

# 11. CONCLUSION

## Conclusion

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

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

## Health behaviours

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

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

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

Overall, there was a significant decrease in the proportion of people who undertook adequate physical activity in

2003 compared to 1997 (47.6 per cent and 45.0 per cent). Although the decrease has continued in 2003 (45.0 per cent), the proportions were not significantly lower than in 2002.

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

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

## Health status

Monitoring the health status of a population helps to detect emerging patterns of illness and disease and provides information to inform policy and planning of health services. There have been some obvious changes in the health status of the population between 1997 and 2003 (Table 7).

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

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

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

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

## Health services

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

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

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

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

## Social capital

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

## The future

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

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

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

**TABLE 6****TRENDS IN INDICATORS OF HEALTH BEHAVIOURS, BY SEX, NSW, 1997–2003**

Indicator	Year	Males (95% CI)	Females (95% CI)	Persons (95% CI)
Alcohol risk drinking (Guideline 1)	1997	50.7 (49.3–52.2)	34.1 (32.9–35.4)	42.3 (41.3–43.3)
	1998	50.5 (49.0–52.1)	36.2 (34.9–37.5)	43.2 (42.2–44.2)
	2002	39.2 (37.3–41.1)	29.7 (28.1–31.2)	34.4 (33.1–35.6)
	2003	41.3 (39.4–43.2)	30.3 (28.9–31.8)	35.7 (34.5–36.9)
High risk drinking in the past 4 weeks	2002	16.7 (15.0–18.4)	11.7 (10.3–13.1)	14.4 (13.3–15.5)
	2003	17.9 (16.2–19.6)	10.9 (9.7–12.2)	14.7 (13.6–15.7)
Use public water as usual source of water	2002		81.1 (79.5–82.7)	
	2003		81.1 (80.2–82.0)	
Vaccinated against influenza in the last 12 months	1997	55.8 (52.3–59.2)	58.2 (55.3–61.0)	57.1 (54.9–59.3)
	1998	61.9 (58.5–65.3)	64.5 (61.8–67.2)	63.3 (61.2–65.5)
	2002	75.3 (72.4–78.3)	75.7 (73.0–78.3)	75.5 (73.5–77.5)
	2003	76.1 (73.0–79.1)	75.6 (73.2–78.1)	75.8 (73.9–77.8)
Vaccinated against pneumococcal disease in the last 5 years	2002	36.7 (33.3–40.1)	41.5 (38.5–44.4)	39.4 (37.2–41.6)
	2003	45.1 (41.6–48.6)	48.2 (45.4–51.1)	46.8 (44.6–49.1)
Homes with a smoke alarm or detector	1997		58.2 (57.2–59.1)	
	1998		64.0 (63.0–65.0)	
	2002		72.9 (71.8–74.0)	
	2003		72.7 (71.6–73.9)	
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)
	2003	39.0 (37.1–40.9)	52.4 (50.8–54.0)	45.8 (44.6–47.1)
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)
	2003	11.8 (10.7–12.9)	26.7 (25.3–28.0)	19.3 (18.4–20.3)
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)
	2003	37.1 (35.2–38.9)	50.8 (49.2–52.4)	44.0 (42.8–45.3)
Food insecurity last 12 months	2002	5.2 (4.4–6.0)	6.1 (5.3–6.9)	5.7 (5.1–6.2)
	2003	5.3 (4.5–6.2)	6.9 (6.1–7.6)	6.1 (5.5–6.7)
Adequate physical activity	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)
	2003	49.5 (47.6–51.5)	40.6 (39.0–42.1)	45.0 (43.7–46.2)
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)
	2003	25.0 (23.3–26.8)	20.0 (18.7–21.3)	22.5 (21.4–23.6)
Smoke-free households	1997		69.8 (68.9–70.6)	
	1998		73.2 (72.3–74.1)	
	2002		81.0 (80.0–82.0)	
	2003		82.5 (81.6–83.4)	
Hand washing when preparing raw meat	2003	56.3 (54.2–58.5)	64.4 (62.9–65.9)	60.8 (59.5–62.0)

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

**TABLE 7****TRENDS IN INDICATORS OF HEALTH STATUS, BY SEX, NSW, 1997–2003**

Indicator	Year	Males (95% CI)	Females (95% CI)	Persons (95% CI)
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)
	2003	81.9 (80.5–83.3)	79.8 (78.5–81.0)	80.8 (79.9–81.7)
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)
	2003	19.4 (17.8–21.0)	22.7 (21.4–24.0)	21.0 (20.0–22.1)
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)
	2003	9.2 (8.0–10.3)	12.7 (11.7–13.7)	11.0 (10.2–11.7)
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)
	2003	6.9 (6.1–7.8)	5.5 (4.9–6.2)	6.2 (5.7–6.7)
High and very high psychological distress	1997	9.2 (8.4–10.0)	12.9 (12.0–13.8)	11.1 (10.5–11.7)
	1998	9.0 (8.1–9.9)	12.0 (11.1–12.8)	10.5 (9.9–11.1)
	2002	10.5 (9.3–11.6)	14.0 (12.8–15.1)	12.2 (11.4–13.1)
	2003	9.3 (8.2–10.4)	12.9 (11.8–14.0)	11.1 (10.3–11.9)
All natural teeth missing	1998	5.8 (5.2–6.4)	10.7 (10.0–11.4)	8.3 (7.8–8.8)
	2002	5.2 (4.6–5.9)	8.6 (7.8–9.4)	6.9 (6.4–7.5)
	2003	4.2 (3.6–4.8)	7.4 (6.8–8.0)	5.8 (5.4–6.2)
Overweight and obesity	1997	49.7 (48.3–51.2)	34.5 (33.3–35.8)	42.2 (41.2–43.1)
	1998	50.3 (48.7–51.8)	34.5 (33.2–35.7)	42.5 (41.4–43.5)
	2002	53.9 (52.0–55.9)	38.5 (36.9–40.1)	46.3 (45.0–47.6)
	2003	55.6 (53.7–57.6)	41.0 (39.4–42.6)	48.3 (47.1–49.6)
Obese	1997	11.1 (10.2–12.0)	11.5 (10.7–12.3)	11.3 (10.7–11.9)
	1998	12.6 (11.6–13.6)	11.6 (10.8–12.4)	12.1 (11.5–12.7)
	2002	14.8 (13.4–16.2)	14.4 (13.3–15.6)	14.6 (13.7–15.5)
	2003	15.5 (14.2–16.8)	16.5 (15.4–17.7)	16.0 (15.1–16.9)
Fall in the last 12 months	2003	18.7 (16.0–21.5)	27.5 (24.9–30.1)	23.5 (21.7–25.4)
Incontinence in the last 4 weeks	2003	11.2 (9.8–12.6)	31.9 (30.1–33.7)	21.8 (20.6–23.0)

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

TABLE 8

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

Indicator	Year	Males (95% CI)	Females (95% CI)	Persons (95% CI)
Difficulties 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)
	2003	11.3 (10.2–12.5)	15.1 (14.0–16.2)	13.3 (12.5–14.0)
Emergency department attendance in the previous 12 months	1997	15.7 (14.7–16.7)	11.9 (11.1–12.7)	13.8 (13.1–14.4)
	1998	13.9 (12.9–14.9)	12.0 (11.2–12.8)	12.9 (12.3–13.6)
	2002	14.7 (13.4–16.0)	13.8 (12.8–14.9)	14.3 (13.4–15.1)
	2003	13.9 (12.6–15.2)	13.1 (12.1–14.1)	13.5 (12.7–14.3)
Emergency department care rated as excellent, very good or good	1997	80.5 (77.7–83.4)	79.9 (77.0–82.9)	80.3 (78.2–82.3)
	1998	82.6 (79.5–85.6)	78.6 (75.7–81.5)	80.7 (78.6–82.8)
	2002	79.8 (75.9–83.7)	73.2 (69.3–77.0)	76.5 (73.8–79.3)
	2003	80.2 (76.1–84.3)	77.6 (74.0–81.3)	78.9 (76.2–81.7)
Hospital admission in the previous 12 months	1997	11.3 (10.4–12.2)	14.7 (13.8–15.5)	13.0 (12.4–13.6)
	1998	11.5 (10.6–12.4)	15.4 (14.5–16.3)	13.5 (12.8–14.1)
	2002	11.3 (10.1–12.4)	16.3 (15.1–17.6)	13.8 (13.0–14.7)
	2003	12.1 (10.9–13.3)	14.8 (13.7–15.9)	13.5 (12.7–14.3)
Hospital care rated as excellent, very good or good	1997	90.3 (87.9–92.7)	89.9 (87.9–91.9)	90.1 (88.5–91.6)
	1998	92.5 (90.3–94.6)	90.0 (88.1–91.9)	91.0 (89.6–92.5)
	2002	93.5 (90.7–96.2)	89.3 (86.4–92.2)	91.0 (88.9–93.0)
	2003	92.9 (90.2–95.6)	89.9 (87.6–92.3)	91.2 (89.5–93.0)
Community health centre attendance in the previous 12 months	2002	4.8 (4.0–5.6)	8.9 (8.0–9.9)	6.9 (6.3–7.5)
	2003	3.6 (3.0–4.3)	6.5 (5.8–7.2)	5.1 (4.6–5.6)
Community health centre care rated as excellent, very good or good	2002	91.6 (86.8–96.3)	93.7 (91.0–96.4)	92.9 (90.5–95.4)
	2003	94.2 (90.0–98.4)	93.3 (90.6–96.1)	93.6 (91.3–96.0)
Public dental service attendance in the previous 12 months	2002	3.9 (3.1–4.6)	5.2 (4.4–5.9)	4.5 (4.0–5.0)
	2003	3.8 (3.2–4.4)	4.8 (4.1–5.4)	4.3 (3.8–4.8)
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)
	2003	85.9 (80.4–91.3)	85.0 (80.1–90.0)	85.4 (81.7–89.1)

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

**TABLE 9****TRENDS IN INDICATORS OF SOCIAL CAPITAL, BY SEX, NSW, 1997–2003**

Indicator	Year	Males (95% CI)	Females (95% CI)	Persons (95% CI)
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)
	2003	54.1 (52.2–56.0)	62.0 (60.4–63.5)	58.1 (56.9–59.3)
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)
	2003	31.2 (29.4–33.0)	32.9 (31.4–34.4)	32.1 (30.9–33.2)
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)
	2003	45.4 (43.5–47.4)	41.7 (40.1–43.3)	43.5 (42.3–44.8)
Most people can be trusted	2002	69.0 (67.2–70.8)	62.9 (61.3–64.6)	65.9 (64.7–67.2)
	2003	71.5 (69.7–73.2)	67.9 (66.3–69.4)	69.6 (68.5–70.8)
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)
	2003	80.2 (78.8–81.7)	56.6 (55.1–58.2)	68.3 (67.2–69.4)
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)
	2003	76.5 (74.8–78.1)	73.1 (71.7–74.5)	74.8 (73.7–75.9)
Visit neighbours	2002	68.7 (66.9–70.5)	63.2 (61.6–64.8)	65.9 (64.7–67.1)
	2003	67.0 (65.2–68.9)	63.8 (62.3–65.4)	65.4 (64.2–66.6)
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)
	2003	74.2 (72.4–76.0)	71.9 (70.5–73.4)	73.0 (71.9–74.2)
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)
	2003	80.3 (78.8–81.9)	82.8 (81.6–84.1)	81.6 (80.6–82.6)
Sad to leave neighbourhood	2002	71.2 (69.4–73.0)	75.7 (74.3–77.2)	73.5 (72.4–74.7)
	2003	69.4 (67.5–71.2)	76.8 (75.4–78.2)	73.1 (72.0–74.3)

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