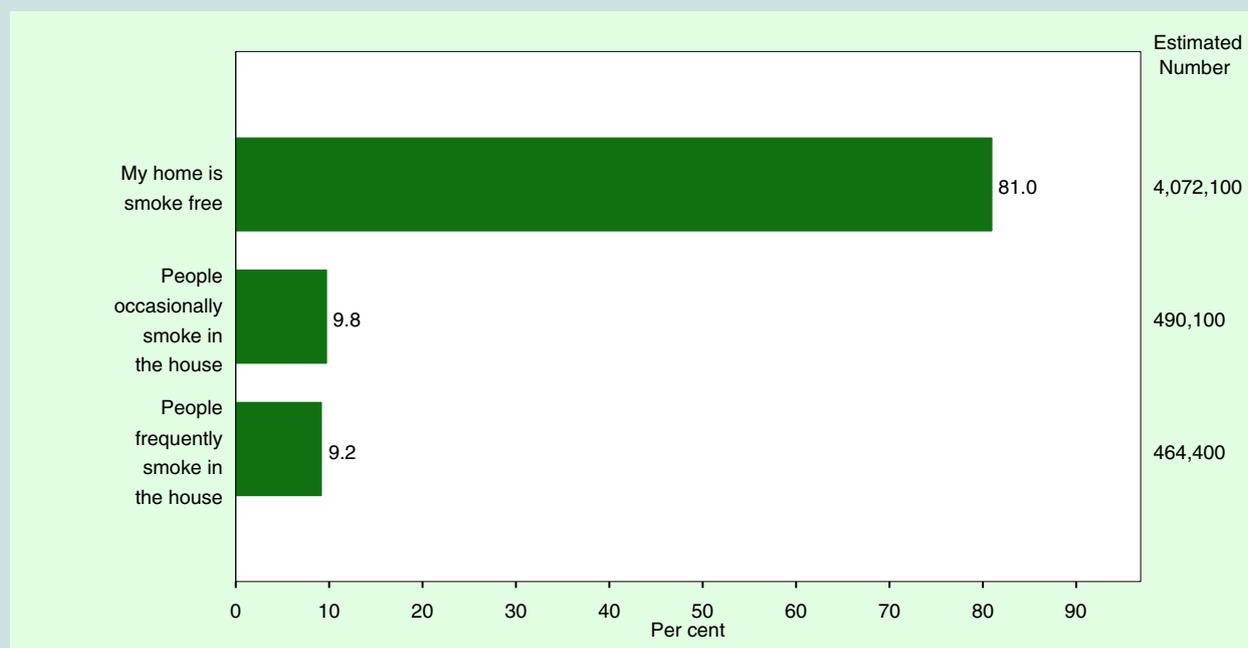
INTENTION TO QUIT SMOKING, PERSONS WHO SMOKE AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 60

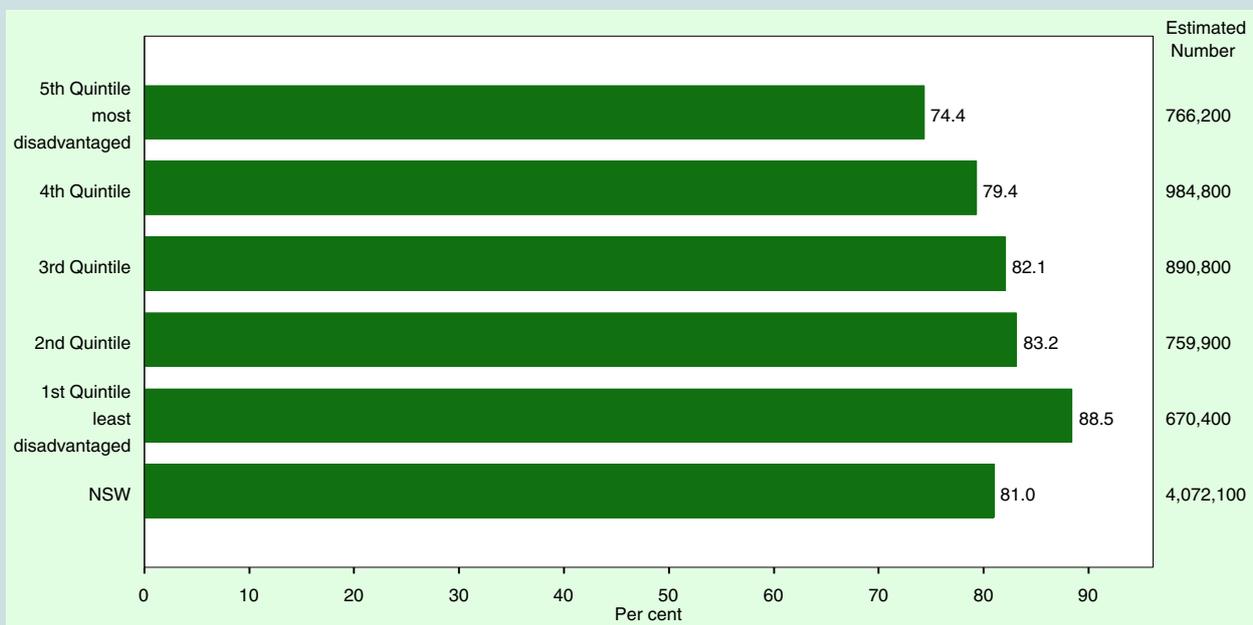
ENVIRONMENTAL TOBACCO HOUSEHOLD EXPOSURE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 61

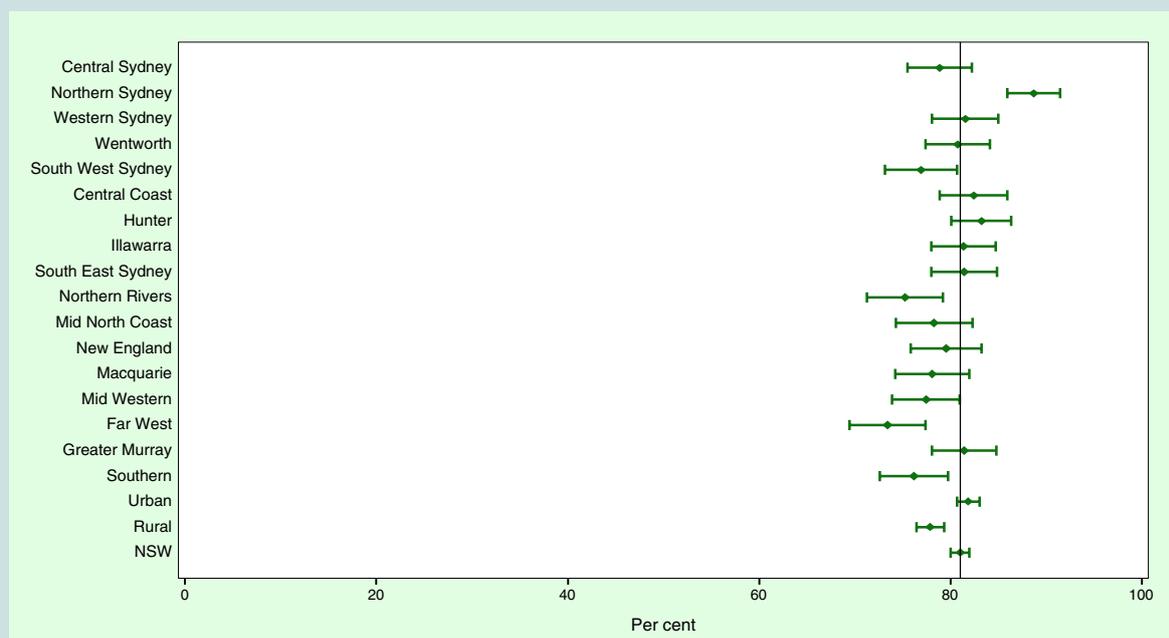
SMOKE-FREE HOUSEHOLDS BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 62

SMOKE-FREE HOUSEHOLDS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 20

SMOKE-FREE HOUSEHOLDS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Persons		(est no.)
		LL95%CI	UL95%CI	
Central Sydney	78.9	75.5	82.3	319600
Northern Sydney	88.7	85.9	91.5	559900
Western Sydney	81.5	78.1	85	423700
Wentworth	80.8	77.4	84.2	190300
South West Sydney	77	73.2	80.7	460900
Central Coast	82.4	78.9	86	185500
Hunter	83.2	80.1	86.4	347400
Illawarra	81.4	78	84.8	216600
South East Sydney	81.4	78	84.8	513600
Northern Rivers	75.3	71.3	79.3	151300
Mid North Coast	78.3	74.3	82.3	156900
New England	79.6	75.9	83.2	102500
Macquarie	78.1	74.2	82	58500
Mid Western	77.5	73.9	81	95200
Far West	73.4	69.4	77.4	26800
Greater Murray	81.4	78.1	84.8	156500
Southern	76.2	72.7	79.8	106700
Urban	81.9	80.7	83.1	3217600
Rural	77.9	76.5	79.3	854500
NSW	81	80	82	4072100

Notes: Estimates are based on 12610 respondents in NSW.

12 (0.1 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those households with who indicated that their home was smoke free. The question used to define the indicator was 'Which of the following best describes your home situation? My home is smoke free, People occasionally smoke in the house, and People frequently smoke in the house'.

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

8. HEALTH STATUS

Monitoring the health status of a population helps to detect emerging patterns of illness and disease and provides information to inform policy and planning of health services. This section reports on self-rated health status, asthma, precursors of cardiovascular disease, chemical sensitivity, diabetes, injury, mental health, oral health, and overweight and obesity.

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'.

Results

Overall, in 2002, 23.1 per cent reported their health as 'excellent', 29.3 per cent as 'very good', 28.3 per cent as 'good', 13.3 per cent as 'fair', 4.5 per cent as 'poor' and 1.5 per cent as 'very poor'. Responses of 'excellent', 'very good' and 'good' were combined into a 'positive' rating of health (80.7 per cent of the population). There was no significant difference between the proportion of males (81.8 per cent) and females (79.7 per cent) who gave a positive rating of their health.

A significantly greater proportion of people aged 25–34 years (85.3 per cent), and a significantly lower proportion of people aged 55 years and over (68.2 per cent to 76.2 per cent), were likely to rate their health status positively, compared with the overall population.

The proportion of people positively rating their health status did not differ significantly between urban residents (80.6 per cent) and rural residents (81.0 per cent). A significantly greater proportion of females in the Northern Sydney Area Health Service (86.2 per cent) and a significantly lower proportion of females in the Central Coast Area Health Service (72.7 per cent), were likely to rate their health status positively, compared with the overall female population.

A significantly lower proportion of people in the most socioeconomically disadvantaged quintile (76.1 per cent) were likely to rate their health status positively, compared with the overall population.

The proportion of people who rated their health status positively decreased significantly from 1997 (84.9 per cent) to 2002 (80.7 per cent). This significant decrease has occurred in both males (84.9 per cent to 81.8 per cent) and females (85.0 per cent to 79.7 per cent).

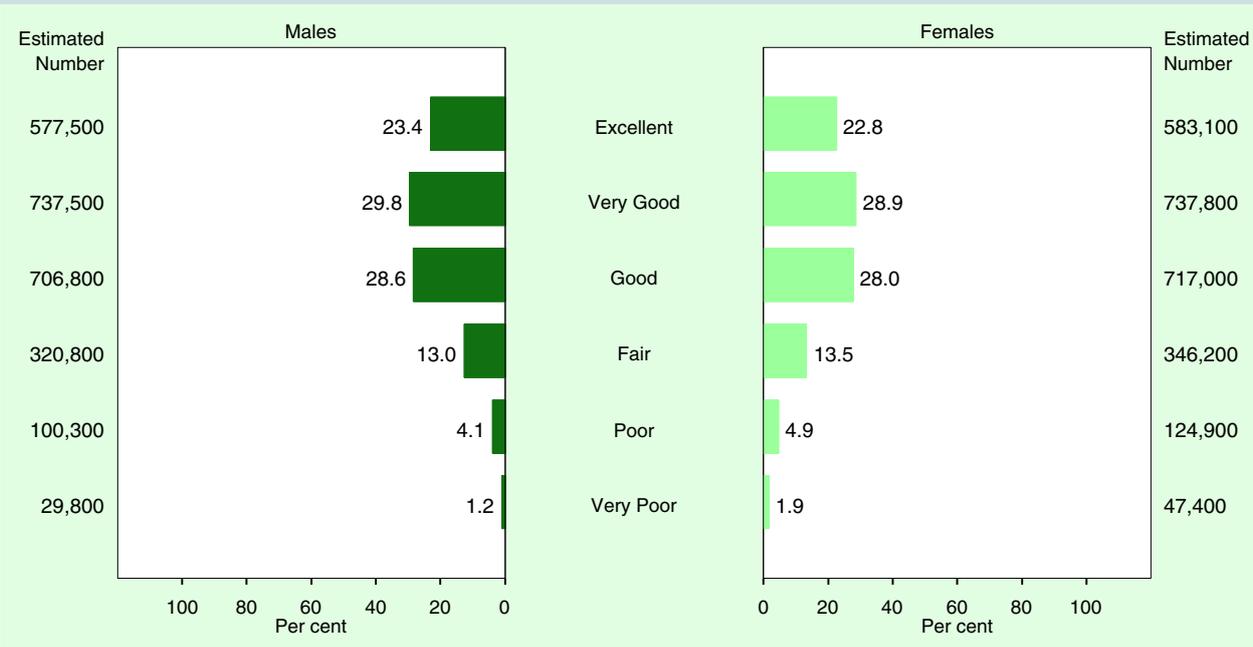
Figure 63 shows self-rated health status. Figures 64–65 and Table 21 show the proportion of people who rated their health as excellent, very good, or good, by age and health area.

References

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3. McCallum J, Shadbolt B, Wang D. Self-rated health and survival: A 7-year follow up study of Australian elderly. *Am J Public Health* 1994; 84: 1100–5.

FIGURE 63

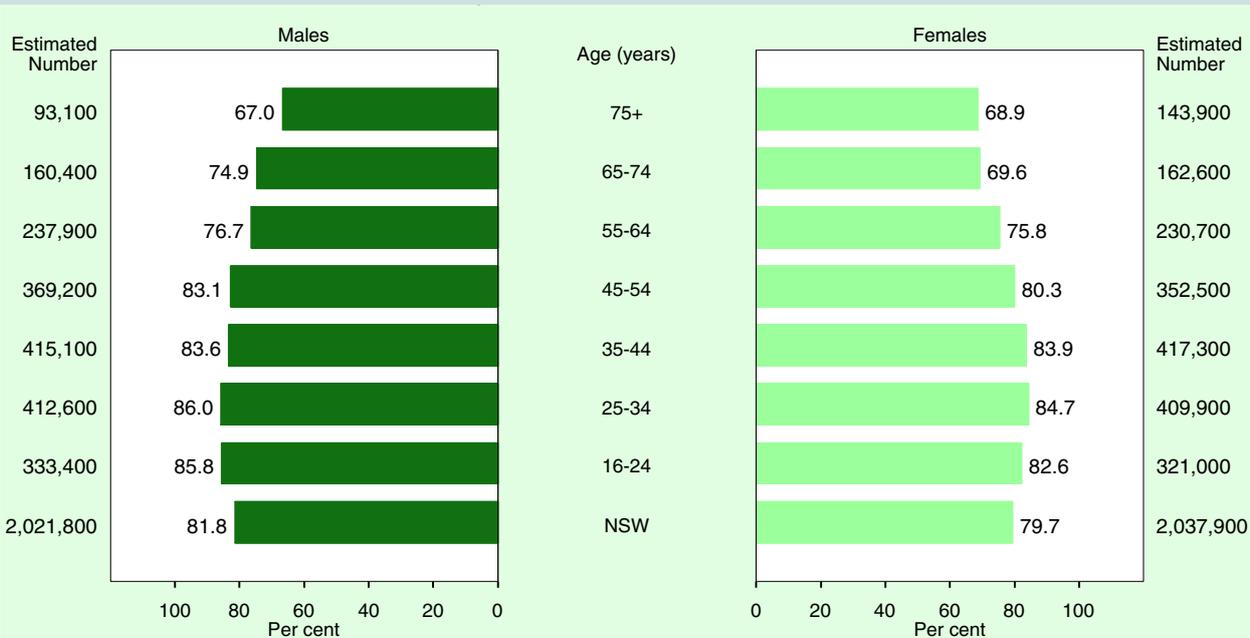
SELF-RATED HEALTH STATUS, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 64

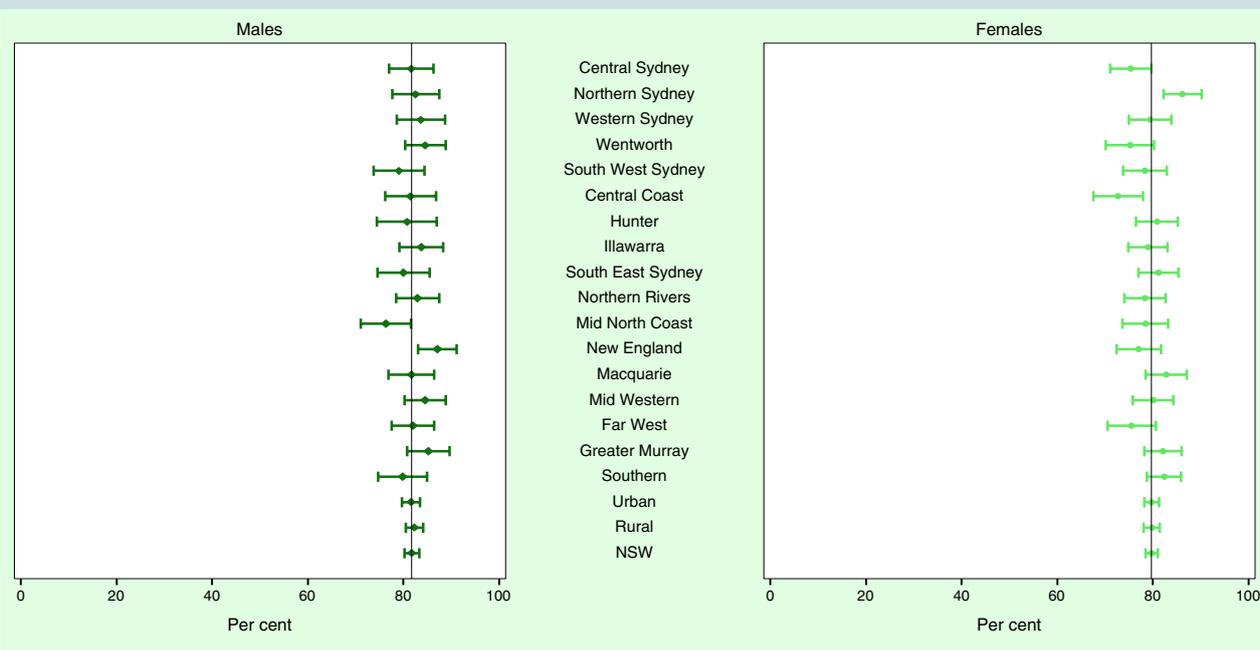
EXCELLENT, VERY GOOD, OR GOOD SELF-RATED HEALTH STATUS BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 65

EXCELLENT, VERY GOOD, OR GOOD SELF-RATED HEALTH STATUS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 21

EXCELLENT, VERY GOOD, OR GOOD SELF-RATED HEALTH STATUS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	Males				Females				Persons			
	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	81.6	77	86.3	163500	75.4	71	79.7	154900	78.5	75.3	81.6	318400
Northern Sydney	82.6	77.7	87.5	252400	86.2	82.2	90.2	280600	84.4	81.3	87.6	533000
Western Sydney	83.7	78.7	88.7	212400	79.4	75	83.8	209800	81.5	78.1	84.8	422200
Wentworth	84.6	80.3	88.9	98200	75.2	70.2	80.2	90000	79.8	76.5	83.2	188200
South West Sydney	79.1	73.7	84.5	236700	78.4	73.8	82.9	236300	78.7	75.2	82.3	473000
Central Coast	81.5	76.2	86.8	88700	72.7	67.5	77.9	85000	76.9	73.2	80.7	173700
Hunter	80.7	74.5	87	166400	80.9	76.5	85.2	171700	80.8	77	84.6	338100
Illawarra	83.7	79.2	88.3	108700	79	74.8	83.1	106900	81.3	78.2	84.4	215600
South East Sydney	80	74.6	85.5	251000	81.2	77	85.3	257700	80.6	77.2	84	508700
Northern Rivers	83	78.4	87.5	81500	78.3	74	82.6	80400	80.6	77.5	83.7	161900
Mid North Coast	76.4	71.1	81.6	74200	78.4	73.7	83.2	81100	77.4	73.9	81	155200
New England	87.1	83.1	91.2	55200	77	72.4	81.7	50500	82	78.9	85.1	105700
Macquarie	81.7	76.8	86.5	30300	82.8	78.5	87.1	31200	82.2	79	85.4	61500
Mid Western	84.6	80.3	88.8	51100	80	75.8	84.3	50100	82.3	79.2	85.3	101200
Far West	82	77.5	86.5	15300	75.6	70.5	80.6	13500	78.9	75.5	82.3	28800
Greater Murray	85.3	80.8	89.7	80400	82.1	78.2	86.1	80400	83.7	80.7	86.6	160800
Southern	79.8	74.7	84.9	55700	82.3	78.8	85.9	57900	81.1	78	84.2	113600
Urban	81.6	79.8	83.5	1578100	79.7	78.2	81.2	1592900	80.6	79.4	81.8	3171000
Rural	82.3	80.5	84.1	443700	79.8	78.1	81.4	445000	81	79.8	82.2	888700
NSW	81.8	80.3	83.3	2021800	79.7	78.5	81	2037900	80.7	79.7	81.7	4059600

Notes: Estimates are based on 12611 respondents in NSW.

11 (0.09 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those responding excellent, very good or good to a global self-rated health status question. The question used to define the indicator was 'Overall, how would you rate your health during the past four weeks? Was it excellent, very good, good, fair, poor or very poor'.

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

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 one to 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 (DALY's) (2.1 per cent for males and 3.1 per cent for females).⁷

The *New South Wales Adult Health Survey 2002* included questions on prevalence and severity of 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 4 weeks?', 'Have you visited a general practitioner or local doctor for an attack of asthma in the last 4 weeks?', 'Have you visited a hospital emergency department for an attack of asthma in the last 4 weeks?'

Results

A lifetime prevalence of asthma

Approximately one in five people (19.6 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. There was no significant difference between males (18.3 per cent) and females (20.9 per cent).

The proportion of people to have ever been diagnosed with asthma was significantly greater in people aged 16–24 years (26.4 per cent), and significantly lower in males aged 45–74 years (13.5 per cent to 15.5 per cent) and people aged 75 years and over (15.5 per cent), than in the overall population.

The proportion of people reporting ever-diagnosed asthma was significantly higher in rural residents (22.0 per cent) than urban residents (19.0 per cent); however, in the Far West Area Health Service the proportion of people reporting ever-diagnosed asthma (26.8 per cent) was significantly higher than in the overall population.

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 2002 (19.6 per cent). This increase has occurred in both males (14.9 per

cent to 18.3 per cent) and females (18.1 per cent to 20.9 per cent).

Doctor-diagnosed current asthma

Overall, 10.6 per cent of people aged 16 years and over reported that they had had current doctor-diagnosed asthma. The proportion of females with doctor-diagnosed current asthma (12.0 per cent) was significantly higher than males (9.1 per cent). Of the people who reported having current asthma, 1.3 per cent had visited an emergency department and 14.5 per cent had visited a general practitioner or local doctor for an attack of asthma in the previous four weeks. There was no significant difference in the proportion of males and females who visited the emergency department or their local doctor for an attack of asthma.

The proportion of people reporting current asthma was significantly higher among females aged 16–24 years (16.3 per cent), and significantly lower among males aged 35–54 years (7.0 per cent to 7.6 per cent) and 75 years and over (6.7 per cent) than in the overall population.

Rural areas had a significantly higher proportion of people reporting doctor-diagnosed current asthma (13.1 per cent) than urban areas (9.8 per cent).

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

Rates of current doctor-diagnosed asthma did not differ significantly from 1997 (10.3 per cent) to 2002 (10.6 per cent).

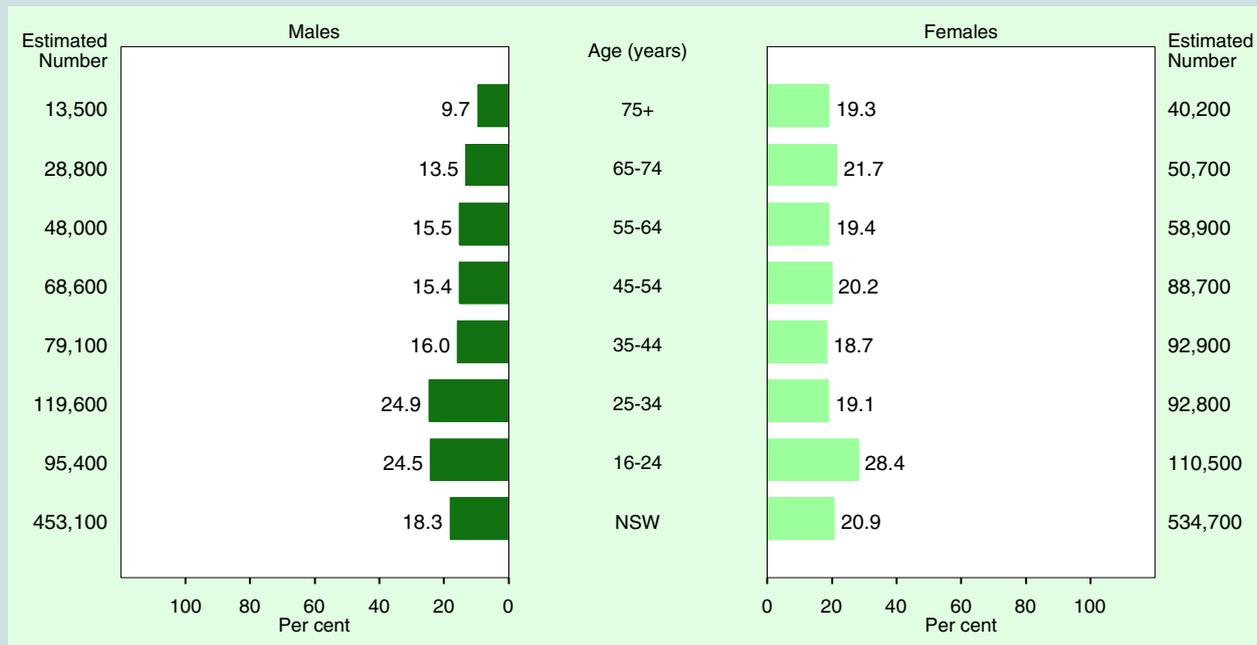
Figure 66 shows the proportion of people who had ever been diagnosed with asthma by age. Figures 67–68 and Table 22 show the proportion of people with current asthma by age and health area. Figure 69 shows the proportion of people who have visited their general practitioner or a hospital emergency department for an asthma attack in the last four weeks.

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FIGURE 66

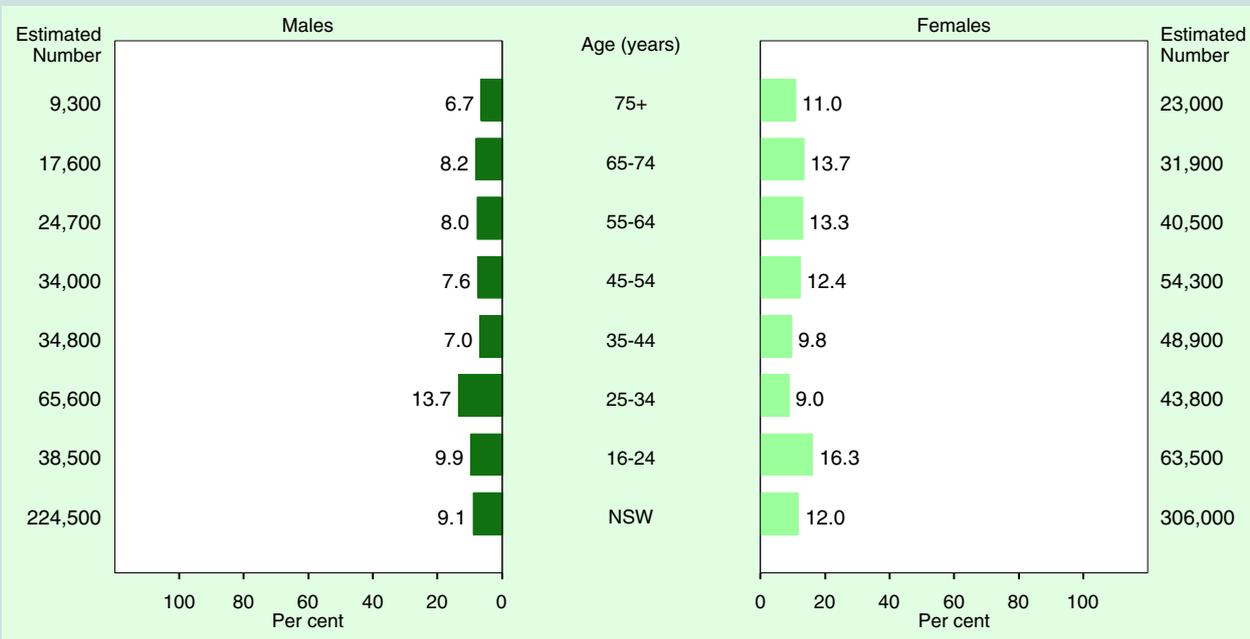
EVER DIAGNOSED WITH ASTHMA BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 67

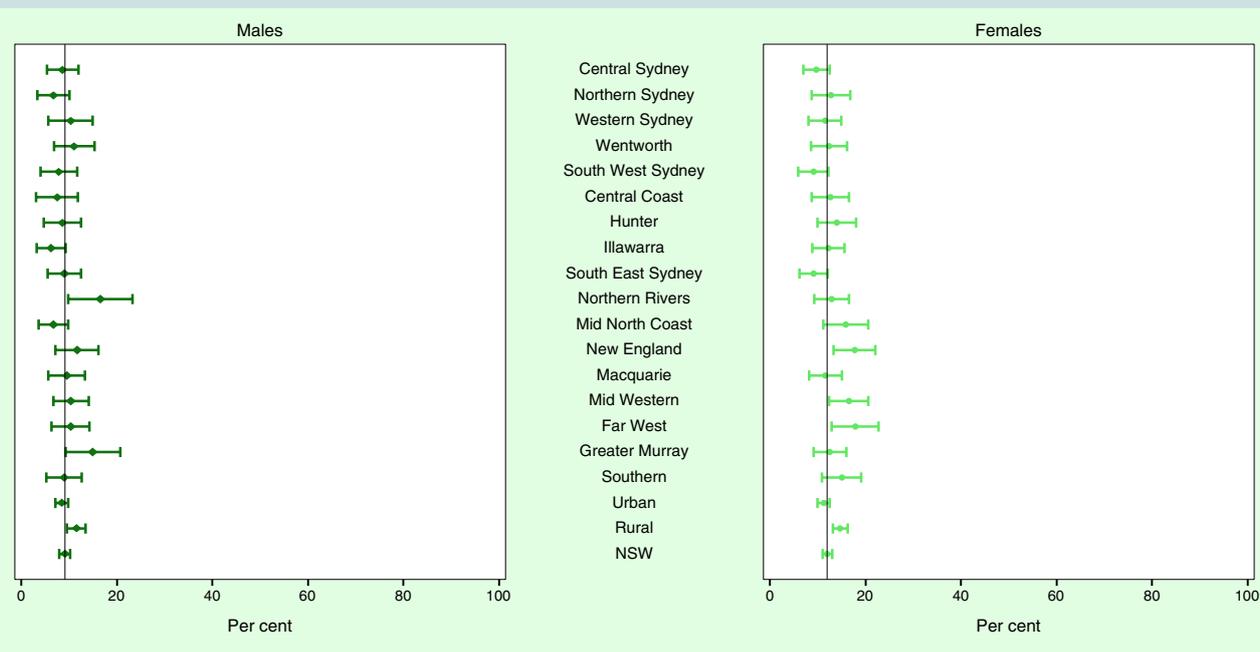
CURRENT ASTHMA BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 68

CURRENT ASTHMA BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 22

CURRENT ASTHMA BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	Males				Females				Persons			
	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	8.7	5.4	11.9	17300	9.7	6.9	12.6	20000	9.2	7	11.4	37300
Northern Sydney	6.7	3.3	10.1	20400	12.8	8.8	16.8	41600	9.8	7.2	12.5	62000
Western Sydney	10.3	5.6	15	26300	11.5	8.1	14.9	30400	10.9	8	13.8	56700
Wentworth	11.1	6.8	15.3	12800	12.4	8.5	16.2	14800	11.7	8.9	14.6	27600
South West Sydney	7.8	4	11.7	23300	9.1	5.9	12.3	27400	8.5	6	11	50700
Central Coast	7.5	3.1	11.8	8100	12.7	8.7	16.6	14800	10.2	7.2	13.1	22900
Hunter	8.6	4.6	12.5	17700	14	10	18	29500	11.3	8.5	14.1	47100
Illawarra	6.2	3.2	9.3	8100	12.3	8.9	15.6	16600	9.3	7	11.6	24800
South East Sydney	9	5.5	12.6	28300	9.1	6.2	12.1	29000	9.1	6.8	11.4	57300
Northern Rivers	16.5	9.8	23.2	16200	12.9	9.2	16.6	13300	14.7	10.8	18.5	29500
Mid North Coast	6.7	3.6	9.8	6500	15.9	11.2	20.6	16400	11.4	8.5	14.3	22900
New England	11.6	7.1	16.1	7400	17.7	13.3	22.1	11600	14.7	11.6	17.9	19000
Macquarie	9.5	5.7	13.3	3500	11.6	8.2	15	4400	10.6	8	13.1	7900
Mid Western	10.4	6.7	14.1	6300	16.5	12.4	20.6	10300	13.5	10.7	16.3	16600
Far West	10.3	6.3	14.3	1900	17.8	12.9	22.7	3200	14	10.8	17.1	5100
Greater Murray	14.9	9.2	20.7	14100	12.5	9.1	16	12300	13.7	10.4	17.1	26400
Southern	8.9	5.3	12.6	6200	15	10.9	19.1	10500	12	9.2	14.8	16800
Urban	8.4	7.1	9.7	162400	11.2	10	12.4	224000	9.8	8.9	10.7	386400
Rural	11.5	9.6	13.5	62100	14.7	13.1	16.3	82000	13.1	11.9	14.4	144100
NSW	9.1	8	10.2	224500	12	11	13	306000	10.6	9.8	11.3	530500

Notes: Estimates are based on 12605 respondents in NSW.

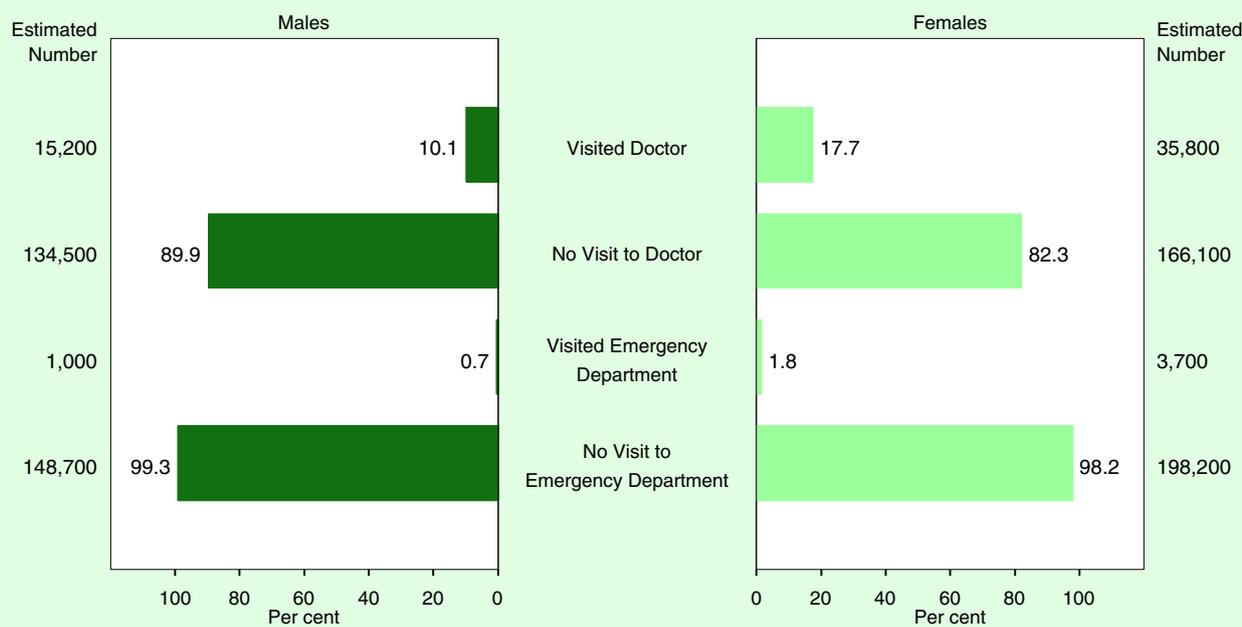
17 (0.13 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those respondents who had symptoms of asthma or had taken treatment for asthma in the last 12 months. The questions used to define the indicator were 'Have you ever been told by a doctor or at a hospital that you have asthma?' and 'Have you had symptoms of asthma or taken treatment for asthma in the last 12 months?'.

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

FIGURE 69

VISITED DOCTOR OR EMERGENCY DEPARTMENT FOR ASTHMA ATTACK IN LAST 4 WEEKS, PERSONS WHO CURRENTLY HAVE ASTHMA, AGED 16 YEARS AND OVER, NSW, 2002



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

Cardiovascular disease precursors

Introduction

Cardiovascular disease comprises all diseases of the heart and blood vessels, including ischaemic (coronary) heart disease, stroke, heart failure, and peripheral vascular disease. Of these, ischaemic heart disease and stroke are the major forms of cardiovascular disease causing death and illness in NSW.

High blood pressure (hypertension) is a precursor for ischaemic heart disease, stroke, congestive heart failure, and renal insufficiency. The risk of disease increases as the level of blood pressure increases. High blood pressure has been estimated to cause more than five per cent of the total burden of disease among Australians.¹

Similarly, high blood cholesterol is also a precursor for coronary heart disease and for some types of stroke. If levels in the blood are too high (5.5 mmol/L or above), this can lead to the artery clogging process known as atherosclerosis and cause heart attacks, angina, or stroke. High blood cholesterol has been estimated to cause nearly three per cent of the total burden of disease of Australians.¹

The *New South Wales Adult Health Survey 2002* included questions on both high blood pressure and high cholesterol. Respondents were asked the following questions: ‘When did you last have your blood pressure measured?’, ‘Have you ever been told by a doctor or at a hospital that you have high blood pressure sometimes called hypertension?’, ‘What are you doing now to

manage your high blood pressure or hypertension?’, ‘When did you last have your cholesterol measured?’, ‘Have you ever been told by a doctor or at a hospital that you have high cholesterol?’, ‘What are you doing now to manage your high cholesterol?’.

Results

Most recent blood pressure measurement

Overall, 97 per cent of people aged 16 years and over had had their blood pressure measured at some time (10.3 per cent more than two years ago and 86.7 per cent within the last two years). Females (90.8 per cent) were significantly more likely to report having had their blood pressure measured in the last two years than males (82.4 per cent).

Among males, a significantly lower proportion of those aged 16–34 years (60.1 per cent to 75.1 per cent) and a significantly greater proportion of those aged 45 years and over (88.2 per cent to 98.9 per cent) were likely to have had their blood pressure checked in the last two years, compared to the overall male population. Among females, a significantly lower proportion of those aged 16–24 years (80.5 per cent) and 35–44 years (85.1 per cent) and a significantly greater proportion of those aged 45 years and over (94.9 per cent to 99.0 per cent) were likely to have had their blood pressure checked in the last two years, compared to the overall female population.

The proportion of rural residents (86.3 per cent) and urban residents (86.9 per cent) who reported having their blood pressure measured in the last two years did not vary

significantly. A significantly lower proportion of women in the South West Sydney (84.6 per cent) and Macquarie (85.2 per cent) Area Health Services and a significantly greater proportion of women in the Northern Sydney Area Health Service (95.5 per cent) were likely to have had their blood pressure measured in the last two years, compared to the overall female population.

A significantly greater proportion of females in the least socioeconomically disadvantaged quintile (94.9 per cent) reported having their blood pressure measured in the last two years, compared to the overall female population. The proportion of males who reported having their blood pressure measured in the last two years did not vary significantly by level of socioeconomic disadvantage.

There was no difference in the proportion of people who have had their blood pressure checked in the last two years, from 1997 (87.3 per cent) to 2002 (86.7 per cent).

Doctor-diagnosed high blood pressure

To measure levels of doctor-diagnosed high blood pressure, respondents who reported that they had had their blood pressure measured at some time were asked if they have ever been told by a doctor or hospital that they have high blood pressure or hypertension. Approximately one in five (19.9 per cent) people who had had their blood pressure measured reported that they had doctor-diagnosed high blood pressure. There was no significant difference between male (20.9 per cent) and female (19.0 per cent) rates of doctor-diagnosed high blood pressure. These figures excluded women reporting high blood pressure in pregnancy (4.9 per cent), and males (4.1 per cent) and females (3.3 per cent) reporting that their high blood pressure was only temporarily elevated.

A significantly lower proportion of people aged 16–44 years (2.5 per cent to 11.6 per cent) and a significantly greater proportion of people aged 55 years and over (37.0 per cent to 47.8 per cent) were likely to report doctor-diagnosed high blood pressure compared to the overall population.

A significantly higher proportion of rural residents (22.2 per cent) reported doctor-diagnosed high blood pressure than urban residents (19.3 per cent). A significantly higher proportion of residents in the Central Coast Area Health Service (24.8 per cent) reported doctor-diagnosed high blood pressure, compared to the overall urban population. There was no significant difference within rural health areas.

Doctor-diagnosed high blood pressure was reported by a significantly higher proportion of people from the most socioeconomically disadvantaged quintile (24.2 per cent), and a significantly lower proportion of people from the least socioeconomically disadvantaged quintile (16.1 per cent), compared to the overall population.

There was a significant increase in the proportion of respondents reporting having been told by a doctor that they had high blood pressure between 1997 (16.3 per cent) and 2002 (19.9 per cent). This increase occurred in both

males (16.7 per cent to 20.9 per cent) and females (16.1 per cent to 19.0 per cent).

Of those who reported doctor-diagnosed high blood pressure, 8.7 per cent were not doing anything to manage their high blood pressure. The remainder were taking medication (72.8 per cent), following a diet (23.2 per cent), exercising most days (20.7 per cent), and/or trying to lose weight (5.2 per cent).

Most recent cholesterol measurement

Overall, 67.6 per cent of people aged 16 years and over had had their cholesterol measured at some time (14.1 per cent more than two years ago and 53.5 per cent within the last two years). There was no significant difference in the proportion of females (52.4 per cent) and males (54.6 per cent) who had had their cholesterol measured within the last two years. A significantly lower proportion of people aged 16–34 years (17.2 per cent to 32.0 per cent), and a significantly greater proportion of people aged 45 years and over (67.8 per cent to 77.2 per cent) were likely to have had their cholesterol checked in the last two years, compared to the overall population.

A significantly lower proportion of rural residents (49.8 per cent) were likely to have had their cholesterol checked in the last two years than urban residents (54.5 per cent). There was no significant difference within urban or rural health areas.

The proportion of people having cholesterol checked in the last two years did not vary by level of socioeconomic disadvantage.

There was a significant increase in the proportion of people having their cholesterol checked in the last two years between 1997 (47.2 per cent) and 2002 (53.5 per cent).

Doctor-diagnosed high cholesterol

To measure levels of doctor-diagnosed high cholesterol, respondents who reported that they had had their cholesterol measured at some time were then asked if they had ever been told by a doctor or hospital that they had high cholesterol. Almost a quarter (24.9 per cent) of the people who had had their cholesterol measured reported doctor-diagnosed high cholesterol. There was no significant difference in the proportion of males (25.3 per cent) and females (24.4 per cent) reporting high cholesterol. A significantly lower proportion of people aged 16–44 years (3.4 per cent to 18.3 per cent) and a significantly greater proportion of people aged 55 years and over (32.9 per cent to 38.7 per cent) were likely to have doctor-diagnosed high cholesterol, compared to the overall population.

The proportion of people reporting doctor-diagnosed high cholesterol did not differ significantly between urban residents (25.1 per cent) and rural residents (23.9 per cent). A significantly lower proportion of females in Far West Health Area (19.2 per cent) reported that they had doctor-

diagnosed high cholesterol compared with the overall female population.

The proportion of people reporting doctor-diagnosed high cholesterol did not differ significantly by socioeconomic disadvantage.

There was no significant increase in the proportion of people reporting doctor-diagnosed high cholesterol between 1997 (24.3 per cent) and 2002 (24.9 per cent).

Of those who reported doctor-diagnosed high cholesterol, 11.0 per cent were not doing anything to manage their high cholesterol, 58.6 per cent were managing their cholesterol levels by following a special diet, 37.6 per cent were taking medication, 18.9 per cent were exercising most days, and 4.1 per cent were trying to lose weight.

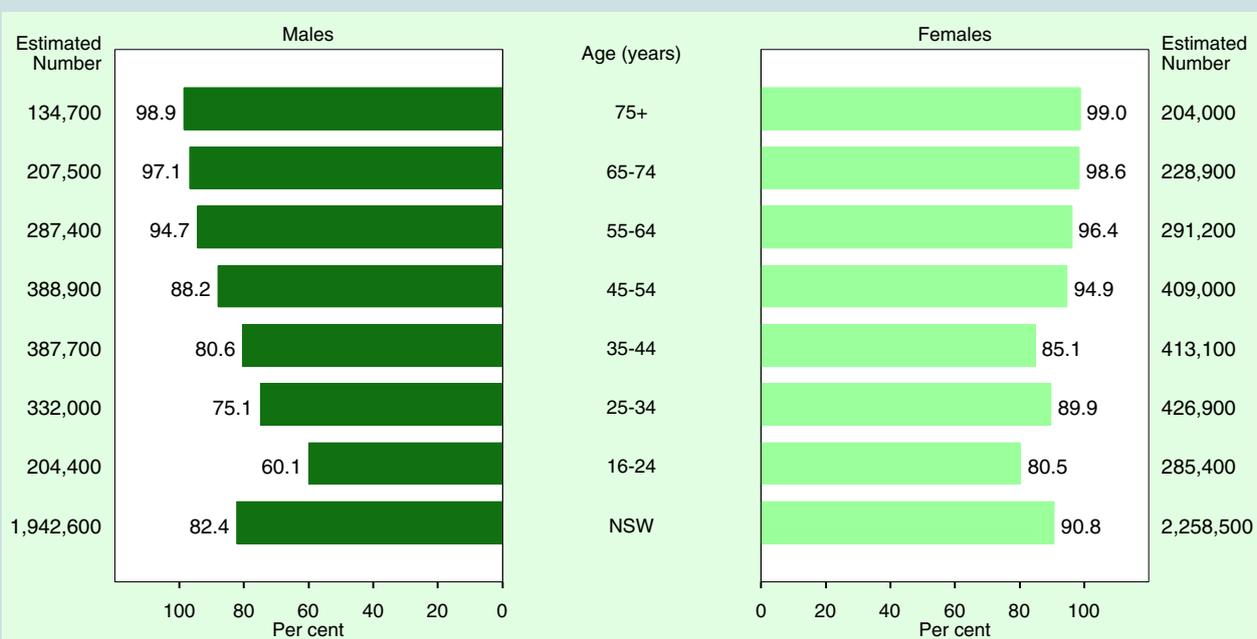
Figure 70 shows the proportion of people who had had their blood pressure measured within the last two years. Figures 71–72 and Table 23 show the proportion of people who had been told by a doctor that they have high blood pressure, by socioeconomic disadvantage and health area. Figure 73 shows the proportion of people who had had their cholesterol measured in the last two years, by age. Figure 74 shows the proportion of people who had been told by doctor that they have high cholesterol, by age.

References

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FIGURE 70

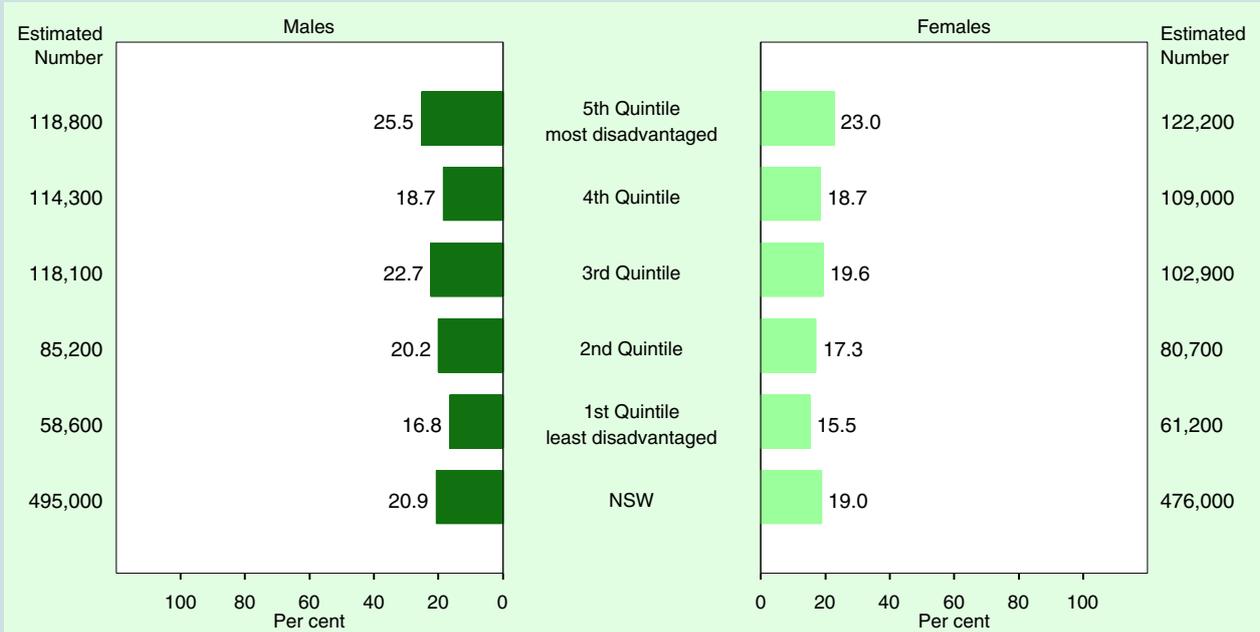
BLOOD PRESSURE MEASURED WITHIN THE LAST 2 YEARS BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 71

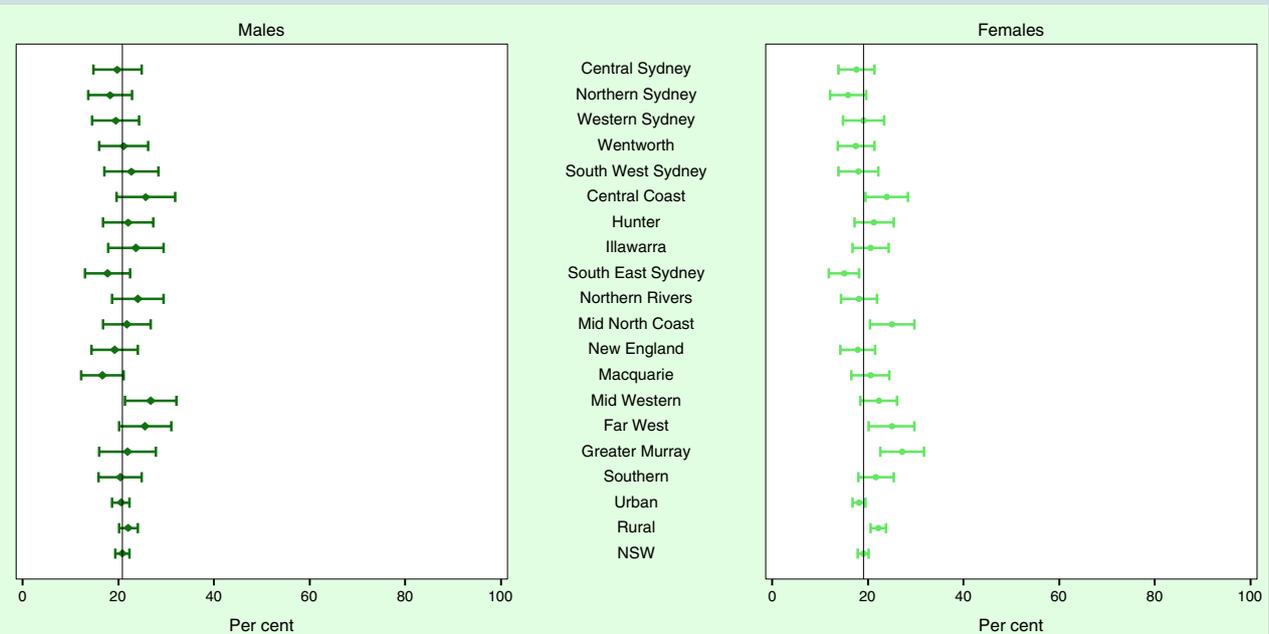
HIGH BLOOD PRESSURE BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS WHO HAVE HAD THEIR BLOOD PRESSURE MEASURED IN THE LAST 2 YEARS, AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 72

HIGH BLOOD PRESSURE BY HEALTH AREA, PERSONS WHO HAVE HAD THEIR BLOOD PRESSURE MEASURED IN THE LAST 2 YEARS, AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 23

HIGH BLOOD PRESSURE BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER WHO HAVE HAD THEIR BLOOD PRESSURE MEASURED IN THE LAST 2 YEARS, NSW, 2002

Area	%	Males			%	Females			%	Persons		
		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	19.8	14.8	24.8	38000	17.6	13.9	21.4	35900	18.7	15.6	21.8	73900
Northern Sydney	18.3	13.8	22.8	54300	15.8	12.1	19.6	50900	17	14.1	20	105200
Western Sydney	19.4	14.5	24.3	47700	19	14.8	23.3	49100	19.2	16	22.5	96800
Wentworth	21.1	16.1	26.2	24000	17.5	13.7	21.3	20700	19.3	16.1	22.4	44700
South West Sydney	22.8	17.1	28.4	63300	18	13.8	22.2	51500	20.4	16.8	23.9	114700
Central Coast	25.8	19.6	31.9	27400	24	19.5	28.4	27800	24.8	21.1	28.6	55300
Hunter	22	16.8	27.3	44300	21.3	17.2	25.4	44600	21.7	18.3	25	88900
Illawarra	23.6	17.8	29.5	29400	20.6	16.8	24.3	27200	22	18.6	25.5	56500
South East Sydney	17.7	13	22.4	51800	15	11.9	18.1	46300	16.3	13.5	19.1	98100
Northern Rivers	24.1	18.7	29.5	22700	18.1	14.3	21.9	18400	21	17.8	24.2	41100
Mid North Coast	21.8	16.7	26.8	20600	25.1	20.4	29.7	25600	23.5	20.1	26.9	46200
New England	19.3	14.4	24.1	11900	17.8	14.2	21.5	11500	18.5	15.5	21.6	23400
Macquarie	16.7	12.3	21.1	6000	20.6	16.6	24.5	7600	18.6	15.7	21.6	13600
Mid Western	26.7	21.3	32.1	15900	22.3	18.4	26.1	13600	24.5	21.2	27.8	29500
Far West	25.6	20.2	31.1	4700	25	20.2	29.8	4400	25.3	21.7	28.9	9100
Greater Murray	22	16.1	27.8	19700	27.1	22.5	31.8	25800	24.6	20.9	28.3	45500
Southern	20.4	15.9	25	13500	21.7	18	25.5	15100	21.1	18.2	24	28600
Urban	20.6	18.8	22.3	380100	18.1	16.7	19.5	354100	19.3	18.2	20.4	734200
Rural	22.1	20.1	24.1	114900	22.2	20.6	23.9	122000	22.2	20.9	23.5	236900
NSW	20.9	19.4	22.4	495000	19	17.9	20.2	476000	19.9	19	20.9	971100

Notes: Estimates are based on 12593 respondents in NSW.

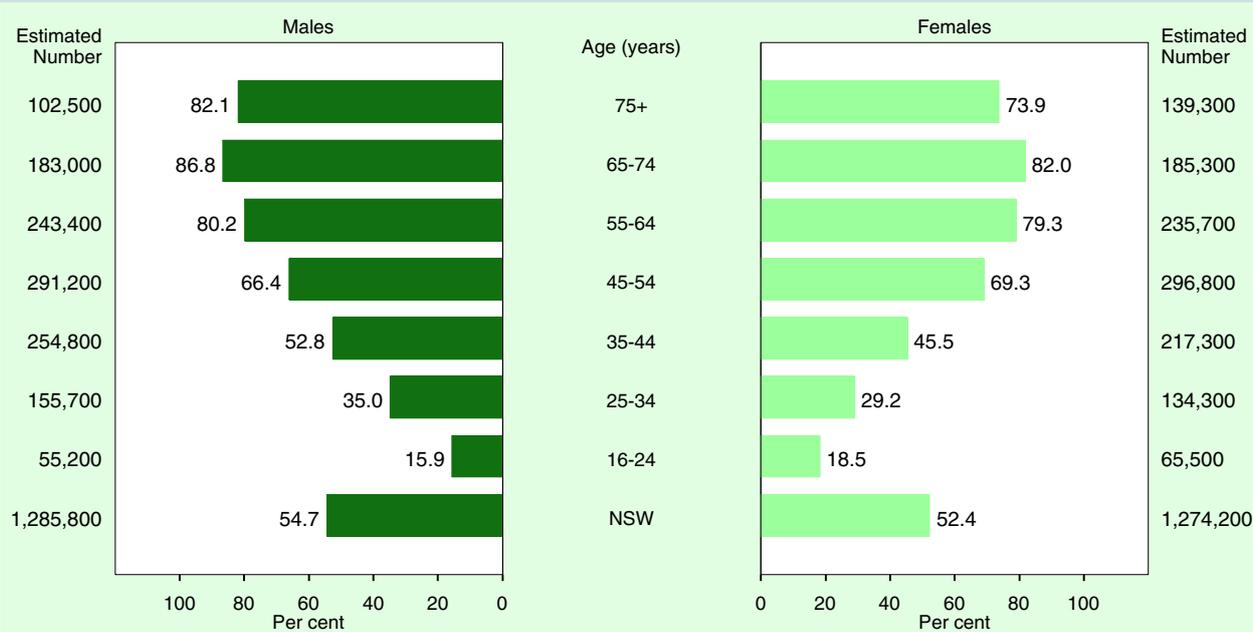
29 (0.23 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those that have been told by a doctor or at a hospital that they have high blood pressure or hypertension, except during pregnancy and only temporarily. The question used to define the indicator was 'Have you ever been told by a doctor or at a hospital that you have high blood pressure sometimes called hypertension?'.

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

FIGURE 73

CHOLESTEROL MEASURED WITHIN LAST 2 YEARS BY AGE, PERSONS AGED 16 YEARS AND OVER WHO HAVE HAD THEIR CHOLESTEROL MEASURED IN THE LAST 2 YEARS, NSW, 2002



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

FIGURE 74

HIGH CHOLESTEROL BY AGE, PERSONS AGED 16 YEARS AND OVER, WHO HAVE HAD THEIR CHOLESTEROL MEASURED IN THE LAST 2 YEARS, NSW, 2002



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

Chemical sensitivity

Introduction

Using a set of six consensus diagnostic criteria, multiple chemical sensitivity (MCS) is most usually defined as a chronic condition, with symptoms that recur in response to low levels of exposure to multiple unrelated chemicals and improve or resolve when those unrelated chemicals are removed. Symptoms occur in multiple organ systems throughout the body.¹

The prevalence of MCS in Australia is unknown, but studies from overseas estimate that 26 per cent of adults have been diagnosed with MCS.^{2,3,4,5} On the basis of these data, it is reasonable to suggest that the burden of MCS-related disease in Australia could be substantial.

The *New South Wales Adult Health Survey 2002* included questions on diagnosed chemical sensitivity. Respondents were asked: ‘Do certain chemical odours or smells regularly make you unwell?’, and ‘Have you ever been diagnosed with a chemical sensitivity?’.

Results

Sensitivity to chemical odours

In NSW, in 2002, just under a quarter of respondents (24.6 per cent) reported sensitivity to chemical odours. Females (28.9 per cent) were significantly more likely to report sensitivity to chemical odours than males (20.1 per cent).

A significantly lower proportion of females aged 75 years and over (16.0 per cent) were likely to report sensitivity to chemical odours, compared to the overall female population. Among males, a significantly lower proportion of those aged 65 years and over (11.5 per cent to 14.4 per cent) were likely to report sensitivity to chemical odours, compared to the overall male population.

There was no significant difference in the proportion of people reporting sensitivity to chemical odours in rural areas (23.7 per cent) and urban areas (24.8 per cent). The proportion of residents in the Northern Sydney Area Health Service (19.6 per cent) who reported sensitivity to chemical odours was significantly lower, compared to the overall population.

There was no significant variation in the proportion reporting sensitivity to chemical odours, based on level of socioeconomic disadvantage.

Diagnosed chemical sensitivity

Only 2.9 per cent of respondents in NSW reported having been diagnosed with chemical sensitivity. There was no significant difference between females (3.4 per cent) and males (2.4 per cent).

The proportion of people reporting that they had been diagnosed with chemical sensitivity was significantly lower among people aged 16–24 years (1.5 per cent), compared to the overall population.

There was no significant difference in the proportion of respondents reporting diagnosed chemical sensitivity between rural areas (2.2 per cent) and urban areas (3.1 per cent). A significantly lower proportion of residents in the Mid Western Area Health Service (1.6 per cent) and males in the Southern Area Health Service (1.0 per cent) were likely to have been diagnosed with chemical sensitivity, compared to the overall population.

There was no significant variation in the proportion of people reporting diagnosed chemical sensitivity, based on level of socioeconomic disadvantage.

References

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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), is characterised by a complete deficiency of insulin and is present in 10–15 per cent of people with diabetes; Type 2, or non-insulin dependent diabetes mellitus (NIDDM), is the most common form of diabetes (approximately 85 per cent of people with diabetes), affecting mainly people aged 45 years and over but found 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 2002* included questions on prevalence, type, and management of diabetes. Respondents were asked the following questions: 'Have you ever 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 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?'.³

Results

Prevalence of diabetes

In 2002, 6.1 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 (6.6 per cent) and females (5.7 per cent) reporting doctor-diagnosed diabetes.

The prevalence of diabetes increased with age. A significantly lower proportion of people aged 16–44 years (1.6 per cent to 2.8 per cent) and a significantly greater proportion of people aged 55 years and over (11.3 per cent to 14.4 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 (7.2 per cent) and urban areas (5.8 per cent). A significantly greater proportion of residents from the Far West Area Health Service (9.0 per cent), and a significantly lower proportion of residents from the Central Sydney Area Health Service (3.8 per cent) reported doctor-diagnosed diabetes, compared with the overall population. The proportion of males with doctor diagnosed diabetes was significantly higher in the Greater Murray Area Health Service (12.7 per cent) than in the overall male population.

A significantly greater proportion of people in the most socioeconomically disadvantaged quintile (8.1 per cent) reported doctor-diagnosed diabetes, compared with the overall population.

The reported prevalence of doctor-diagnosed diabetes has increased significantly from 1997 (4.7 per cent) to 2002 (6.1 per cent). This increase occurred in both males (5.2

per cent to 6.6 per cent) and females (4.3 per cent to 5.7 per cent).

Of those who reported doctor-diagnosed diabetes, 61.9 per cent reported following a special diet, 37.7 per cent reported taking medication, 17.9 per cent reported exercising most days, 10.5 per cent reported having insulin injections, 3.3 per cent reported losing weight, and 6.3 per cent reported not doing anything.

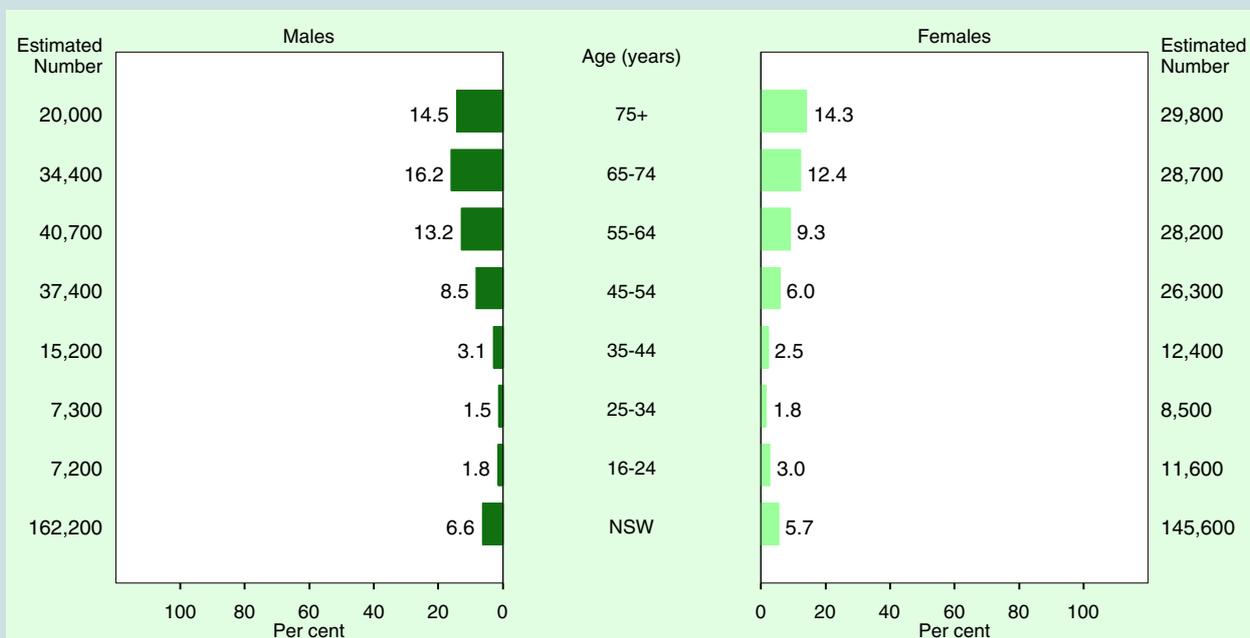
Figures 75–76 show the proportion of people who have been diagnosed with diabetes or high blood sugar, by age and socioeconomic disadvantage.

References

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FIGURE 75

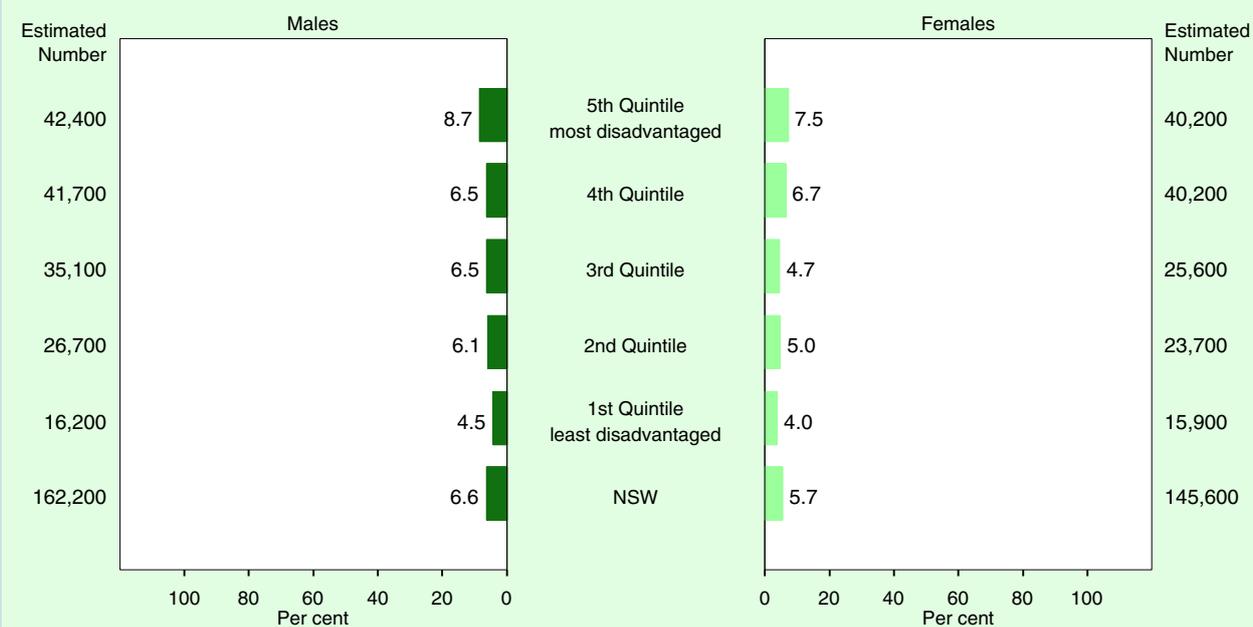
DIABETES OR HIGH BLOOD SUGAR BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 76

DIABETES OR HIGH BLOOD SUGAR BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

Work-related injury

Introduction

Work-related injuries are common in NSW. In 1999–2000 there were 10,608 hospitalisations from work-related injuries, with 85 per cent occurring in men.¹ The most common principal diagnoses among hospitalisations for work-related injuries were open wounds, fractures, muscular or tendon injuries of the hand or wrist, and back pain.²

In the *New South Wales Adult Health Survey 2002*, respondents aged 16–65 years were asked ‘Have you been employed in the last 12 months?’ and ‘In the last 12 months, have you suffered any injury or illness related to work?’. Respondents who answered ‘Yes’ to both questions were then asked the following questions: ‘What type of injury or illness was this?’, ‘Did you receive medical treatment or professional health care for this injury or illness?’, ‘What medical treatment did you receive for this injury or illness?’, ‘How many days off work did you take for this injury or illness?’, ‘Did you receive any workers’ compensation for this injury or illness?’.

Results

A significantly greater proportion of males (17.9 per cent) reported sustaining an injury or illness related to work in the last 12 months than females (12.8 per cent). The proportion of respondent’s reporting work-related injury

did not vary significantly among age groups; however, a significantly lower proportion of females aged 65 years and over (2.3 per cent) reported a work-related injury, compared with the overall female population.

There was no significant difference in the proportion of people reporting work-related injury between rural health areas (17.2 per cent) and urban health areas (15.2 per cent). A significantly lower proportion of people in the Northern Sydney Area Health Service (10.9 per cent) and a significantly greater proportion of people in the Wentworth Area Health Service (22.5 per cent) reported a work-related injury, compared with the overall population.

There was no significant variation in the proportion of people reporting work-related injury or illness, based on socioeconomic disadvantage.

Of those people who had suffered a work-related injury or illness, 68.1 per cent received medical treatment. There was no significant difference in the proportion of males (66.8 per cent) and females (70.3 per cent) who received medical treatment for a work-related injury.

Of those people who did receive treatment for a work-related injury, 60.3 per cent had visited a general practitioner, 29.1 per cent attended physiotherapy, 10.7 per cent attended a hospital outpatient department, 9.5 per cent attended a chiropractor or osteopath or acupuncturist, 9.2 per cent were admitted to hospital, and 9.1 per cent attended a specialist.

The types of injuries sustained most often were sprains, strains and dislocations (38.6 per cent) followed by open wounds without amputation (16.9 per cent). These were the most common injuries, in both males and females. The next most common injuries were contusions or crush injuries (8.6 per cent) in males, and muscle or tendon or soft tissue injury (8.7 per cent) and mental disorders (8.7 per cent) in females.

The industry of employment at the time of sustaining the work-related injury varied by sex. Among males, the greatest proportion worked in mining and construction (20.5 per cent), followed by manufacturing (18 per cent), and/or wholesale or retail trade (11.6 per cent). Among females, the greatest proportion worked in health and community services (24.5 per cent), followed by wholesale or retail trade (17 per cent), and communication and business (15.1 per cent).

Of those people who had suffered a work-related injury or illness, 51.1 per cent were not absent from work as a result of the injury or illness, 24.7 per cent were absent from work for 1–4 days, 12.7 per cent were absent from work

for 5–30 days, and 11.5 per cent were absent from work for 30 or more days, as a result of the injury or illness.

Of those people who had suffered a work-related injury or illness, only 24.8 per cent received workers' compensation, and 2.1 per cent had a workers' compensation claim still pending.

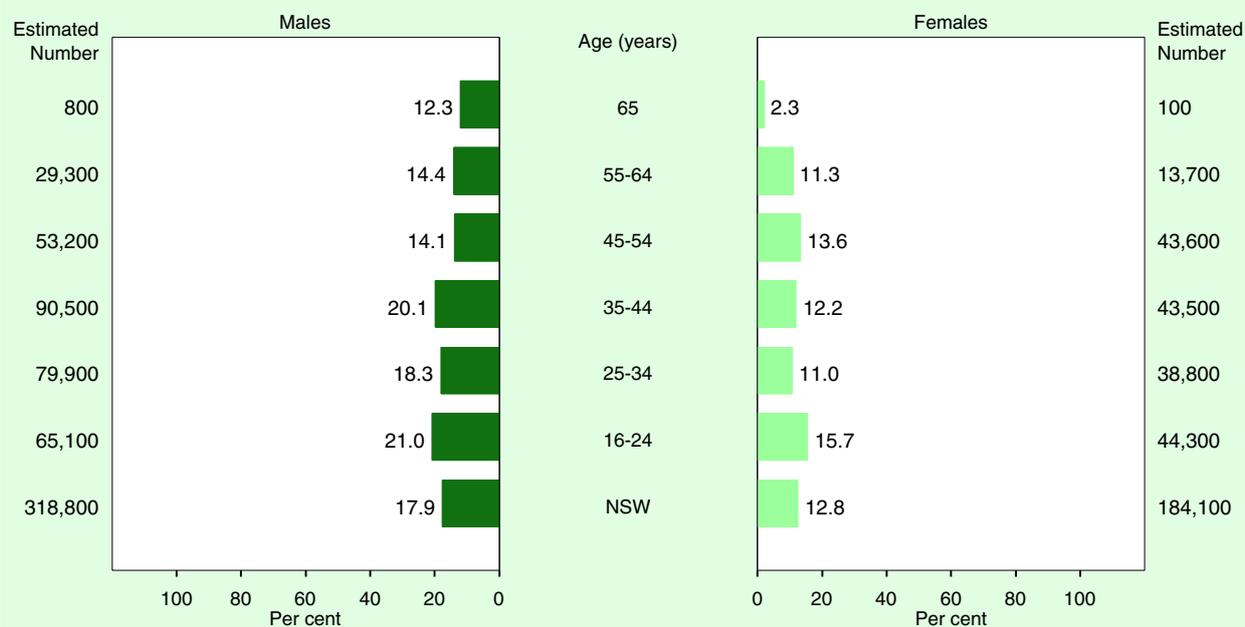
Figures 77–79 and Table 26 show the proportion of people who reported a work-related injury over the last 12 months, by age, socioeconomic disadvantage, and health area. Figure 80 shows the proportion making a workers' compensation claim for a work-related injury in the last 12 months, and Figure 81 shows the type of work-related injuries sustained.

References

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FIGURE 77

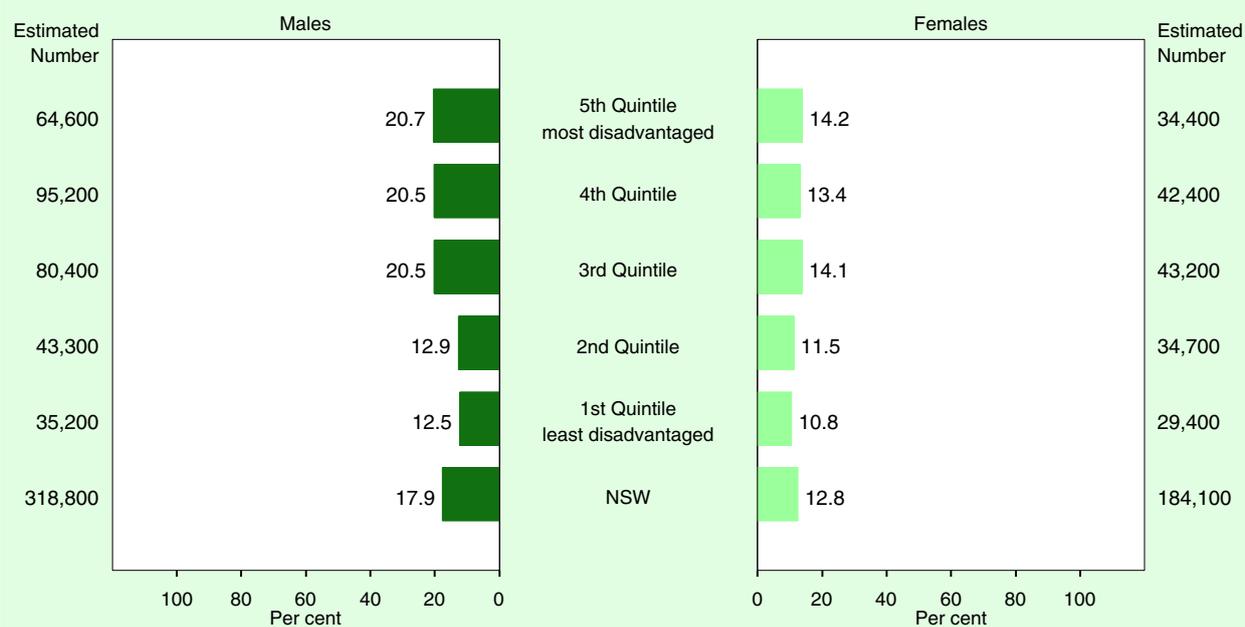
WORK-RELATED INJURY IN LAST 12 MONTHS BY AGE, PERSONS WHO WORKED IN THE PREVIOUS 12 MONTHS, AGED 16–65 YEARS, NSW, 2002



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

FIGURE 78

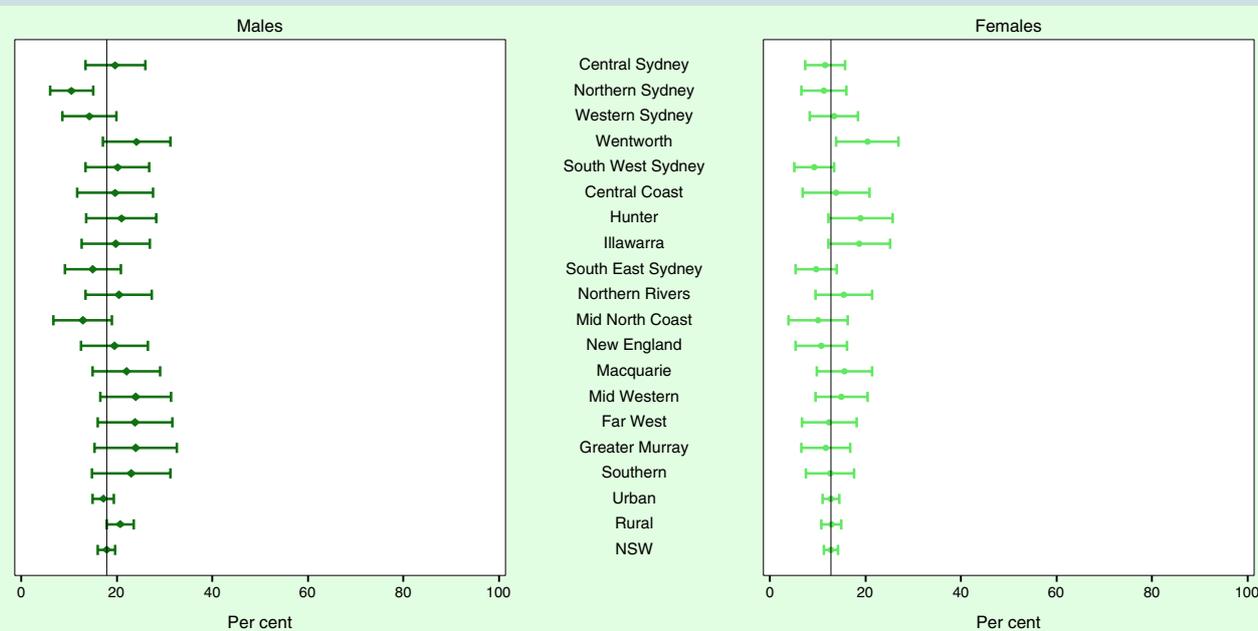
WORK-RELATED INJURY IN LAST 12 MONTHS BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS WHO WORKED IN THE PREVIOUS 12 MONTHS, AGED 16–65 YEARS, NSW, 2002



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

FIGURE 79

WORK-RELATED INJURY IN LAST 12 MONTHS BY HEALTH AREA, PERSONS WHO WORKED IN THE PREVIOUS 12 MONTHS, AGED 16–65 YEARS, NSW, 2002



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

TABLE 24

WORK-RELATED INJURY IN LAST 12 MONTHS BY HEALTH ARE, PERSONS WHO WORKED IN THE PREVIOUS 12 MONTHS, AGED 16–65 YEARS, NSW, 2002

Area	Males				Females				Persons			
	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	19.7	13.4	25.9	29000	11.6	7.4	15.7	14200	16	12.1	19.9	43200
Northern Sydney	10.5	6	15	24400	11.3	6.6	16	23800	10.9	7.6	14.1	48300
Western Sydney	14.2	8.6	19.9	27200	13.4	8.4	18.4	22700	13.8	10	17.6	49900
Wentworth	24.1	17.1	31.2	22200	20.4	13.8	26.9	14200	22.5	17.6	27.4	36400
South West Sydney	20.1	13.5	26.8	45300	9.3	5.1	13.5	16200	15.4	11.2	19.6	61500
Central Coast	19.6	11.7	27.5	15000	13.8	6.8	20.8	7400	17.2	11.7	22.7	22400
Hunter	20.9	13.6	28.3	29300	19	12.2	25.8	18000	20.1	15	25.3	47300
Illawarra	19.8	12.6	26.9	16900	18.6	12.2	25.1	12500	19.3	14.4	24.2	29400
South East Sydney	15	9.1	20.8	36400	9.7	5.4	14	18300	12.7	8.9	16.5	54700
Northern Rivers	20.4	13.5	27.4	11900	15.5	9.6	21.4	8400	18	13.5	22.6	20300
Mid North Coast	12.9	6.8	19	7300	10.1	3.9	16.3	4200	11.7	7.3	16.1	11500
New England	19.5	12.5	26.5	8800	10.8	5.4	16.2	4100	15.5	11	20.1	12900
Macquarie	22	14.9	29.1	6000	15.5	9.8	21.3	3200	19.2	14.5	24	9200
Mid Western	23.9	16.5	31.4	10200	14.9	9.5	20.4	4600	20.1	15.2	25.1	14800
Far West	23.8	16	31.6	2900	12.4	6.6	18.2	1200	18.7	13.6	23.9	4100
Greater Murray	23.9	15.4	32.5	15700	11.7	6.6	16.8	6100	18.5	13.1	23.9	21800
Southern	23	14.8	31.2	10400	12.6	7.5	17.6	4900	18.2	13.1	23.3	15300
Urban	17.2	15	19.3	245700	12.8	11	14.6	147400	15.2	13.8	16.6	393100
Rural	20.7	17.9	23.6	73100	12.8	10.7	15	36700	17.2	15.4	19	109800
NSW	17.9	16	19.7	318800	12.8	11.3	14.3	184100	15.6	14.4	16.8	502900

Notes: Estimates are based on 6459 respondents in NSW.

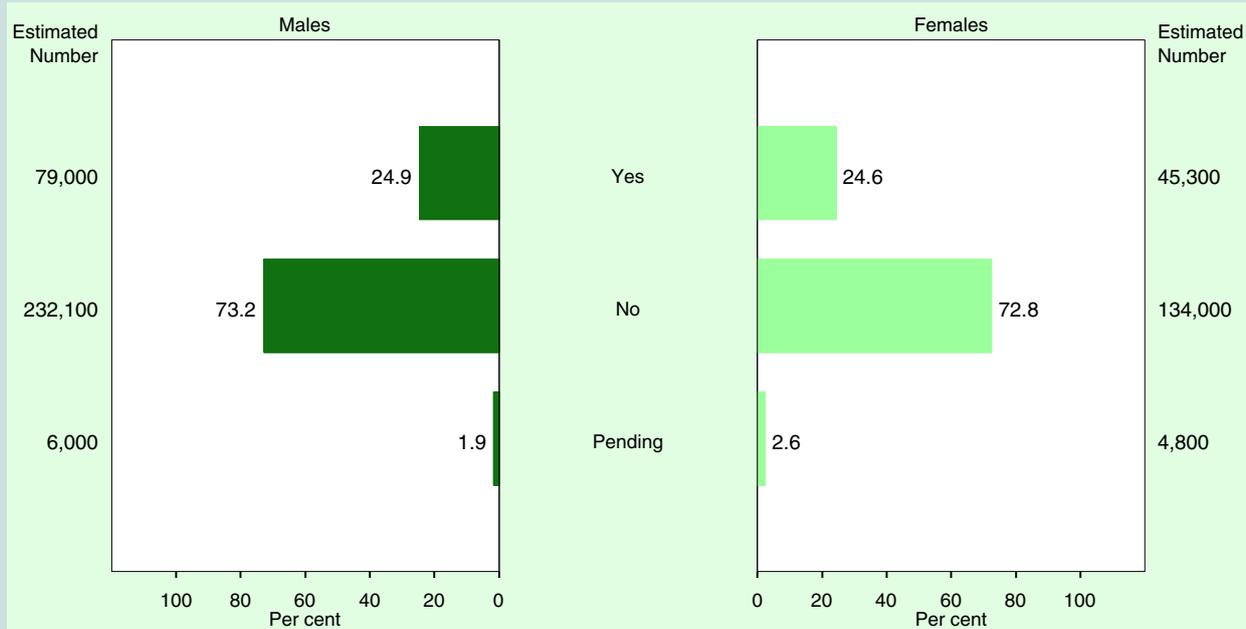
1 (0.02 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who had a work related injury in the last 12 months. The question used to define the indicator was 'In the last 12 months have you suffered any injury or illness related to work?'

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

FIGURE 80

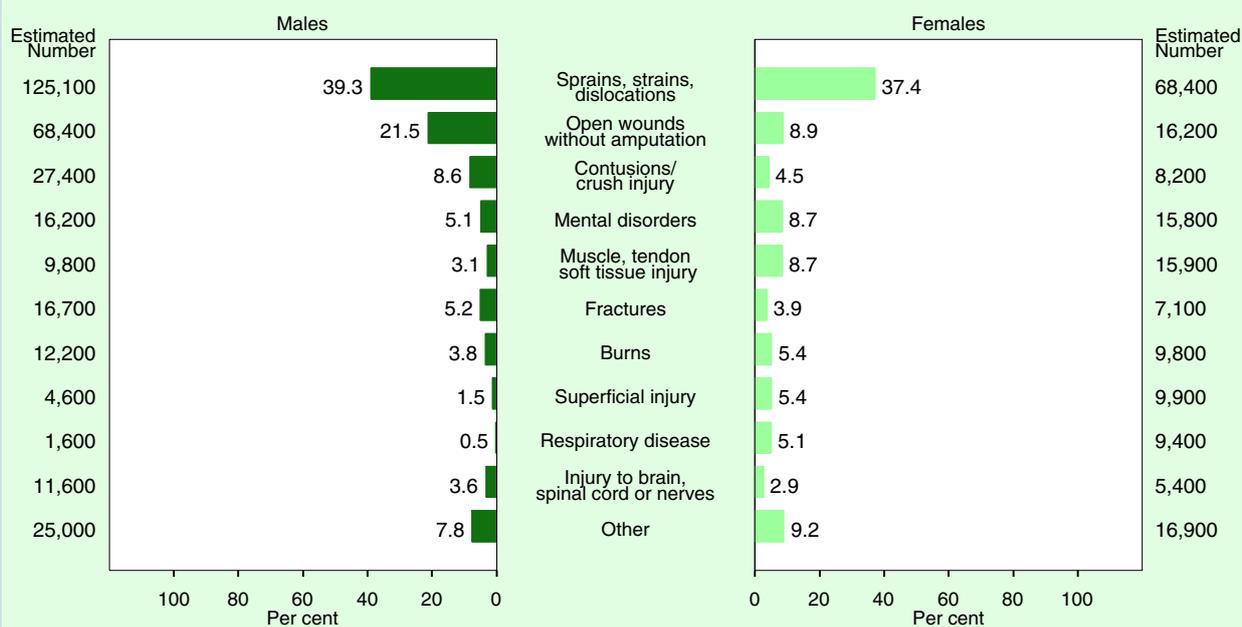
WORKERS' COMPENSATION FOR WORK-RELATED INJURY IN LAST 12 MONTHS, PERSONS WITH A WORK-RELATED INJURY, AGED 16–65 YEARS, NSW, 2002



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

FIGURE 81

TYPE OF WORK-RELATED INJURY, PERSONS WHO HAD A WORK-RELATED INJURY, AGED 16–65 YEARS, NSW, 2002



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

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 (or K10) measure was included in the *New South Wales Adult Health Survey 2002* as a measure of psychological distress.⁴ The K10 is a 10-item questionnaire intended to yield a global measure of ‘psychological distress’, based on questions about the level of anxiety and depressive symptoms in the most recent four-week period.⁴ 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 psychological distress’ when the K10 score is 30 or higher.

In the *New South Wales Adult Health Survey 2002* respondents were asked 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?’.

Any respondents aged 16–65 years who scored above 15 points, were also asked the following 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-to-day 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 2002, 63.0 per cent of people were classified as having 'low' levels of psychological distress, 24.8 per cent as having 'moderate' levels of psychological distress, 8.9 per cent as having 'high' levels of psychological distress, and 3.3 per cent as having 'very high' levels of psychological distress. Just over one in 10 (12.2 per cent) respondents reported 'high or very high' levels of psychological distress. A significantly greater proportion of females (14.0 per cent) than males (10.5 per cent) were likely to report high or very high levels of psychological distress.

A significantly greater proportion of females aged 16–24 years (20.3 per cent) and a significantly lower proportion of females aged 65 years and over (8.7 per cent to 9.1 per cent) were likely to report high or very high levels of psychological distress, compared with the overall female population. There was no significant variation among males, based on age.

The proportion of people reporting high or very high levels of psychological distress did not vary significantly between urban areas (12.4 per cent) and rural areas (11.8 per cent); however, a significantly lower proportion of residents in the Northern Sydney Area Health Service (7.9 per cent) reported high or very levels of psychological distress, compared with the overall population.

A significantly higher proportion of people in the most socioeconomically disadvantaged quintile (15.3 per cent) reported high or very high levels of psychological distress, compared with the overall population. Conversely, a significantly lower proportion in the least socioeconomically disadvantaged quintile (7.8 per cent) reported high or very high levels of psychological distress, compared with the overall population.

Reported rates of high and very high psychological distress have risen significantly from 1998 (10.5 per cent) to 2002 (12.2 per cent).

Among the people aged 16–65 years who reported moderate, high, or very high levels of psychological distress (scored over 15 on the K10) the average number of days that they were totally unable to work, study, or manage their day-to-day activities because of their psychological distress was 3.2 days (3.5 days for males and 3.0 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 3.4 days (3.0 days for males and 3.7 days for females) over the last four weeks. Just over three-quarters (77.3 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 0.6 times (0.8 times for males and 0.5 times for females) in the past four weeks.

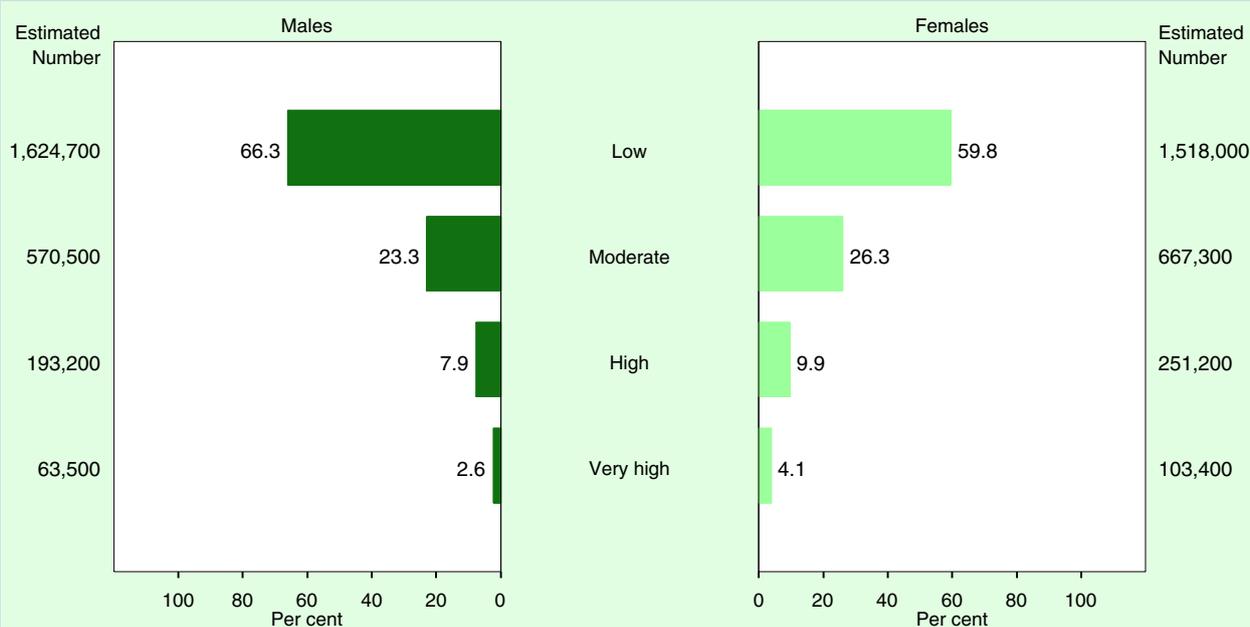
Figure 82 shows the proportion of people in each K10 category. Figures 83–85 and Table 25 show the proportion of people who reported high or very high levels of psychological distress, by age, socioeconomic disadvantage, and health area. Figure 86 shows the proportion of people who say their psychological distress was due to physical problem all, most, some, a little, or none of the time. Table 26 shows the effect of psychological distress on daily activities.

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FIGURE 82

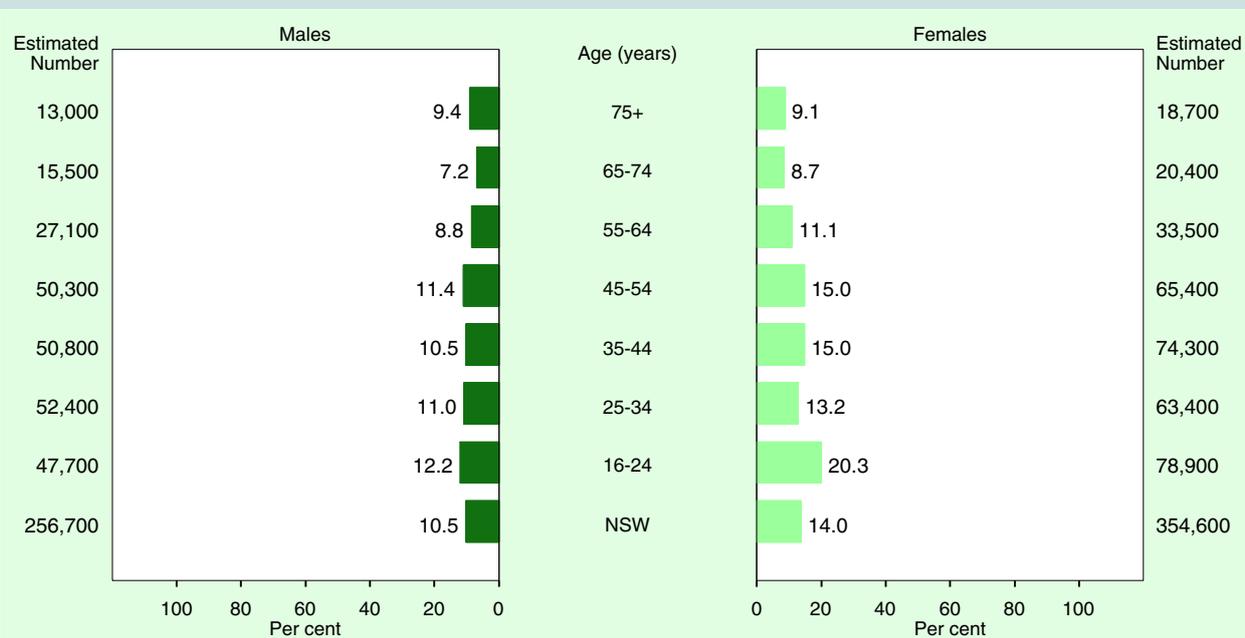
PSYCHOLOGICAL DISTRESS (KESSLER 10) CATEGORIES, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 83

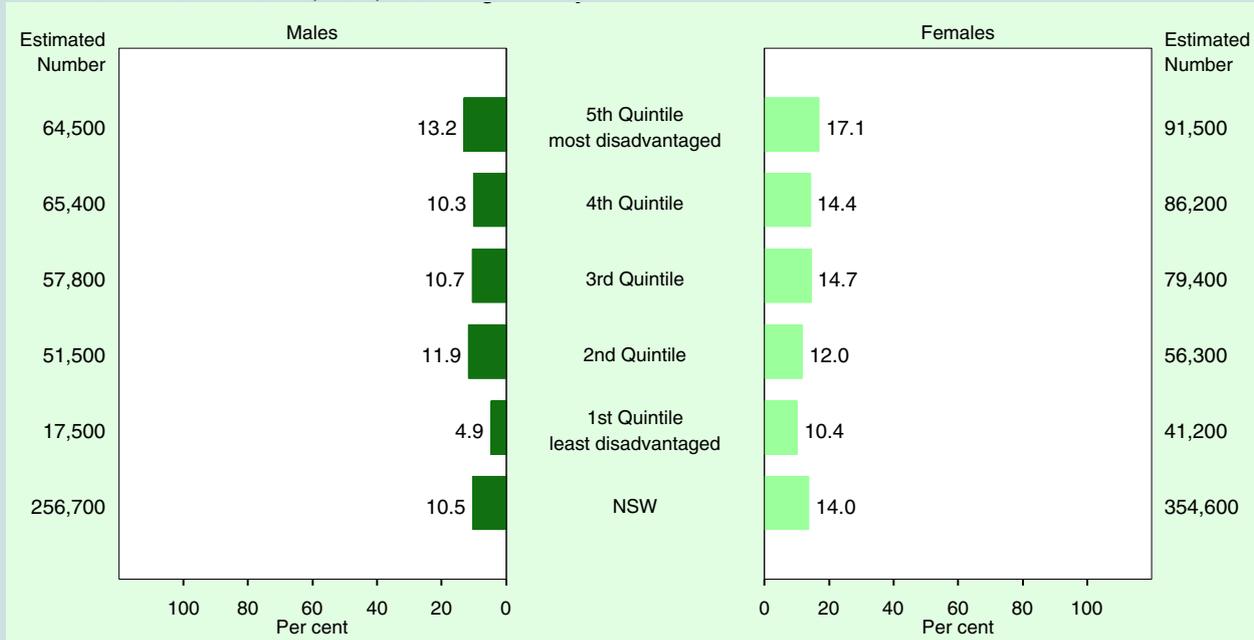
HIGH AND VERY HIGH PSYCHOLOGICAL DISTRESS BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 84

HIGH AND VERY HIGH PSYCHOLOGICAL DISTRESS BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 25

HIGH AND VERY HIGH PSYCHOLOGICAL DISTRESS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	Males				Females				Persons			
	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	12.2	8.1	16.3	24300	18.2	14.1	22.3	37100	15.2	12.3	18.1	61500
Northern Sydney	4.6	2.2	6.9	13900	11	7.3	14.8	35500	7.9	5.6	10.2	49400
Western Sydney	13.2	8.6	17.8	33100	16.1	11.7	20.6	42200	14.7	11.5	17.9	75300
Wentworth	13.4	8.1	18.7	15300	18.2	13.4	22.9	21700	15.8	12.3	19.4	37000
South West Sydney	13.1	8.4	17.7	38300	13.8	9.9	17.8	41600	13.5	10.4	16.5	79800
Central Coast	8.4	4.7	12.1	9200	14.3	9.9	18.6	16600	11.4	8.5	14.3	25700
Hunter	9.7	5.6	13.7	19900	16.7	12.3	21.1	35400	13.2	10.2	16.3	55400
Illawarra	8.4	4.9	12	10800	11.3	7.8	14.7	15100	9.9	7.4	12.4	26000
South East Sydney	11.6	7.6	15.6	36200	11.7	8	15.3	36700	11.6	8.9	14.3	72800
Northern Rivers	12.1	7.5	16.8	11900	13	9.1	17	13300	12.6	9.5	15.6	25200
Mid North Coast	9.9	6.1	13.6	9500	13.1	9	17.2	13400	11.5	8.7	14.3	22900
New England	9.2	5.1	13.2	5800	12.1	8.3	15.9	7900	10.7	7.9	13.5	13700
Macquarie	7.3	4.3	10.3	2700	17.9	13	22.8	6700	12.6	9.6	15.6	9400
Mid Western	8.4	5.1	11.6	5000	11.1	7.4	14.8	6900	9.8	7.3	12.3	12000
Far West	10.1	6.2	14.1	1900	14.2	9.8	18.7	2500	12.1	9.2	15.1	4400
Greater Murray	10.9	5.5	16.2	10200	13.3	9.6	17.1	13000	12.1	8.9	15.4	23200
Southern	12.5	8.3	16.7	8700	12.7	8.9	16.6	8900	12.6	9.8	15.5	17600
Urban	10.5	9.1	11.9	201000	14.2	12.8	15.6	281900	12.4	11.4	13.4	482900
Rural	10.4	8.7	12	55700	13.1	11.6	14.6	72700	11.8	10.6	12.9	128400
NSW	10.5	9.3	11.6	256700	14	12.8	15.1	354600	12.2	11.4	13.1	611300

Notes: Estimates are based on 12528 respondents in NSW.

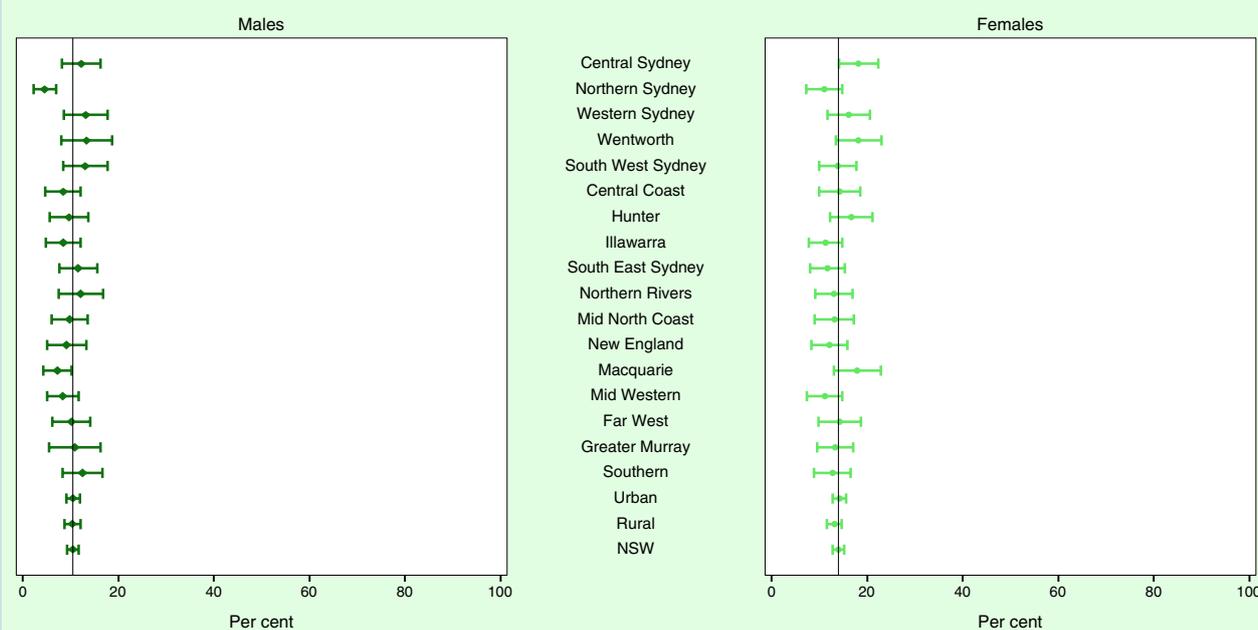
94 (0.75 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those with a Kessler 10 (K10) score of 22 or above. The K10 is a 10-item questionnaire about the level of anxiety and depressive symptoms in the most recent four-week period. K10 scores for respondents aged 65 years and over were derived using 6 questions from the K10 questionnaire.

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

FIGURE 85

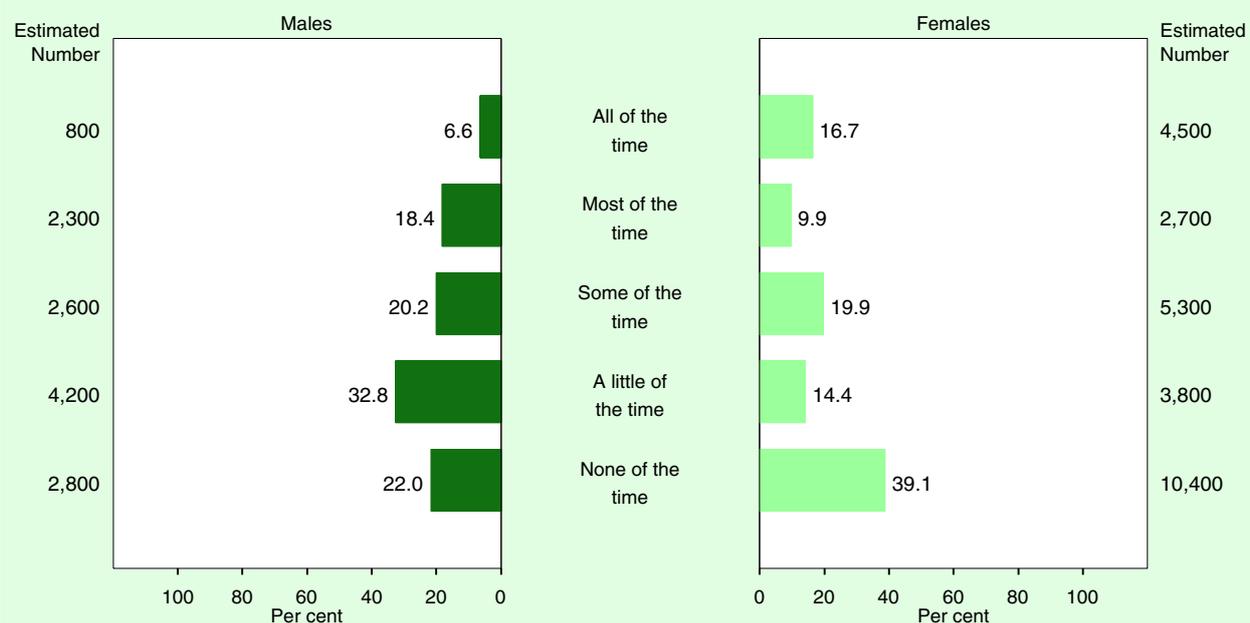
HIGH AND VERY HIGH PSYCHOLOGICAL DISTRESS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 86

TIMES THAT PHYSICAL PROBLEMS HAVE BEEN THE CAUSE OF PSYCHOLOGICAL DISTRESS IN PAST 4 WEEKS, PERSONS WITH MODERATE, HIGH, OR VERY HIGH PSYCHOLOGICAL DISTRESS, AGED 16–64 YEARS, NSW, 2002



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

TABLE 26

EFFECT OF PSYCHOLOGICAL DISTRESS ON DAILY ACTIVITIES IN PEOPLE WITH MODERATE, HIGH, OR VERY HIGH PSYCHOLOGICAL DISTRESS, AGED 16–64 YEARS, NSW, 2002

Effect	males	95% CI	females	95% CI	persons	95% CI
Days unable to manage daily activities	3.54	(2.72–4.37)	3	(2.41–3.61)	3.24	(2.75–3.74)
Days cut down on daily activities	3.04	(2.45–3.63)	3.68	(3.14–4.24)	3.41	(3.00–3.81)
Times saw a health professional	0.75	(0.54–0.96)	0.51	(0.42–0.60)	0.61	(0.51–0.72)

Oral health

Introduction

Dental caries is the most prevalent health problem, and periodontal diseases are the fifth most prevalent health problem, in Australia. About 90 per cent of all tooth loss can be attributed to these conditions, 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 disease management, have improved oral health significantly. 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 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.¹

In the *New South Wales Adult Health Survey 2002*, 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?', 'What are the main reasons for you not visiting the dentist in the last 12 months?'

Results

Retention of natural teeth

Overall, in 2002, 37.2 per cent of people reported that they had all of their natural teeth, 55.8 per cent reported that they had some natural teeth missing, and 6.9 per cent reported that they had all natural teeth missing.

There was no significant difference between the proportion of males (37.9 per cent) and females (36.6 per cent) who had no natural teeth missing. The proportion of people who had no natural teeth missing decreased significantly with age. A significantly greater proportion of people aged 16–34 years (58.4 per cent to 79.4 per cent) and females aged 35–44 years (42.6 per cent) were likely to have no natural teeth missing compared with the

overall population. A significantly lower proportion of people aged 45 years and over (2.2 per cent to 21.4 per cent) were likely to have no natural teeth missing, compared with the overall population.

The proportion of respondents reporting having no natural teeth missing was significantly greater in urban areas (39.1 per cent) than in rural areas (30.6 per cent). A significantly lower proportion of residents in the Illawarra Area Health Service (32.0 per cent) and a significantly greater proportion of residents in the Central Sydney (46.1 per cent) and Northern Sydney (46.8 per cent) Area Health Services were likely to have no natural teeth missing, compared with the overall urban population. A significantly lower proportion of residents in the Mid North Coast Area Health Service (23.3 per cent) were likely to have no natural teeth missing than the overall rural population.

A significantly greater proportion of people in the least (44.6 per cent) and second least (43.1 per cent) socioeconomically disadvantaged quintiles, and a significantly lower proportion in the most disadvantaged quintile (31.6 per cent), were likely to have no natural teeth missing than the overall population.

The proportion of people who had no natural teeth missing increased significantly from 1998 (35.0 per cent) to 2002 (37.2 per cent).

Toothache and other oral health problems

Overall, in 2002, 52.0 per cent of people reported that they 'never' had oral health problems, 26.5 per cent of people 'hardly ever' had problems, 15.3 per cent of people 'sometimes' had problems, 4.0 per cent 'often' had problems, and 2.2 per cent of people had oral health problems 'very often'. The proportion of males (28.4 per cent) 'hardly ever' having oral health problems was significantly greater than females (24.7 per cent).

Of those who reported an oral health problem, 39.4 per cent did not see a dentist for the problem. Of those who did see a dentist, the most common treatments were dental fillings (24.1 per cent), tooth extractions (12.0 per cent), or simply a check up (9.0 per cent).

Frequency of visits to dental professionals

Overall, in 2002, 36.1 per cent of people had seen a dentist less than 12 months ago, 23.4 per cent had seen a dentist one to less than two years ago, 21.6 per cent had seen a dentist two to less than five years ago, 9.7 per cent had seen a dentist five to less than 10 years ago, 8.4 per cent had seen a dentist 10 years ago or more, and 0.9 per cent of people had never seen a dentist. A significantly lower proportion of males (32.9 per cent) than females (39.1 per cent) reported having seen a dentist in the last 12 months.

Dental providers used

In 2002, 89.4 per cent of people used a private dental provider, 9.1 per cent used a public dental clinic, 0.3 per cent used the school dental service, 0.6 per cent of people

used a dental technician, and 0.6 per cent of people used another type of dental service.

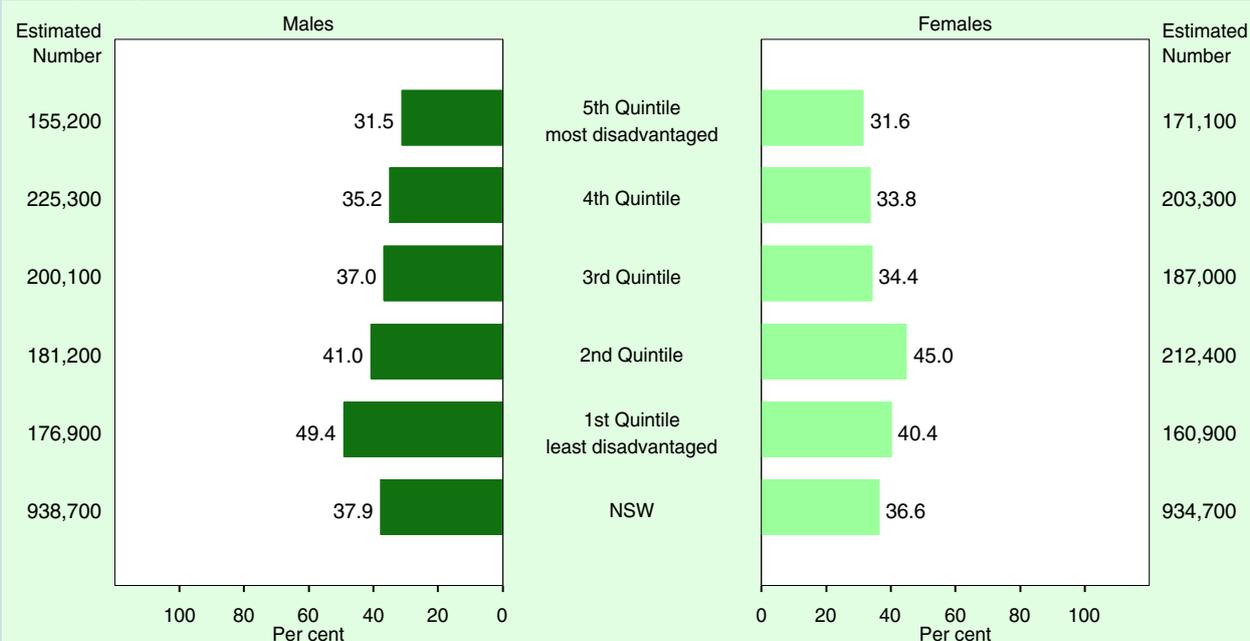
Figures 87–88 and Table 27 show the proportion of people who have no natural teeth missing by socioeconomic disadvantage and health area. Figure 89 shows the range and times since the last dental visit.

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FIGURE 87

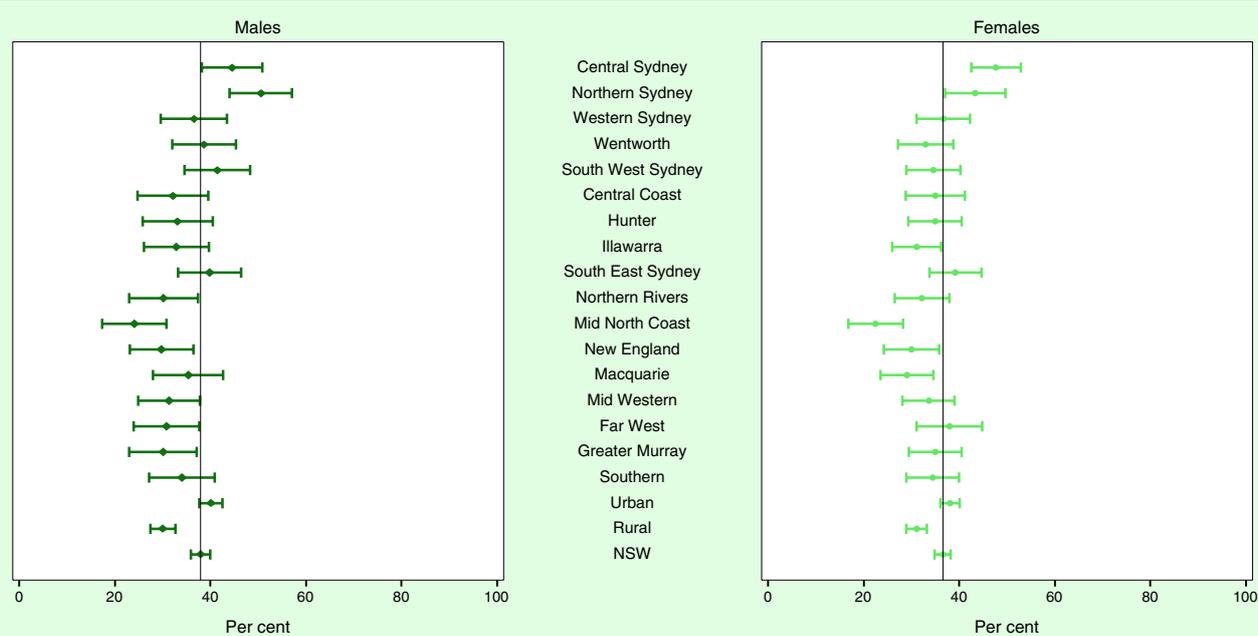
NO NATURAL TEETH MISSING BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 88

NO NATURAL TEETH MISSING BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 27

NO NATURAL TEETH MISSING BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Males			Females			Persons				
		LL 95%CI	UL 95%CI	(est. no.)	LL 95%CI	UL 95%CI	(est. no.)	LL 95%CI	UL 95%CI	(est. no.)		
Central Sydney	44.5	38.2	50.9	89200	47.7	42.5	52.9	98100	46.1	42	50.2	187300
Northern Sydney	50.6	44	57.1	154500	43.3	37	49.6	141100	46.8	42.3	51.4	295600
Western Sydney	36.5	29.7	43.4	93300	36.7	31.1	42.3	97000	36.6	32.2	41.1	190300
Wentworth	38.7	32	45.3	44900	33	27.2	38.7	39500	35.8	31.4	40.2	84400
South West Sydney	41.5	34.6	48.3	124100	34.6	28.9	40.3	104200	38	33.5	42.5	228300
Central Coast	32.2	24.7	39.6	35000	35	28.8	41.2	40900	33.6	28.8	38.5	75900
Hunter	33.1	25.8	40.5	68300	34.9	29.3	40.5	74100	34	29.5	38.6	142400
Illawarra	32.9	26.1	39.6	42900	31.1	26	36.2	42300	32	27.8	36.2	85100
South East Sydney	39.8	33.2	46.5	124500	39.2	33.8	44.6	124200	39.5	35.3	43.8	248800
Northern Rivers	30.2	22.9	37.5	29700	32.2	26.5	37.9	33100	31.2	26.6	35.8	62800
Mid North Coast	24.1	17.4	30.8	23500	22.5	16.8	28.2	23300	23.3	18.9	27.7	46700
New England	29.8	23.1	36.4	18900	30.1	24.3	35.8	19700	29.9	25.5	34.3	38600
Macquarie	35.3	28	42.7	13100	29	23.5	34.5	10900	32.2	27.5	36.8	24100
Mid Western	31.4	25	37.8	19000	33.6	28.2	39	21000	32.5	28.3	36.7	40000
Far West	30.8	24	37.6	5800	37.9	31	44.8	6800	34.3	29.4	39.2	12500
Greater Murray	30.1	23	37.1	28300	35	29.5	40.6	34300	32.6	28.1	37.1	62600
Southern	34.1	27.2	40.9	23700	34.5	29	40	24200	34.3	29.9	38.7	48000
Urban	40.2	37.7	42.6	776700	38.1	36.1	40.1	761400	39.1	37.5	40.7	1538200
Rural	30	27.4	32.7	162000	31.1	28.9	33.2	173200	30.6	28.9	32.3	335200
NSW	37.9	36	39.9	938700	36.6	34.9	38.2	934700	37.2	36	38.5	1873400

Notes: Estimates are based on 12618 respondents in NSW.

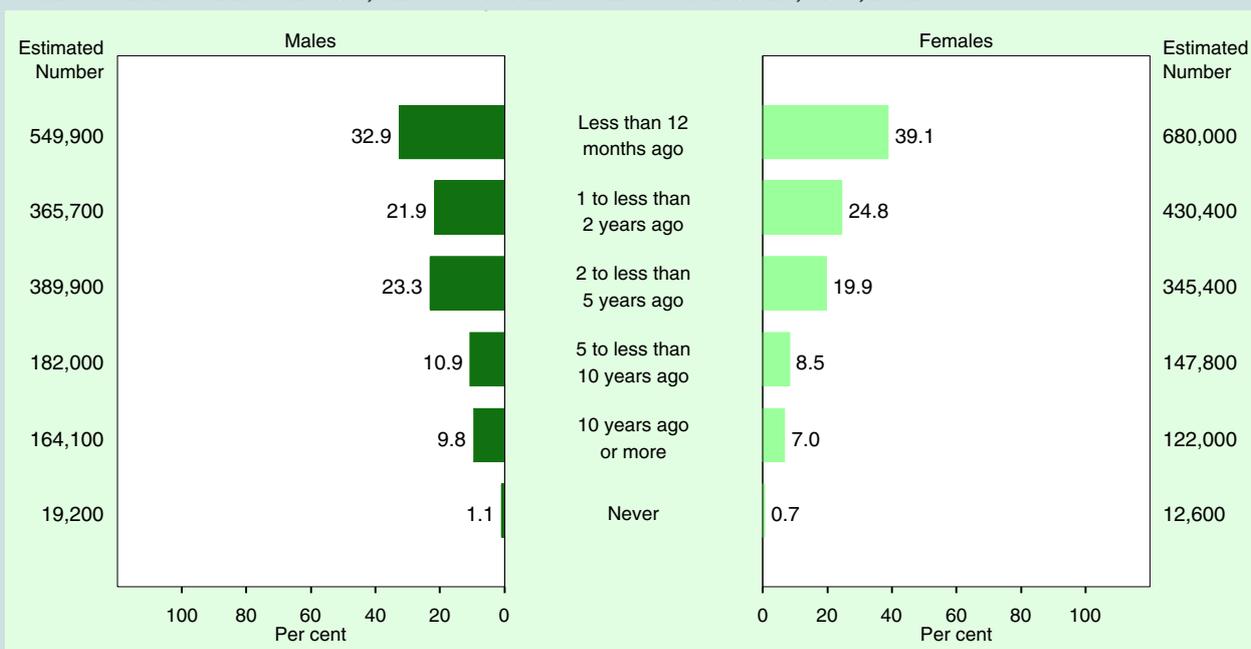
4 (0.03 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those respondents who had no natural teeth missing. The question used to define the indicator was 'Are any of your natural teeth missing? (Natural teeth does not include dentures, but includes wisdom teeth)'.

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

FIGURE 89

TIME SINCE LAST DENTAL VISIT, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

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 2002*, 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 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 2002, 3.6 per cent of the population were categorised as 'underweight', 50.1 per cent as 'acceptable weight', 31.6 per cent as 'overweight', and 14.6 per cent as 'obese' (in total 46.2 per cent 'overweight' or 'obese'). Of the people whose BMI was calculated, 27.1 per cent weighed themselves at least weekly, 27.0 per cent weighed themselves monthly, 32.7 per cent weighed themselves a few times a year, and 13.2 per cent never weighed themselves.

A significantly greater proportion of males (53.9 per cent) than females (38.5 per cent) were classified as overweight or obese. Interestingly, when asked to rate their own weight as acceptable, overweight, or underweight, only 39.8 per cent of the respondents categorised themselves as being overweight, with a significantly greater proportion of females (43.3 per cent) considering themselves to be overweight than males (36.3 per cent).

Among males, a significantly lower proportion of those aged 16–24 years (32.0 per cent) and a significantly greater proportion aged 35–74 years (greater than 60.2 per cent) were likely to be classified as overweight or obese, compared with the overall population. Among females, a significantly lower proportion of those aged 16–44 years (14.3 per cent to 35.7 per cent) and a significantly greater proportion of those aged 55–74 years (53.6 per cent to 55.7 per cent) were likely to be classified as overweight or obese, compared with the overall population.

There was significant geographic variation in the proportion of residents classified as overweight or obese, with a significantly greater proportion of rural residents (49.3 per cent) than urban residents (45.4 per cent) being overweight or obese. This difference is almost totally explained by the difference in rates of overweight or obesity between rural and urban women. There was no significant difference between urban and rural men. Central Sydney Area Health Service (38.6 per cent) had a significantly lower proportion of overweight or obese residents compared to the overall urban population. Macquarie (56.3 per cent) and Far West (56.9 per cent) Area Health Services had significantly greater proportions of overweight or obese residents compared to the overall rural population.

The second most socioeconomically disadvantaged quintile (50.5 per cent) had significantly greater proportions of overweight or obese people than the overall population. The least disadvantaged quintile (39.6 per cent) had a significantly lower proportion of overweight or obese people than the overall population. This difference is almost totally explained by the difference between socioeconomic quintiles and level of overweight or obesity in women. 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 2002 (46.3 per cent). This increase has occurred in both males (49.7 per cent to 53.9 per cent) and females (34.5 per cent to 38.5 per cent).

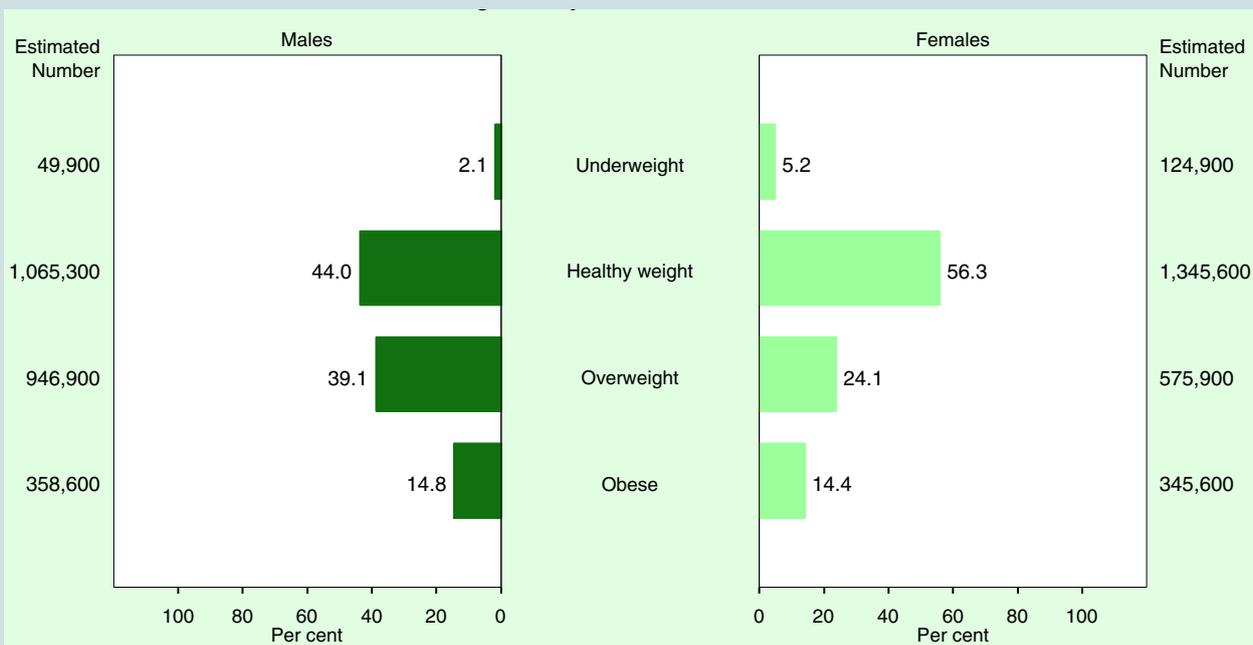
Figure 90 shows the proportion of people in each BMI category. Figures 91–93 and Table 28 show the proportion of people who are overweight or obese, by age, socioeconomic disadvantage, and health area.

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FIGURE 90

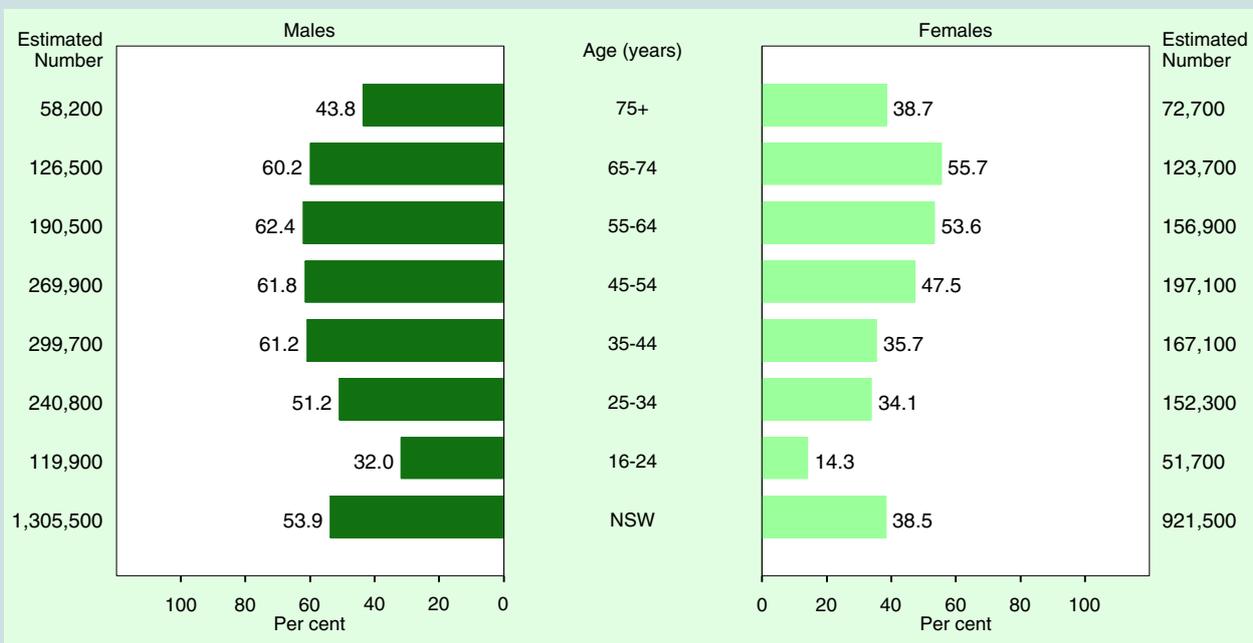
BODY MASS INDEX (BMI) CATEGORIES, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 91

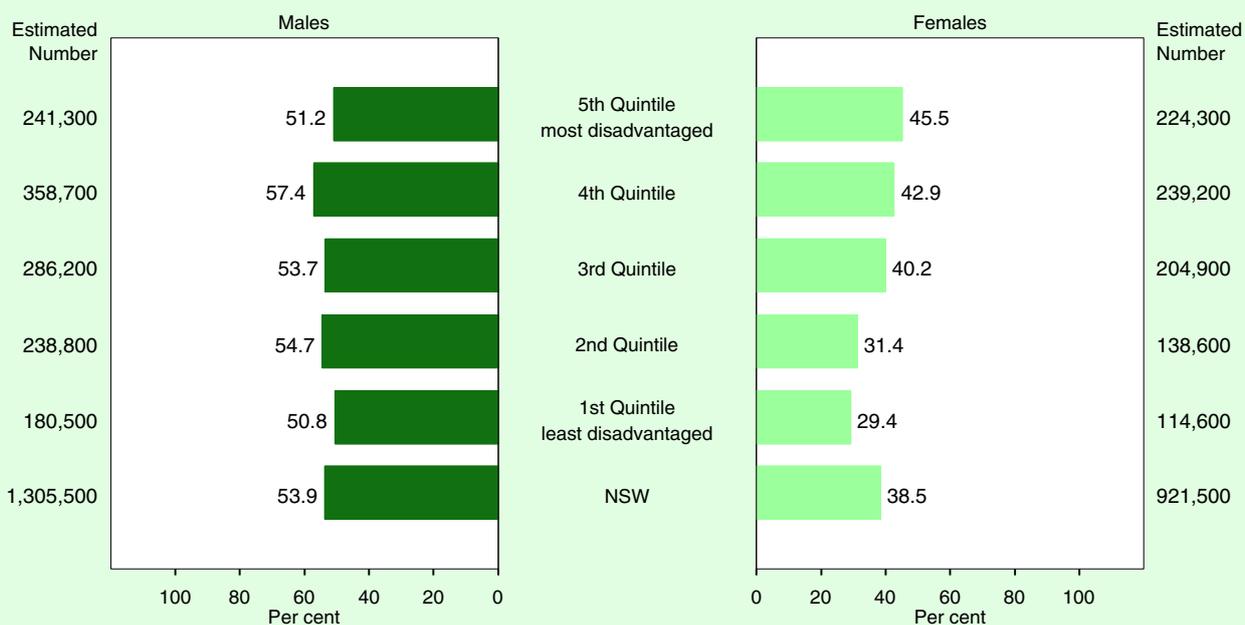
OVERWEIGHT OR OBESITY BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 92

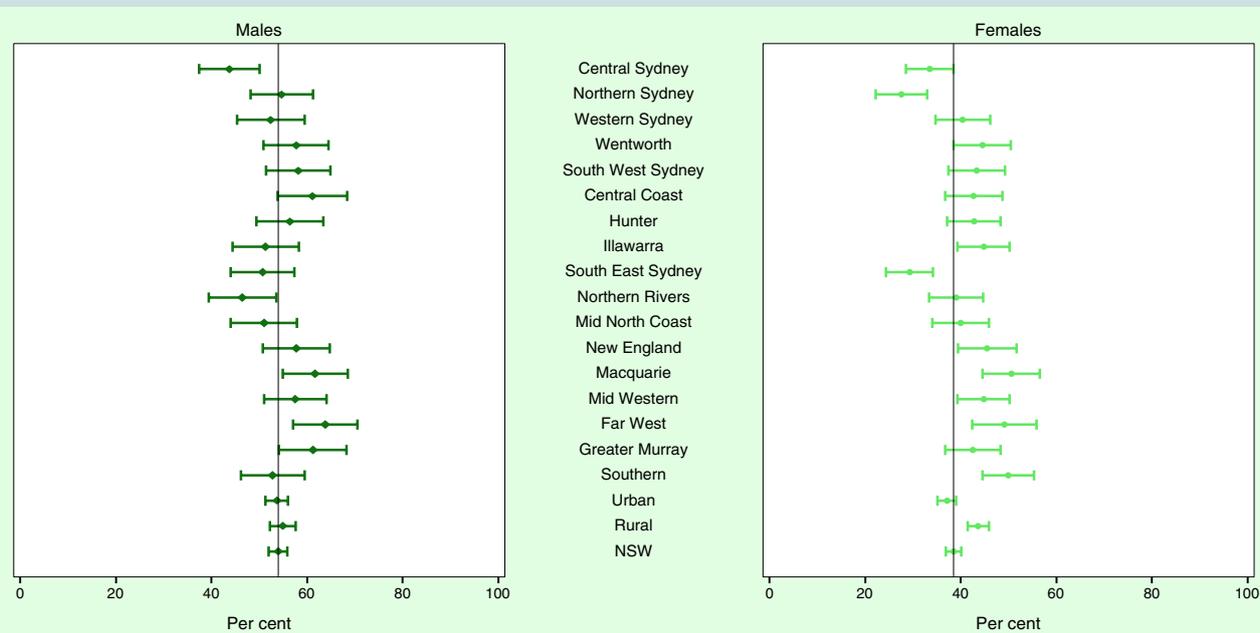
OVERWEIGHT OR OBESITY BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 93

OVERWEIGHT OR OBESITY BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 28
OVERWEIGHT OR OBESITY BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Males			%	Females			%	Persons		
		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	43.7	37.4	50.1	85000	33.5	28.5	38.5	65300	38.6	34.5	42.7	150200
Northern Sydney	54.7	48.1	61.3	165100	27.5	22.1	33	86500	40.9	36.4	45.3	251700
Western Sydney	52.4	45.3	59.5	129900	40.4	34.7	46.2	101800	46.4	41.8	51	231700
Wentworth	57.7	50.9	64.5	65900	44.5	38.5	50.5	48000	51.3	46.7	55.9	113900
South West Sydney	58.2	51.4	64.9	170800	43.3	37.4	49.2	120600	50.9	46.4	55.5	291400
Central Coast	61.1	53.8	68.4	64800	42.7	36.7	48.8	47500	51.7	46.8	56.6	112300
Hunter	56.4	49.4	63.4	112900	42.8	37.2	48.4	84100	49.7	45.1	54.3	197100
Illawarra	51.3	44.4	58.3	65200	44.7	39.3	50.2	55300	48.1	43.7	52.5	120500
South East Sydney	50.7	44	57.4	157500	29.3	24.4	34.2	87200	40.2	35.9	44.5	244700
Northern Rivers	46.5	39.4	53.5	43600	39	33.4	44.6	38300	42.6	38.2	47.1	81900
Mid North Coast	51	44.1	57.9	48500	40	34	45.9	38500	45.4	40.8	50	87000
New England	57.8	50.7	64.8	35700	45.5	39.4	51.6	28100	51.6	47	56.3	63800
Macquarie	61.7	54.9	68.5	22500	50.6	44.5	56.6	17400	56.3	51.6	60.9	39900
Mid Western	57.5	51	64.1	33400	44.8	39.3	50.2	26600	51.1	46.8	55.4	60000
Far West	63.8	57	70.5	11600	49.1	42.4	55.9	7900	56.9	52	61.7	19500
Greater Murray	61.2	54.1	68.3	56600	42.5	36.8	48.3	35800	52.3	47.6	57	92400
Southern	52.8	46.1	59.5	36400	49.9	44.5	55.3	32400	51.4	47.1	55.7	68900
Urban	53.7	51.2	56.1	1017200	37.1	35.1	39.1	696400	45.4	43.8	47	1713600
Rural	54.9	52.2	57.6	288300	43.7	41.4	45.9	225200	49.3	47.6	51.1	513400
NSW	53.9	52	55.9	1305500	38.5	36.9	40.1	921500	46.3	45	47.6	2227000

Notes: Estimates are based on 11998 respondents in NSW.

621 (4.92 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those with a Body Mass Index (BMI) of 25 or higher. The questions used to define the indicator were 'How tall are you without shoes?' and 'How much do you weigh without clothes or shoes?' Body Mass Index is calculated as follows $BMI = \text{weight(kg)}/\text{height}^2(\text{m})$.

Categories for this indicator include overweight (BMI between 25 and 29.9) and obese (BMI of 30 and over).

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

9. HEALTH SERVICES

NSW Health provides a range of health care services to NSW residents that are delivered across a variety of settings. The *New South Wales Adult Health Survey 2002* included a range of questions that addressed access to and satisfaction with health care services. Measuring consumer satisfaction with health care services is part of the process of monitoring the success of community participation and quality improvement strategies. In 2002, questions focused on difficulties getting health care when needed, admission to hospital or attendance at an emergency department, and use of community health centres or public dental 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 2002* included questions about difficulties that people may have had with those services. Respondents were asked 'Do you have any difficulties getting health care when you need it?'. Those who responded 'Yes' were then asked, 'Please describe the difficulties you have'.

Results

Only 12.6 per cent of the population reported having difficulties getting health care. The main difficulties reported were waiting time for an appointment with a general practitioner (36.1 per cent), shortage of general practitioners in the local area (18.6 per cent), and quality of treatment (14.7 per cent).

A significantly greater proportion of females (14.2 per cent) reported difficulties in getting health care than males (10.9 per cent). Among females, a significantly lower proportion of those aged 16–24 years (10.1 per cent) and 65 years and over (4.2 per cent to 10.7 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 (5.3 per cent) and 75 years and over (6.0 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 (21.4 per cent) reporting difficulties getting health care than urban residents (10.1 per cent). Residents in the Northern Rivers Area Health Service (15.5 per cent) were significantly less likely to experience difficulties in getting health care than rural residents. Residents in the Central Coast (19.2 per cent) and Hunter (14.6 per cent) Area Health Services were significantly more likely to have difficulties getting health care than urban residents.

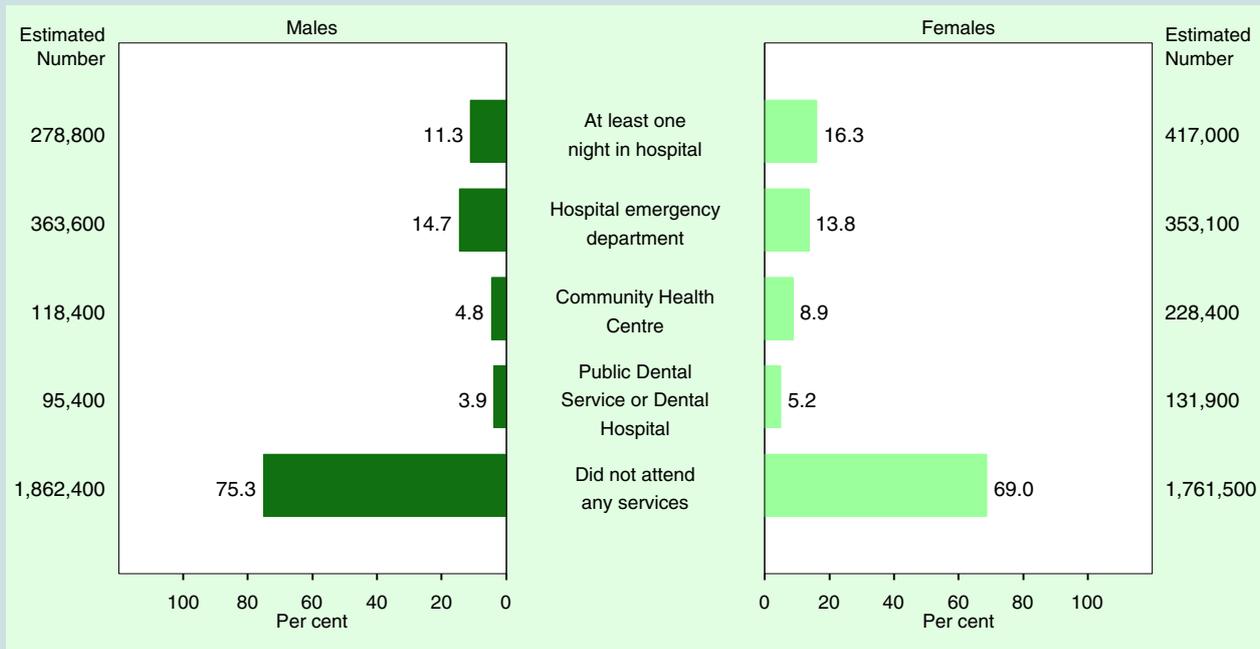
Overall, a significantly lower proportion of people in the least disadvantaged (8.2 per cent) and the second least disadvantaged (9.2 per cent) quintiles reported difficulty getting health care than the overall population. A significantly greater proportion of people in the second most disadvantaged (16.2 per cent) and most disadvantaged (15.2 per cent) quintiles reported difficulties in getting health care than 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 12.6 per cent in 2002. This increase was greater in females (11.1 per cent to 14.2 per cent) than males (8.9 per cent to 10.9 per cent).

Figure 94 shows the health services attended in the last 12 months. Figure 95–97 and Table 29 show the proportion of people reporting difficulties getting health care when they needed it, by age, socioeconomic disadvantage, and health area. Figure 98 shows the types of difficulties experienced.

FIGURE 94

HEALTH SERVICES ATTENDED IN LAST 12 MONTHS, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 95

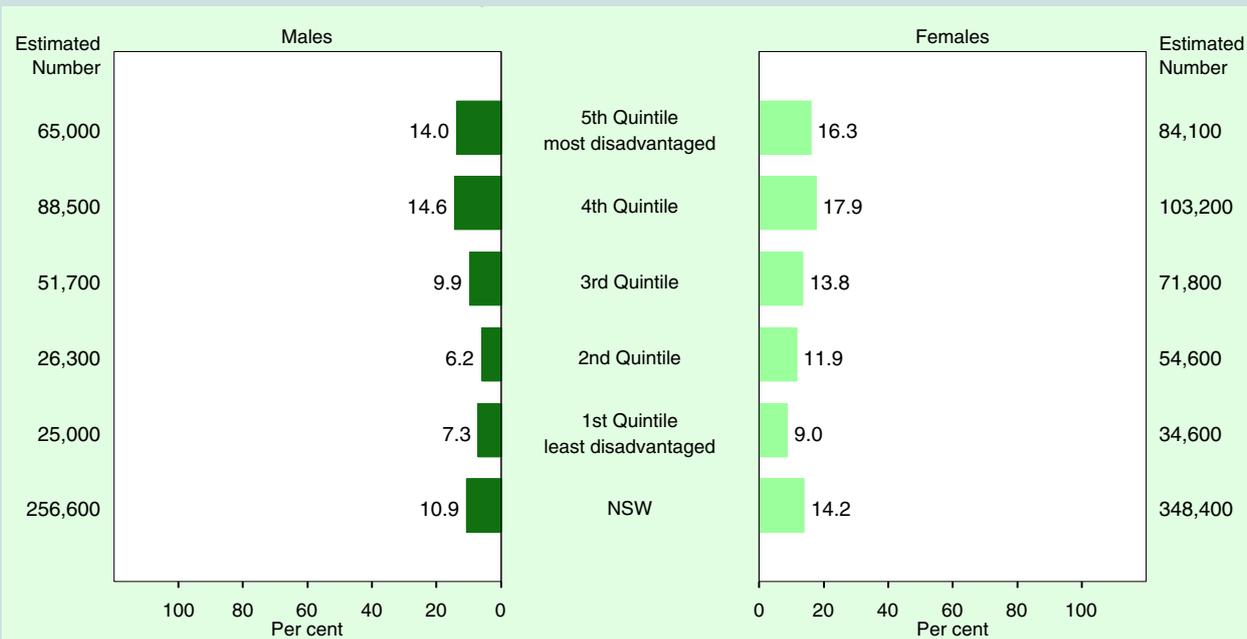
DIFFICULTIES GETTING HEALTH CARE WHEN NEEDING IT BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 96

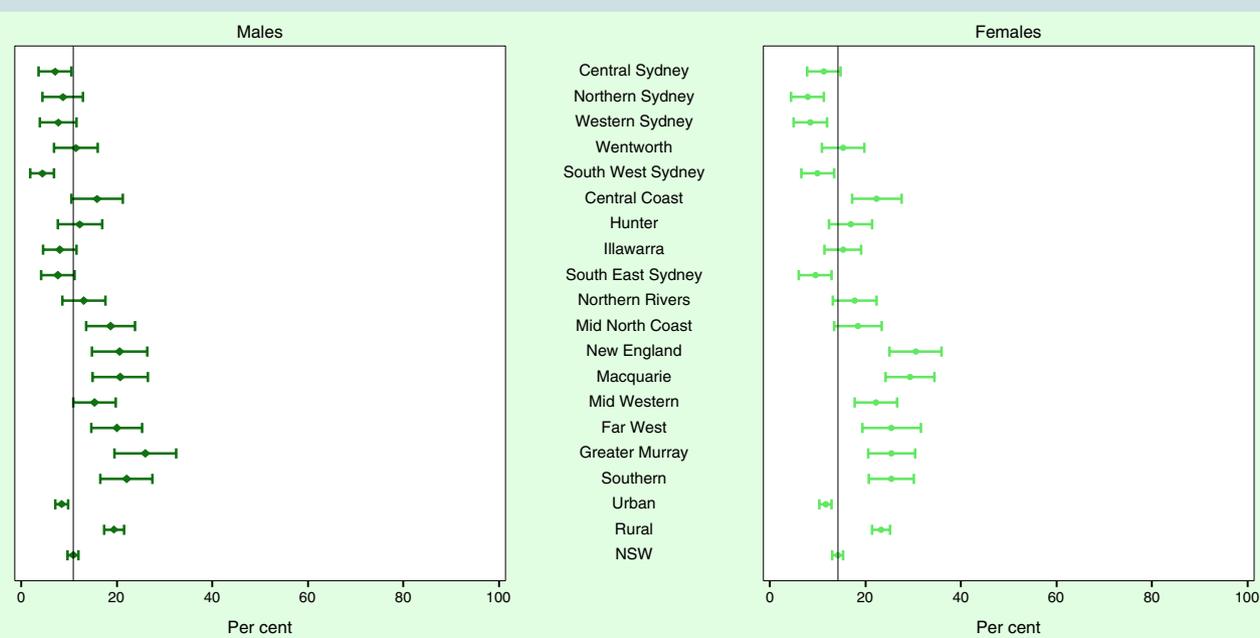
DIFFICULTIES GETTING HEALTH CARE WHEN NEEDING IT BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 97

DIFFICULTIES GETTING HEALTH CARE WHEN NEEDING IT BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 29

DIFFICULTIES GETTING HEALTH CARE WHEN NEEDING IT BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Males			%	Females			%	Persons		
		LL	UL	(est. no.)		LL	UL	(est. no.)		LL	UL	(est. no.)
		95%CI	95%CI		95%CI	95%CI		95%CI	95%CI		95%CI	95%CI
Central Sydney	7	3.6	10.5	13500	11.3	7.8	14.8	22100	9.2	6.7	11.7	35600
Northern Sydney	8.7	4.5	12.9	25300	7.9	4.4	11.3	24800	8.3	5.5	11	50100
Western Sydney	7.7	3.9	11.6	18900	8.5	5	12	21700	8.1	5.5	10.7	40500
Wentworth	11.4	6.8	16	12800	15.3	10.9	19.7	17400	13.4	10.2	16.6	30100
South West Sydney	4.4	1.9	6.9	12200	10	6.6	13.4	28800	7.2	5.1	9.4	40900
Central Coast	15.9	10.5	21.3	16800	22.4	17.1	27.6	25000	19.2	15.4	23	41800
Hunter	12.3	7.6	17	24700	16.9	12.3	21.4	35200	14.6	11.3	17.9	59900
Illawarra	8	4.5	11.6	10000	15.3	11.4	19.1	19800	11.7	9.1	14.4	29800
South East Sydney	7.7	4.2	11.2	23100	9.5	6.1	12.9	28600	8.6	6.2	11	51800
Northern Rivers	13.1	8.6	17.6	11900	17.7	13.1	22.3	17100	15.5	12.3	18.7	29000
Mid North Coast	18.7	13.6	23.9	17300	18.4	13.4	23.4	18400	18.5	15	22.1	35700
New England	20.5	14.8	26.3	12300	30.5	25	35.9	19400	25.7	21.7	29.6	31700
Macquarie	20.7	14.9	26.5	7500	29.3	24.2	34.4	10800	25	21.2	28.9	18300
Mid Western	15.3	10.9	19.8	8900	22.1	17.7	26.6	13500	18.8	15.7	22	22300
Far West	20	14.7	25.3	3600	25.5	19.3	31.6	4400	22.6	18.6	26.7	8000
Greater Murray	25.9	19.5	32.4	23400	25.5	20.6	30.3	24200	25.7	21.7	29.7	47600
Southern	22	16.6	27.5	14400	25.4	20.8	30.1	17400	23.7	20.2	27.3	31800
Urban	8.5	7.2	9.9	157200	11.6	10.3	12.9	223300	10.1	9.2	11	380500
Rural	19.4	17.4	21.5	99300	23.2	21.4	25.1	125100	21.4	20	22.8	224400
NSW	10.9	9.7	12	256600	14.2	13.1	15.3	348400	12.6	11.8	13.4	604900

Notes: Estimates are based on 12017 respondents in NSW.

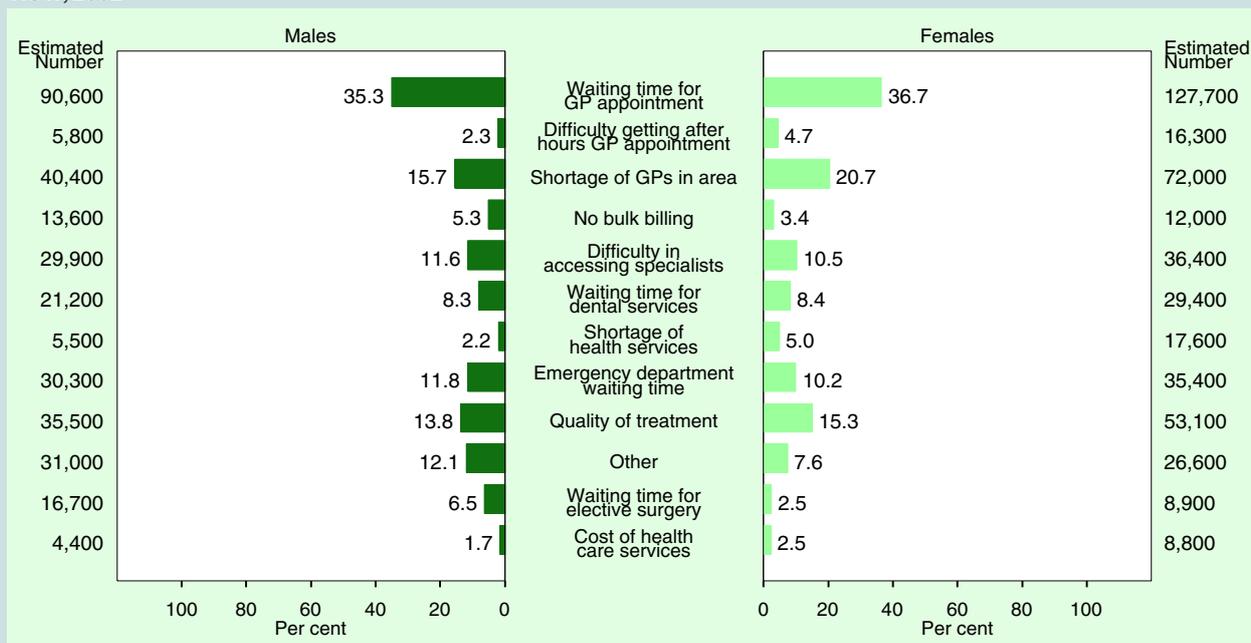
605 (4.79 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who had difficulties getting health care when they needed it. It excludes those who said they do not need health care. The question used to define the indicator was 'Do you have any difficulties getting health care when you need it?'

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

FIGURE 98

TYPES OF DIFFICULTIES GETTING HEALTH CARE WHEN NEEDING IT, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

Emergency departments

Introduction

In 2002 there were approximately 1.6 million visits to emergency departments in NSW hospitals.¹

The *New South Wales Adult Health Survey 2002* 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 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"?'), 'If you had to enter an emergency department again, would you prefer to return to this emergency department, or go to a different emergency department?'

Results

Attendance

The *New South Wales Adult Health Survey 2002* estimated that about 717,200 persons (363,600 males and 353,600 females) had attended an emergency department in the previous 12 months, representing 14.3 per cent of the population overall. There was no significant difference between the proportion of males (14.7 per cent) and females (13.8 per cent) attending, nor was there significant variation between age groups.

There was significant geographic variation in emergency department attendances in the last 12 months, with a significantly greater proportion of rural residents (19.6 per cent) than urban residents (12.8 per cent) reporting attendance at an emergency department. A significantly greater proportion of residents in the Central Coast Area Health Service (18.7 per cent) reported emergency department attendance compared with the overall urban population. There was no significant difference within rural health areas.

Other than a significantly lower proportion of females in the least disadvantaged quintile (9.4 per cent) reporting emergency department attendance than the overall population, there was little variation in attendance by socioeconomic disadvantage.

Emergency department attendance did not differ significantly from 1997 (13.8 per cent) to 2002 (14.3 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, 29.2 per cent rated the care received as 'excellent', 27.5 per cent as 'very good',

19.8 per cent as 'good', 11.6 per cent as 'fair', and 11.9 per cent as 'poor'. Females (15.0 per cent) were significantly more likely to rate the care received as 'poor' than males (8.8 per cent). The main reason for rating the care as 'fair' or 'poor' was waiting time in emergency departments (69.8 per cent).

Responses of 'excellent', 'very good' and 'good' were combined into a 'positive' rating of care. Overall, 76.5 per cent of people gave a positive rating of the care they received at an emergency department. There was no significant difference in positive rates of emergency department care between males (79.8 per cent) and females (73.2 per cent). A significantly greater proportion of people aged 65 years and over (89.8 per cent to 90.3 per cent) and males aged 55–64 years (87.9 per cent), and a significantly lower proportion of females aged 16–24 years (60.2 per cent) gave a positive rating of their emergency department care, compared with the overall population.

There was no significant variation in positive ratings of emergency department care between rural residents (79.8 per cent) and urban residents (75.2 per cent). A significantly greater proportion of residents in the Mid Western (88.7 per cent) and Macquarie (86.8 per cent) Area Health Services gave a positive rating, compared with the overall population.

Apart from a significantly greater proportion of males in the least disadvantaged quintile (94.0 per cent) giving a positive rating of their emergency care, compared with the overall population, there was little variation 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 2002 (76.5 per cent). However, the proportion of females who gave a positive rating decreased significantly from 1997 (79.9 per cent) to 2002 (73.2 per cent).

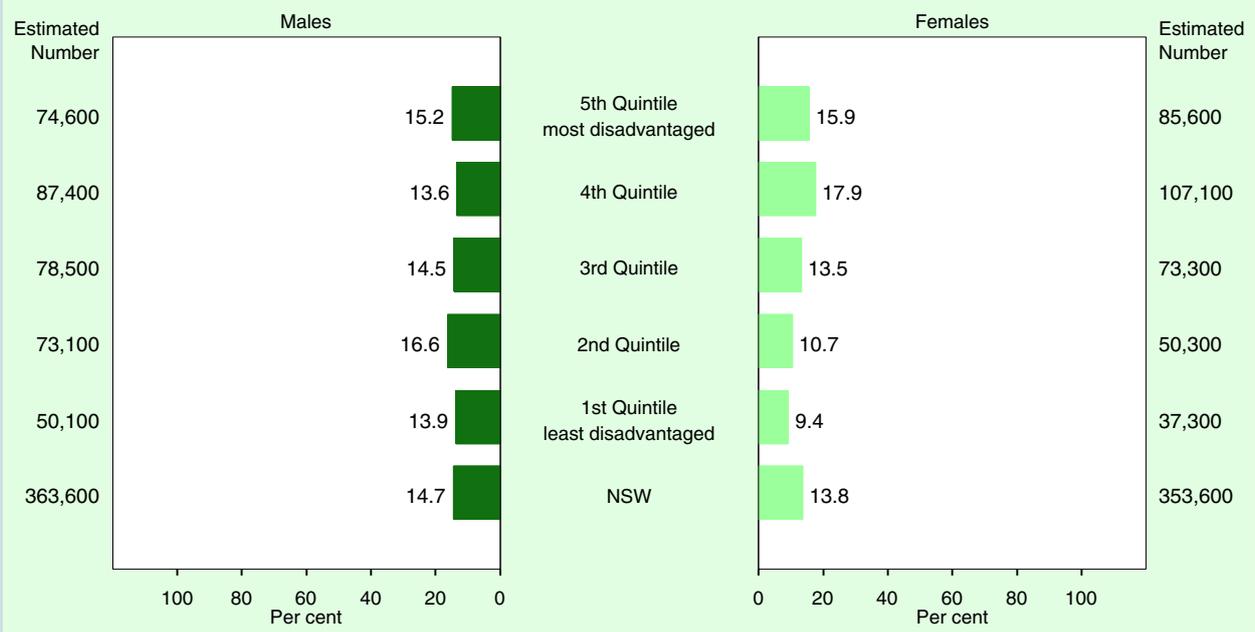
Figures 99–100 and Table 30 show the proportion of people attending an emergency department in the last 12 months, by socioeconomic disadvantage and health area. Figure 101 shows the reason for rating the most recent emergency department visit as fair or poor. Figure 102 shows the proportion of people in the emergency department as excellent, very good, or good.

References

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

FIGURE 99

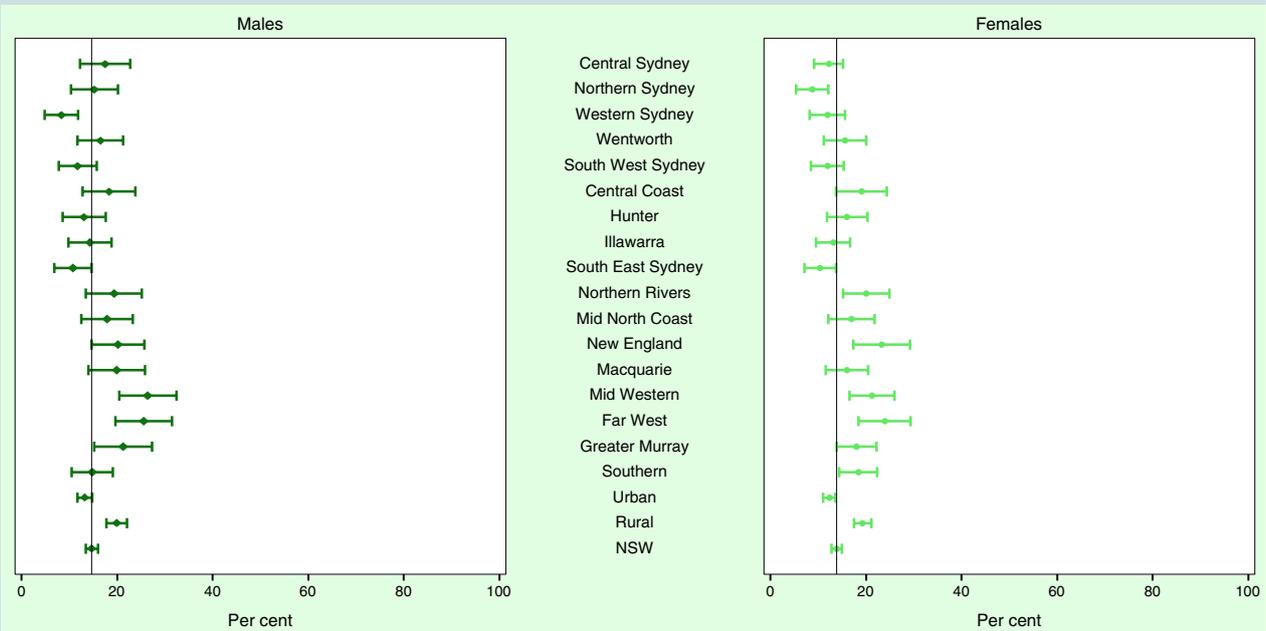
EMERGENCY DEPARTMENT ATTENDANCE IN THE PREVIOUS 12 MONTHS BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 100

EMERGENCY DEPARTMENT ATTENDANCE IN THE PREVIOUS 12 MONTHS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 30

EMERGENCY DEPARTMENT ATTENDANCE IN THE PREVIOUS 12 MONTHS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Males			%	Females			%	Persons		
		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	17.5	12.2	22.7	34900	12.2	9.1	15.2	25000	14.8	11.7	17.8	59900
Northern Sydney	15.2	10.3	20.1	46600	8.7	5.4	12	28300	11.9	8.9	14.8	74900
Western Sydney	8.3	4.8	11.8	21100	11.9	8.2	15.6	31500	10.1	7.6	12.7	52600
Wentworth	16.5	11.7	21.3	19100	15.6	11.2	20	18700	16	12.8	19.3	37800
South West Sydney	11.7	7.8	15.7	35100	11.9	8.5	15.4	35800	11.8	9.2	14.5	70900
Central Coast	18.4	12.8	23.9	20000	19	13.7	24.3	22300	18.7	14.9	22.5	42200
Hunter	13.1	8.6	17.6	27000	16	11.8	20.2	34000	14.6	11.5	17.7	61000
Illawarra	14.3	9.8	18.8	18600	13.1	9.6	16.6	17700	13.7	10.8	16.5	36400
South East Sydney	10.8	6.9	14.7	33700	10.4	7.1	13.7	33000	10.6	8	13.1	66700
Northern Rivers	19.3	13.4	25.2	18900	20.1	15.2	24.9	20600	19.7	15.9	23.5	39500
Mid North Coast	17.9	12.5	23.3	17300	16.9	12.1	21.8	17400	17.4	13.8	21	34800
New England	20.1	14.6	25.7	12800	23.3	17.3	29.2	15200	21.7	17.6	25.8	28000
Macquarie	19.9	13.9	25.9	7400	16	11.6	20.5	6000	18	14.2	21.7	13400
Mid Western	26.4	20.4	32.4	16000	21.2	16.5	26	13300	23.8	20	27.6	29200
Far West	25.6	19.6	31.5	4800	23.9	18.4	29.4	4300	24.7	20.7	28.8	9000
Greater Murray	21.3	15.2	27.3	20000	18	13.8	22.2	17600	19.6	15.9	23.3	37700
Southern	14.8	10.4	19.2	10300	18.4	14.4	22.4	12800	16.6	13.6	19.6	23100
Urban	13.2	11.7	14.8	256100	12.3	11.1	13.6	246300	12.8	11.8	13.8	502400
Rural	20	17.8	22.1	107500	19.3	17.5	21.1	107300	19.6	18.2	21	214800
NSW	14.7	13.4	16	363600	13.8	12.8	14.9	353600	14.3	13.4	15.1	717200

Notes: Estimates are based on 12604 respondents in NSW.

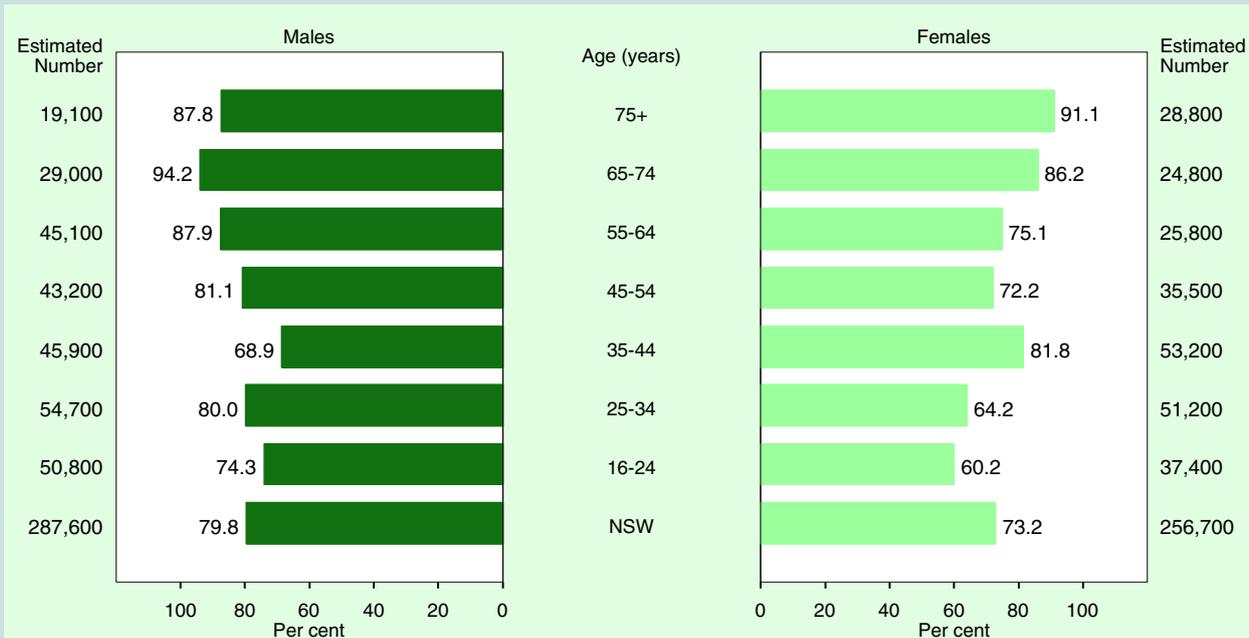
18 (0.14 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those attending an emergency department in the last 12 months. The question used to define the indicator was 'In the last 12 months, have you attended a hospital emergency department or casualty for your own medical care?'.

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

FIGURE 101

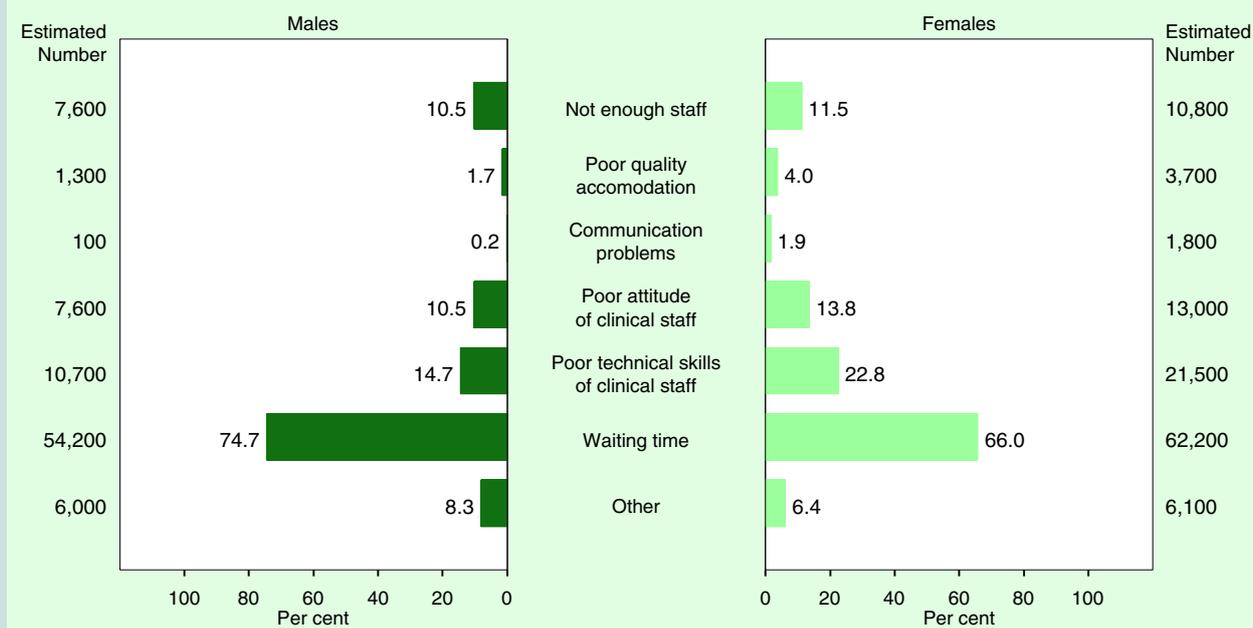
EMERGENCY DEPARTMENT CARE RATED AS EXCELLENT, VERY GOOD OR GOOD BY AGE, PERSONS WHO ATTENDED AN EMERGENCY DEPARTMENT IN THE PREVIOUS 12 MONTHS, AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 102

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, 2002



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

Hospital admissions

Introduction

In the 2000–01 financial year there were approximately 1.99 million admissions to NSW hospitals.¹

The *New South Wales Adult Health Survey 2002* 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”?’), ‘If you had to enter hospital again, would you prefer to return to this hospital, or go to a different hospital?’, ‘Did someone at this hospital tell you how to cope with this condition when you returned home?’ (if ‘Yes’, respondent was also asked ‘How adequate was this information once you went home?’).

Results

Hospital admissions

The *New South Wales Adult Health Survey 2002* estimated that about 696,200 people (279,000 males and 417,200 females) were admitted to hospital in the previous 12

months, representing 13.9 per cent of the overall population.

A significantly greater proportion of females (16.3 per cent) than males (11.3 per cent) reported being admitted to hospital. Among females, a significantly lower proportion of those aged 55–64 years (12.4 per cent) and a significantly greater proportion of those aged 25–34 years (21.6 per cent) and 75 years and over (23.0 per cent) were admitted to hospital, compared to the overall female population. A significantly lower proportion of males aged 25–44 years (6.5 per cent to 7.3 per cent) and a significantly greater proportion of males aged 55 years and over (15.7 per cent to 30.8 per cent) were admitted to hospital, compared to the overall male population.

There was no significant difference in the proportion of people reporting hospital admissions in the last 12 months between rural areas (15.4 per cent) and urban areas (13.4 per cent), or within rural or urban health areas.

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 2002 (13.9 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, 43.5 per cent rated the care they

received as 'excellent', 30.5 per cent as 'very good', 16.9 per cent as 'good', 6.3 per cent as 'fair', and 2.8 per cent rated the care received as 'poor'. The main reasons for rating the care as fair or poor were the poor attitude of clinical staff (29.1 per cent) and the poor technical skill of clinical staff (28.4 per cent).

Responses of 'excellent', 'very good', and 'good' were combined into a 'positive' rating of care. Overall, 91.0 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 (93.5 per cent) and females (89.3 per cent) giving positive ratings. A significantly greater proportion of people aged 55–64 years (95.9 per cent) and people aged 75 years and over (96.0 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 (91.8 per cent) and urban residents (90.7 per cent). Females in the New England (98.1 per cent) and Southern (96.7 per cent)

Area Health Services, and males in the Western Sydney (100 per cent) and South Eastern Sydney (100 per cent) and Macquarie (100 per cent) Area Health Services, were significantly more likely to give positive ratings of hospital care, compared with the overall population.

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

Overall, the proportion of people giving positive ratings of hospital care did not differ significantly from 1997 (90.1 per cent) to 2002 (91.0 per cent).

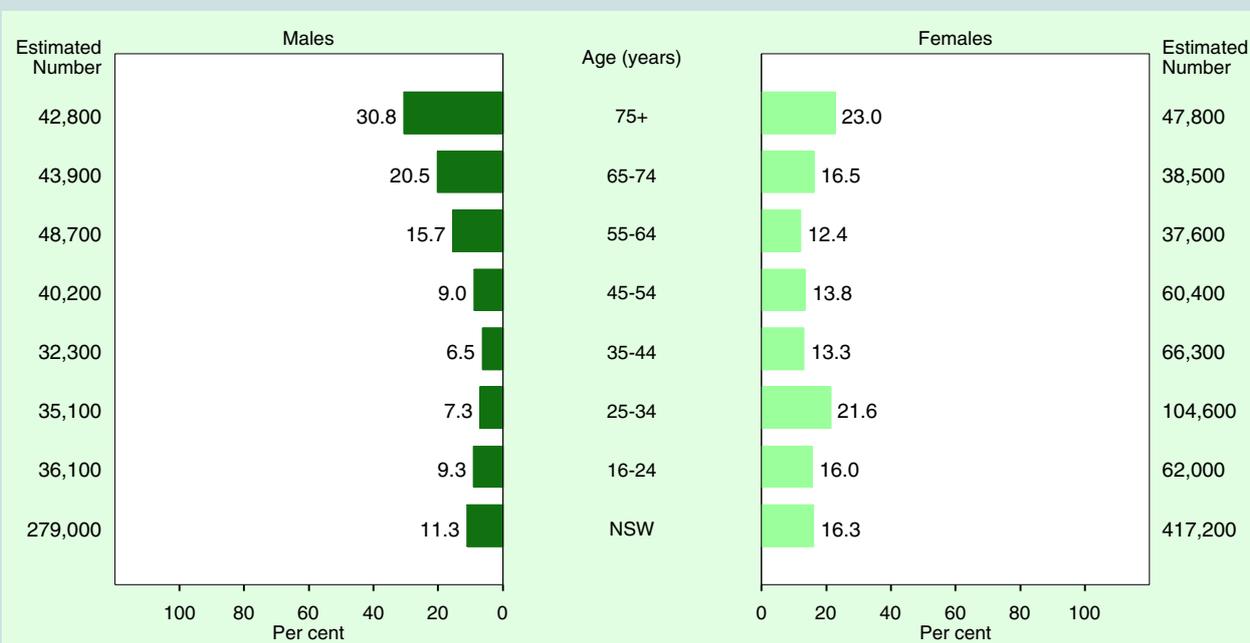
Figure 103 shows the proportion of people who were admitted to hospital in the previous 12 months by age. Figure 104 and Table 31 show the proportion rating their hospital care as excellent, very good, or good, by health area. Figure 105 shows the proportion rating their care as excellent, very good, good, fair, or poor. Figure 106 shows the reasons for rating care fair or poor.

References

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

FIGURE 103

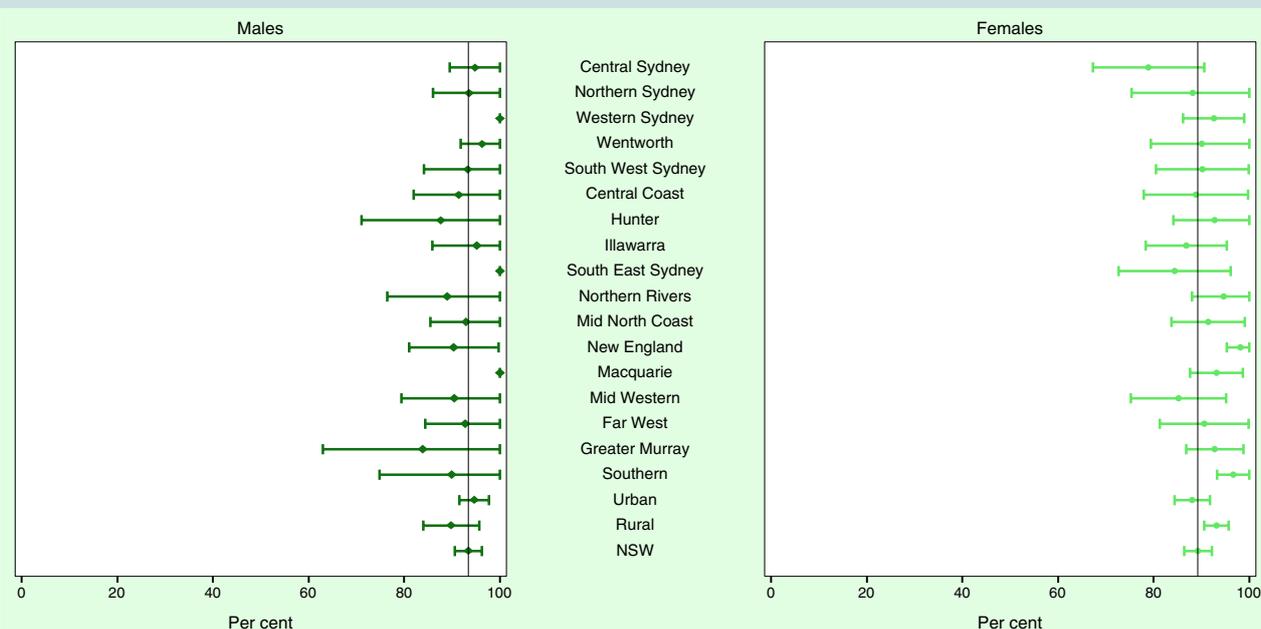
HOSPITAL ADMISSION IN THE PREVIOUS 12 MONTHS BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 104

HOSPITAL CARE RATED AS EXCELLENT, VERY GOOD OR GOOD BY HEALTH AREA, PERSONS WHO ATTENDED HOSPITAL IN THE PREVIOUS 12 MONTHS, AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 31

HOSPITAL CARE RATED AS EXCELLENT, VERY GOOD OR GOOD BY HEALTH AREA, PERSONS WHO ATTENDED HOSPITAL IN THE PREVIOUS 12 MONTHS, AGED 16 YEARS AND OVER, NSW, 2002

Area	Males				Females				Persons			
	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	94.8	89.6	100	24200	78.9	67.3	90.5	24800	86.1	78.7	93.4	48900
Northern Sydney	93.5	86	100	30500	88.2	75.3	100	34800	90.6	82.7	98.5	65300
Western Sydney	100	100	100	21000	92.6	86.1	99	41400	94.9	90.5	99.3	62400
Wentworth	96.3	91.8	100	18600	90	79.4	100	16800	93.2	87.4	99.1	35500
South West Sydney	93.3	84.1	100	30700	90.2	80.5	99.9	46000	91.4	84.5	98.3	76700
Central Coast	91.4	82	100	9000	88.8	77.9	99.7	17000	89.7	81.8	97.6	26000
Hunter	87.6	71	100	24000	92.7	84.2	100	32400	90.5	81.6	99.3	56500
Illawarra	95.2	85.9	100	12000	86.8	78.3	95.3	19400	89.8	83.4	96.2	31400
South East Sydney	100	100	100	28000	84.4	72.7	96.1	47100	89.6	81.5	97.7	75100
Northern Rivers	89	76.5	100	11800	94.6	88.1	100	17100	92.2	85.7	98.7	28900
Mid North Coast	93	85.5	100	10700	91.4	83.8	99.1	18600	92	86.4	97.6	29300
New England	90.4	81	99.7	6800	98.1	95.4	100	10800	95	90.8	99.1	17700
Macquarie	100	100	100	4600	93.1	87.6	98.7	7000	95.7	92.3	99.2	11500
Mid Western	90.5	79.5	100	8100	85.2	75.2	95.2	7800	87.8	80.4	95.2	15900
Far West	92.8	84.5	100	2300	90.6	81.3	99.8	2700	91.5	85.2	97.9	5000
Greater Murray	83.9	63.1	100	12200	92.8	86.8	98.8	17900	89	78.9	99	30100
Southern	89.9	74.8	100	5500	96.7	93.2	100	10600	94.2	88.2	100	16100
Urban	94.6	91.5	97.8	198000	88.1	84.4	91.8	279800	90.7	88.1	93.3	477800
Rural	89.9	84	95.7	62100	93.1	90.6	95.7	92500	91.8	88.9	94.6	154600
NSW	93.5	90.7	96.2	260100	89.3	86.4	92.2	372300	91	88.9	93	632300

Notes: Estimates are based on 1927 respondents in NSW.

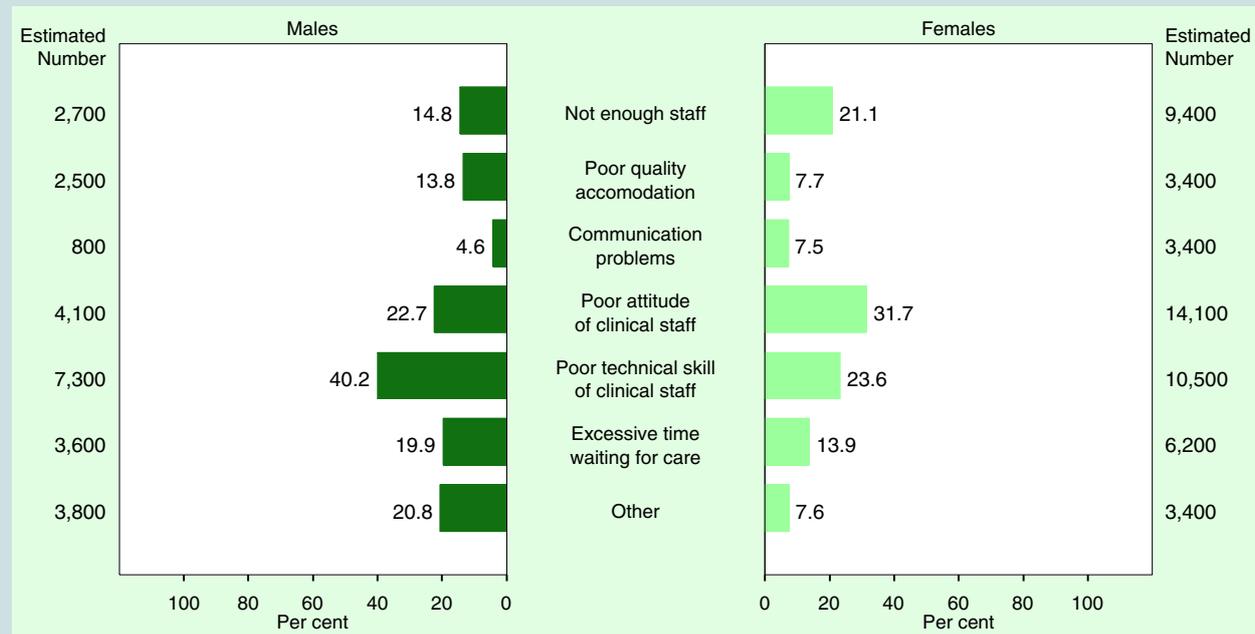
4 (0.21 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those admitted to hospital in the last 12 months who rated the care as excellent, very good or good for their most recent overnight stay. The questions used to define the indicator were 'In the last 12 months, have you stayed for at least one night in hospital?' and 'Overall, what do you think of the care you received at this hospital? Was it excellent, very good, good, fair or poor'.

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

FIGURE 105

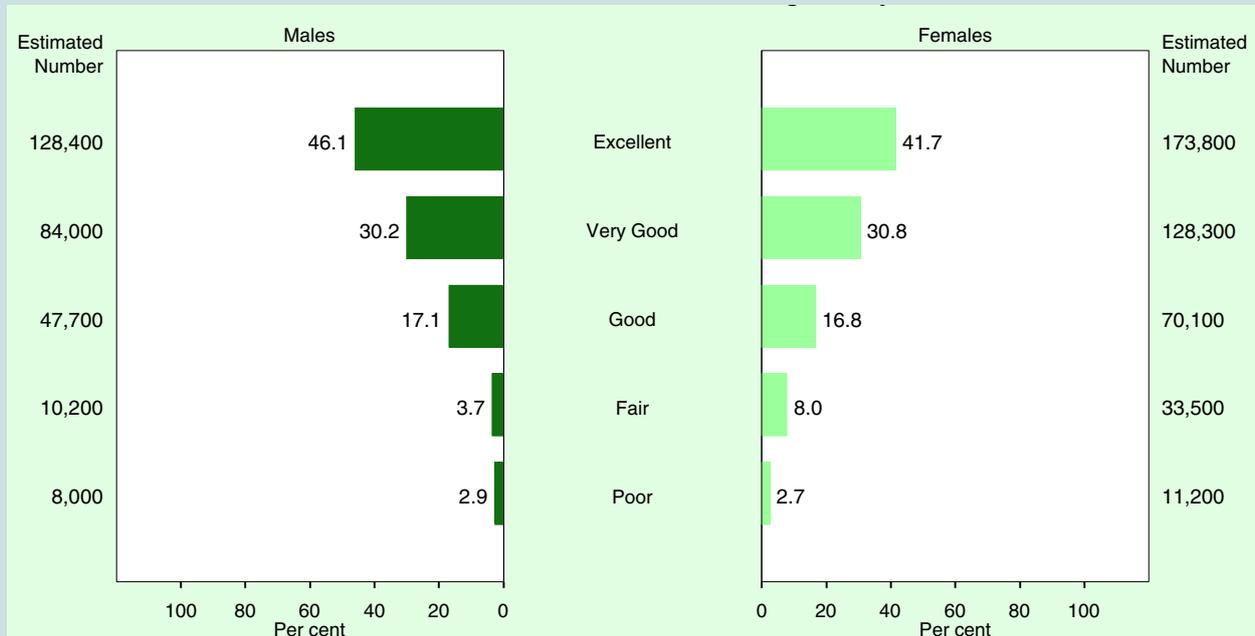
REASON FOR RATING MOST RECENT OVERNIGHT HOSPITAL STAY AS FAIR OR POOR, PERSONS WHO ATTENDED HOSPITAL IN THE PREVIOUS 12 MONTHS, AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 106

HOSPITAL CARE RATINGS, PERSONS WHO ATTENDED HOSPITAL IN THE PREVIOUS 12 MONTHS, AGED 16 YEARS AND OVER, NSW, 2002



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

Community health centres

Introduction

Community health centres have a particularly important role to play in providing health 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 2002* 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 2002* estimated that about 346,800 persons (118,400 males and 228,400 females) attended a community health centre in the previous 12 months, representing 6.9 per cent of the overall population.¹

A significantly lower proportion of males (4.8 per cent) than females (8.9 per cent) were likely to have attended a community health centre. Among females, a significantly lower proportion of those aged 45–74 years (5.7 per cent to 6.2 per cent) and a significantly greater proportion of those aged 25–34 years (14.0 per cent) attended a community health centre, compared with the overall female population. A significantly lower proportion of males aged 45–54 years (2.8 per cent) attended a community health centre, compared with the overall male population.

There was significant geographic variation in community health centre attendance, with a significantly greater proportion of rural residents (9.4 per cent) than urban residents (6.2 per cent) reporting having attended a community health centre. A significantly greater proportion of residents in the Far West Area Health Service (15.8 per cent) attended a community health centre, compared with the overall rural population. There was no significant variation in community health centre attendance within urban area health services.

A significantly lower proportion of people in the least socioeconomically disadvantaged quintile (4.4 per cent) visited a community health centre, compared with the overall population.

There are no comparative data available for community health centre attendance.

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, 48.4 per cent rated the care they received as 'excellent', 23.5 per cent as 'very good', 25.5 per cent as 'good', 1.8 per cent as 'fair', and 0.8 per cent rated the care received as 'poor'. The main reasons for rating the care as fair or poor were waiting time (41.3 per cent) followed by poor technical skill of staff (22.4 per cent).

Responses of 'excellent', 'very good', or 'good' were then combined into 'positive' ratings of care. Overall, 92.9 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 (91.6 per cent) and females (93.7 per cent) who gave positive ratings. A significantly greater proportion of females aged 55–64 years (98.2 per cent) and males aged 65–74 years (98.4 per cent) gave positive ratings of the care they received at a community health centre, compared with the overall population.

There was no significant geographical variation in positive ratings of care received at a community health centre between rural residents (95.1 per cent) and urban residents (92.0 per cent). A significantly greater proportion of female residents in the Western Sydney (100 per cent), Illawarra (100 per cent), and Mid North Coast (98.5 per cent) Area Health Services, and males in the Wentworth (100 per cent), Central Coast (100 per cent), South Eastern Sydney (100 per cent), and Northern Rivers (100 per cent) Area Health Services gave positive ratings, compared with the overall population.

Apart from a significantly greater proportion of females in the most disadvantaged quintile (97.6 per cent), who were more likely to give positive ratings of care received at the community health centre than the overall population, there was no difference in positive ratings of care by socioeconomic disadvantage.

There are no comparative data available for positive ratings of care received at a community health centre.

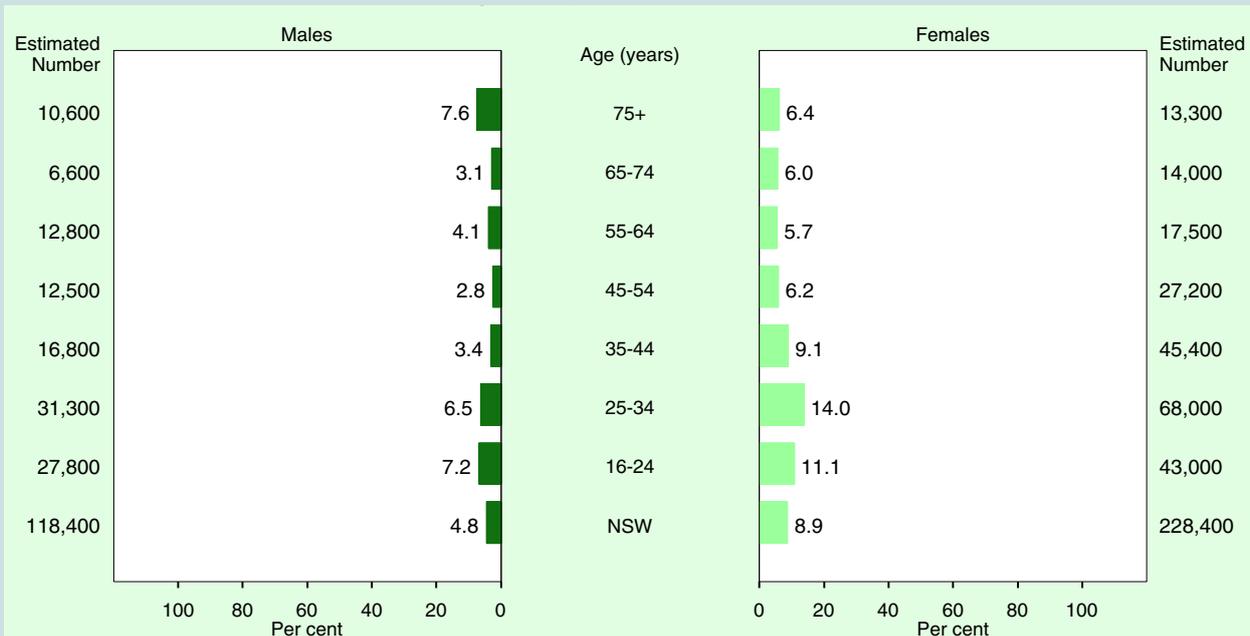
Figure 107 shows the proportion of people attending a community health centre in the previous 12 months, by age. Figure 108 shows community health centre care ratings. Figure 109 shows the reasons for rating the most recent community health care visit as fair or poor.

References

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

FIGURE 107

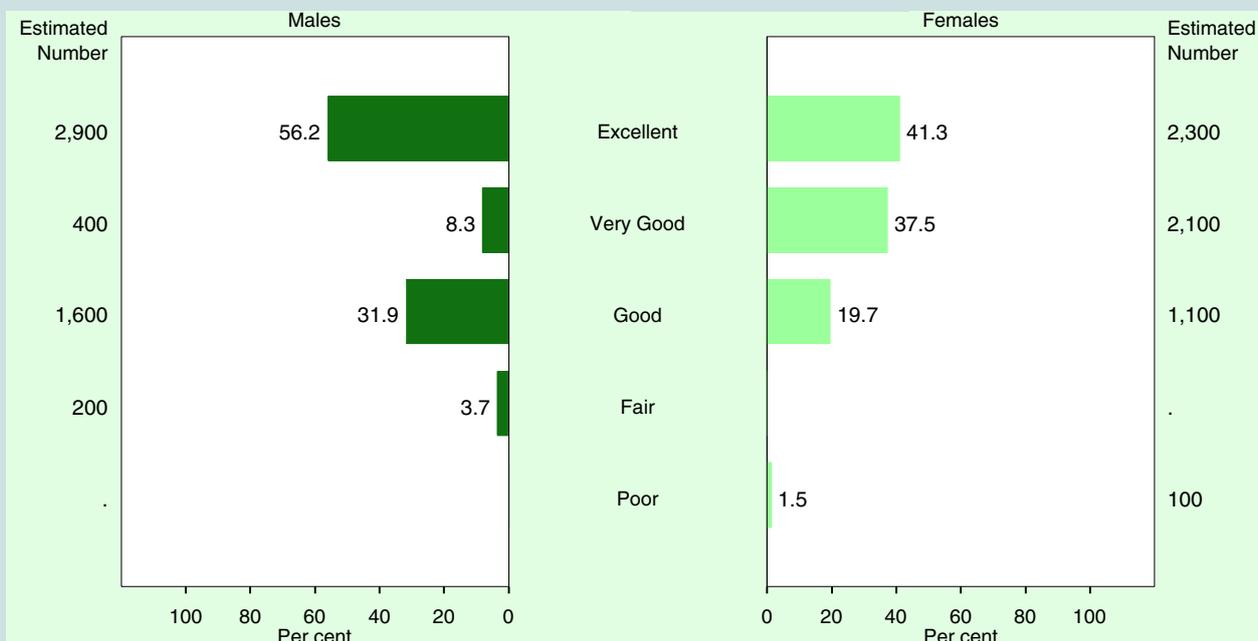
COMMUNITY HEALTH CENTRE ATTENDANCE IN THE PREVIOUS 12 MONTHS BY AGE PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 108

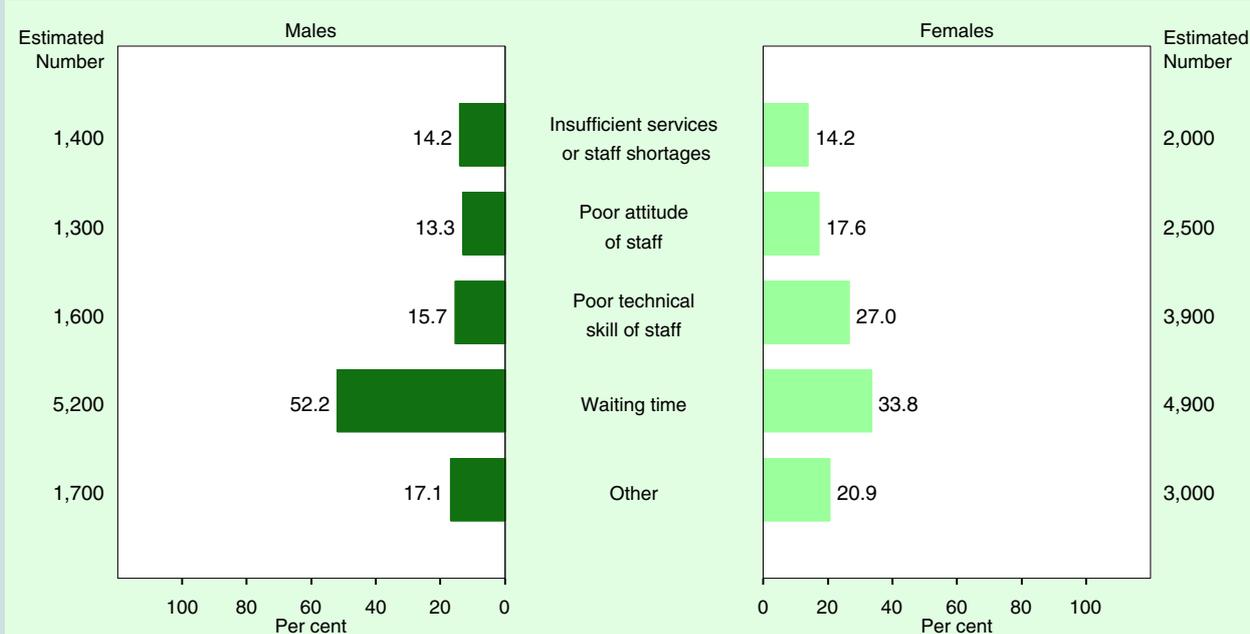
COMMUNITY HEALTH CENTRE CARE RATINGS, PERSONS WHO ATTENDED A COMMUNITY HEALTH CENTRE IN THE PREVIOUS 12 MONTHS, AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 109

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, 2002



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

Public dental services

Introduction

People in NSW with a Health Care Concession Card or a Pensioner Concession Card are eligible for public dental care.

The *New South Wales Adult Health Survey 2002* 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”?’), ‘If you had to use a public dental service again, would you prefer to return to this same public dental service, or go to a different public dental service?’, ‘Did someone at this public dental service tell you how to cope with your condition when you returned home?’ (If ‘Yes’, 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 2002* estimated that about 227,200 people (95,400 males and 131,900 females) attended a public dental service in the previous 12 months. This represented 4.5 per cent of the overall population.¹

There was no significant difference in the proportion of females (5.2 per cent) or males (3.9 per cent) attending a public dental service. A significantly lower proportion of people aged 55–64 years (2.7 per cent) and males aged 45–54 years (2.2 per cent), and a significantly greater proportion of people aged 16–24 years (8.8 per cent) attended a public dental service in the previous 12 months, compared with the overall population.

There was no significant difference in the proportion of people attending a public dental service between rural areas (5.6 per cent) and urban areas (4.2 per cent). In the Far West Area Health Service (11.7 per cent) and Southern Area Health Service (7.8 per cent) a significantly greater proportion of people attended a public dental service, compared with the overall population.

Overall, there was no significant difference in the proportion of people attending public dental services, based on level of socioeconomic disadvantage.

There was no comparative data available for attendance at a public dental service from previous years.

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, 25.7 per cent rated the care they received as ‘excellent’, 32.0 per cent as ‘very good’, 23.4 per cent as ‘good’, 8.0 per cent as ‘fair’, and 10.8 per cent rated the care they received as ‘poor’. The main reason for rating the care as ‘fair’ or ‘poor’ was the

poor technical skill of clinical staff (43.5 per cent), followed closely by waiting times (41.3 per cent).

Responses of 'excellent', 'very good' and 'good' were combined into 'positive' ratings of care. Overall, 81.2 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 (81.7 per cent) and females (80.7 per cent) giving positive ratings of care. A significantly greater proportion of people aged 16–24 years (93.0 per cent) gave positive ratings of the care they received at a public dental service, compared with the overall population.

There was no significant variation in the proportion of rural residents (82.0 per cent) and urban residents (80.8 per cent) giving positive ratings of public dental care. A significantly greater proportion of residents in the Central Coast (94.2 per cent), Illawarra (93.1 per cent) and Macquarie (97.9 per cent) Area Health Services gave

positive ratings of care, compared with the overall population.

There was no variation in the proportion of people giving positive ratings of the care received at a public dental service by level of socioeconomic disadvantage.

There are no comparative data available for the rating of care received at a public dental service from previous years.

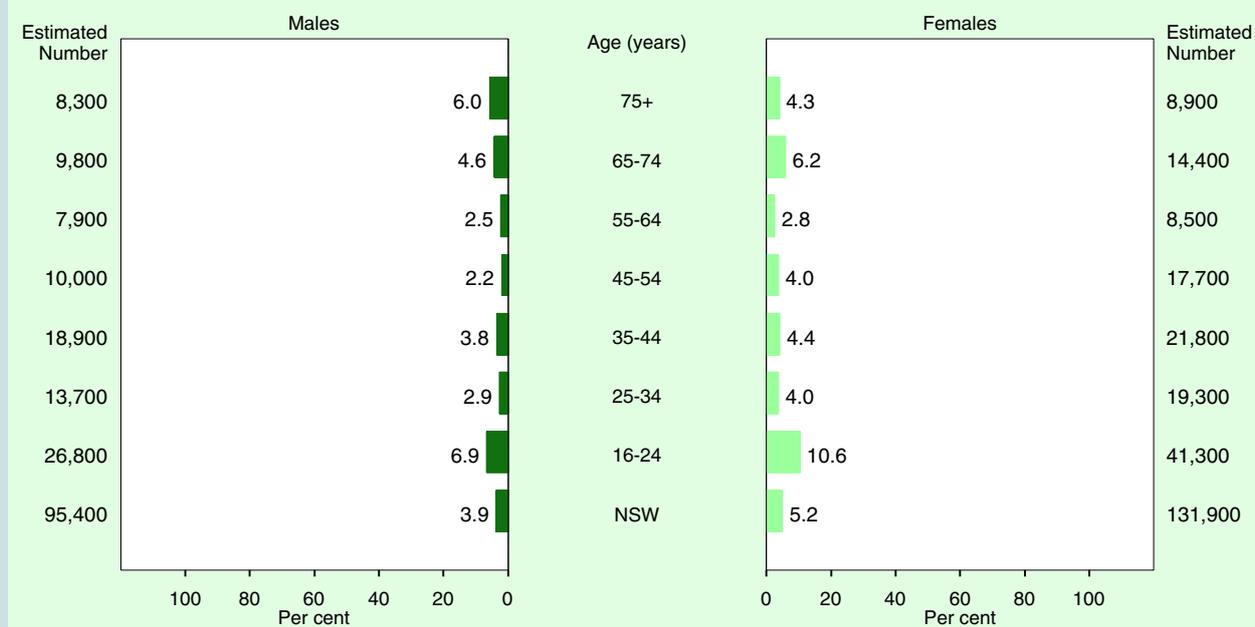
Figure 110 shows the proportion of people who attended a public dental service in the previous 12 months, by age. Figure 111 shows the public dental service care rating. Figure 112 shows the proportion of people rating their public dental service care as excellent, very good, good, fair, or poor, by age. Figure 113 shows the reason for rating the most recent public dental service as fair or poor.

References

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

FIGURE 110

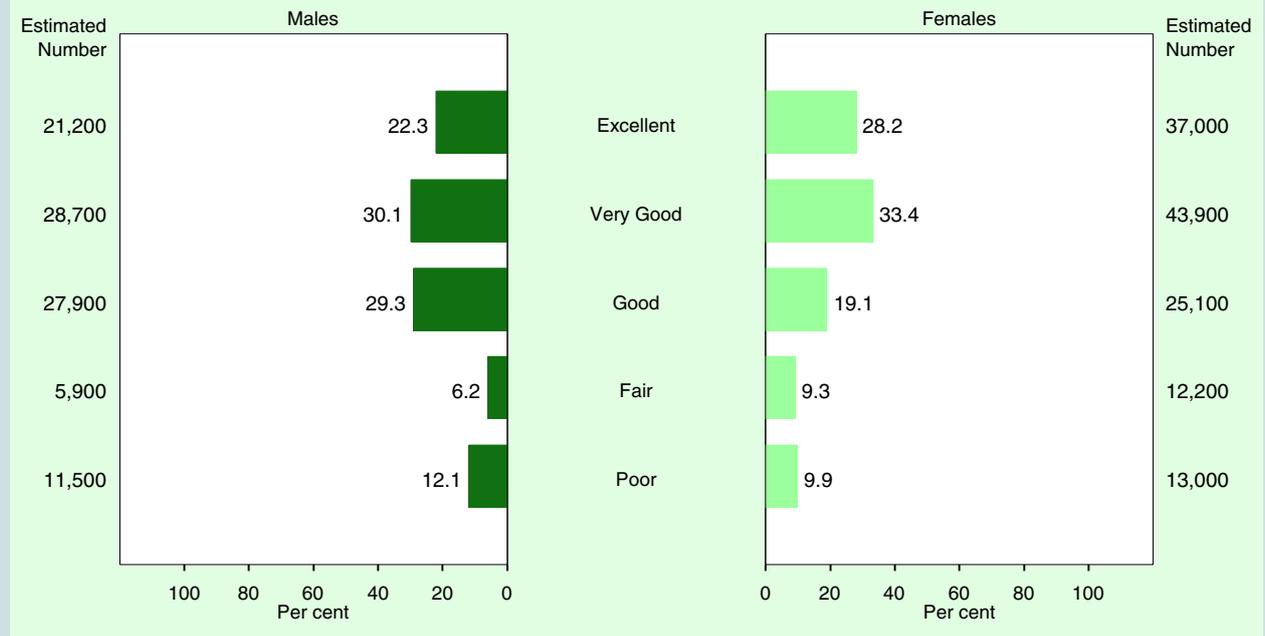
PUBLIC DENTAL SERVICE ATTENDANCE IN THE PREVIOUS 12 MONTHS BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 111

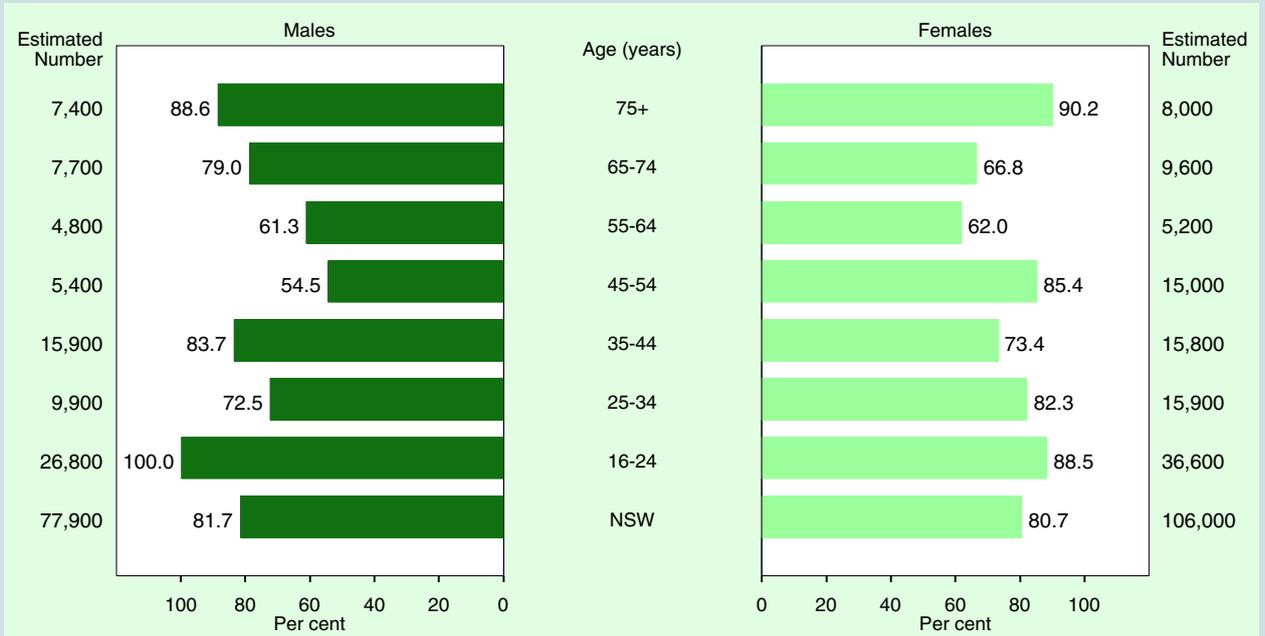
PUBLIC DENTAL SERVICE CARE RATING, PERSONS WHO ATTENDED A PUBLIC DENTAL SERVICE IN THE PREVIOUS 12 MONTHS, AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 112

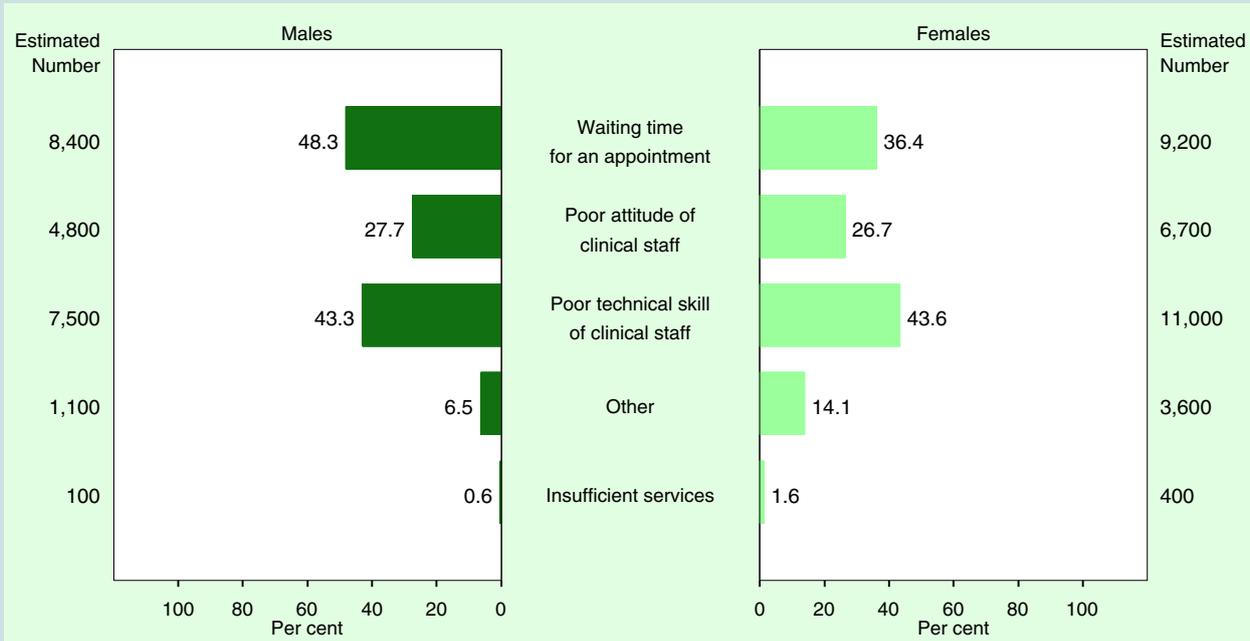
PUBLIC DENTAL SERVICE CARE RATED AS EXCELLENT, VERY GOOD OR GOOD BY AGE, PERSONS WHO ATTENDED A PUBLIC DENTAL SERVICE IN THE PREVIOUS 12 MONTHS, AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 113

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, 2002



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

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 defined as 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 both voluntary and 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 2002* included questions on social reciprocity and neighbourhood connection, feelings of trust and safety and participation in the local community.² 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, 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 and analysed further.

Overall, in 2002, 70.6 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. A significantly greater proportion of males (73.3 per cent) than females (68.0 per cent) would ask someone in their neighbourhood for help with a child.

Nearly three-quarters (73.5 per cent) of the population stated that they would be sad if they had to leave their neighbourhood. A significantly greater proportion of females (75.7 per cent) than males (71.2 per cent) said they would be sad to leave their neighbourhood.

A total of 82.0 per cent of the population stated that they run into friends and acquaintances in their local area at least 'sometimes'. A significantly greater proportion of females (83.7 per cent) than males (80.4 per cent) said they run into friends and acquaintances in their local area.

Almost two-thirds (65.9 per cent) of the population reported that they had visited someone in their neighbourhood in the past week. A significantly greater proportion of males (68.7 per cent) than females (63.2 per cent) had visited someone in their neighbourhood. There was no significant difference in the proportions of people who visited a neighbour, based on age.

There was significant geographic variation in the proportion of residents who reported that they had visited someone in their neighbourhood in the past week, with a significantly greater proportion of rural residents (71.2 per cent) than urban residents (64.4 per cent) having visited someone in their neighbourhood. A significantly lower proportion of residents in the Central Sydney Area Health Service (58.2 per cent), and a significantly greater proportion of residents in the Central Coast (72.9 per cent),

Hunter (71.4 per cent) and Illawarra (73.1 per cent) Area Health Services were likely to have visited someone in their neighbourhood compared to the overall urban population. There was no significant difference within rural health areas.

There was no significant variation in the proportion of people who visited their neighbours, based on socioeconomic disadvantage.

There were no comparative data for visiting neighbours in 1997 and 1998.

Trust and safety

In analysing the trust and safety questions, responses of 'strongly agreed' and 'agreed' 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 and analysed further.

Overall, in 2002, 66.8 per cent of the population strongly agreed or agreed with the statement 'I feel safe walking down my street after dark'. A significantly greater proportion of males (78.0 per cent) than females (55.8 per cent) felt safe walking down their street after dark.

Nearly three-quarters (73.4 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 (75.2 per cent) than females (71.6 per cent) agreed that their area was safe.

A total of 65.9 per cent of the population strongly agreed or agreed with the statement 'Most people can be trusted'. A significantly greater proportion of males (69.0 per cent) than females (62.9 per cent) agreed that most people could be trusted. Among females, a significantly lower proportion aged 16–24 years (55.2 per cent) and a significantly greater proportion aged 75 years and over (73.3 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 (76.1 per cent) agreed that most people can be trusted, compared to the overall male population.

There was significant geographic variation in the proportion of residents who strongly agreed or agreed with the statement 'Most people can be trusted'. A significantly greater proportion of rural residents (70.2 per cent) than urban residents (64.7 per cent) agreed that most people can be trusted. A significantly lower proportion of residents in the Central Sydney (57.7 per cent), Western Sydney (57.5 per cent), and South Western Sydney (57.9 per cent) Area Health Services, and a significantly greater proportion of residents in the Northern Sydney Area Health Service (76.9 per cent), agreed that most people can be trusted, compared to the overall urban population. Compared to the overall rural population, a significantly greater

proportion of residents in the Southern Area Health Service (78.1 per cent) agreed that most people can be trusted.

There was significant variation based on socioeconomic disadvantage, with the proportion of people who agreed that 'Most people can be trusted' decreasing as socioeconomic disadvantage increased. A significantly greater proportion of people in the least disadvantaged quintile (75.9 per cent) and a significantly lower proportion of people in the most disadvantaged quintile (58.2 per cent) agreed that most people can be trusted, compared to the overall population.

There were no comparative data for trust in 1997 and 1998.

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 and analysed further.

Overall, in 2002, one-third (33.1 per cent) of the population reported that they had helped out any local group or organisation in the past three months. A significantly greater proportion of females (35.7 per cent) than males (30.5 per cent) had helped out any local group or organisation in the past three months. Nearly half (43.9 per cent) of the population said they were active members of a local organisation (45.5 per cent of males, 42.3 per cent of females).

More than half (56.8 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 (60.5 per cent) than males (52.9 per cent) had attended a local community event in the last six months. Among females, a significantly lower proportion aged 65 years and over (46.7 per cent to 54.7 per cent) and a significantly greater proportion aged 35–44 years (70.9 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 75 years and over (37.8 per cent) and a significantly greater proportion of males aged 35–44 years (64.3 per cent) had attended a local community event, compared to the overall male population.

A significantly greater proportion of rural residents (64.1 per cent) than urban residents (54.7 per cent) had attended a local community event in the last six months. A significantly lower proportion of residents in the South Eastern Sydney Area Health Service (48.6 per cent) had attended a local community event, compared to the overall urban population. There was no significant difference within rural health areas.

There was no significant variation in the proportion of people participating in local community events based on level of socioeconomic disadvantage.

There were no comparative data for attendance at a local community event from previous years.

Figure 114 shows participation in the local community. Figures 115–117 and Table 32 show the proportion of people who have attended a community event in the last

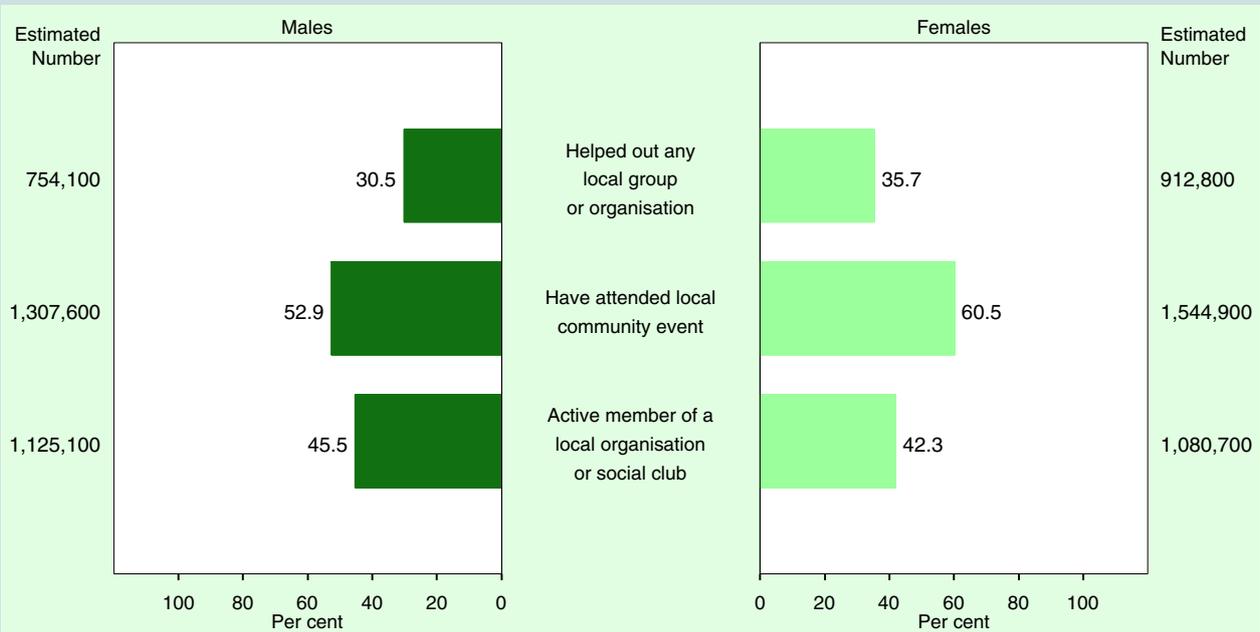
six months by age, socioeconomic disadvantage, and health area. Figure 118 shows trust and safety in the local area. Figures 119–121 and Table 33 show the proportion of people who think most people can be trusted, by age, socioeconomic disadvantage, and health area. Figure 122 shows reciprocity and social engagement. Figures 123–125 and Table 34 show the proportion of people who have visited neighbours at least once in the past week, by age, socioeconomic disadvantage, and health area.

References

1. World Bank. What is Social Capital? Available online at www.worldbank.org/poverty/scapital/whatsc.htm. Accessed 1 July 2003.
2. Onyx J, Bullen P. *Measuring Social Capital in Five Communities in NSW: An analysis*. Sydney: Centre for Australasian Community Organisations and Management, 1997.

FIGURE 114

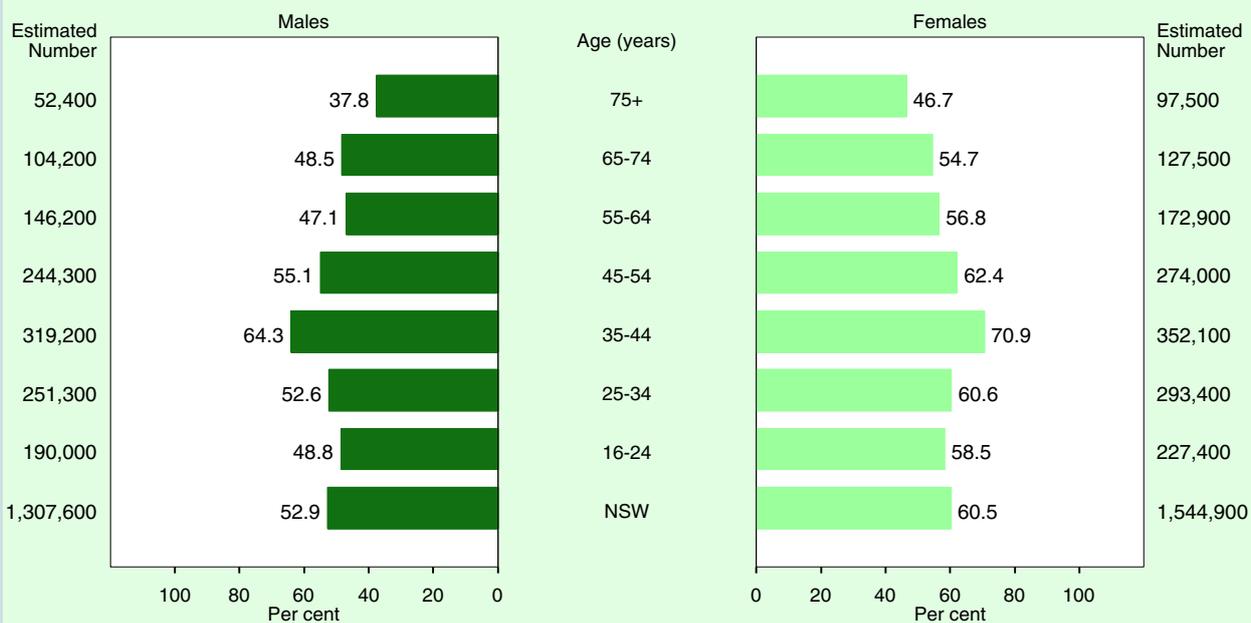
PARTICIPATION IN THE LOCAL COMMUNITY, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 115

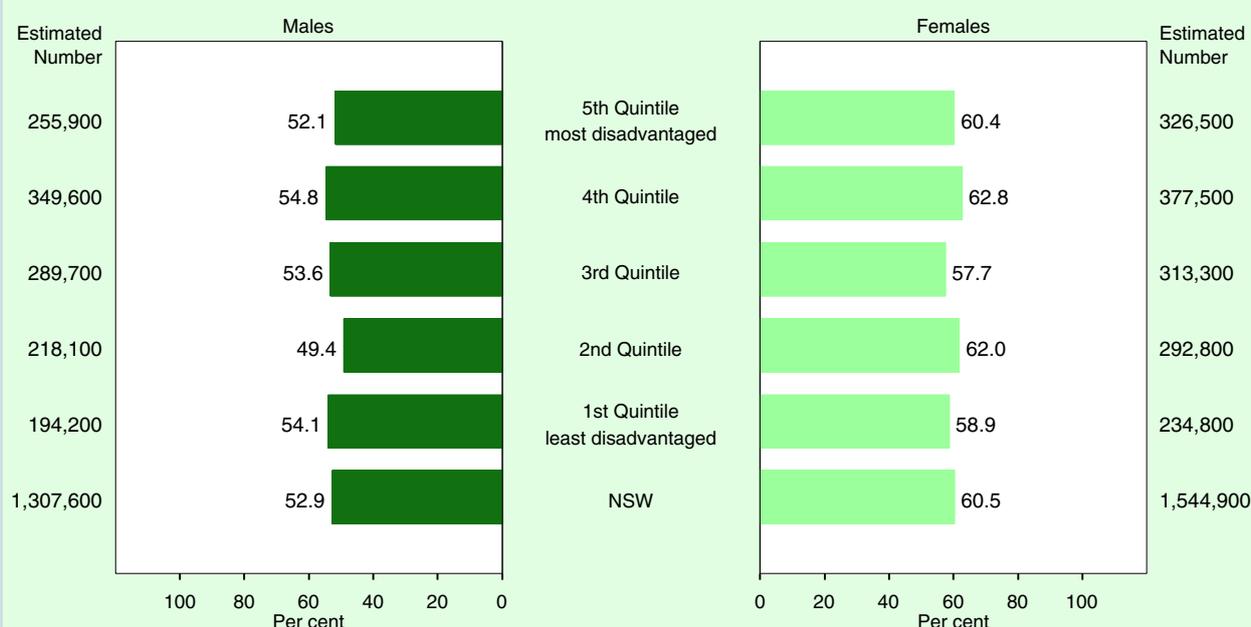
ATTENDED A COMMUNITY EVENT AT LEAST ONCE IN THE LAST 6 MONTHS BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 116

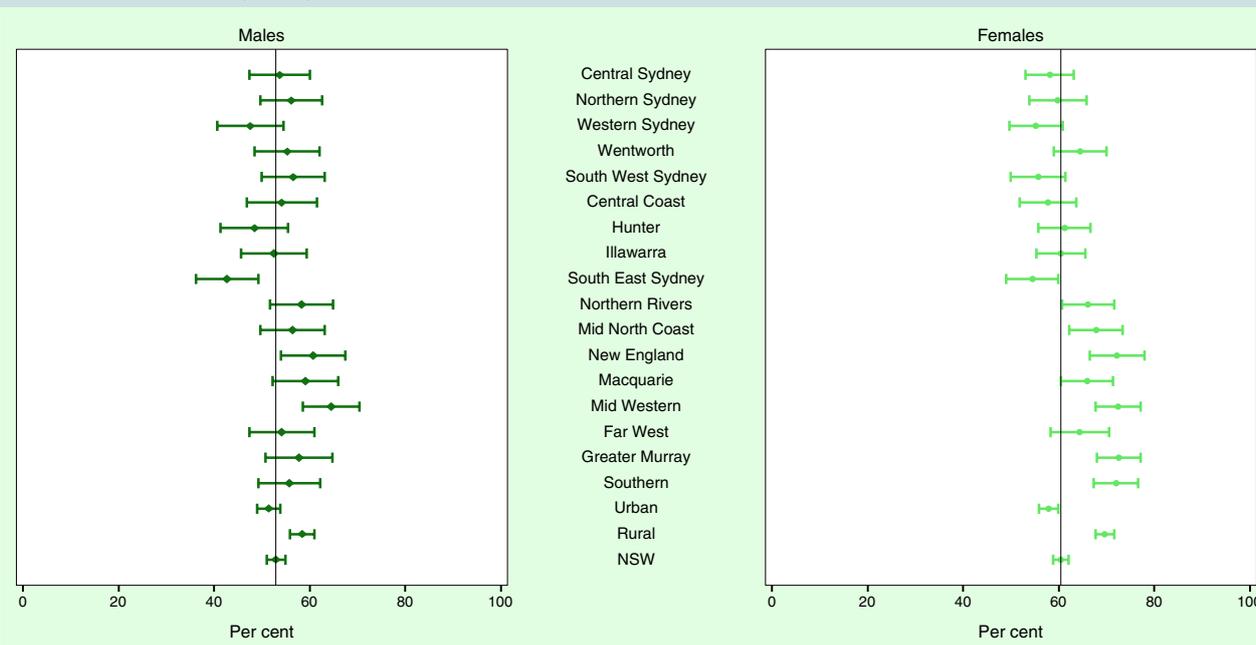
ATTENDED A COMMUNITY EVENT AT LEAST ONCE IN THE LAST 6 MONTHS BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 117

ATTENDED A COMMUNITY EVENT AT LEAST ONCE IN THE LAST 6 MONTHS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 32

ATTENDED A COMMUNITY EVENT AT LEAST ONCE IN THE LAST 6 MONTHS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Males			%	Females			%	Persons		
		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	53.7	47.3	60	107500	58.1	53	63.2	119400	55.9	51.8	60	226800
Northern Sydney	56.1	49.6	62.6	171500	59.8	53.8	65.8	194600	58	53.6	62.4	366100
Western Sydney	47.6	40.6	54.6	121100	55.2	49.6	60.9	145900	51.5	47	56	267100
Wentworth	55.3	48.5	62	64100	64.5	59	70	77100	60	55.6	64.3	141100
South West Sydney	56.5	49.9	63.1	169200	55.7	49.9	61.4	167900	56.1	51.7	60.5	337100
Central Coast	54.1	46.8	61.5	58200	57.8	51.9	63.6	67100	56	51.4	60.7	125200
Hunter	48.4	41.4	55.4	99800	61.2	55.8	66.6	129900	54.9	50.4	59.4	229700
Illawarra	52.4	45.6	59.3	68000	60.5	55.3	65.6	82000	56.5	52.3	60.8	150000
South East Sydney	42.7	36.1	49.2	133900	54.5	49	59.9	172900	48.6	44.3	52.9	306800
Northern Rivers	58.3	51.8	64.9	57200	66.2	60.7	71.6	67900	62.3	58.1	66.5	125200
Mid North Coast	56.4	49.7	63.1	54600	67.8	62.2	73.3	70100	62.3	57.9	66.6	124700
New England	60.7	53.9	67.4	38500	72.2	66.5	77.9	47200	66.5	62.1	70.9	85700
Macquarie	59.1	52.3	66	22000	65.9	60.4	71.4	24700	62.5	58.2	66.9	46600
Mid Western	64.5	58.5	70.5	39000	72.4	67.7	77.1	45300	68.5	64.7	72.3	84300
Far West	54.1	47.3	60.9	10100	64.4	58.3	70.5	11500	59.1	54.5	63.7	21600
Greater Murray	57.7	50.7	64.7	54300	72.5	67.9	77.1	70900	65.3	61.1	69.5	125200
Southern	55.7	49.2	62.1	38600	72	67.3	76.6	50600	63.9	59.9	67.9	89200
Urban	51.4	49	53.8	993200	57.9	55.9	59.9	1156700	54.7	53.1	56.3	2149900
Rural	58.4	55.9	61	314300	69.6	67.6	71.6	388200	64.1	62.5	65.7	702500
NSW	52.9	51	54.9	1307600	60.5	58.9	62.1	1544900	56.8	55.5	58	2852400

Notes: Estimates are based on 12600 respondents in NSW.

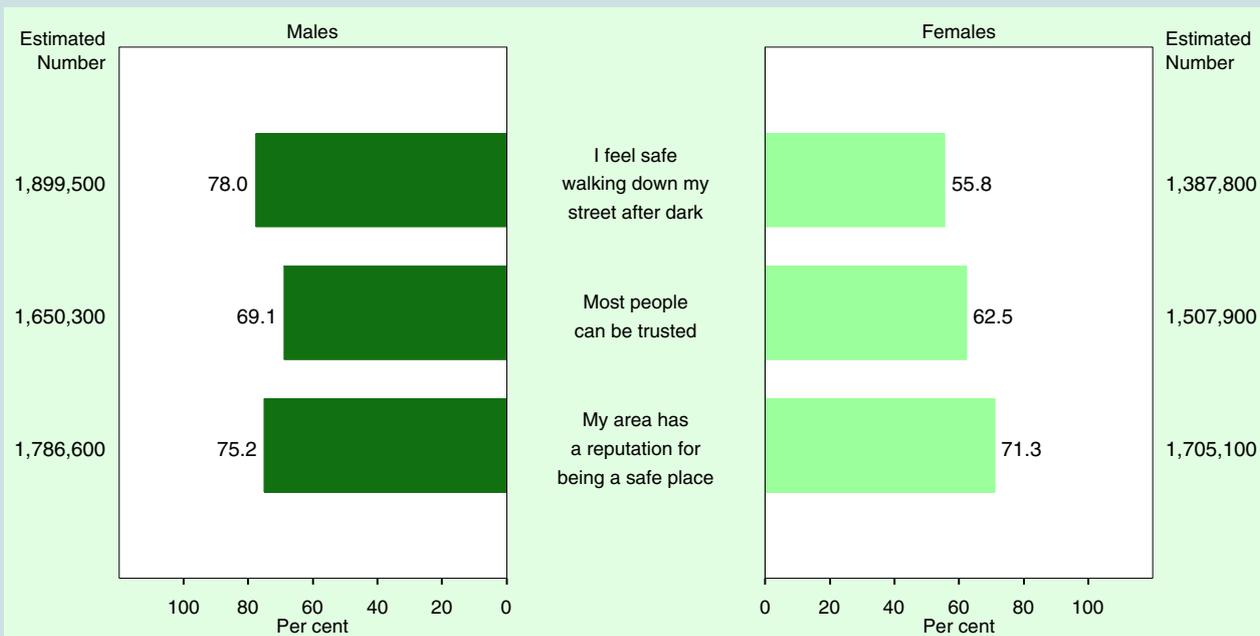
22 (0.17 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who have attended at least one community event in the last six months. The question used was '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?'

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

FIGURE 118

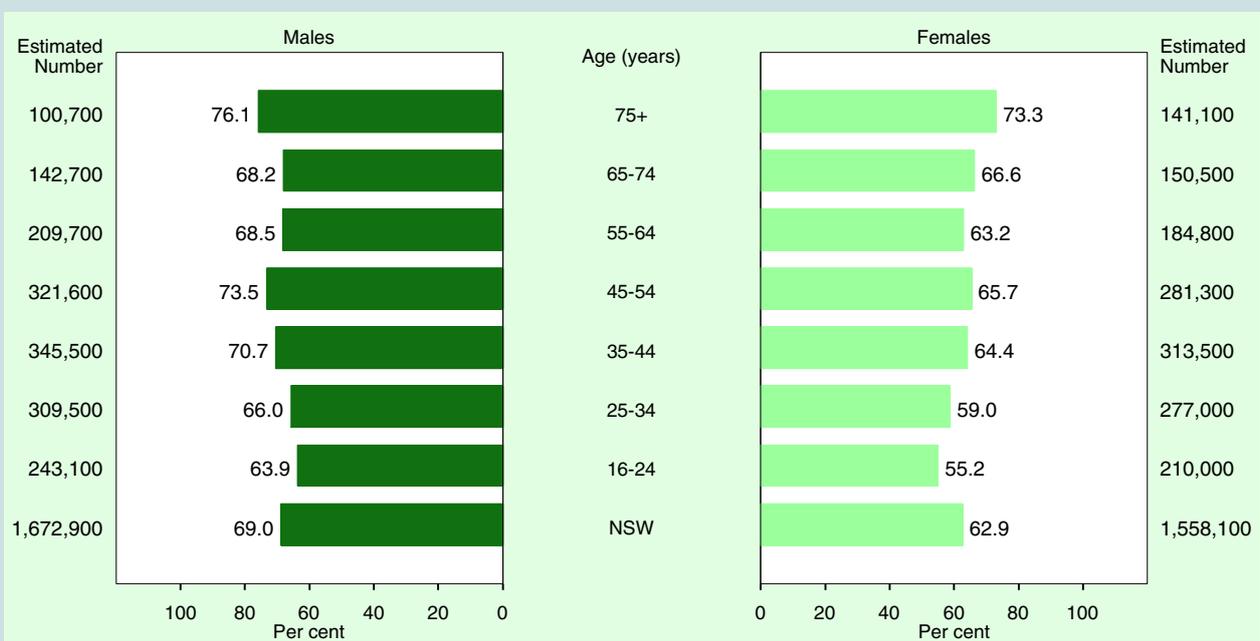
TRUST AND SAFETY IN LOCAL AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 119

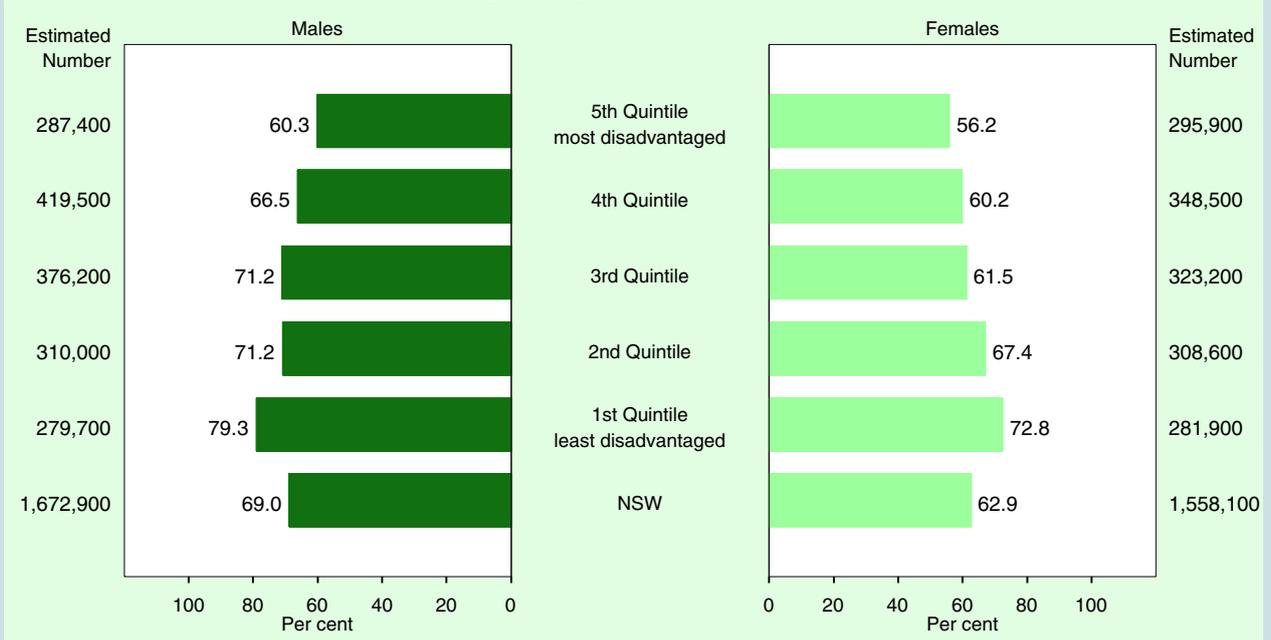
MOST PEOPLE CAN BE TRUSTED BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 120

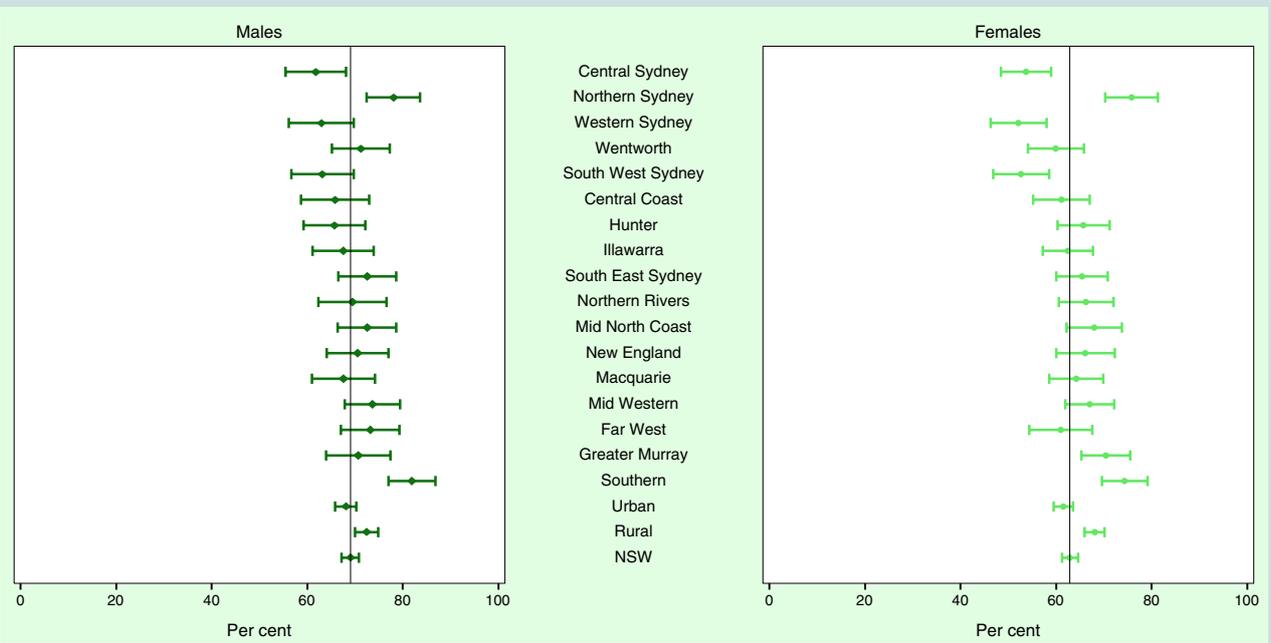
MOST PEOPLE CAN BE TRUSTED BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 121

MOST PEOPLE CAN BE TRUSTED BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 33

MOST PEOPLE CAN BE TRUSTED BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	%	Males			%	Females			%	Persons		
		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)		LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	61.8	55.4	68.1	120900	53.7	48.4	59	106400	57.7	53.6	61.9	227200
Northern Sydney	78.1	72.5	83.7	235800	75.8	70.2	81.3	238400	76.9	73	80.8	474200
Western Sydney	62.9	56.1	69.8	156400	52.1	46.3	58	131700	57.5	53	62	288100
Wentworth	71.2	65.1	77.3	80200	59.9	54.1	65.8	68900	65.5	61.2	69.8	149100
South West Sydney	63.2	56.6	69.7	187500	52.6	46.8	58.5	155300	57.9	53.5	62.3	342800
Central Coast	65.8	58.7	73	70500	61.1	55.1	67	68700	63.4	58.8	68	139100
Hunter	65.7	59.2	72.2	129300	65.7	60.3	71.2	137100	65.7	61.5	69.9	266400
Illawarra	67.5	61.1	73.9	87200	62.5	57.3	67.7	82600	65	60.8	69.1	169800
South East Sydney	72.6	66.5	78.6	219400	65.4	60.1	70.7	199600	69	64.9	73	419100
Northern Rivers	69.5	62.3	76.6	67500	66.3	60.6	72	65100	67.8	63.3	72.4	132600
Mid North Coast	72.5	66.4	78.6	69300	68	62.2	73.8	68500	70.2	66	74.4	137900
New England	70.5	64	77	44000	66.1	60	72.3	42600	68.3	63.8	72.8	86700
Macquarie	67.6	60.9	74.2	25100	64.2	58.5	69.9	23600	65.9	61.5	70.3	48700
Mid Western	73.7	67.9	79.5	44300	67	61.8	72.2	41500	70.3	66.4	74.2	85800
Far West	73.2	67	79.3	13200	60.9	54.3	67.5	10600	67.2	62.6	71.8	23800
Greater Murray	70.7	64	77.4	66100	70.4	65.3	75.5	67000	70.5	66.3	74.8	133100
Southern	81.9	77	86.9	56200	74.3	69.6	79.1	50500	78.1	74.7	81.6	106700
Urban	68.1	65.8	70.3	1287200	61.5	59.5	63.5	1188700	64.7	63.2	66.2	2475800
Rural	72.4	70	74.9	385700	68.1	66	70.2	369400	70.2	68.6	71.8	755100
NSW	69	67.2	70.8	1672900	62.9	61.3	64.6	1558100	65.9	64.7	67.2	3231000

Notes: Estimates are based on 12252 respondents in NSW.

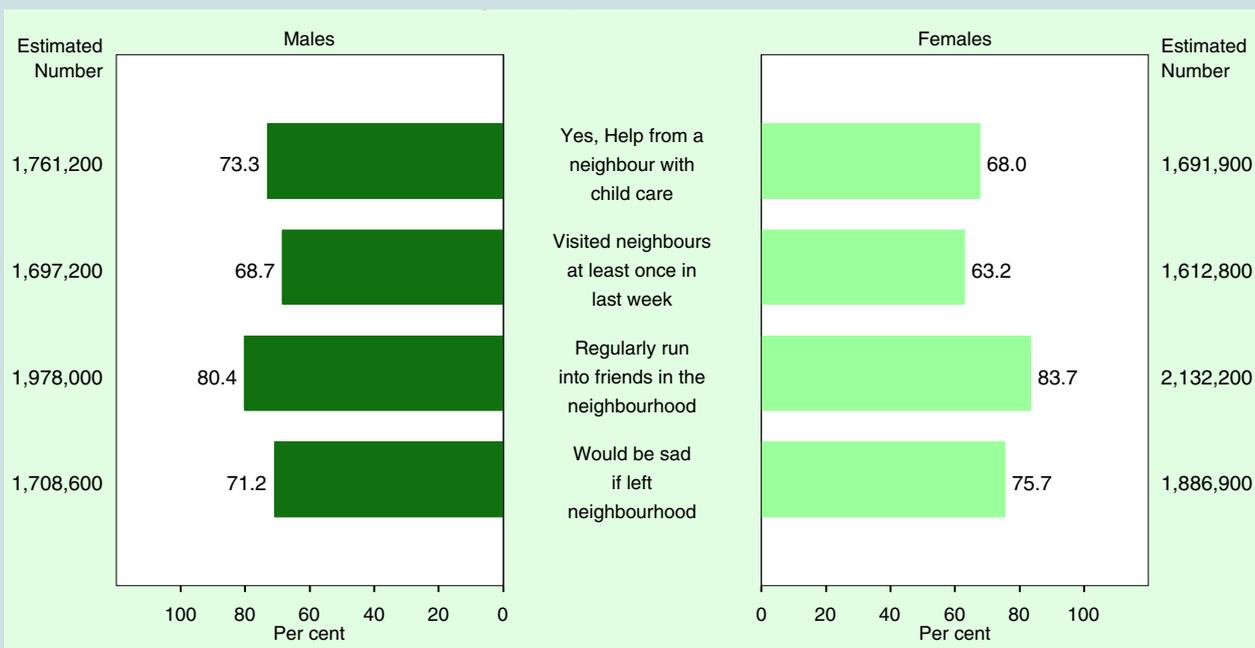
370 (2.93 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who strongly agree, or agree that most people can be trusted. The question used was 'Most people can be trusted. Do you strongly agree, agree, disagree or strongly disagree?'

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

FIGURE 122

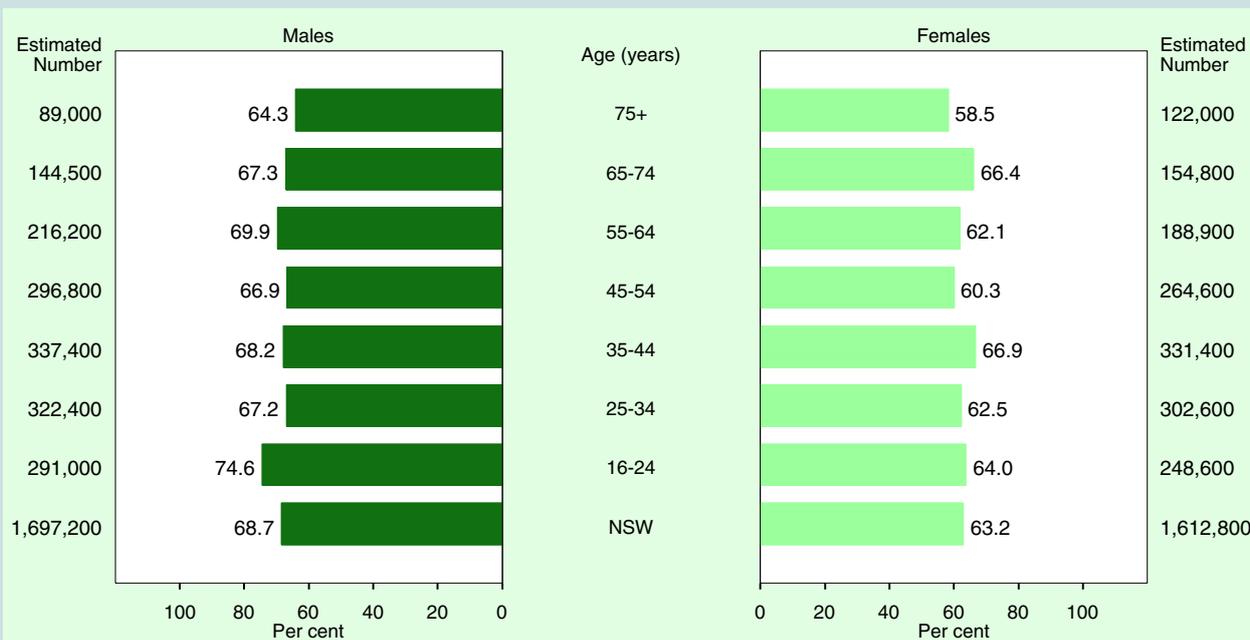
RECIPROCITY-SOCIAL ENGAGEMENT, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 123

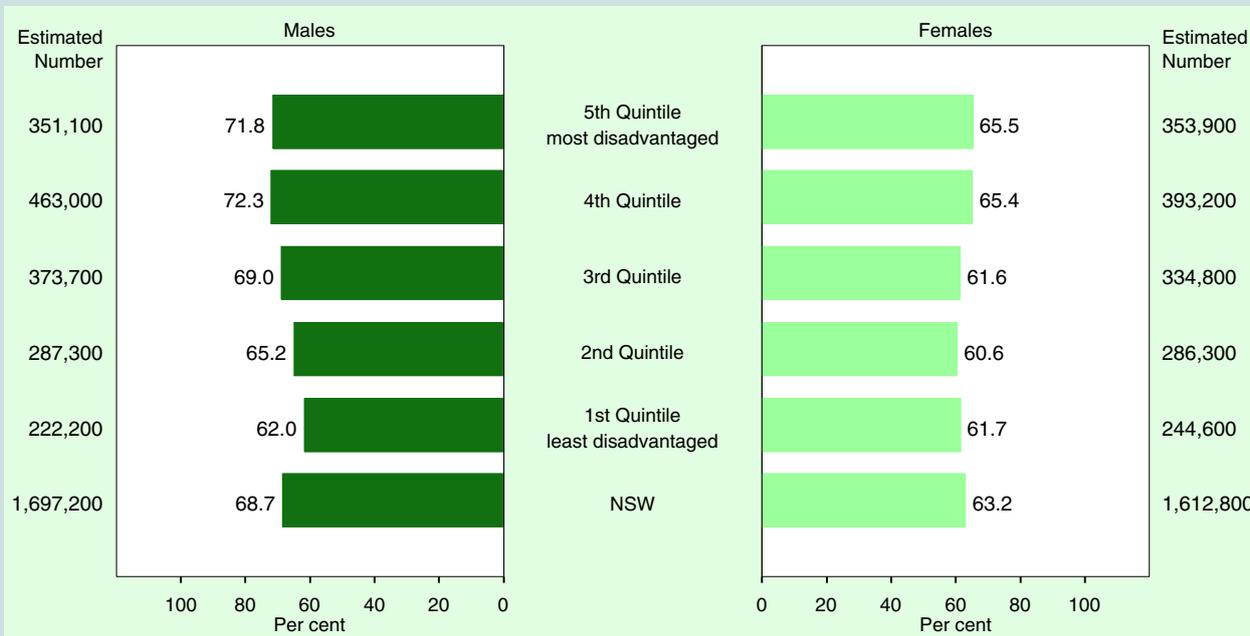
VISIT NEIGHBOURS BY AGE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 124

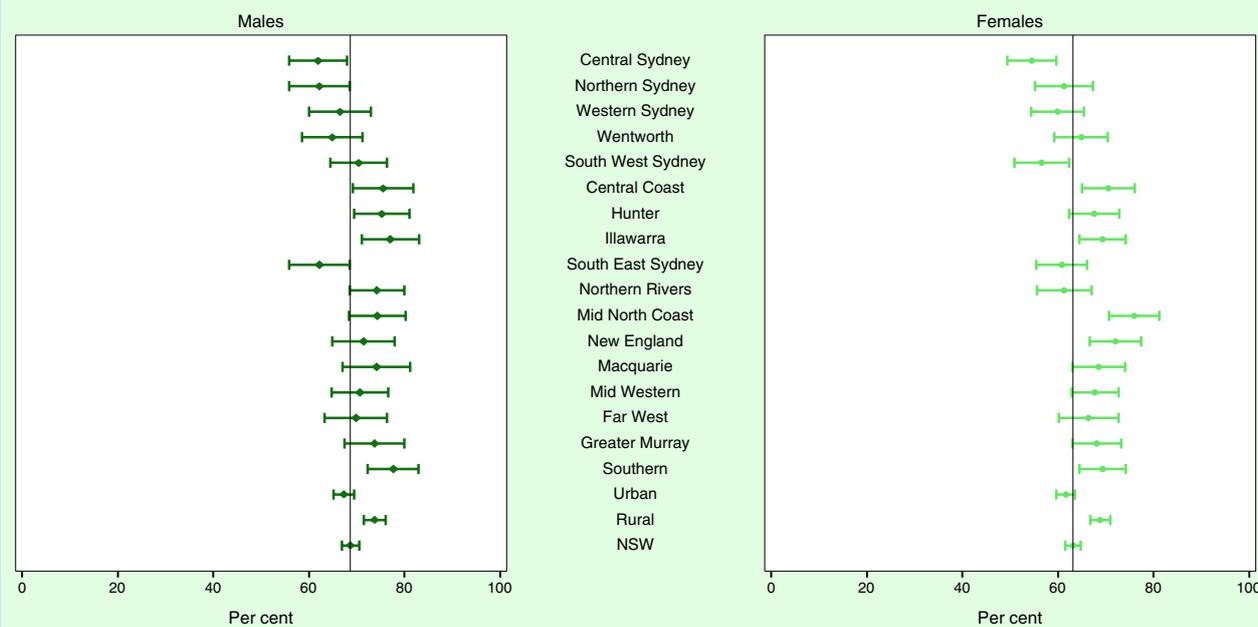
VISIT NEIGHBOURS BY SOCIOECONOMIC DISADVANTAGE SCORE, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

FIGURE 125

VISIT NEIGHBOURS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002



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

TABLE 34

VISIT NEIGHBOURS BY HEALTH AREA, PERSONS AGED 16 YEARS AND OVER, NSW, 2002

Area	Males			Females			Persons					
	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)	%	LL 95%CI	UL 95%CI	(est. no.)
Central Sydney	62	55.9	68	122600	54.5	49.4	59.7	112200	58.2	54.2	62.2	234800
Northern Sydney	62.2	55.9	68.6	190100	61.3	55.2	67.3	198200	61.7	57.3	66.1	388300
Western Sydney	66.5	60	72.9	169300	59.9	54.4	65.4	158200	63.1	58.9	67.4	327500
Wentworth	64.9	58.5	71.3	75300	64.8	59.3	70.4	77600	64.9	60.6	69.1	153000
South West Sydney	70.4	64.4	76.4	210200	56.6	50.9	62.3	170500	63.5	59.3	67.7	380700
Central Coast	75.5	69.1	81.8	82000	70.5	65.1	76	82300	72.9	68.7	77.1	164300
Hunter	75.3	69.4	81.1	155100	67.6	62.3	72.9	143400	71.4	67.4	75.3	298500
Illawarra	77	71	83	100000	69.3	64.4	74.2	94100	73.1	69.2	76.9	194100
South East Sydney	62.2	55.9	68.6	195100	60.8	55.5	66.1	193000	61.5	57.4	65.7	388200
Northern Rivers	74.2	68.5	80	73000	61.3	55.5	67	62900	67.6	63.5	71.8	135900
Mid North Coast	74.3	68.4	80.3	72400	75.9	70.6	81.2	78200	75.1	71.2	79.1	150600
New England	71.4	64.8	78	45300	72	66.7	77.3	46800	71.7	67.5	75.9	92100
Macquarie	74.1	67.1	81.2	27500	68.6	63	74.1	25800	71.3	66.9	75.8	53300
Mid Western	70.7	64.7	76.6	42700	67.7	62.8	72.7	42400	69.2	65.3	73	85000
Far West	69.8	63.3	76.3	13000	66.4	60.2	72.6	11800	68.1	63.6	72.7	24800
Greater Murray	73.7	67.5	80	69500	68.1	62.9	73.3	66700	70.9	66.8	74.9	136100
Southern	77.6	72.3	82.9	54100	69.3	64.4	74.1	48600	73.4	69.8	77.1	102700
Urban	67.3	65.1	69.5	1299900	61.6	59.6	63.6	1229600	64.4	62.9	65.9	2529400
Rural	73.7	71.4	76	397400	68.8	66.8	70.9	383300	71.2	69.7	72.8	780700
NSW	68.7	66.9	70.5	1697200	63.2	61.6	64.8	1612800	65.9	64.7	67.1	3310100

Notes: Estimates are based on 12603 respondents in NSW.

19 (0.15 per cent) were 'not stated' (Don't know or Refused) for this indicator in NSW.

The indicator includes those who visited someone in their neighbourhood at least once in the past week. The question used was 'How often have you visited someone in your neighbourhood in the past week?'

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

11. CONCLUSION

The New South Wales Continuous Health Survey commenced in 2002. This report, on the health of NSW adults aged 16 years and over, is the inaugural 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.

Health behaviours

Health behaviours are known to influence health and wellbeing. Between 1997 and 2002 there have been changes in some health behaviours with discernible effects. The proportion of smoke-free households (69.8 per cent to 81.0 per cent), and the proportion of homes with a smoke alarm or detector (58.2 per cent to 72.9 per cent) has increased. There has been a notable reduction in the proportion of people who are current smokers (24.0 per cent to 21.4 per cent), who participate in any risk drinking behaviour (42.3 per cent to 34.7 per cent), and who consume reduced- or low-fat milk (45.7 per cent to 43.4 per cent).

Many health behaviours have remained unchanged. The proportion of people eating the recommended daily fruit (45.3 per cent) and vegetable intake (16.2 per cent) is unchanged. People are not exercising any more or less and only 46.6 per cent undertake adequate physical activity. Among women the rates of Pap tests (74.6 per cent) and screening mammograms (75.2 per cent) within the last two years are also unchanged.

A number of indicators have been reported for the first time and trends in these new indicators will continue to be monitored. Among people who drink alcohol, 14.4 per cent engage in high-risk drinking. Exposures to a range of environmental substances that affect health have been explored, such as exposure to indoor air pollution, wood smoke via wood fires, or benzene via garages attached to homes, and exposure to mosquitoes. Use of public water supplies, water quality, and exposure to blue green algae through recreational water use are also examined. Vaccinations for influenza and pneumococcal pneumonia in people over 65 years are also reported.

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 2002.

The proportion of people reporting diabetes (4.7 per cent to 6.1 per cent), high and very high physiological stress (10.5 per cent to 12.2 per cent), overweight and obesity (42.2 per cent to 46.3 per cent), and reporting they had ever been told they had high blood pressure (16.3 per cent to 19.9 per cent) have all increased. The proportion of people who have had their cholesterol measured within two years (47.2 per cent to 53.5 per cent), or who report no natural teeth missing (35.0 per cent to 37.2 per cent) has also increased. Excellent, very good, or good self-rated health status has decreased from 84.9 per cent to 80.7 per cent. There has been no change in the proportion of people reporting current asthma (10.6 per cent), or reporting that they have had their blood pressure last measured within two years (86.7 per cent).

For the first time, information on chemical sensitivity and work related injuries has been collected.

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.

Between 1997 and 2002 the proportion of people reporting difficulties getting health care when needed increased (10.0 per cent to 12.6 per cent) and the proportion of people giving a positive rating of emergency department care decreased (80.3 per cent to 76.5 per cent).

There were no changes in the proportion of people who gave positive ratings of hospital inpatient care (91.0 per cent). Emergency department attendance in the previous 12 months (14.3 per cent) and hospital admission in the previous 12 months (13.9 per cent) remained unchanged between 1997 and 2002.

For the first time information on attendance at and rating of public dental services and community health centres was collected and these will continue to be monitored.

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 Adult Health Survey 2002* included questions on social reciprocity and neighbourhood connection, feelings of trust and safety, and participation in the local community. This is the first time that questions on social capital have been included in an adult survey conducted by the NSW Health Survey Program.

Future

There are a number of changes for the 2003 health survey. In the health status section, expanded modules on asthma (focusing on medications and severity) and diabetes (focusing on complications and screening) will be included. The section on cardiovascular precursors will not be included in the 2003 survey.

In addition there are new modules on food handling, incidence of gastrointestinal disease, incontinence, and sun protection. Finally, the mammographic and cervical cancer screening modules will be suspended in 2003, along with the hysterectomy rate module. In addition the

physical activity module will be cut down with the exclusion of the household chore and gardening component.

Table 35 provides a summary of the trends observed between 1997 and 2002, in key indicators monitored by the New South Wales Health Survey Program.

The continued monitoring of indicators via the New South Wales Continuous Health Survey Program 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 target groups.

TABLE 35

TRENDS IN INDICATORS, NSW, 1997–2002

Topic	Indicator	Year	Males (95%CI)	Females (95%CI)	Persons (95%CI)	
Health behaviours	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)	
	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)	
		Pap smear test within the last 2 years	1997			
			1998		77.3 (75.9–78.7)	77.3 (75.9–78.7)
	2002			74.6 (72.8–76.4)	74.6 (72.8–76.4)	
	Screening mammogram within the last 2 years	1997		73.3 (70.9–75.7)	73.3 (70.9–75.7)	
		1998		76.4 (74.1–78.7)	76.4 (74.1–78.7)	
		2002		75.2 (72.6–77.8)	75.2 (72.6–77.8)	
	Hysterectomy rate	1997		13.3 (12.4–14.1)	13.3 (12.4–14.1)	
		1998		13.0 (12.2–13.9)	13.0 (12.2–13.9)	
		2002		12.1 (11.1–13.1)	12.1 (11.1–13.1)	
	Use public water as usual source of water	2002			81.1 (79.5–82.6)	
		Recreational water use limited by blue green algae in last 12 months	2002			6.9 (5.9–7.9)
			Gas cooking without ventilation	2002		
	Exposure to unflued heating			2002		
		Potential exposure to benzene through internally-accessed garages	2002			22.2 (20.0–24.3)
	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)		

TABLE 35 continued
TRENDS IN INDICATORS, NSW, 1997–2002

Topic	Indicator	Year	Males (95%CI)	Females (95%CI)	Persons (95%CI)
	Vaccinated against pneumococcal disease in the last 5 years	2002	36.7 (33.3–40.1)	41.5 (38.5–44.4)	39.4 (37.2–41.6)
	Homes with a smoke alarm or detector	1997			58.2 (57.2–59.1)
		1998			64.0 (63.0–65.0)
		2002			72.9 (71.8–74.0)
	Recommended daily fruit intake	1997	37.8 (36.4–39.2)	51.1 (49.8–52.4)	44.5 (43.6–45.5)
		1998	38.0 (36.5–39.5)	49.2 (47.9–50.5)	43.7 (42.7–44.7)
		2002	40.3 (38.4–42.2)	50.1 (48.4–51.7)	45.3 (44.0–46.5)
	Recommended vegetable intake	1997	10.8 (10.0–11.7)	21.7 (20.6–22.7)	16.3 (15.6–17.0)
		1998	9.8 (8.9–10.6)	20.5 (19.5–21.6)	15.2 (14.5–15.9)
		2002	9.2 (8.2–10.3)	22.9 (21.6–24.2)	16.2 (15.3–17.0)
	Usual use of low fat, reduced fat or skim milk	1997	37.5 (36.0–38.9)	53.8 (52.4–55.1)	45.7 (44.7–46.7)
		1998	38.8 (37.3–40.3)	52.4 (51.1–53.8)	45.7 (44.7–46.7)
		2002	35.8 (34.0–37.6)	50.7 (49.0–52.4)	43.4 (42.1–44.6)
	Food insecurity last 12 months	2002	5.2 (4.4–6.0)	6.1 (5.3–6.9)	5.7 (5.1–6.2)
	Adequate physical activity	1997			
		1998	52.2 (50.7–53.7)	43.1 (41.8–44.4)	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)
	Current daily or occasional smoking	1997	27.2 (25.9–28.5)	21.0 (20.0–22.0)	24.0 (23.2–24.9)
		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)
	Smoke-free households	1997			69.8 (68.9–70.6)
		1998			73.2 (72.3–74.1)
		2002			81.0 (80.0–82.0)
	Over estimation of smokers in the community	2002	79.8 (78.2–81.5)	84.8 (83.5–86.2)	82.3 (81.2–83.3)
Health status	Excellent, very good, or good self-rated health status	1997	84.9 (83.9–85.8)	85.0 (84.1–85.9)	84.9 (84.3–85.6)
		1998	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 (79.7–81.7)
	Ever diagnosed with asthma	1997	14.9 (13.9–16.0)	18.1 (17.1–19.2)	16.6 (15.8–17.3)
		1998	15.4 (14.3–16.5)	18.0 (17.0–19.0)	16.7 (16.0–17.5)
		2002	18.3 (16.8–19.9)	20.9 (19.6–22.3)	19.6 (18.6–20.7)
	Current asthma	1997	8.7 (7.9–9.5)	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)
	Blood pressure measured within the last 2 years	1997	82.9 (81.7–84.0)	91.7 (90.9–92.4)	87.3 (86.7–88.0)
		1998	83.2 (82.0–84.4)	91.8 (91.0–92.5)	87.5 (86.8–88.2)
		2002	82.4 (80.8–84.0)	90.8 (89.8–91.9)	86.7 (85.8–87.7)
	High blood pressure	1997	16.7 (15.6–17.7)	16.1 (15.1–17.0)	16.3 (15.7–17.0)
		1998	17.2 (16.1–18.4)	17.1 (16.2–18.1)	17.2 (16.5–17.9)
		2002	20.9 (19.4–22.4)	19.0 (17.9–20.2)	19.9 (19.0–20.9)
	Cholesterol measured within last 2 years	1997	47.8 (46.4–49.3)	46.6 (45.3–47.9)	47.2 (46.2–48.2)
		1998	50.8 (49.3–52.4)	47.5 (46.2–48.8)	49.1 (48.1–50.2)
		2002	54.7 (52.6–56.7)	52.4 (50.7–54.1)	53.5 (52.2–54.8)
	High cholesterol	1997	25.0 (23.4–26.5)	23.6 (22.2–24.9)	24.3 (23.2–25.3)
		1998	21.5 (20.0–23.0)	21.4 (20.1–22.6)	21.4 (20.5–22.4)
		2002	25.3 (23.4–27.3)	24.4 (22.8–26.0)	24.9 (23.6–26.1)
	Diagnosed chemical sensitivity	2002	2.4 (1.9–3.0)	3.4 (2.8–4.1)	2.9 (2.5–3.4)
	Diabetes or high blood sugar	1997	5.2 (4.6–5.8)	4.3 (3.8–4.8)	4.7 (4.3–5.1)
		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)
	Work related injury in last 12 months	2002	17.9 (16.0–19.7)	12.8 (11.3–14.3)	15.6 (14.4–16.8)

TABLE 35 continued
TRENDS IN INDICATORS, NSW, 1997–2002

Topic	Indicator	Year	Males (95%CI)	Females (95%CI)	Persons (95%CI)
	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)
		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)
	No natural teeth missing	1997			
		1998	36.3 (34.8–37.8)	33.7 (32.4–35.0)	35.0 (34.0–36.0)
		2002	37.9 (36.0–39.9)	36.6 (34.9–38.2)	37.2 (36.0–38.5)
	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)
Health services	Difficulties getting health care when needing it	1997	8.9 (8.1–9.7)	11.1 (10.4–11.9)	10.0 (9.5–10.6)
		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)
	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)
	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)
	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)	13.9 (13.0–14.7)
	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)
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)	
Community health centre care rated as excellent, very good or good	2002	91.6 (86.8–96.3)	93.7 (91.0–96.4)	92.9 (90.5–95.4)	
Public dental service attendance in the previous 12 months	2002	3.9 (3.1–4.6)	5.2 (4.4–5.9)	4.5 (4.0–5.0)	
Public dental service care rated as excellent, very good or good	2002	81.7 (74.4–89.1)	80.7 (75.1–86.4)	81.2 (76.7–85.6)	
Social Capital	Attended a community event at least once in the last 6 months	2002	52.9 (51.0–54.9)	60.5 (58.9–62.1)	56.8 (55.5–58.0)
	Helped out any local group or organisation at least once in the past 3 months	2002	30.5 (28.7–32.2)	35.7 (34.1–37.3)	33.1 (32.0–34.3)
	Active member of a local organisation, church or club	2002	45.5 (43.6–47.5)	42.3 (40.7–43.9)	43.9 (42.6–45.1)
	Most people can be trusted	2002	69.0 (67.2–70.8)	62.9 (61.3–64.6)	65.9 (64.7–67.2)
	Feel safe walking down their street after dark	2002	78.0 (76.4–79.5)	55.8 (54.2–57.5)	66.8 (65.6–67.9)
	Area has a reputation for being a safe place	2002	75.2 (73.6–76.9)	71.6 (70.1–73.1)	73.4 (72.3–74.5)
	Visit neighbours	2002	68.7 (66.9–70.5)	63.2 (61.6–64.8)	65.9 (64.7–67.1)
	Able to ask for neighbourhood help to care for a child	2002	73.3 (71.5–75.1)	68.0 (66.4–69.6)	70.6 (69.4–71.8)
	Run into friends and acquaintances when shopping in local area	2002	80.4 (78.8–82.0)	83.7 (82.4–84.9)	82.0 (81.1–83.0)
	Sad to leave neighbourhood	2002	71.2 (69.4–73.0)	75.7 (74.3–77.2)	73.5 (72.4–74.7)

QUESTION MODULES

The survey questions used in the *New South Wales Adult Health Survey 2002* are available as individual question modules. This includes modules on alcohol, asthma, cancer screening, cardiovascular disease precursors, chemical sensitivity, community health centres, demographics, diabetes, difficulties getting health care, emergency departments, hospitals, immunisation, injury prevention, work-related injury, mental health, nutrition, oral health, overweight and obesity, physical activity, public dental services, self-rated 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]
- ___ Number of days
 - Less than once per week
 - 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 1 middy of full-strength beer, 1 schooner of light beer, 1 small glass of wine or 1 pub-sized nip of spirits. On a day when you drink alcohol, how many standard drinks do you usually have? [PROMPT IF NECESSARY]
- ___ Number of drinks
- X Don't know
R Refused
- Q3. In the past 4 weeks have you had more than [4 if male; 2 if female] drinks in a day? [PROMPT IF NECESSARY]
- Yes
 - No → END OF MODULE
- X Don't know → END OF MODULE
R Refused → END OF MODULE
- Q4. In the past 4 weeks how often have you had [11 or more if male; 7 or more if female] drinks in a day?
- ___ Number of times
 - Not at all
- X Don't know
R Refused
- Q5. In the past 4 weeks how often have you had [7–10 if male; 5–6 if female] drinks in a day?
- ___ Number of times
 - 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?
- Yes
 - No → END OF MODULE
- X Don't know → END OF MODULE
R Refused → END OF MODULE
- Q2. Have you had symptoms of asthma or taken treatment for asthma in the last 12 months?
- Yes
 - No → END OF MODULE
- X Don't know → END OF MODULE
R Refused → END OF MODULE
- Q3. Have you had symptoms of asthma or taken treatment for asthma in the last 4 weeks?
- Yes
 - No → END OF MODULE
- X Don't know → END OF MODULE
R Refused → END OF MODULE
- Q4. Have you visited your GP or local doctor for an attack of asthma in the last 4 weeks?
- Yes
 - No
- X Don't know
R Refused
- Q5. Have you visited a hospital emergency department for an attack of asthma in the last 4 weeks?
- Yes
 - No
- X Don't know
R Refused

Cancer screening question module

I would now like to ask you some questions about women's health matters.

- Q1. A mammogram is an X-ray taken of the breasts by a machine that presses against the breast while the picture is taken. It is a means of detecting breast cancer in the early stages. Have you ever had a mammogram?
- Yes
 - No → Q6
- X Don't know → Q6
R Refused → Q6

- Q2. When did you last have a mammogram?
1. Less than 1 year ago
 2. 1 year to less than 2 years ago
 3. 2 years to less than 3 years ago
 4. 3 years to less than 4 years ago
 5. 4 years to less than 5 years ago
 6. 5 or more years ago
 - X Don't know
 - R Refused

- Q3. Can you tell me all the reasons why you had your last mammogram? [MULTIPLE RESPONSE]
1. Breast problem (lump, discharge, or pain)
 2. Family history
 3. Had breast cancer in the past
 4. Regular check up
 5. Due for screening mammogram
 6. Doctor recommended it
 7. An invitation from BreastScreen or a breast screening and assessment unit
 8. Publicity about breast cancer and screening
 9. Urged by a friend or relative to go
 10. Other [SPECIFY]
 11. Don't know

- Q4. Do you have mammograms regularly?
1. Yes
 2. No → Q6
 - X Don't know → Q6
 - R Refused → Q6

- Q5. What is the usual time period between your mammograms?
1. ___ Number of years
 2. Only had one
 - X Don't know
 - R Refused

- Q6. A Pap test, sometimes called a Pap smear, is a routine test carried out by a doctor. It is recommended for all women for early detection of cancer of the cervix. Have you ever had a Pap test?
1. Yes
 2. No → END OF MODULE
 - X Don't know → END OF MODULE
 - R Refused

- Q7. When did you last have a Pap test?
1. Less than 1 year ago
 2. 1 year to less than 2 years ago
 3. 2 years to less than 3 years ago
 4. 3 years to less than 4 years ago
 5. 4 years to less than 5 years ago

6. 5 or more years ago
- X Don't know

- Q8. Do you have Pap tests regularly?
1. Yes
 2. No → END OF MODULE
 - X Don't know → END OF MODULE
 - R Refused → END OF MODULE

- Q9. What is the usual time period between your Pap tests?
1. Only had one Pap Test
 2. Less than 1 year ago
 3. ___ Number of years
 - X Don't know
 - R Refused

Cardiovascular disease precursors question module

Now I would like to ask you about blood pressure and cholesterol.

- Q1. When did you last have your blood pressure measured?

1. 0–3 months
2. 4–6 months
3. 7–12 months
4. 13 months to 2 years ago
5. More than 2 years ago
6. Never measured → Q4
- X Don't know
- R Refused

- Q2. Have you ever been told by a doctor or at a hospital that you have high blood pressure sometimes called hypertension?

1. Yes
2. Yes, but only during pregnancy → Q4
3. Yes, but only temporarily → Q4
4. No → Q4
- X Don't know → Q4
- R Refused → Q4

- Q3. What are you doing now to manage your high blood pressure or hypertension? [MULTIPLE RESPONSE]

1. Following a diet (including reducing salty food, weight reduction diet)
2. Trying to lose weight
3. Exercising most days
4. Taking medication to help lower your blood pressure
5. Doing anything else to manage your blood pressure [SPECIFY]
6. Not applicable as no longer have high blood pressure

- 7. Not doing anything to manage high blood pressure
- X Don't know
- R Refused

Q4. When did you last have your cholesterol measured?

- 1. 0–6 months
- 2. 7–12 months
- 3. 13 months to 2 years ago
- 4. More than 2 years ago
- 5. Never measured
→ END OF MODULE
- X Don't know
- R Refused

Q5. Have you ever been told by a doctor or at a hospital that you have high cholesterol?

- 1. Yes
- 2. No → END OF MODULE
- 3. Borderline
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q6. What are you doing now to manage your high cholesterol? [MULTIPLE RESPONSE]

- 1. Following a diet [including reducing salty food, weight reduction diet]
- 2. Trying to lose weight
- 3. Exercising most days
- 4. Taking medication to help lower your cholesterol
- 5. Doing anything else to manage your high cholesterol [SPECIFY]
- 6. Not applicable as no longer have high cholesterol
- 7. Not doing anything to manage high cholesterol.
- X Don't know
- R Refused

Chemical sensitivity question module

Now a couple of questions about odours.

Q1. Do certain chemical odours or smells regularly make you unwell?

- 1. Yes
- 2. No
- X Don't know
- R Refused

Q2. Have you ever been diagnosed with a chemical sensitivity? [Chemical sensitivity is a heightened physical response to chemical odours, which can include symptoms such as headaches, nausea dizziness or other symptoms.]

- 1. Yes
- 2. No
- 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 → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q2. Overall, what do you think of the care you received at the community health centre? [READ OUT]

- 1. Excellent → Q4
- 2. Very Good → Q4
- 3. Good → Q4
- 4. Fair
- 5. Poor
- X Don't know → Q4
- R Refused → Q4

Q3. Could you briefly describe why you rated the care you received as fair or poor?

- 1. Description _____

Q4. 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?

- 1. Prefer same community health centre
- 2. Prefer different community health centre
- 3. Depends on condition or reason for going
- X Don't know
- R Refused

Q5. Did someone at this community health centre tell you how to cope with your condition when you returned home?

- 1. Yes
- 2. No → END OF MODULE
- 3. Not Applicable → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q6. How adequate was this information once you went home? [READ OUT]

- 1. Very adequate
- 2. Adequate
- 3. Inadequate
- 4. Completely inadequate

- X Don't know
- R Refused

- X Don't know
- R Refused

Demographics question module

Q1. [RECORD LANGUAGE SURVEY RECORDED IN]

- 1. English
- 2. Arabic
- 3. Chinese
- 4. Greek
- 5. Italian
- 6. Vietnamese

Q2. A letter was sent to your household recently about this study. Do you remember receiving this letter?

- 1. Yes
- 2. No → Q6
- X Don't know → Q6
- R Refused → Q6

Q3. How many people, including yourself, live in your household?

- 1. ___ Number of people

Q4. How many children under 6 years of age live in this household?

- 1. ___ Number of people

Q5. How many people aged 65 years old or over, live in this household?

- 1. ___ Number of people

Q6. Could you please tell me how old you are today?

- 1. ___ Age in years
- X Don't know
- R Refused

Q7. Are you male or female? [ONLY ASK IF UNSURE]

- 1. Male
- 2. Female

Q8. Besides yourself, who else lives in your household? [MULTIPLE RESPONSE]

- 1. No-one—lives alone
- 2. Mother
- 3. Father
- 4. Respondent's partner
- 5. Step-mother
- 6. Step-father
- 7. Grandparents
- 8. Sons or daughters
- 9. Brothers and sisters
- 10. Step-brothers or step-sisters
- 11. Other relatives
- 12. Non-family members
- 13. Other [SPECIFY]

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 language 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 or Leaving)
- X Don't know
- R Refused

Q15. What is the level of the highest qualification you have completed?

- 1. Completed School Certificate or Intermediate or Year 10 or 4th Form
- 2. Completed HSC or Leaving or Year 12 or 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 receiving wages
 - X Don't know
 - R Refused
- Q20. 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

- Q21. Do you currently receive a government pension, allowance or benefit?
- 1. Yes
 - 2. No
 - X Don't know
 - R Refused
- Q22. I would like to ask you some questions about your housing arrangements. Are you: [READ OUT]
- 1. Paying rent or board
 - 2. Paying off this dwelling
 - 3. Outright owner or 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
- Q23. What type of accommodation do you live in? [PROMPT IF NECESSARY]
- 1. Separate house
 - 2. Semi-detached–town house–terraced house–villa
 - 3. Unit, flat or apartment–granny flat
 - 4. Caravan, cabin, houseboat
 - 5. Improvised home, tent, sleeper out
 - 6. House–flat attached to a shop–office
 - 7. Other [SPECIFY] _____ (for example, hotel, retirement village)
 - X Don't know
 - R Refused
- Q24. Before tax is taken out, which of the following ranges best describes your household's approximate income, from all sources, over the last 12 months?
- 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
- Q25. How long have you lived in your local area?
- 1. ____ years
 - X Don't know
 - R Refused
- Q26. 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 → Q3; if child or male → Q5]
2. No
3. Only during pregnancy → 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 blood sugar?

1. Yes—[If female adult → Q3; if child or male → Q6]
2. No → END OF MODULE
3. Borderline—if male → Q6
4. Only during pregnancy → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q3. [If female then ask] Were you pregnant when you were first told you had diabetes or high blood sugar?

1. Yes
2. No → Q5
- X Don't know → Q5
- R Refused → Q5

Q4. [If female then ask] Have you ever had diabetes—high blood sugar apart from when you were pregnant?

1. Yes
2. No → 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 or 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 or 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 or 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 → Q2
2. No → END OF MODULE

- 3. Don't need health care → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q2. Please describe the difficulties you have.

- 1. Description _____
→ 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 → END OF MODULE
- X Don't Know → END OF MODULE
- R Refused → 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 → Q5
- 2. Very Good → Q5
- 3. Good → Q5
- 4. Fair
- 5. Poor
- X Don't know → Q5
- R Refused → Q5

Q4. Could you briefly describe why you rated the care you received as fair or poor?

- 1. Reasons _____

Q5. If you had to enter an emergency department again, would you prefer to return to this emergency department or go to a different emergency department?

- 1. Prefer same emergency department
- 2. Prefer different emergency department
- 3. Depends on condition or reason for going
- X Don't know
- R Refused

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. Boil and filter
- 6. Yes—Other [SPECIFY]
- X Don't know
- R Refused

Q3. In the past 12 months has blue-green algae ever stopped you from using your usual recreational lake or river for purposes such as fishing, swimming or water skiing?

- 1. Yes
- 2. No
- 3. I don't use my local lake or river for recreational purposes
- X Don't know
- R Refused

Q4. 'Effluent' is wastewater or sewage. 'Treated effluent water' is the water that comes from wastewater (or sewage) after treatment. Effluent water may be treated to a suitable standard and re-used (for example, for watering a golf course or on farms, or for flushing toilets). Which of the following do you support? [READ OUT—MULTIPLE RESPONSE]

- 1. Re-use of treated effluent water directly into rivers and waterways to maintain water levels
- 2. Re-use of treated effluent water in public parks and gardens
- 3. Re-use of treated effluent water by combining it with drinking water supply in reservoirs
- 4. Re-use of treated effluent water for crop irrigation
- 5. None of the proposals

Environmental Risk (Home Environment)

Next I have some questions about your home environment.

Q5. What is the usual way you heat the living areas of your home?

1. A gas heater with flue (a pipe or vent to the outside)
2. A gas heater without a flue
3. An electric space heater—this includes oil column heaters.
4. Reverse cycle air conditioning
5. Slow burning combustion heater
6. An open fireplace
7. A kerosene heater
8. Other type of heater [SPECIFY]
9. Don't have heating
- X Don't know
- R Refused

Q6. What type of cook-top do you have?

1. Gas
2. Electric
3. No cook-top
4. Other [SPECIFY]
- X Don't know
- R Refused

Q7. What type of oven do you have?

1. Gas
2. Electric
3. No oven
4. Other [SPECIFY]
- X Don't know
- R Refused

Q8. How are steam and fumes removed when you cook?

1. An exhaust fan, connected outside or to the roof space
2. An exhaust fan where air is filtered and returned to the kitchen
3. A flue (small chimney to remove fumes outside) → Q10
4. Other [SPECIFY] → Q10
5. No means of removing fumes when cooking → Q10
- X Don't know → Q10
- R Refused → Q10

Q9. How often do you use the fan when cooking? [READ OUT]

1. Always
2. Mostly
3. Sometimes
4. Rarely
5. Never
- X Don't know
- R Refused

Q10. How often do you open windows or an external door when cooking? [READ OUT]

1. Always
2. Mostly
3. Sometimes
4. Rarely
5. Never
- X Don't know
- R Refused

Q11. Do you have a garage?

1. Yes
2. No → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q12. Which of the following best describes the access to your garage? [READ OUT]

1. The garage can be accessed internally from the house
2. The garage is attached but there is no internal access from the house
3. The garage is separate
- X Don't know
- R Refused

Environmental Risk (Mosquitoes)

Now I have some questions about protection from mosquitoes.

Q13. When mosquitoes are around, how often do you take measures to avoid being bitten? [READ OUT]

1. Always
2. Often
3. Sometimes
4. Rarely → Q15
5. Never → Q15
- X Don't know → Q15
- R Refused → Q15

Q14. What measures do you take? [MULTIPLE RESPONSE]

1. Reduce breeding sites on your property or around the home → END OF MODULE
2. Use insect repellents such as Aerogard, Rid → END OF MODULE
3. Cover up exposed parts of the body → END OF MODULE
4. Stay indoors at dawn or dusk → END OF MODULE
5. Use screens or netting on windows and doors at home → END OF MODULE
6. Use mosquito zappers, insect lights or citronella candles → END OF MODULE
7. Insecticide → END OF MODULE

- 8. Other [SPECIFY] → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q15. Can you tell me the main reason that you don't try to stop mosquitoes from biting you when they are around?

- 1. Don't get bitten
- 2. The bites don't bother me
- 3. No mozzies around
- 4. Can't afford protection
- 5. Don't care or doesn't matter if I get bitten
- 6. Can't be bothered
- 7. Other [SPECIFY]
- X Don't know
- R Refused

Hospital question module

The next questions are about your use of health services.

Q1. In the last 12 months, have you stayed for at least one night in hospital?

- 1. Yes
- 2. No → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q2. In which hospital was your most recent 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
- X Don't know
- R Refused

Q4. During your overnight hospital admission were you admitted as a private or public patient?

- 1. Private patient [that is, private health insurance]
- 2. Public patient
- X Don't know
- R Refused

Q5. Overall, what do you think of the care you received at this hospital? [READ OUT]

- 1. Excellent → Q7
- 2. Very good → Q7
- 3. Good → Q7
- 4. Fair
- 5. Poor

- X Don't know → Q7
- R Refused → Q7

Q6. Could you briefly describe why you rated the care you received as fair or poor?

- 1. Description _____

Q7. If you had to enter hospital again, would you prefer to return to this hospital or go to a different hospital?

- 1. Prefer same hospital
- 2. Prefer different hospital
- 3. Depends on condition or reason for going
- X Don't know
- R Refused

Q8. Did someone at this hospital tell you how to cope with your condition when you returned home?

- 1. Yes
- 2. No → END OF MODULE
- 3. Not applicable → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q9. How adequate was this information once you went home? [READ OUT]

- 1. Very adequate
- 2. Adequate
- 3. Inadequate
- 4. Completely inadequate
- X Don't know
- R Refused

Immunisation question 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
- X Don't know
- R Refused

Q3. Has a health professional ever advised you to be vaccinated against pneumonia?

- 1. Yes
- 2. No
- X 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 5 years ago
3. More than 5 years ago
4. Never vaccinated
- X Don't know
- R Refused

Injury prevention question module

The next few questions are about safety issues.

Q1. How many smoke alarms or detectors are installed in your home?

1. Number of alarms [If 0 → END OF MODULE]
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q2. Has there ever been a fire in your home that has activated a smoke alarm or detector?

1. Yes
2. No → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q3. When was the last time this occurred?

1. Within the last 12 months
2. 1 year to 3 years ago
3. More than 3 years ago
- X Don't know
- R Refused

Q4. Thinking about the last time this happened, was the fire extinguished without calling the fire brigade?

1. Yes
2. No
- X Don't know
- R Refused

Work-related injury question module

The next few questions are about any injuries you may have received at work in the last 12 months.

Q1. Have you been employed in the last 12 months?

1. Yes
2. No → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q2. In the last 12 months have you suffered any injury or illness related to work?

1. Yes
2. No → END OF MODULE
3. Don't work → END OF MODULE
- X Don't know → END OF MODULE

R Refused → END OF MODULE

Q3. What type of injury or illness was this? If more than one, please report the most recent injury or illness.

1. Specify injury _____

Q4. Did you receive medical treatment or professional health care for this injury or illness?

1. Yes
2. No → Q6
- X Don't know → Q6
- R Refused → Q6

Q5. What medical treatment or professional health care did you receive for this injury or illness?

1. General practitioner visit
2. Hospital outpatient visit
3. Admitted to hospital
4. Physiotherapist
5. Other allied health professional (for example, occupational Therapist)
6. Chiropractor or osteopath or acupuncturist
7. Naturopath or alternative health care practitioner
8. Community nurse home visit
9. Other [SPECIFY]

Q6. How many days off work did you take for this injury or illness?

1. None
2. 1–4 days
3. 5–30 days
4. 30 days or more
- X Don't know
- R Refused

Q7. What industry were you working in at the time of this injury or illness?

1. Specify Industry _____

Q8. Did you receive workers compensation for this injury or illness?

1. Yes
2. No
3. Pending
- X Don't know
- R Refused

Mental health question module

The next ten questions are about how you have been feeling in the past 4 weeks

Q1. In the past 4 weeks, about how often did you feel tired out for no good reason? [READ OUT]

1. All of the time
2. Most of the time

- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

Q2. In the past 4 weeks, about how often did you feel nervous? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time → Q4
- X Don't know → Q4
- R Refused → Q4

Q3. In the past 4 weeks, about how often did you feel so nervous that nothing could calm you down? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

Q4. In the past 4 weeks, about how often did you feel hopeless? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

Q5. In the past 4 weeks, about how often did you feel restless or fidgety? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time → Q7
- X Don't know → Q7
- R Refused → Q7

Q6. In the past 4 weeks, about how often did you feel so restless you could not sit still? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

Q7. In the past 4 weeks, about how often did you feel depressed? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

Q8. In the past 4 weeks, about how often did you feel that everything was an effort? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

Q9. In the past 4 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 4 weeks, about how often did you feel worthless? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

Q11. In the last 4 weeks, about how often did you feel happy? [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

Q12. In the last 4 weeks, about how often did you feel calm and peaceful? [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

Q13. In the last four weeks about how often have you felt bored? [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

Q14. In the last four weeks about how often have you felt lonely? [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

Q15. In the last 4 weeks, how many days were you TOTALLY UNABLE to work, study or manage your day-to-day activities because of these feelings?

- 1. ___ Number of days

Q16. Aside from [that day—those (#) days], in the last 4 weeks, how many days were you ABLE to work, study or manage your day-to-day activities, but had to CUT DOWN on what you did because of these feelings?

- 1. ___ Number of days

Q17. In the last 4 weeks, how many times have you seen a doctor or other health professional about these feelings?

- 1. ___ Number of consultations

Q18. In the last 4 weeks, how often have physical health problems been the main cause of these feelings? [READ OUT]

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. A little of the time
- 5. None of the time
- X Don't know
- R Refused

Nutrition 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 1 cup raw vegetables or 1 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 = 1 medium piece or 2 small pieces of fruit or 1 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 many slices of bread do you usually eat each day? [One slice of bread is equal to 1 small bread roll or 1 bagel or 1/2 a large bread roll or 1/2 a bread muffin or 1/2 a pita bread]

- 1. ___ Slices per day
- 2. ___ Slices per week
- 3. Don't eat bread
- X Don't know
- R Refused

Q4. 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

Q5. How many cups of breakfast cereal do you usually eat each day? [One cup = 1 cup of cornflakes or other flake-based cereal including Just Right or flake-based muesli; 2 WeetBix; 1/2 cup cooked porridge; 1/3 cup of oat-based muesli; 1/2 cup All Bran]

- 1. ___ Cups per day
- 2. ___ Cups per week
- 3. Don't eat breakfast cereal
- X Don't know
- R Refused

Q6. How often do you eat breakfast cereal [ready-made, home made or cooked]?

- 1. ___ Times per day
- 2. ___ Times per week
- 3. ___ Times per month
- 4. Rarely or never
- X Don't know
- R Refused

Q7. How many cups of cooked pasta, rice, noodles or other cooked cereals do you usually eat each week [not including cooked breakfast cereals]?

1. ___ Cups per day
2. ___ Cups per week
3. Don't eat these foods
- X Don't know
- R Refused

Q8. 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

Q9. What type of milk do you usually have?

1. Regular milk (whole or full cream)
2. Low or reduced fat milk
3. Skim milk
4. Evaporated or sweetened milk
5. Other [SPECIFY]
6. Don't have milk
- X Don't know
- R Refused

Q10. How often do you eat processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon or ham?

1. ___ Times per day
2. ___ Times per week
3. ___ Times per month
4. Rarely or never
- X Don't know
- R Refused

Q11. How often do you eat 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

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 → Q3

X Don't know → Q3

R Refused → 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) → Q7

X Don't know → Q7

R Refused → 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 4 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 → Q7

R Refused → Q7

Q6. What treatment did you receive for [problem in Q5]? [MULTIPLE RESPONSE]

1. Check up → Q8

2. Dental filling → Q8

3. Amalgam replacement → Q8

4. Root canal filling → Q8

5. Crown → Q8

6. Tooth extracted → Q8

7. Fluoride treatment → Q8

8. Gum treatment → Q8

9. Teeth straightened or braces → Q8

- 10. New or replacement dentures → Q8
- 11. Teeth cleaned → Q8
- 12. Fissure sealant → Q8
- 13. Whitening or bleaching → Q8
- 14. Denture repair → Q8
- 15. None—Did not visit dentist
- 16. Other treatment [SPECIFY] → Q8
- X Don't know → Q8
- R Refused → 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. 1 year to less than 2 years ago → Q9
- 3. 2 to less than 5 years ago → Q9
- 4. 5 to less than 10 years ago → Q9
- 5. 10 years ago or more → Q9
- 6. Never → Q9
- X Don't know → Q9
- R Refused → END OF MODULE

Q8. Where was your last dental visit made? [READ OUT]

- 1. Government dental clinic or hospital → END OF MODULE
- 2. School dental service (SOKS) → END OF MODULE
- 3. Dental technician (includes dental mechanic and denturist practising independently of a dentist) → END OF MODULE
- 4. Other [SPECIFY] → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → 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 and 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 → Q3]
- X Don't know → Q3
- R Refused → 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 does not include gardening. In the last week, how many times did you do any vigorous household chores which made you breathe harder or puff and pant?

- 1. Number of times [If =0 → Q5]
- X Don't know → Q5
- R Refused → Q5

Q4. What do you estimate was the total time you spent doing these vigorous household chores in the last week? [In hours and minutes]

- 1. ___ Hours ___ Minutes
- X Don't know
- R Refused

Q5. In the last week, how many times did you do any vigorous gardening or heavy work around the yard which made you breathe harder or puff and pant?

- 1. Number of times [If =0 → Q7]
- X Don't know → Q7
- R Refused → Q7

Q6. What do you estimate was the total time you spent doing vigorous gardening or heavy work around the yard in the last week? [In hours and minutes]

- 1. ___ Hours ___ Minutes
- X Don't know
- R Refused

Q7. 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? [For example: football, tennis, netball, squash, athletics, cycling, jogging, keep-fit exercises and vigorous swimming]

- 1. Number of times [If =0 → Q9]
- X Don't know → Q9
- R Refused → Q9

Q8. 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

Q9. 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? [For example: lawn bowls, golf, tai chi, and sailing]

- 1. Number of times [If =0 → END OF MODULE]
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q10. 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 → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q2. Overall, what do you think of the care you received at the public dental service? [READ OUT]

- 1. Excellent → Q4
- 2. Very Good → Q4
- 3. Good → Q4
- 4. Fair
- 5. Poor
- X Don't know → Q4
- R Refused → Q4

Q3. Could you briefly describe why you rated the care you received as fair or poor?

- 1. Description _____

Q4. If you had to use a public dental service again, would you prefer to return to this same public dental service or go to a different public dental service?

- 1. Prefer same public dental service
- 2. Prefer different public dental service
- 3. Depends on condition or reason for going
- X Don't know
- R Refused

Q5. Did someone at this Public Dental Service tell you how to cope with your condition when you returned home?

- 1. Yes
- 2. No → END OF MODULE
- 3. Not applicable → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q6. How adequate was this information once you went home? [READ OUT]

- 1. Very adequate
- 2. Adequate
- 3. Inadequate

- 4. Completely inadequate
- X Don't know
- R Refused

- 2. Quite a lot
- 3. Some
- 4. A little
- 5. None
- X 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 4 weeks? [READ OUT]

- 1. Excellent
- 2. Very good
- 3. Good
- 4. Fair
- 5. Poor
- 6. Very poor
- X Don't know
- R Refused

Q2. During the past 4 weeks, how much did physical health problems limit your activities such as walking or climbing stairs? [READ OUT]

- 1. Not at all
- 2. Very little
- 3. Somewhat
- 4. Quite a lot
- 5. Could not do physical activities
- X Don't know
- R Refused

Q3. During the past 4 weeks, how much difficulty did you have doing your daily work, both at home and away from home, because of your physical health? [READ OUT]

- 1. None at all
- 2. A little bit
- 3. Some
- 4. Quite a lot
- 5. Could not do daily work
- X Don't know
- R Refused

Q4. How much bodily pain have you had during the past 4 weeks? [READ OUT]

- 1. None
- 2. Very mild
- 3. Mild
- 4. Moderate
- 5. Severe
- 6. Very severe
- X Don't know
- R Refused

Q5. During the past 4 weeks, how much energy did you have? [READ OUT]

- 1. Very much

Q6. During the past 4 weeks, how much did your physical health or emotional problems limit your usual social activities with family or friends? [READ OUT]

- 1. Not at all
- 2. Very little
- 3. Somewhat
- 4. Quite a lot
- 5. Could not do social activities
- X Don't know
- R Refused

Q7. During the past 4 weeks, how much have you been bothered by emotional problems (such as feeling anxious, depressed or irritable)? [READ OUT]

- 1. Not at all
- 2. Slightly
- 3. Moderately
- 4. Quite a lot
- 5. Extremely
- X Don't know
- R Refused

Q8. During the past 4 weeks, how much did personal or emotional problems keep you from doing your usual work, school or other daily activities? [READ OUT]

- 1. Not at all
- 2. Very little
- 3. Somewhat
- 4. Quite a lot
- 5. Could not do daily activities
- X Don't know
- R Refused

Smoking question module

Q1. A ban on smoking in most enclosed public places (not including pubs and clubs) was introduced in September 2000. This ban includes places such as shopping centres, restaurants and cafes, common areas in hostels and motels, and community halls. In the past month, how often would you say that you saw people smoking indoors in these types of places? [READ OUT]

- 1. Often
- 2. Occasionally
- 3. Rarely → Q3
- 4. Never → Q3

- X Don't know → Q3
- R Refused → Q3

- Q2. In which indoor public places have you seen someone smoking? [MULTIPLE RESPONSE]
1. Shopping centre, mall or plaza
 2. Shop
 3. Restaurant, café or other eating place (NOT in a pub or club)
 4. Business premises (for example, offices or factory)
 5. Theatre, cinema, library or gallery
 6. On a train or in a train station
 7. Public transport (other, including private coach lines)
 8. Airport
 9. Accommodation (hotel, hostel or other)
 10. Community hall or bingo hall
 11. Fitness centre, bowling alley or other sporting and recreational facility
 12. School, college or university
 13. Childcare facility
 14. Hospital
 15. Non-smoking registered club–pub–nightclub
 16. Other [SPECIFY]
- X Don't know
 - R Refused

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

- Q3. 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 → Q5
 4. I've tried it a few times but never smoked regularly → Q5
 5. I've never smoked → Q5
- X Don't know → Q5
 - R Refused → Q5
- Q4. Which of the following best describes how you feel about your smoking? [READ OUT]
1. I am not planning on quitting within the next six months
 2. I am planning on quitting within the 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
- X Don't know
 - R Refused

- Q5. Which of the following best describes your home situation? [READ OUT]
1. My home is smoke free (includes smoking is allowed outside only)
 2. People occasionally smoke in the house
 3. People frequently smoke in the house
- X Don't know
 - R Refused
- Q6. Can you tell me what percentage of the population you think are smokers?
1. Percentage ___%
- 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