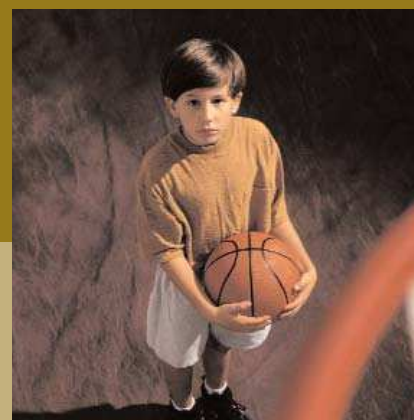
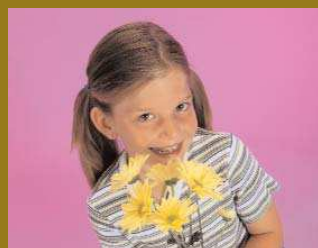
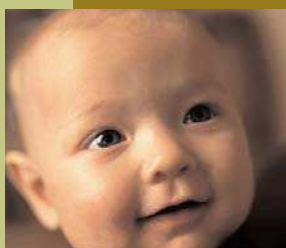


New South Wales Population Health Survey

2005–2006 Report on child health



CENTRE FOR EPIDEMIOLOGY AND RESEARCH

NSW Department of Health
Locked Mail Bag 961
North Sydney NSW 2059
Telephone: 61 2 9424 5759

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Foreword

I am pleased to present the 2005-2006 Report on Child Health from the New South Wales Population Health Survey, which provides information on health behaviours, health status, access to health services, and social determinants of health, for children aged 0-15 years.

During 2005 and 2006, data for the New South Wales Population Health Survey were collected from February to December each year.


After describing the survey methods, this report presents information on health behaviours including: breastfeeding, folate and pregnancy, immunisation (meningococcal disease), injury prevention (smoke alarms, fire education, and infant sleeping position), nutrition, physical activity, and smoking. This is followed by a chapter on health status including: asthma, mental health, oral health, and self-rated health status. Next there is a chapter on health services including: health service use (services attended, private health insurance, and difficulties getting health care), community health centres, early childhood health centres, emergency departments, home visiting, hospital admissions, and public dental services. Finally, a chapter on the social determinants of health including: early childhood educational development, and family functioning and parental support.

In this PDF version indicator graphs are presented by age, socioeconomic disadvantage, mothers' characteristics, geographic location and years (when available). In the HTML version these indicator graphs are presented with an accompanied table which includes the 95% confidence intervals. The graphs and tables can be downloaded from the html report as gif, pdf and/or csv files for further use. Both the PDF and HTML versions can be obtained from the New South Wales Population Health Survey website at www.health.nsw.gov.au/public-health/survey/hsurvey.html.

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

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

I thank all the individuals and organisations who contributed their time and expertise to assist in the development and conduct of the Survey in 2005 and 2006.



Denise Robinson

Chief Health Officer and Deputy Director-General, Population Health
January 2008

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Margo Eyeson-Annan and Michael Giffin.

Biostatistical advice

Baohui Yang.

Data analysis

Margo Eyeson-Annan, Ray Ferguson, Mazen Kassis, Scott Linton, and Baohui Yang.

Analysis and reporting infrastructure

Tim Churches, Ray Ferguson, Jill Kaldor, Scott Linton, Kevin Manefield, Peter Williams, Alan Willmore, and Baohui Yang.

Text contributors

Margo Eyeson-Annan and Michael Giffin.

Editors

Margo Eyeson-Annan and Michael Giffin.

Executive summary

Introduction

In 2005 and 2006, the NSW Department of Health, in conjunction with the area health services, completed the fourth and fifth years of the New South Wales Population Health Survey, an ongoing survey of the health of people of New South Wales using computer assisted telephone interviewing (CATI). The main aims of the survey are: to provide detailed information on the health of the people of New South Wales; and to support the planning, implementation, and evaluation of health services and programs in New South Wales.

Prior to the inclusion of the child component in the New South Wales Population Health Survey in 2003, the Centre for Epidemiology and Research conducted a child health survey in 2001. The reporting plan for the continuous survey includes a biennial report on child health for the whole state, and the first report on child health from that continuous survey reported data from 2003 and 2004.

This 2005-2006 Report on Child Health from the New South Wales Population Health Survey reports the health of residents aged 0-15 years.

The content of the survey was developed by the NSW Health Survey Program in consultation with key stakeholders, area health services, other government departments, and a range of experts. The survey included questions used in previous surveys and new questions developed specifically for 2005 and 2006. All new questions not previously used were submitted to the Ethics Committee of the NSW Department of Health for approval, and were field-tested prior to inclusion in the survey. The instrument was translated into 5 languages: Arabic, Chinese, Greek, Italian and Vietnamese.

In 2005 and 2006, interviews were carried out continuously between February and December. Selected households that had addresses in the electronic phone book were sent a letter describing the aims and methods of the survey 2 weeks prior to initial attempts at telephone contact. An 1800 freecall contact number was provided for potential respondents to verify the authenticity of the survey and to ask any questions regarding the survey. Trained interviewers at the Health Survey Program CATI facility carried out interviews. Up to 7 calls were made to establish initial contact with a household, and 5 calls were made in order to contact a selected respondent. If the selected respondent was a child under the age of 16 years, a parent or carer was selected as a proxy respondent.

Information for the child report was collected on 4,578 children. Parents or carers were asked a sub-set of questions depending on the age of their child. For example, questions on breastfeeding were only asked of parents of children aged 0-4 years, and questions on maternal folate were only asked of mothers of children aged less than 12 months, whereas questions that applied to a broader age group (such as nutrition, fire safety, smoking, asthma, family functioning, social determinants of health, etc.) were asked of parents or carers of the whole sample: that is, children aged 0-15 years.

Health behaviours

Health behaviours influence child health and wellbeing from the antenatal period and beyond. Parental health behaviours directly influence the health of children in their early years. Child health behaviours affect health in later life, because the beginnings of many chronic diseases may occur in childhood. The 2005-2006 Report on Child Health from the New South Wales Population Health Survey reports on breastfeeding, folate and pregnancy, immunisation (meningococcal disease), injury prevention (smoke alarms, fire education, and infant sleeping position), nutrition, physical activity, and smoking.

Overall, 91.1 per cent of mothers of children aged 0-4 years had ever breastfed, 27.0 per cent had fully breastfed to 6 months, 17.5 per cent had exclusively breastfed to 6 months, and 27.8 per cent had breastfed for 12 months. Among mothers of children aged 0-11 months, 53.1 per cent took tablets containing folate or folic acid in the month immediately before and during the first trimester of pregnancy.

Among children aged 1-15 years, 73.1 per cent had been vaccinated against meningococcal C in the last year. Of these, 45.2 per cent were immunised by a school clinic and 46.6 per cent by a general practitioner.

Among children aged 0-15 years, 82.5 per cent lived in homes with a smoke alarm. Among children aged 5-12 years, 79.2 per cent had participated in a fire education program at school, and 63.8 per cent of parents or carers took action on the messages they received from children who attended this program. Among parents or carers of children aged 0-11 months, 83.1 per cent placed their children on their backs to sleep,

the preferred sleeping position for the prevention of Sudden Infant Death Syndrome.

Around 4 in 10 children aged 2-15 years (38.2 per cent) consumed the recommended daily intake of vegetables. Around two-thirds of children aged 2-15 years (68.8 per cent) consumed the recommended daily intake of fruit. Just over 7 in 10 children aged 2-15 years (71.1 per cent) consumed the recommended daily intake of dairy products. Just over 8 in 10 parents or carers (81.2 per cent) thought there was too much television advertising of confectionary and takeaway food during children's viewing time. Just over 4 in 10 parents or carers (43.5 per cent) believed television advertising influences what food their child asks them to buy. Just over three-quarters of parent or carers (77.4 per cent) had heard about the *Fresh Tastes @ School Strategy*. Among parents and carers, 5.5 per cent reported there were times in the last 12 months when they ran out of food and could not afford to buy more.

Around one-quarter (25.6 per cent) of children aged 5-15 years met the criteria for adequate physical activity, which is at least 60 minutes of moderate to vigorous physical activity every day. Over 8 in 10 children (84.4 per cent) aged 5-15 years were sedentary for more than the recommended maximum of 2 hours a day during leisure time.

Around 1 in 10 (12.1 per cent) mothers of infants aged 0-11 months smoked during pregnancy. Around 9 in 10 children (90.9 per cent) aged 0-15 years lived in smoke-free households (that is, where people are not allowed to smoke in the house). Around 9 in 10 parents or carers (91.5 per cent) of children aged 0-15 years have smoke-free cars.

Health status

Although New South Wales children are generally healthy, physical, emotional and behavioural problems can affect the ability of both children and their carers to participate in everyday activities and to enjoy life. In 2005 and 2006 the New South Wales Population Health Survey collected information on asthma, mental health, oral health, and self-rated health status.

Around 1 in 4 children aged 2-15 years (22.7 per cent) have ever been told by a doctor or hospital they have asthma, and 12.9 per cent currently have asthma (that is, have had symptoms of asthma or treatment for asthma in the previous 12 months). Among children with current asthma, 55.6 per cent had a written asthma management plan, and 12.5 per cent experienced moderate to extreme interference with their daily activities.

According to the Strengths and Difficulty Questionnaire (SDQ), 7.6 per cent of children aged 4-15 years had substantial risk of developing clinically significant behavioural problems.

Around two-thirds of children aged 5-15 years (66.3 per cent) did not have an oral health problem in the previous 12 months, 76.0 per cent visited a dental professional within the previous 12 months, and 8.2 per cent had never visited a dental health professional.

Overall, 90.8 per cent of children aged 5-15 years had excellent, very good, or good health status, and 76.9 per cent had no difficulty doing his or her daily activities in the previous 4 weeks.

Health services

In 2005 and 2006, the New South Wales Population Health Survey collected information on services used, private health insurance, difficulties with getting health care, community health centres, early childhood health centres, emergency departments, home visiting, hospital admissions, and public dental services.

Overall, just over one-half of children aged 0-15 years (54.6 per cent) did not attend any health services in the previous 12 months, 54.3 per cent were covered by private health insurance, and 15.6 per cent had difficulties getting health care when needing it. The reported difficulties experienced were: waiting time for a general practitioner appointment (40.2 per cent), difficulty in accessing specialists (11.4 per cent), waiting time for dental services (10.7 per cent), emergency department waiting time (9.3 per cent), shortage of general practitioners (8.9 per cent), quality of treatment (8.1 per cent), and cost of health care services (8.0 per cent).

Just over 1 in 10 children aged 0-15 years (12.1 per cent) attended a government run community health centre in the previous 12 months. Of these, 91.1 per cent of parents or carers rated the care received as excellent, very good, or good.

Just over 4 in 10 children aged 0-4 years (40.4 per cent) attended an early childhood health centre in the previous 12 months. Just under one-quarter of children aged 0-4 years were currently seeing an early childhood nurse (23.7 per cent).

Just over 1 in 5 children aged 0-15 years (21.7 per cent) presented to an emergency department in the previous 12 months. Of these, 85.0 per cent of parents or carers rated the care child received as excellent, very good, or good. Of those who reported the care received as fair or poor, the reasons given were: waiting time (70.0 per cent), poor service (28.7 per cent), misdiagnosis or contradictory diagnosis (9.5 per cent), communication problems (9.1 per cent), poor attitude of clinical staff (8.4 per cent), poor technical skills of clinical staff (8.1 per cent), sent home without treatment or follow-up (7.2 per cent), not enough staff (4.2 per cent), inadequate or wrong medication or management (3.3 per cent), and poor quality accommodation (0.8 per cent).

Overall, just under 1 in 5 children aged 0-4 years (18.4 per cent) received a home visit from a health professional. Among children aged 0-11 months, 42.8 were not visited by anyone, 38.1 per cent were visited by a community nurse, 21.2 per cent were visited by a midwife, and 1.5 per cent were visited by a general practitioner. Among children aged 1-4 years, 92.2 were not visited by anyone, 3.4 per cent were visited by a community nurse, 0.9 per cent were visited by a midwife, and 2.5 per cent were visited by a general practitioner.

About 1 in 10 children aged 0-15 years (10.0 per cent) were admitted to a hospital for at least 1 night in the previous 12 months. Of these, 91.9 per cent of parents or carers rated the care child received as excellent, very good, or good. Of those who reported the care received as fair or poor, the reasons given were: poor patient care (25.4 per cent), hospital could not offer required care (24.7 per cent), poor technical skills of clinical staff (21.4 per cent), excessive waiting time for care (18.0 per cent), poor attitude of clinical staff (16.0 per cent), not enough staff (14.9 per cent), inadequate or wrong medication or management (14.1 per cent), surgery cancelled or sent home without treatment (12.9 per cent), and communication problems (12.2 per cent).

Just over 1 in 10 children aged 0-15 years (12.1 per cent) attended a public dental service in the previous 12 months. Of these, 94.3 per cent of parents or carers rated the care received as excellent, very good, or good.

Social determinants of health

The health and wellbeing of children is strongly influenced by social and family circumstances. To monitor these determinants of health, in 2005 and 2006 the New South Wales Population Health Survey collected information on early childhood educational development (participation in childhood activities, childcare, pre-school and reading); and family functioning and parental support.

Overall, just under 4 in 10 children aged 0-5 years (38.4 per cent) currently participate in early childhood activities, and just over 3 in 10 (34.7 per cent) currently go to childcare. The types of childcare are: long daycare centre (65.8 per cent), family daycare (13.2 per cent), occasional care (6.5 per cent), grandparent (6.4 per cent), nanny (2.7 per cent), relative or family other than grandparent (1.4 per cent), friend (1.0 per cent), and babysitter (1.4 per cent). Overall, nearly three-quarters of children aged 3-4 years (74.5 per cent) currently attend pre-school. Overall, just under three-quarters of parents or carers of children aged 0-5 years (73.3 per cent) read to or looked at books with their child daily, and 5.9 per cent have never read or looked at books with their child.

The survey shows that New South Wales families with children aged 0-15 years have high levels of healthy family functioning (94.8 per cent). Nearly one-quarter of parents or carers of children aged 1-15 had ever felt the need for parental support services (24.9 per cent). Of those who did feel the need for parental support services, 77.6 per cent had ever used those services.

Methods

Introduction

In 2005 and 2006, the NSW Department of Health, in conjunction with the area health services, completed the fourth and fifth years of the New South Wales Population Health Survey, an ongoing survey of the health of people of New South Wales using computer assisted telephone interviewing (CATI). The main aims of the survey are: to provide detailed information on the health of the people of New South Wales; and to support the planning, implementation, and evaluation of health services and programs in New South Wales.

Prior to the inclusion of the child component in the New South Wales Population Health Survey in 2003, the Centre for Epidemiology and Research conducted a child health survey in 2001. The reporting plan for the continuous survey includes a biennial report on child health for the whole state and the first report on child health from that continuous survey reported data from 2003 and 2004.

This section describes the methods used for the 2005-2006 Report on Child Health from the New South Wales Population Health Survey, which reports the health of residents aged 0-15 years.

New South Wales Population Health Survey

Survey instrument

The survey instrument was developed by the NSW Health Survey Program in consultation with key stakeholders, area health services, other government departments, and a range of experts. The survey included questions used in previous surveys and new questions developed specifically for 2005 and 2006. All new questions not previously used were submitted to the Ethics Committee of the NSW Department of Health for approval, and were field-tested prior to inclusion in the survey. The instrument was translated into 5 languages: Arabic, Chinese, Greek, Italian and Vietnamese.

Survey sample

In 2005 and 2006, the target population for the child component of the New South Wales Population Health Survey was all children aged 0-15 years living in households with private telephones. For each year, the target sample comprised approximately 475 children in each of the 8 area health services (total sample of 7,600 over 2 years).

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

Interviews

In 2005 and 2006, interviews were carried out continuously between February and December. Selected households that had addresses in the electronic phone book were sent a letter describing the aims and methods of the survey 2 weeks prior to initial attempts at telephone contact. An 1800 freecall contact number was provided for potential respondents to verify the authenticity of the survey and to ask any questions regarding the survey. Trained interviewers at the Health Survey Program CATI facility carried out interviews. Up to 7 calls were made to establish initial contact with a household, and 5 calls were made in order to contact a selected respondent. If the selected respondent was a child under the age of 16 years, a parent or carer was selected as a proxy respondent.

Call outcomes and response rates

In total, 4,578 interviews were conducted with parents or carers of children aged 0-15 years, with 652 in the Sydney South West Health area, 466 in the South Eastern Sydney & Illawarra Health area, 672 from the Sydney West area, 504 Northern Sydney & Central Coast Health area, 612 from Hunter & New England Health area, 525 from North Coast Health area, 571 from Greater Southern Health area, 576 from Greater Western Health area. The overall response rate was 58.4 per cent (completed interviews divided by completed interviews and refusals).

Data analysis

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

Post-stratification weights were used to reduce the effect of differing non-response rates among males and females and different age groups on the survey estimates. These weights were adjusted for differences between the age and sex structure of the survey sample and the Australian Bureau of Statistics 2002 mid-year population estimates (excluding residents of institutions) for each area health service. Further information on the weighting process is provided elsewhere.[3]

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

The 95 per cent confidence interval provides a range of values that should contain the actual value 95 per cent of the time. In general, a wider confidence interval reflects less certainty in the estimate for that indicator. The width of the confidence interval relates to the differing sample size for each indicator. Wide confidence bands mean that although there may be a large difference between the estimates, because of the small sample size in some indicators the difference is not significantly different.[4] For a pairwise comparison of subgroup estimates, the p-value for a two-tailed test was calculated using the normal distribution probability function PROBNORM in SAS, assuming approximate normal distribution of each individual subgroup estimates with the estimated standard errors, and approximate normal distribution for the estimated difference.

Indices of geographic remoteness and socioeconomic disadvantage: ARIA and SEIFA

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

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.[6] The SEIFA index used to provide breakdowns of the New South Wales Population Health Survey 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. The SEIFA index values are grouped into 5 quintiles, with quintile 1 being the least disadvantaged and quintile 5 being the most disadvantaged.

Both the ARIA+ and SEIFA indexes were assigned to the results of the New South Wales Population Health Survey in 2005 and 2006 based on respondents' postcode of residence.

Calculation of urban and rural

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

Survival analysis

The LIFETEST procedure in SAS version 8.02 was used to perform survival analysis on breastfeeding data.[4] Survival analysis models data that specifies a time between an initial event and a terminating event. The initial event was the commencement of breastfeeding. The terminating event was the cessation of breastfeeding or the date of the survey. The length of time infants received any breastfeeding, full breastfeeding, and exclusive breastfeeding were modelled. The time infants were exclusively breastfed was determined from the date breastfeeding started (initial event) to the introduction of either solids, a milk substitute, water, juice, stopped breastfeeding, or the date of the survey (terminating event). The time infants were fully breastfed was determined from the date breastfeeding started (initial event) to the introduction of either solids, a milk substitute, stopped breastfeeding, or the date of the survey (terminating event). The survival analysis calculated non-parametric estimates of the survival distribution function using the life table method. The procedure calculated proportions at time intervals and 95 per cent confidence intervals using the weights that were rescaled to the survey sample.

Family functioning

Family functioning was measured using the McMaster Family Assessment Device, a 53-item tool arranged within 7 scales: problem solving, communication, roles, affective responsiveness, affective involvement, behaviour control, and general functioning.[7] The general functioning scale is a self-reported measure that describes the structural and organizational properties of the family group and the patterns of transactions among family members.[8] The scale has good reliability and validity and is recommended for use in assessing overall family functioning rather than specific dimensions of family functioning.[7,8] The scale generates a score between 1 and 4, with 1 reflecting healthy family functioning and 4 reflecting unhealthy family functioning. Unhealthy family function relates to avoiding discussing concerns or fears, having lots of bad feelings within the family, not being able to turn to each other for support or to confide in each other, not being able to talk about sadness or express feelings to each other, difficulty in making decisions, not accepting family members as they are, and difficulty planning family activities.[7,8]

Mental health

Child mental health was measured using the Strengths and Difficulty Questionnaire (SDQ), created by Professor Robert Goodman in the United Kingdom. The SDQ was identified as an appropriate tool and adapted for use in telephone surveys in consultation with Professor Goodman. It is a brief behavioural screening questionnaire for children aged 4-15 years that can be completed by parents or carers, children, or teachers. The questionnaire asks about 25 attributes divided into 5 scales: emotional symptoms, conduct problems, hyperactivity and inattention, peer relationship problems, and prosocial behaviour. The first 4 subscales (emotional symptoms, conduct problems, hyperactivity and inattention, and peer relationship problems) are calculated to give an overall total difficulties score between 0 and 40.[9,10] A child with a total difficulties score of 17 or above is considered to be at substantial risk of developing clinically significant behavioural problems.[10]

References

1. Australia on Disk [software]. Sydney: Australia on Disk, 2000.
2. MapInfo [software]. Troy, NY: MapInfo Corporation, 1997.
3. Steel D, NSW Health Survey: Review of the Weighting Procedures. available online at: www.health.nsw.gov.au/public-health/survey/OtherPub/review_of_weighting_procedures.pdf, accessed 30 October 2007
4. SAS Institute. The SAS System for Windows version 8.02. Cary, NC: SAS Institute Inc., 2001.
5. Australian Bureau of Statistics. *ASGC Remoteness Classification: Purpose and Use*. Census Paper no. 03/01. Canberra: Australian Bureau of Statistics, 2003, available online at www.abs.gov.au, accessed 30 October 2007.
6. Australian Bureau of Statistics. *2001 Census of Population and Housing: Socio-Economic Indexes for*

Areas, Information Paper, Catalogue no. 2039.0. Canberra: Australian Bureau of Statistics, 2003.

7. Epstein N, Baldwin L, Bishop D. The McMaster Family Assessment Device. *Journal of Marital and Family Therapy* 1983; 9: 171-180.
8. Byles J, Byrne C, Boyle M, Offord D. Ontario Child Health Study: Reliability and Validity of the General Functioning Subscale of the McMaster Family Assessment Device. *Family Process*, 1988, 27: 97-104.
9. Goodman R. The Strengths and Difficulties Questionnaire: A Research Note. *Journal of Child Psychology and Psychiatry* 1997; 38: 581-586.
10. Youth in Mind. Information for researchers and professionals about the Strengths & Difficulties Questionnaires online at www.sdqinfo.com, accessed 30 October 2007.

Representativeness of sample

In 2005 and 2006, male children were slightly over-represented in the New South Wales Population Health Survey, making up 51.4 per cent of the survey sample, compared with 51.3 per cent of the overall residential population of New South Wales. Conversely, female children were slightly under-represented, making up 48.6 per cent of the survey sample, compared with 48.7 per cent of the overall residential population of New South Wales. Comparisons of the distribution of the survey sample and that of the overall residential population are shown in the table 'Survey sample size and New South Wales population by age group and sex'. After weighting, the age- and sex-distribution of the survey sample reflected that of the overall residential population.

Aboriginal children comprised 3.2 per cent of the survey sample, which is less than their representation in the overall residential population of New South Wales (4.1 per cent), and children born overseas comprised 7.9 per cent of the survey sample, which is less than their representation in the overall residential population of New South Wales (11.7 per cent) according to the 2006 Census.[1]

In 2005 and 2006, 80.7 per cent of children aged 0-15 years lived in households who only spoke English in their home, 78.1 per cent lived in households where their parents were married, and 54.3 per cent lived in households with an income of \$40,000 or more per year.

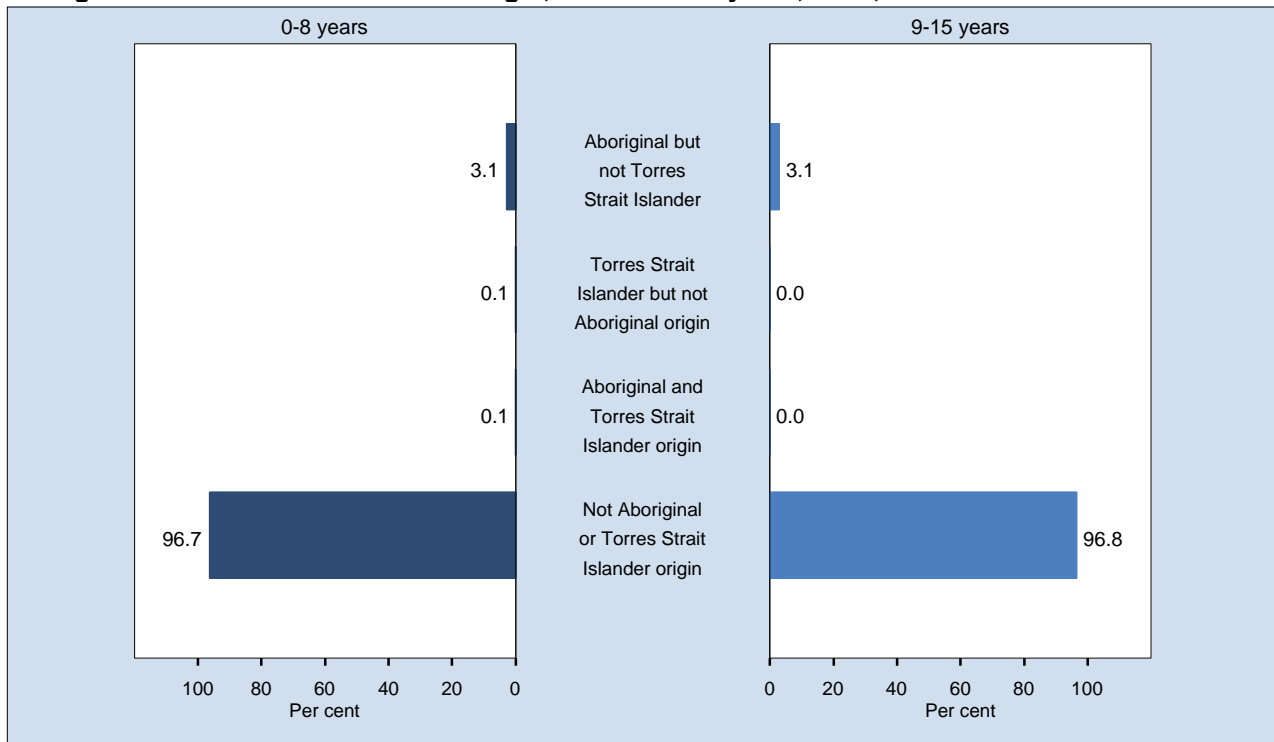
References

1. Australian Bureau of Statistics. *Census Data from Community Profile Series*. Available online at www.censusdata.abs.gov.au (accessed 30 October 2007).

Survey sample size and NSW population by age group and sex

Age group	Survey sample (unweighted) 2005-2006						NSW population June 2006					
	Males		Females		Persons		Males		Females		Persons	
	n	%	n	%	n	%	n	%	n	%	n	%
less than 1 year	167	3.6	155	3.4	322	7.0	44062	3.1	41827	2.9	85889	6.0
1 year	160	3.5	147	3.2	307	6.7	42613	3.0	40752	2.9	83365	5.9
2 years	142	3.1	131	2.9	273	6.0	42159	3.0	40066	2.8	82224	5.8
3 years	152	3.3	129	2.8	281	6.1	44410	3.1	41842	2.9	86252	6.1
4 years	145	3.2	121	2.6	266	5.8	44576	3.1	42334	3.0	86910	6.1
0-4 years	766	16.7	683	14.9	1449	31.7	217820	15.3	206820	14.5	424640	29.8
5 years	112	2.4	127	2.8	239	5.2	45232	3.2	42639	3.0	87871	6.2
6 years	148	3.2	132	2.9	280	6.1	44767	3.1	42498	3.0	87265	6.1
7 years	143	3.1	124	2.7	267	5.8	45704	3.2	43548	3.1	89252	6.3
8 years	155	3.4	128	2.8	283	6.2	46060	3.2	43622	3.1	89682	6.3
5-8 years	558	12.2	511	11.2	1069	23.4	181763	12.8	172307	12.1	354070	24.9
9 years	149	3.3	138	3.0	287	6.3	46587	3.3	44493	3.1	91080	6.4
10 years	139	3.0	142	3.1	281	6.1	46885	3.3	44526	3.1	91411	6.4
11 years	130	2.8	155	3.4	285	6.2	47210	3.3	44735	3.1	91945	6.5
12 years	140	3.1	153	3.3	293	6.4	47681	3.3	45065	3.2	92746	6.5
13 years	165	3.6	148	3.2	313	6.8	47873	3.4	45433	3.2	93306	6.6
14 years	148	3.2	156	3.4	304	6.6	47502	3.3	45020	3.2	92522	6.5
15 years	159	3.5	138	3.0	297	6.5	47407	3.3	45341	3.2	92748	6.5
9-15 years	1030	22.5	1030	22.5	2060	45.0	331144	23.2	314614	22.1	645758	45.3
TOTAL	2354	51.4	2224	48.6	4578	100.0	730727	51.3	693741	48.7	1424468	100.0

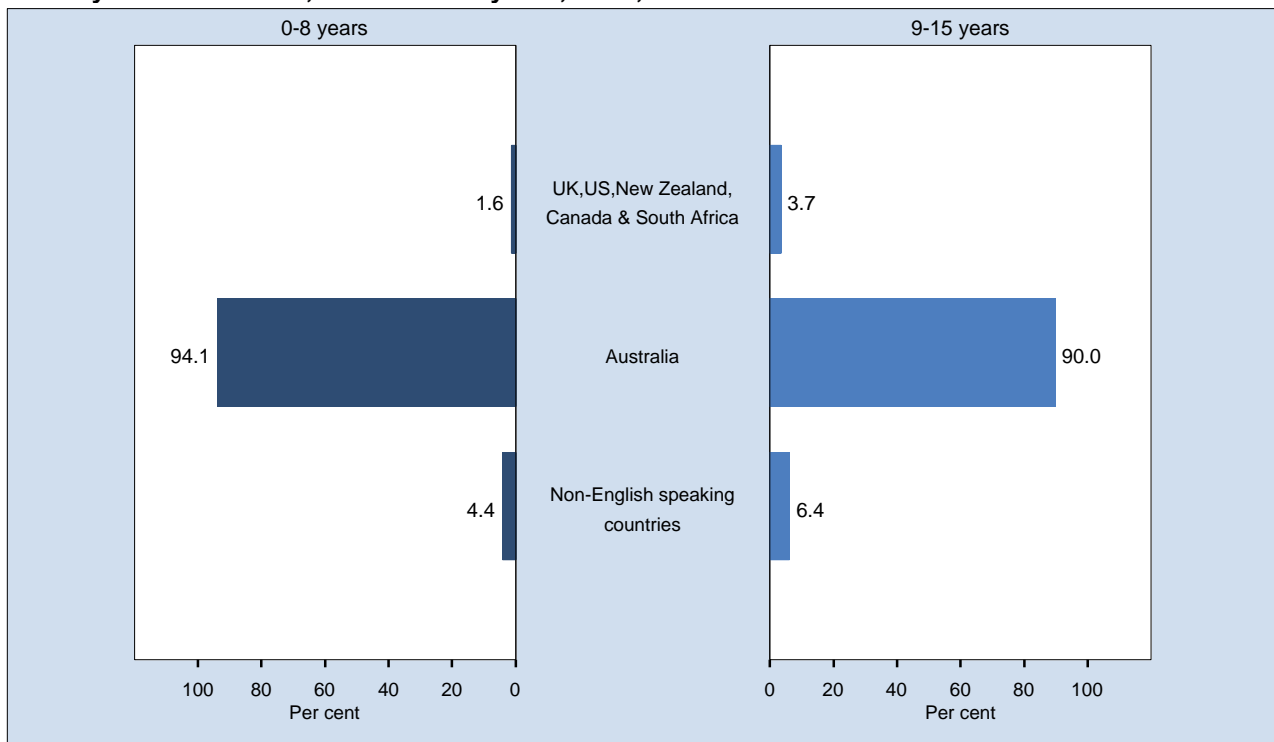
Aboriginal and Torres Strait Islander origin, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,570 respondents in NSW. For this indicator 8 (0.17%) were not stated (Don't know or Refused) in NSW. The question used was: Are you of Aboriginal or Torres Strait Islander origin?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

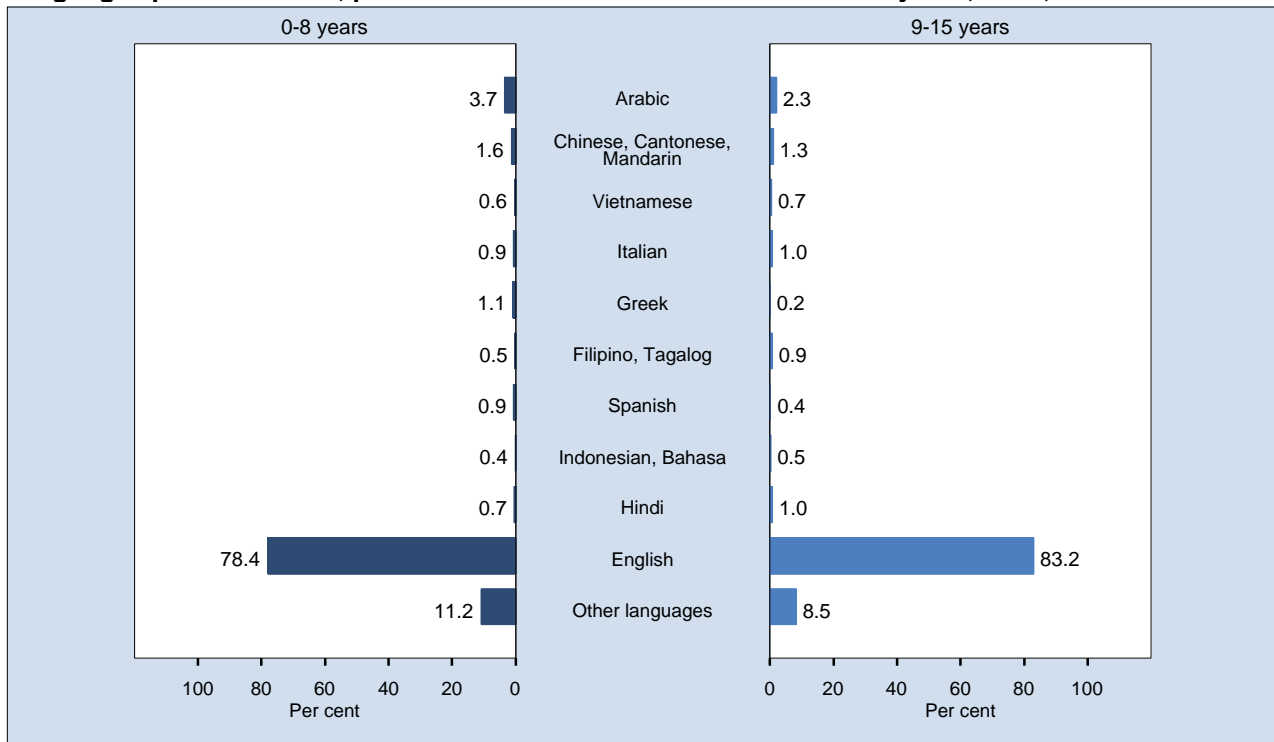
Country of birth of child, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,578 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. English Speaking Countries (ESC) include the UK, USA, New Zealand, Canada & South Africa. The question used was: In which country was child born?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

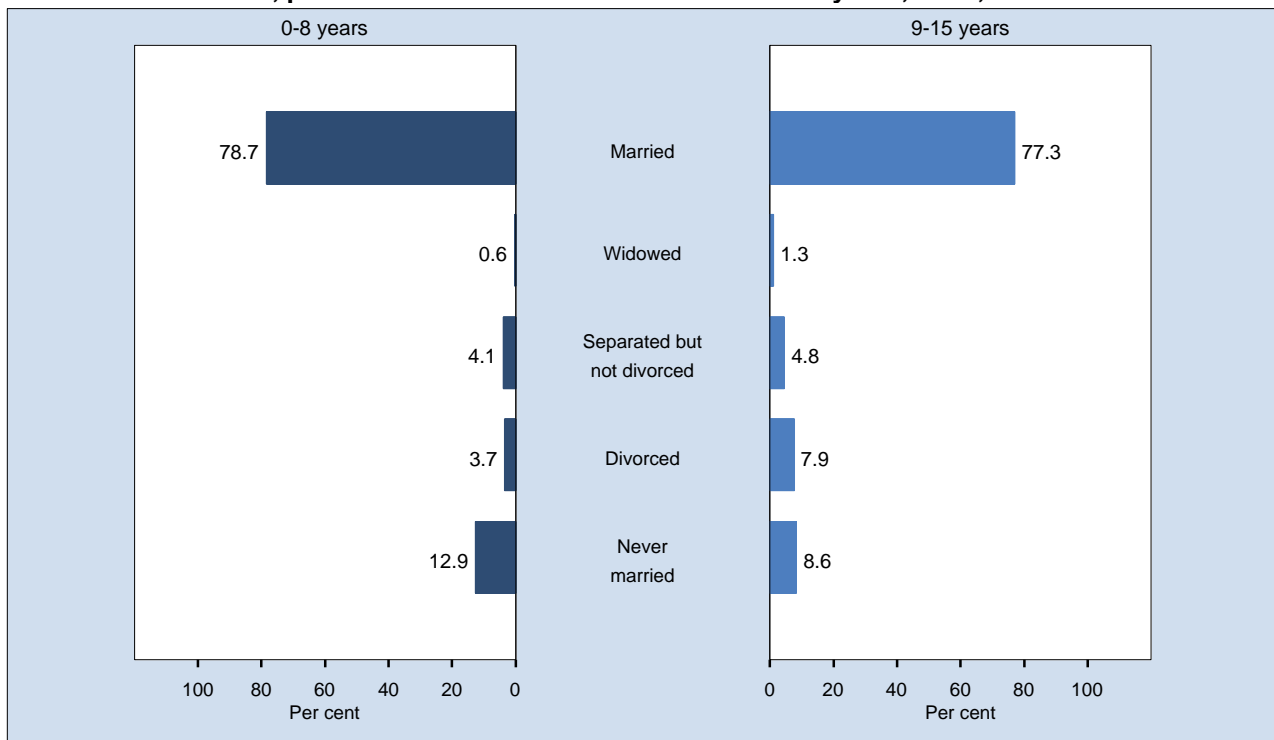
Language spoken at home, parents or carers or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,575 respondents in NSW. For this indicator 1 (0.02%) were not stated (Don't know or Refused) in NSW. The questions used were: Do you usually speak a language other than English at home? What language do you usually speak at home?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

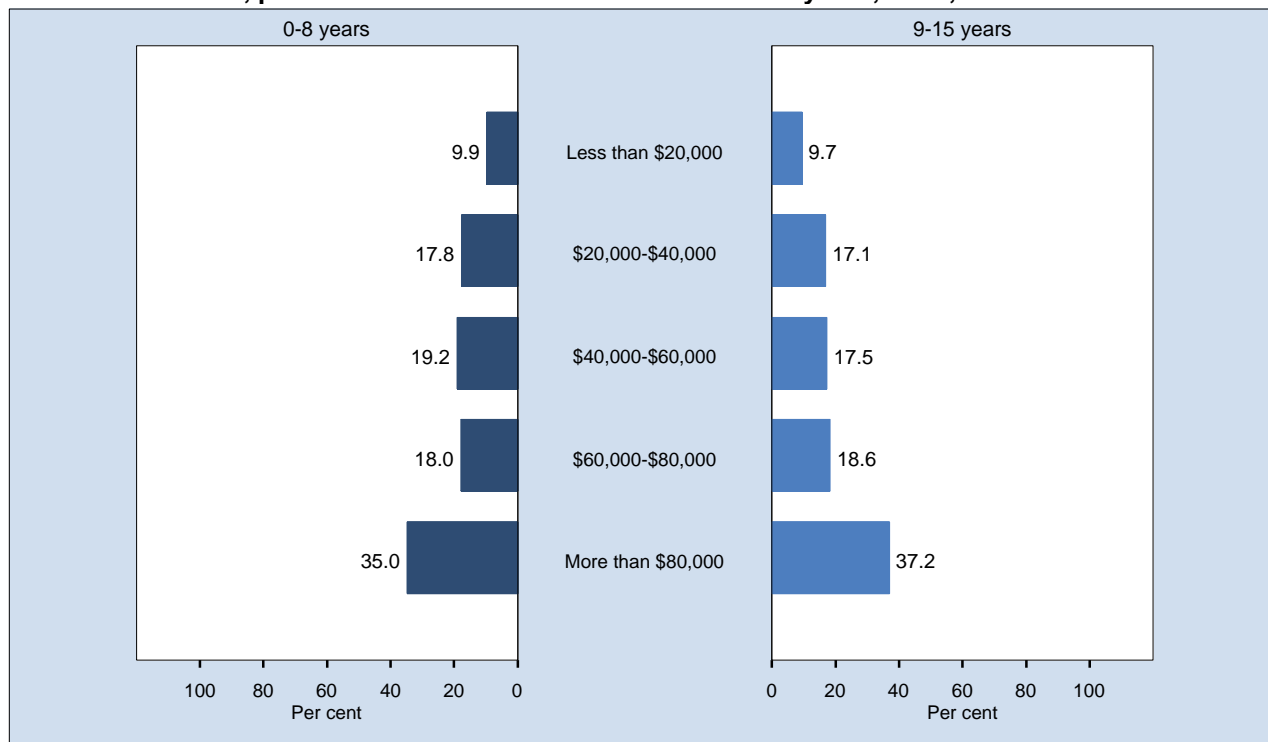
Formal marital status, parents or carers or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,571 respondents in NSW. For this indicator 7 (0.15%) were not stated (Don't know or Refused) in NSW. The question used was: What is your formal current marital status?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Household income, parents or carers or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,106 respondents in NSW. For this indicator 472 (10.31%) were not stated (Don't know or Refused) in NSW. The question used was: What is your annual household income before tax: less than \$20,000, \$20,000 to \$40,000, \$40,000 to \$60,000, \$60,000 to \$80,000, more than \$80,000?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Health behaviours

Health behaviours influence child health and wellbeing from the antenatal period and beyond. Parental health behaviours directly influence children in the early years. Child health behaviours affect health in later life, because behaviours in childhood influence behaviours in adulthood, and because the beginnings of many chronic diseases may occur in childhood. This section reports on breastfeeding, folate and pregnancy, immunisation, injury prevention, nutrition, physical activity, and smoking.

Breastfeeding

Introduction

Breastfeeding has health advantages for both infants and mothers. For infants, these include protection against diarrhoeal illnesses, respiratory infections, and otitis media; reduced risk of childhood obesity; promotion of sensory and cognitive development; and improved visual acuity and psychomotor development. For mothers, benefits include quicker recovery from childbirth and reduced risk of ovarian and pre-menopausal breast cancer.[1]

The National Health and Medical Research Council (NHMRC) now recommends exclusive breastfeeding for the first 6 months of life,[1] in line with a recently revised policy of the World Health Organization (WHO).[2-5] Previously, the WHO policy recommended exclusive breastfeeding for 4-6 months but the benefits of extending the duration to 6 months have been demonstrated.[2-5] According to the WHO definition, exclusively breastfed infants receive only breastmilk, plus medications including vitamins if required, without any additional food or drink including water.[2-5] The NHMRC also recommends breastfeeding, complemented by appropriate solid foods, should be continued until at least 12 months of age.[1]

Recommendations for nationally-standardised monitoring of breastfeeding practices outline 7 indicators for the monitoring of breastfeeding: per cent ever breastfed, per cent breastfeeding at each month of age to 12 months, median duration of breastfeeding among ever breastfed children, per cent exclusively breastfed in previous 24 hours at each month of age to 6 months, per cent fully breastfed in previous 24 hours at each month of age to 6 months, per cent receiving solid foods in previous 24 hours at each month of age to 6 months, and per cent receiving milk substitutes in previous 24 hours at each month of age to 6 months.[6]

During 2005 and 2006, the New South Wales Population Health Survey asked mothers of children aged less than 4 years: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed in months and weeks? What were the main reasons you decided not to breastfeed child? Has child ever been given infant or toddler formula regularly? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis? What type of milk substitutes did child have? At what age was child first given milk substitute regularly? At what age was child first given solid food regularly? At what age was child first given fruit juice regularly? At what age was child first given water regularly?

Results

Ever breastfed

Overall, 91.1 per cent of children aged 0-4 years have ever been breastfed. A significantly higher proportion of children in the least disadvantaged quintile (97.5 per cent) had ever been breastfed. A significantly lower proportion of children of mothers without tertiary qualifications (87.1 per cent) compared with children of mothers with tertiary qualifications (97.9 per cent), have ever been breastfed. There was no significant difference between urban areas and rural areas; however, a significantly higher proportion of children in the Hunter & New England Health Area (96.1 per cent) have ever been breastfed.

There was no significant variation in the proportion of children who have ever been breastfed between 2001-2002 and 2005-2006.

Duration of breastfeeding

The proportion of children aged 0-4 years who were breastfed at each month of age declined from 91.1 per cent at birth to 80.2 per cent at 1 month, 68.1 per cent at 3 months, 54.5 per cent at 6 months, and 27.8 per cent at 12 months.

The proportion of children aged 0-4 years who were exclusively breastfed at each month of age declined from 91.1 per cent at birth to 67.7 per cent at 1 month, 50.3 per cent at 3 months, and 17.5 per cent at 6 months.

The proportion of children aged 0-4 years who were fully breastfed at each month of age declined from 91.1 per cent at birth to 74.4 per cent at 1 month, 58.8 per cent at 3 months, and 27.0 per cent at 6 months.

Breastfed at 12 months

Overall, 27.8 per cent of children aged 0-4 years were breastfed at 12 months. There was no significant variation by level of socioeconomic disadvantage, or between urban areas and rural areas; however, a significantly higher proportion of children in the Hunter & New England Health Area (40.2 per cent), and a significantly lower proportion of children in the Greater Southern Health Area (10.3 per cent), were breastfed at 12 months. A significantly higher proportion of children of mothers aged 25 years and over (29.7 per cent) compared with children of mothers under 25 years (14.6 per cent), and a significantly lower proportion of children of mothers without tertiary qualifications (22.1 per cent) compared with children of mothers with tertiary qualifications (36.7 per cent), were breastfed at 12 months.

There was no significant variation in the proportion of children aged 0-4 years who were breastfed at 12 months between 2001-2002 and 2005-2006.

Exclusively breastfed at 6 months

Overall, 17.5 per cent of children aged 0-4 years were exclusively breastfed at 6 months. A significantly higher proportion of children in the least disadvantaged quintile (26.3 per cent), and a significantly lower proportion of children in the most disadvantaged quintile (10.8 per cent), were exclusively breastfed at 6 months. There was no significant variation between urban areas and rural areas; however, a significantly higher proportion of children in the Hunter & New England Health Area (28.0 per cent), and a significantly lower proportion of children in the South Eastern Sydney & Illawarra (9.3 per cent) and Greater Western (7.4 per cent) Health Areas, were exclusively breastfed at 6 months. A significantly higher proportion of children of mothers 25 years and over (17.2 per cent) compared with children of mothers less than 25 years (8.8 per cent), and a significantly lower proportion of children of mothers without tertiary qualifications (12.5 per cent) compared with mothers with tertiary qualifications (25.3 per cent), were exclusively breastfed at 6 months.

There was no significant variation in the proportion of children aged 0-4 years who were exclusively breastfed at 6 months between 2003-2004 and 2005-2006. However, the proportion has increased significantly in rural areas (from 10.9 per cent to 19.2 per cent).

Fully breastfed at 6 months

Overall, 27.0 per cent of children aged 0-4 years were fully breastfed at 6 months. A significantly higher proportion of children in the least disadvantaged quintile (37.6 per cent) were fully breastfed at 6 months. There was no significant variation between urban areas and rural areas; however, a significantly higher proportion of children in the Northern Sydney & Central Coast Health Area (37.0 per cent), and a significantly lower proportion of children in the South Eastern Sydney & Illawarra Health Area (13.3 per cent), were fully breastfed at 6 months. A significantly higher proportion of children of mothers 25 years and over (26.5 per cent) compared with children of mothers less than 25 years (13.1 per cent), and a significantly lower proportion of children of mothers without tertiary qualifications (20.2 per cent) compared with mothers with tertiary qualifications (37.6 per cent), were fully breastfed at 6 months.

There has been a significant increase in the proportion of children aged 0-4 years who were fully breastfed at 6 months between 2001-2002 (14.5 per cent) and 2005-2006 (27.0 per cent).

Introduction of solids before 6 months

Overall, 46.9 per cent of children aged 0-4 years were regularly given solids before 6 months. A significantly lower proportion of children in the least disadvantaged quintile (33.2 per cent) were regularly given solids before 6 months. There was no significant variation between urban areas and rural areas; however, a significantly lower proportion of children in the Northern Sydney & Central Coast Health Area (35.6 per cent), and a significantly higher proportion of children in the South Eastern Sydney & Illawarra (59.2 per cent) and Greater Western (67.8 per cent) Health Areas, were regularly given solids before 6 months. A significantly lower proportion of children of mothers 25 years and over (51.1 per cent) compared with children of mothers less than 25 years (63.6 per cent), and a significantly higher proportion of children of mothers without tertiary qualifications (52.0 per cent) compared with mothers with tertiary qualifications (40.3 per cent), were regularly given solids before 6 months.

The proportion of children who were given solids before 6 months decreased significantly between 2001-2002 (69.4 per cent) and 2005-2006 (46.9 per cent).

Introduction of breastmilk substitutes before 6 months

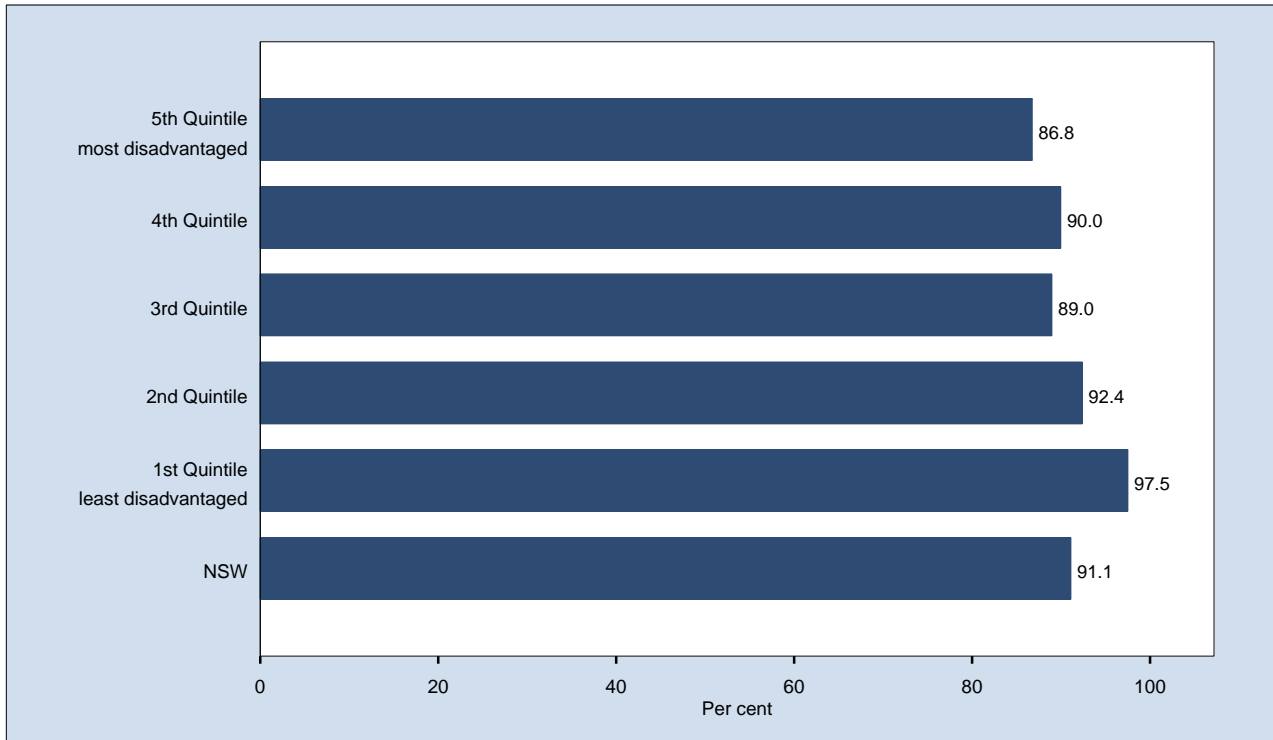
Overall, 52.2 per cent of children aged 0-4 years were regularly given breastmilk substitutes before 6 months. A significantly lower proportion of children in the least disadvantaged quintile (40.1 per cent) were regularly given breastmilk substitutes before 6 months. There was no significant variation between urban areas and rural areas; however, a significantly higher proportion of children in the South Eastern Sydney & Illawarra Health Area (62.3 per cent) were regularly given breastmilk substitutes before 6 months. A significantly lower proportion of children of mothers 25 years and over (51.4 per cent) compared with children of mothers less than 25 years (72.2 per cent), and a significantly higher proportion of children of mothers without tertiary qualifications (59.1 per cent) compared with mothers with tertiary qualifications (41.6 per cent), were regularly given breastmilk substitutes before 6 months.

The proportion of children who were regularly given breastmilk substitutes before 6 months decreased significantly between 2001-2002 (59.4 per cent) and 2005-2006 (52.2 per cent).

References

1. National Health and Medical Research Council. Encourage and Support Breastfeeding. *Dietary Guidelines for Children and Adolescents in Australia, incorporating the Infant Feeding Guidelines for Health Workers*. Canberra: Commonwealth of Australia, 2003.
2. World Health Organization. Infant and Young Child Feeding and Nutrition website at www.who.int/child-adolescent-health/nutrition/infant.htm, accessed 30 October 2007.
3. World Health Organization. Global Strategy for Infant and Young Child Feeding website at www.who.int/child-adolescent-health/nutrition/global_strategy.htm, accessed 30 October 2007.
4. World Health Organization. Infant and Young Child Exclusive Breastfeeding website at www.who.int/child-adolescent-health/nutrition/infant_exclusive.htm, accessed 30 October 2007.
5. Kramer M, Kakuma R. The optimal duration of exclusive breast feeding: A systematic review. *The Cochrane Database of Systematic Reviews* 2002; CD003517. Available online at www.cochrane.org/reviews/en/ab003517.html, accessed 30 October 2007.
6. Webb K, Marks G, Lund-Adams M, Rutishauser I, Abraham B. *Towards a national system for monitoring breastfeeding in Australia: Recommendations for population indicators, definitions and next steps*. Canberra: Australian Food and Nutrition Monitoring Unit, Commonwealth Department of Health and Aged Care, 2001.

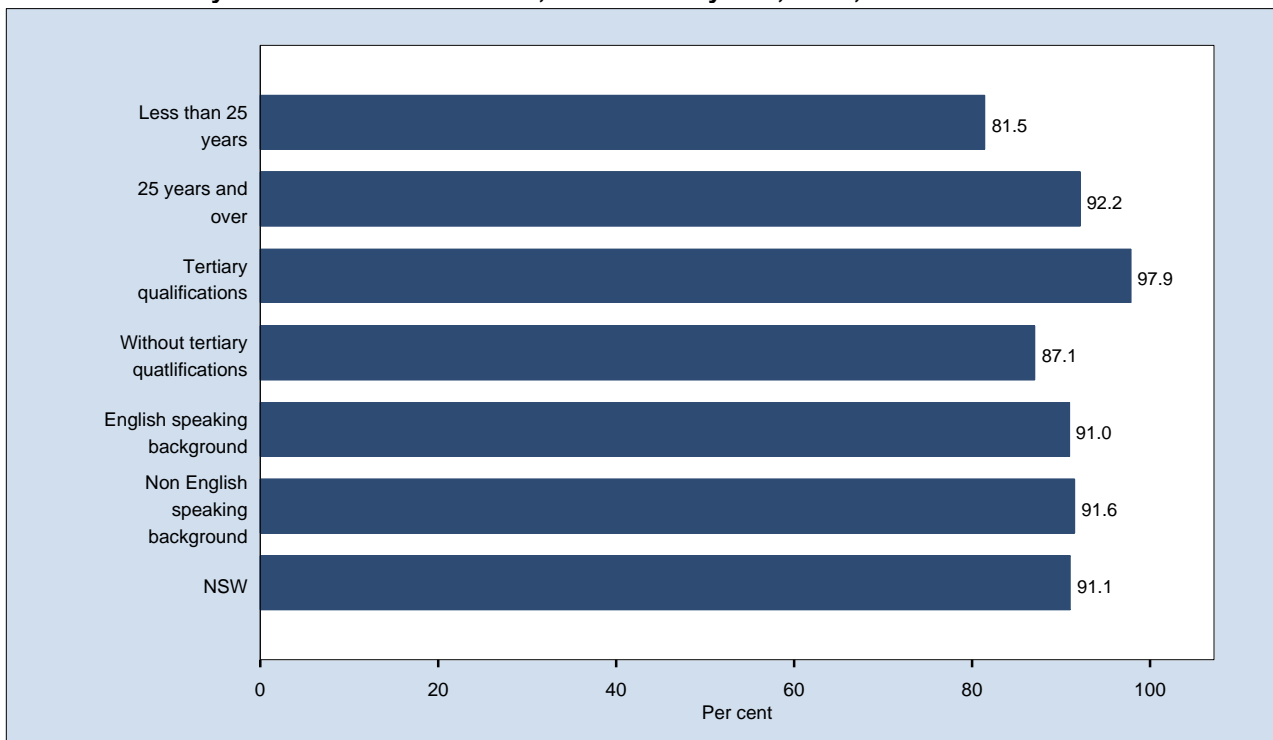
Ever breastfed by socioeconomic disadvantage, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 768 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes those infants who have ever been breastfed. The question used to define the indicator was: Has child ever been breastfed?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

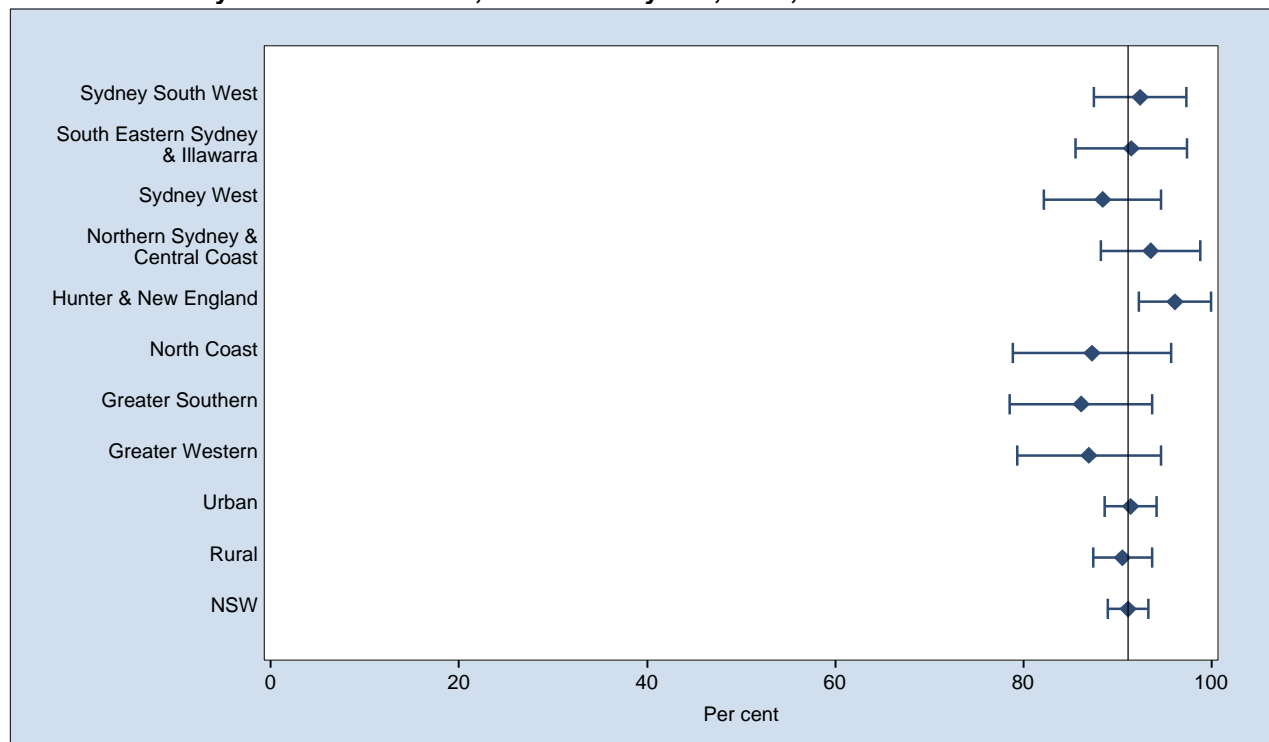
Ever breastfed by mothers' characteristics, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 768 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes those infants who have ever been breastfed. The question used to define the indicator was: Has child ever been breastfed?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

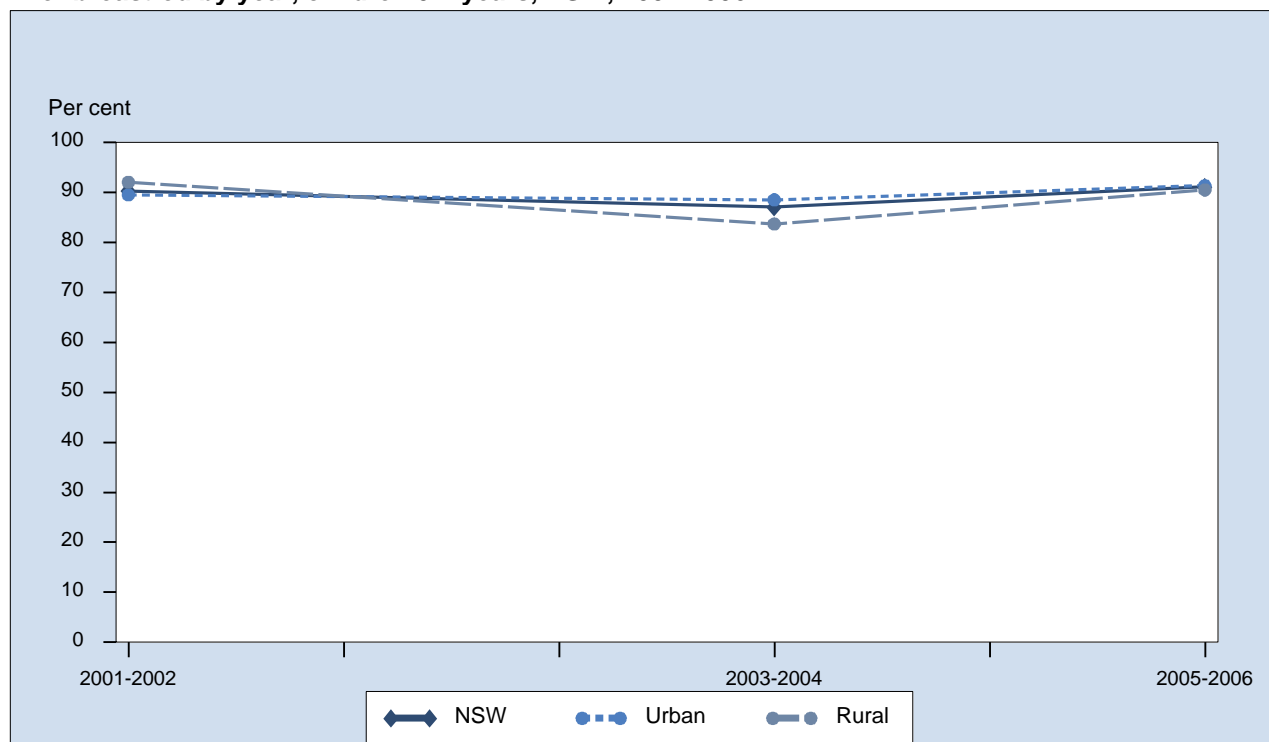
Ever breastfed by area health service, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 768 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes those infants who have ever been breastfed. The question used to define the indicator was: Has child ever been breastfed?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

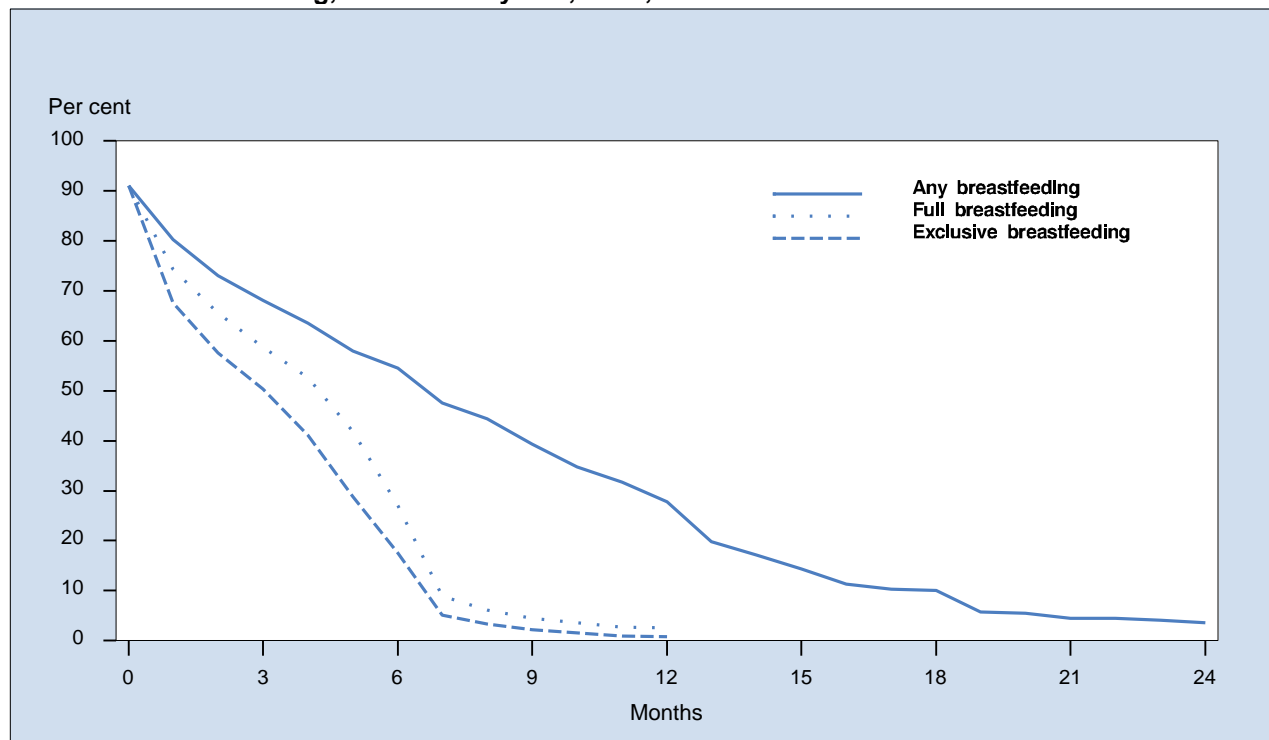
Ever breastfed by year, children 0-4 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (1,486), 2004 (1,482), 2006 (768). The indicator includes those infants who have ever been breastfed. The question used to define the indicator was: Has child ever been breastfed?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

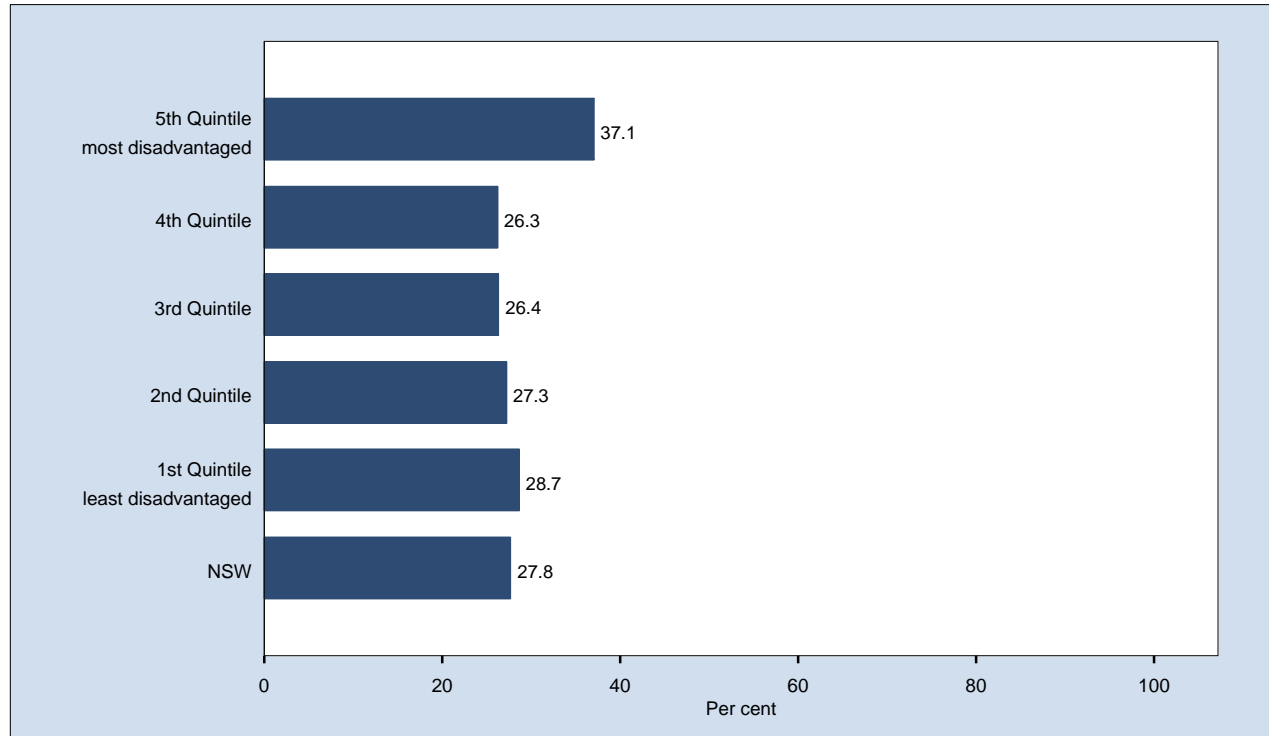
Duration of breastfeeding, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 732 respondents in NSW. For this indicator 36 (4.7%) were not stated (Don't know or Refused) in NSW. The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed? Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cow's milk)? At what age was child first given milk substitute regularly? At what age was child first given solid food regularly? At what age was child first given fruit juice regularly? At what age was child first given water regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

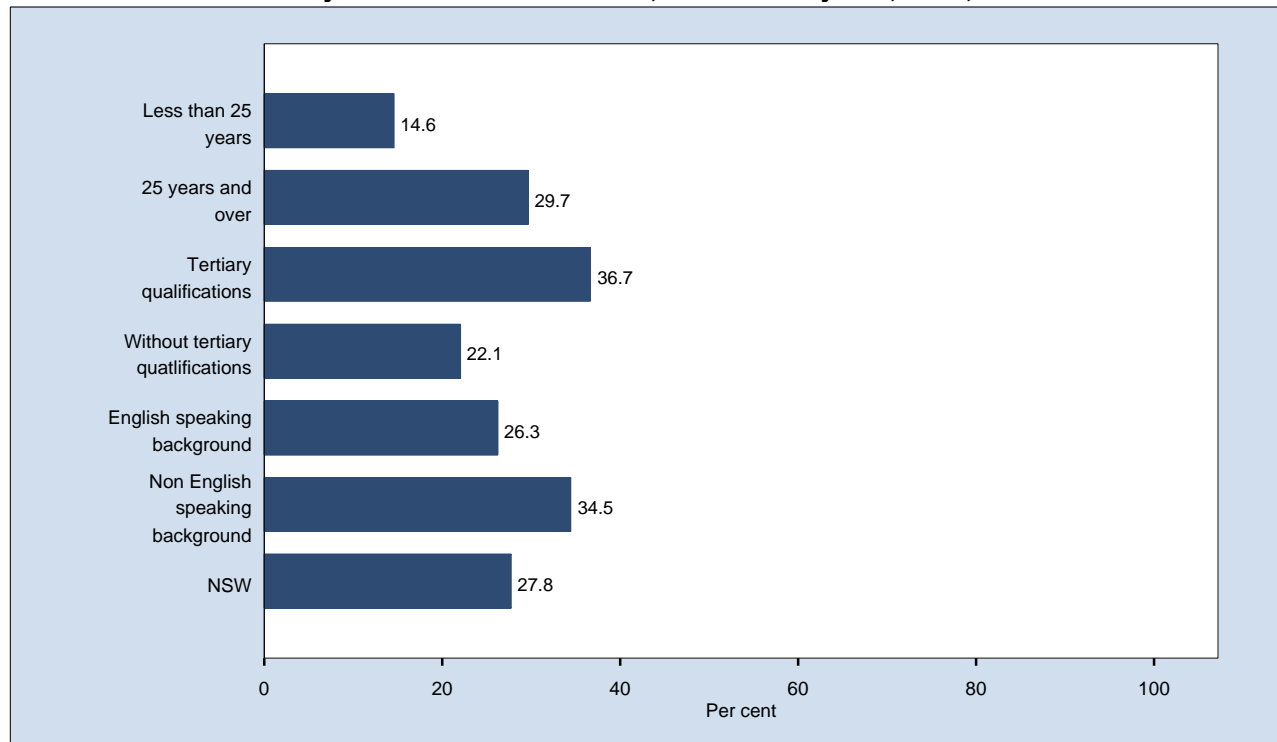
Breastfed at 12 months by socioeconomic disadvantage, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 765 respondents in NSW. For this indicator 3 (0.39%) were not stated (Don't know or Refused) in NSW. The indicator includes children who were breastfed at 12 months. The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

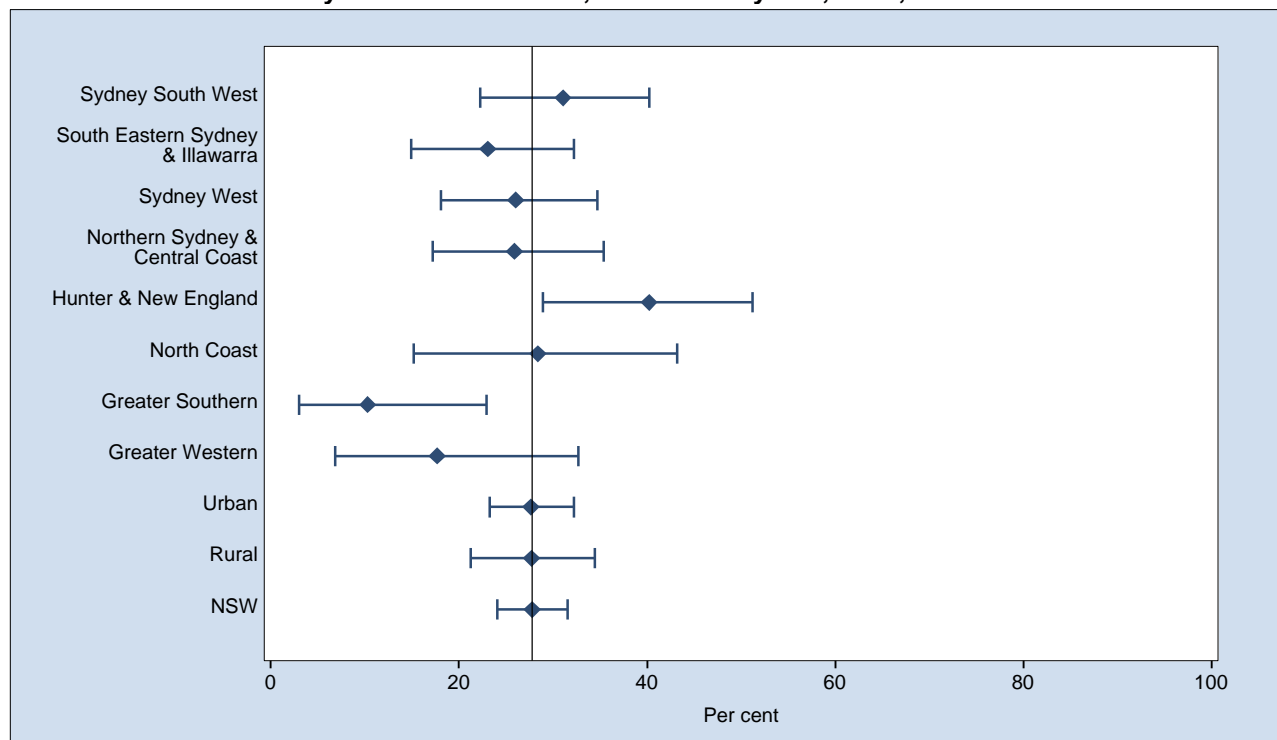
Breastfed at 12 months by mothers' characteristics, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 765 respondents in NSW. For this indicator 3 (0.39%) were not stated (Don't know or Refused) in NSW. The indicator includes children who were breastfed at 12 months. The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

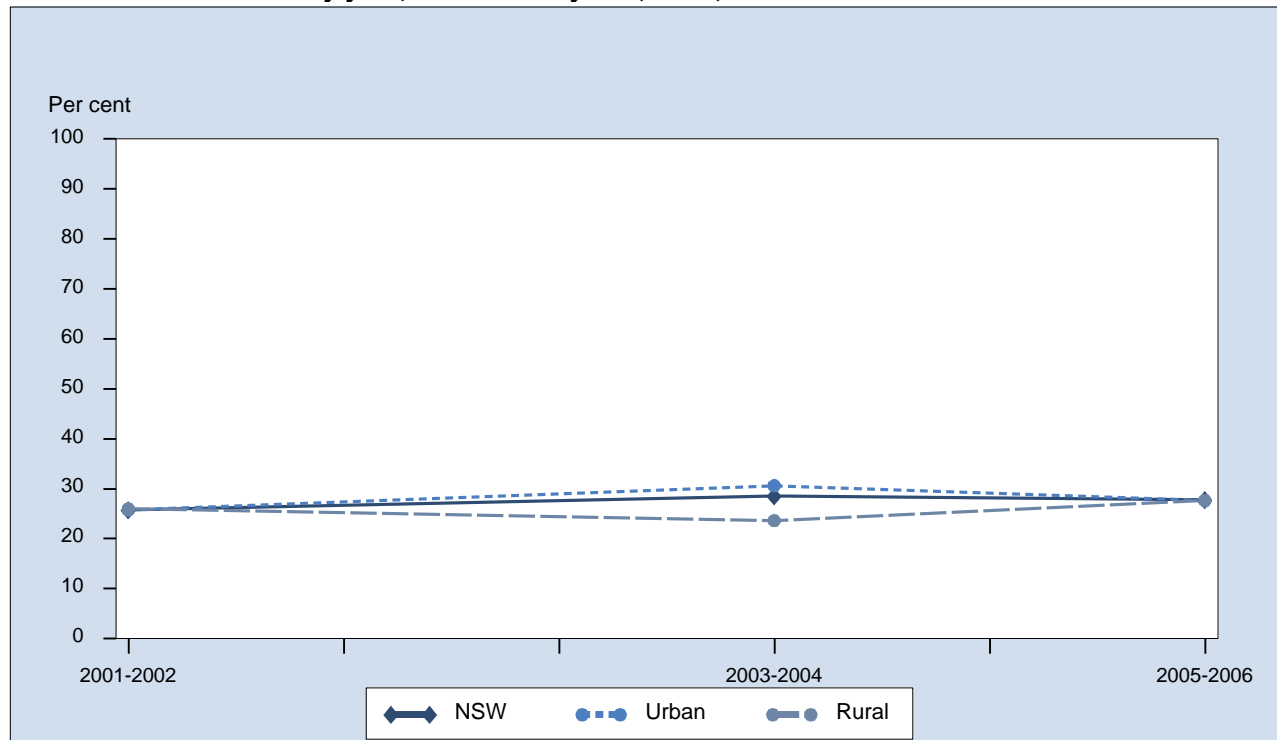
Breastfed at 12 months by area health service, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 765 respondents in NSW. For this indicator 3 (0.39%) were not stated (Don't know or Refused) in NSW. The indicator includes children who were breastfed at 12 months. The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

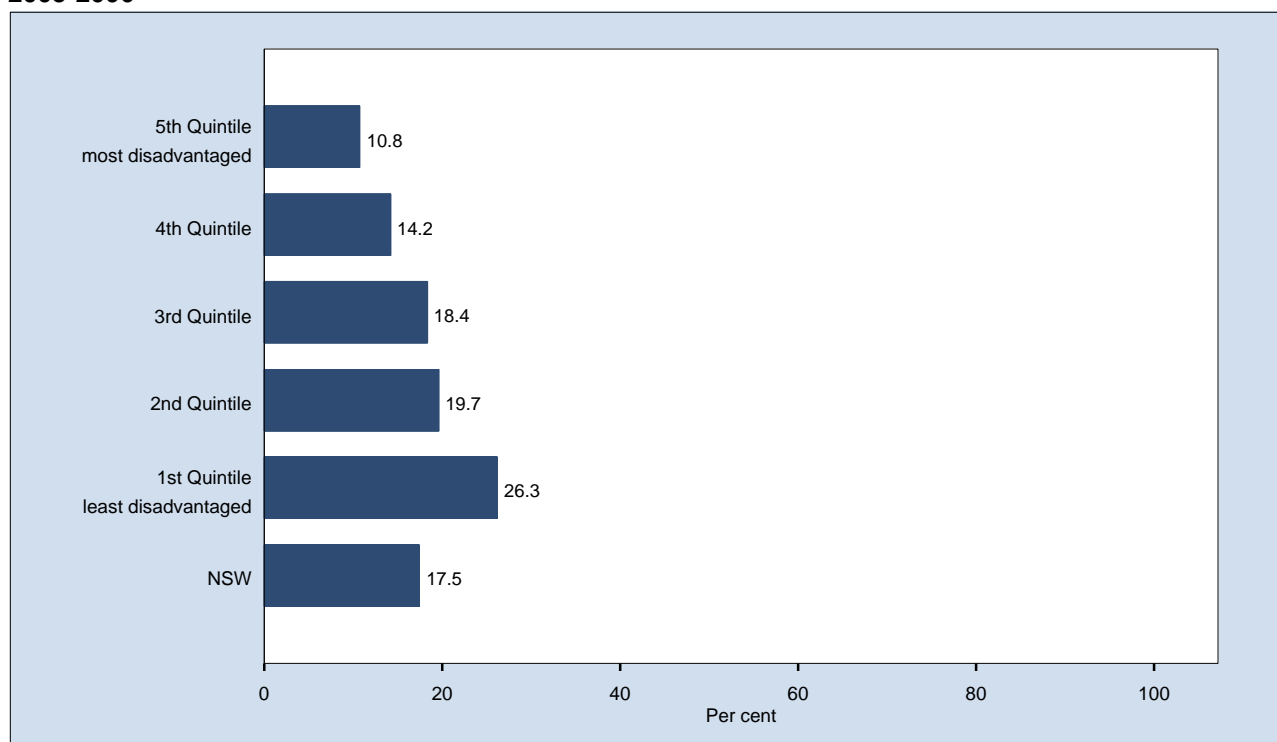
Breastfed at 12 months by year, children 0-4 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (1,486), 2004 (1,471), 2006 (765). The indicator includes children who were breastfed at 12 months. The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

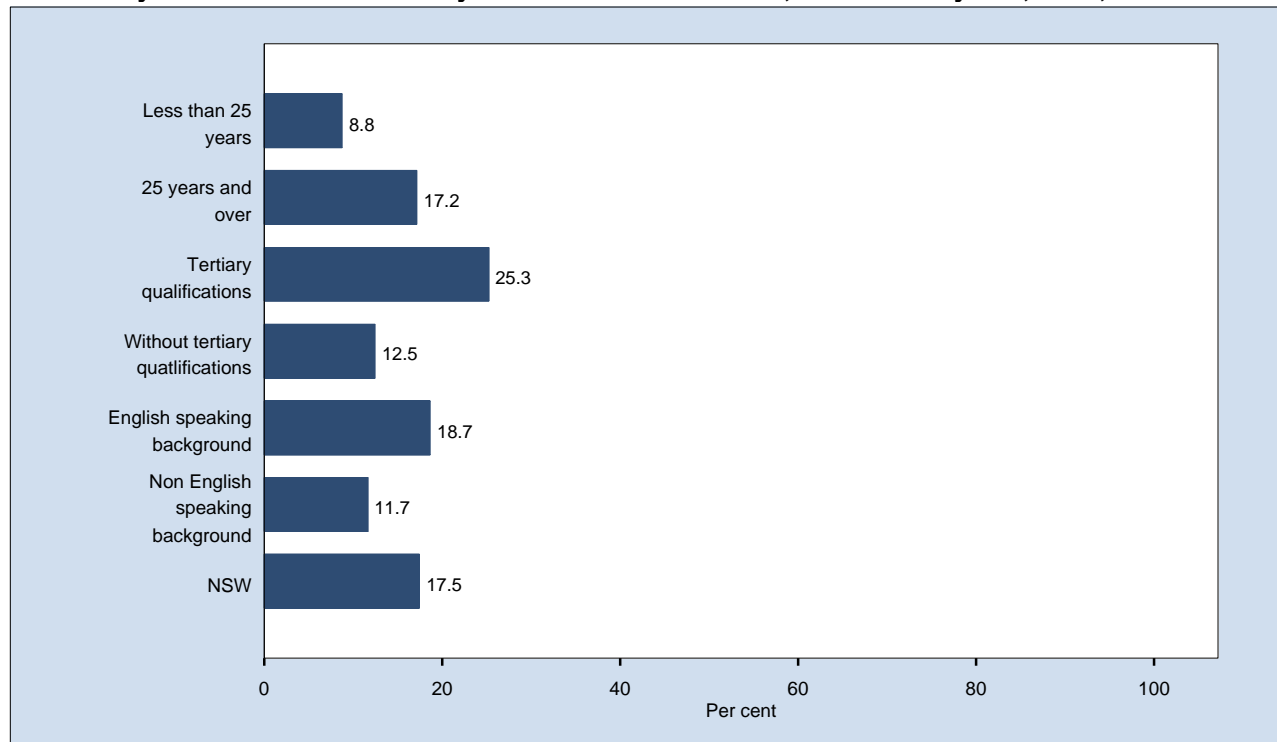
Exclusively breastfed at 6 months by socioeconomic disadvantage, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 732 respondents in NSW. For this indicator 36 (4.69%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were exclusively breastfed at 6 months (received breastmilk and no other liquids or solids). The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed? Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cow's milk)? At what age was child first given milk substitutes regularly? At what age was child first given solid food regularly? At what age was child first given fruit juice regularly? At what age was child first given water regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

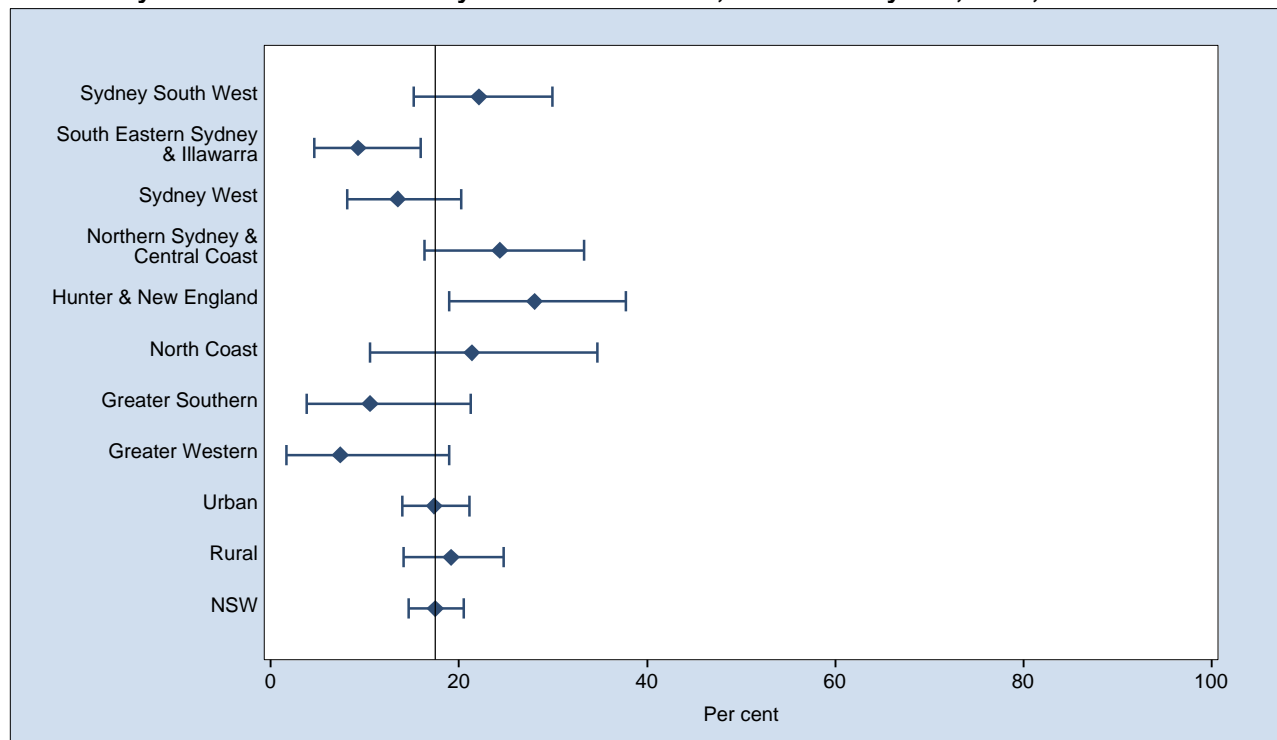
Exclusively breastfed at 6 months by mothers' characteristics, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 732 respondents in NSW. For this indicator 36 (4.69%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were exclusively breastfed at 6 months (received breastmilk and no other liquids or solids). The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed? Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cow's milk)? At what age was child first given milk substitutes regularly? At what age was child first given solid food regularly? At what age was child first given fruit juice regularly? At what age was child first given water regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

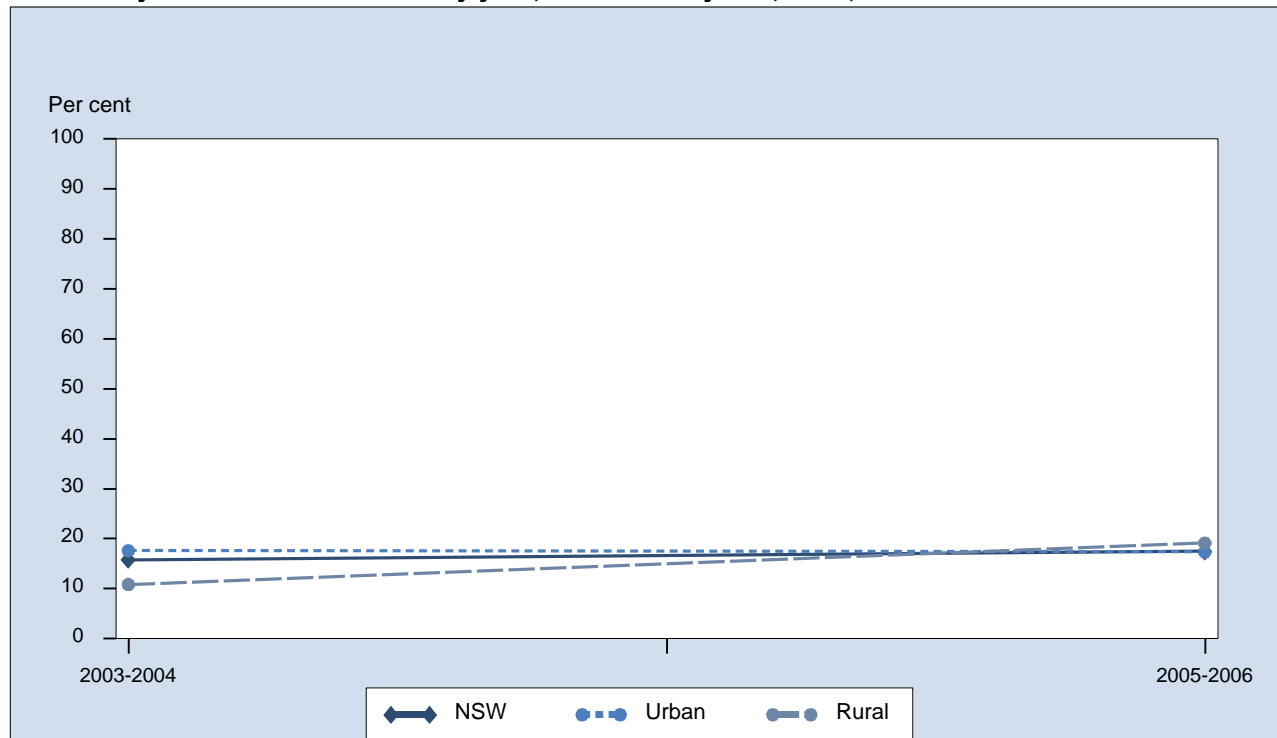
Exclusively breastfed at 6 months by area health service, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 732 respondents in NSW. For this indicator 36 (4.69%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were exclusively breastfed at 6 months (received breastmilk and no other liquids or solids). The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed? Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cow's milk)? At what age was child first given milk substitutes regularly? At what age was child first given solid food regularly? At what age was child first given fruit juice regularly? At what age was child first given water regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

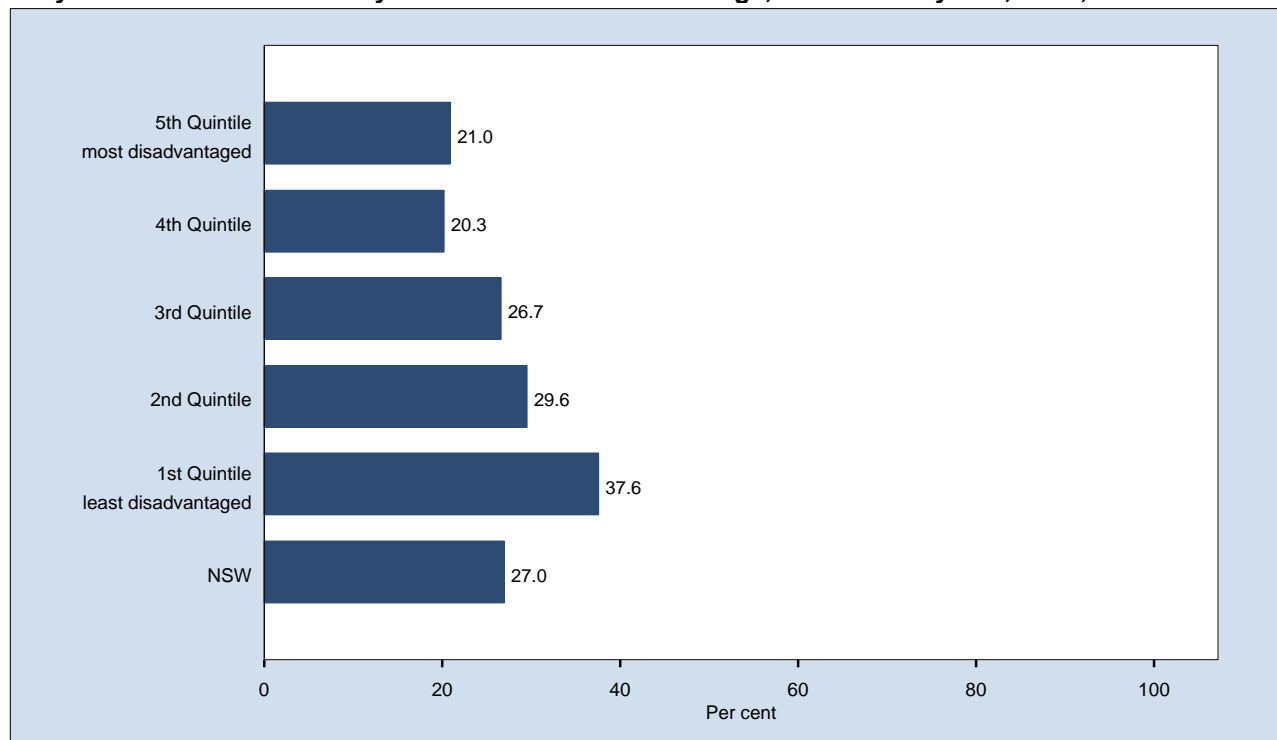
Exclusively breastfed at 6 months by year, children 0-4 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (1,374), 2006 (732). The indicator includes those children who were exclusively breastfed at 6 months (received breastmilk and no other liquids or solids). The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed? Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cows milk)? At what age was child first given milk substitutes regularly? At what age was child first given solid food regularly? At what age was child first given fruit juice regularly? At what age was child first given water regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

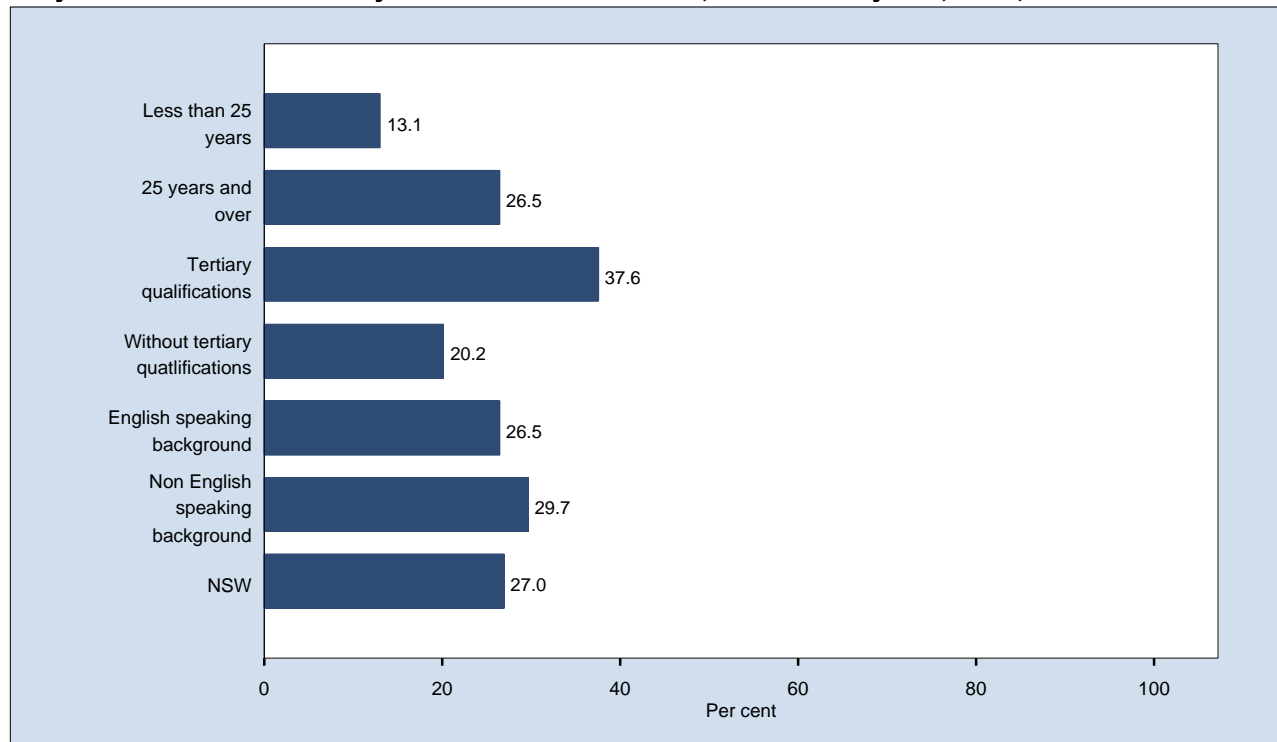
Fully breastfed at 6 months by socioeconomic disadvantage, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 748 respondents in NSW. For this indicator 20 (2.60%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were only given breastmilk, water and juice at 6 months. The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed? Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cows milk)? At what age was child first given milk substitutes regularly? At what age was child first given solid food regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

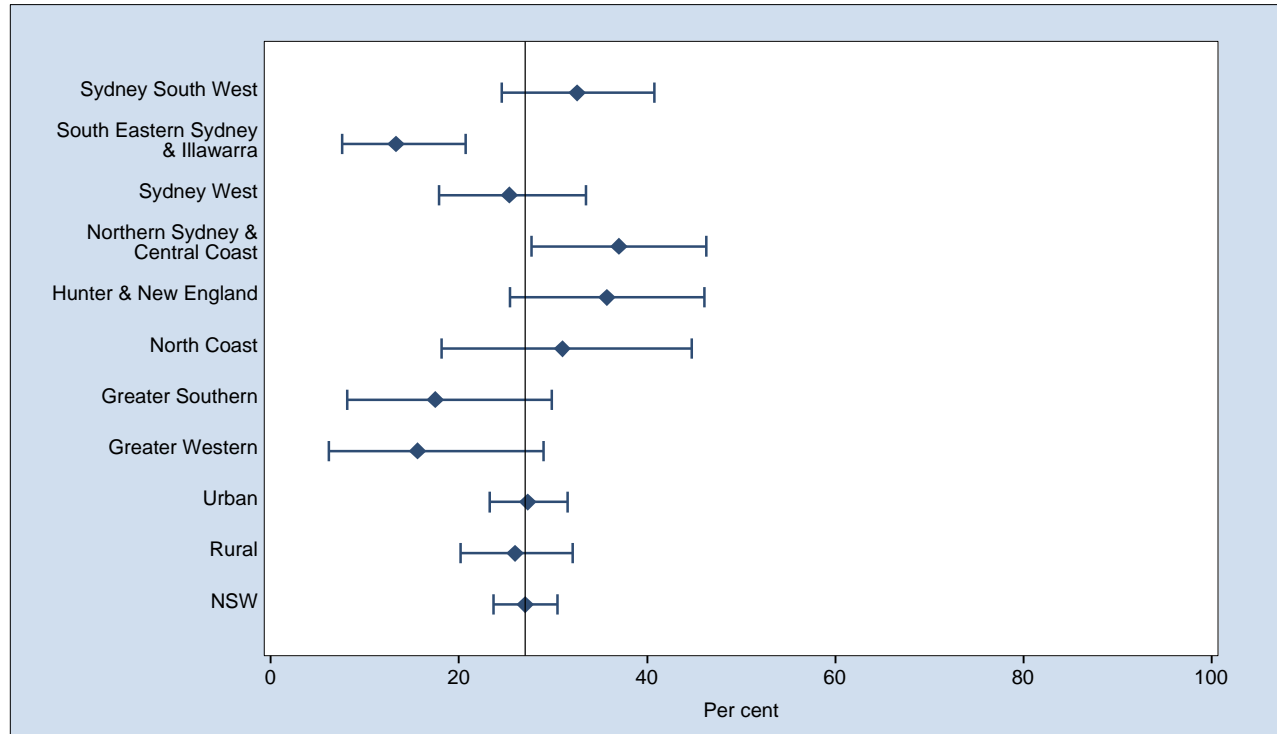
Fully breastfed at 6 months by mothers' characteristics, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 748 respondents in NSW. For this indicator 20 (2.60%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were only given breastmilk, water and juice at 6 months. The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed? Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cows milk)? At what age was child first given milk substitutes regularly? At what age was child first given solid food regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

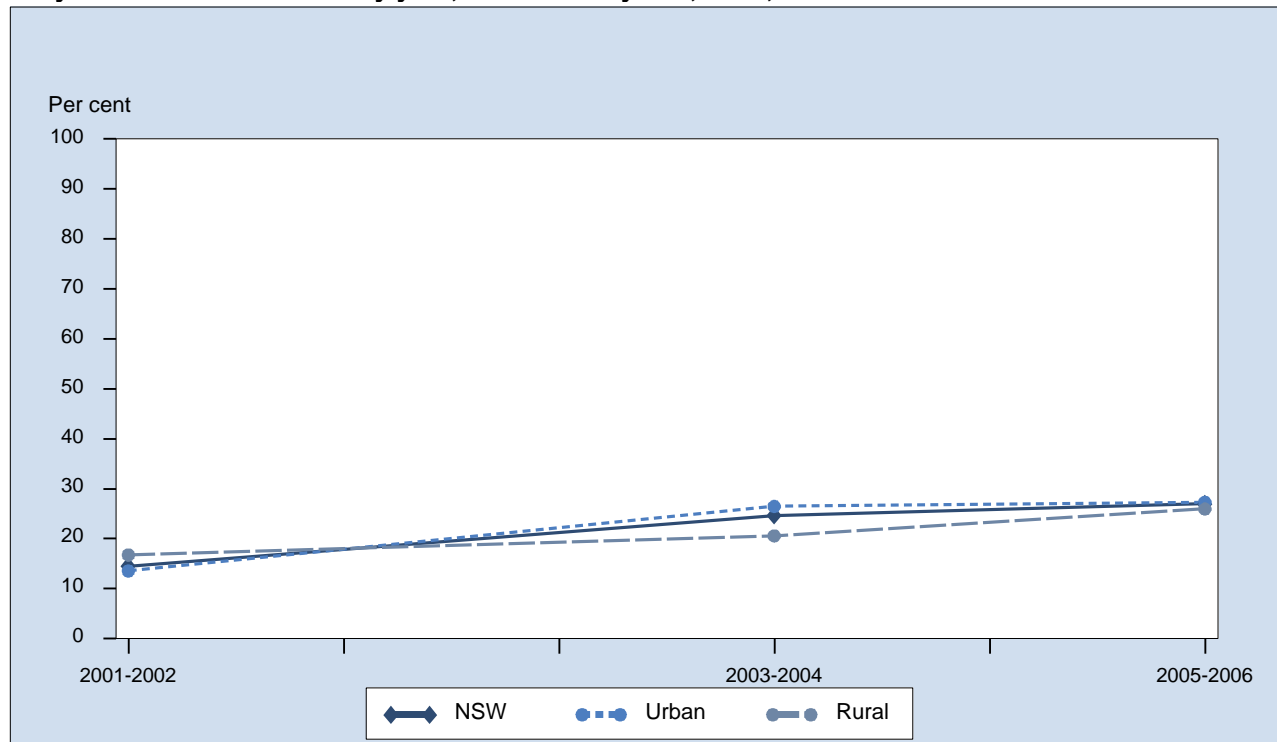
Fully breastfed at 6 months by area health service, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 748 respondents in NSW. For this indicator 20 (2.60%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were only given breastmilk, water and juice at 6 months. The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed? Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cows milk)? At what age was child first given milk substitutes regularly? At what age was child first given solid food regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

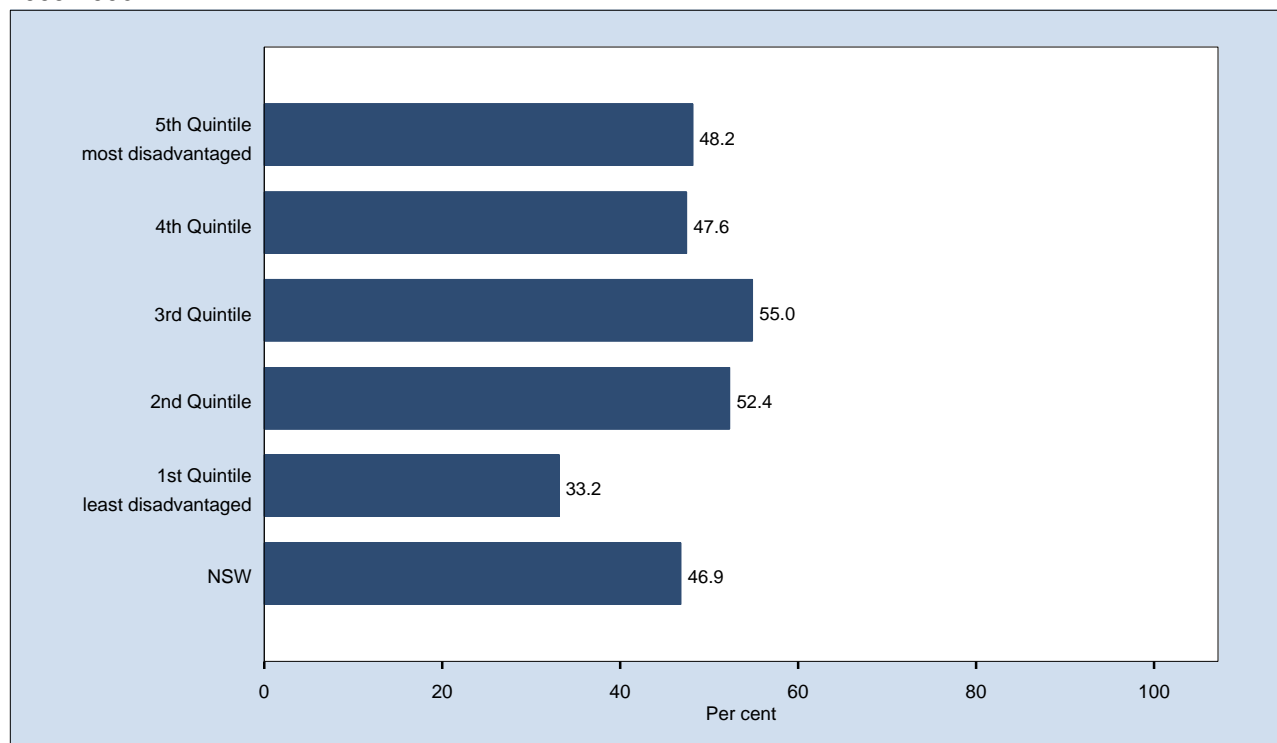
Fully breastfed at 6 months by year, children 0-4 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (1,466), 2004 (1,426), 2006 (748). The indicator includes those children who were only given breastmilk, water and juice at 6 months. The questions used to define the indicator were: Has child ever been breastfed? Is child currently being breastfed? Including times of weaning, what is the total time child was breastfed? Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cows milk)? At what age was child first given milk substitutes regularly? At what age was child first given solid food regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

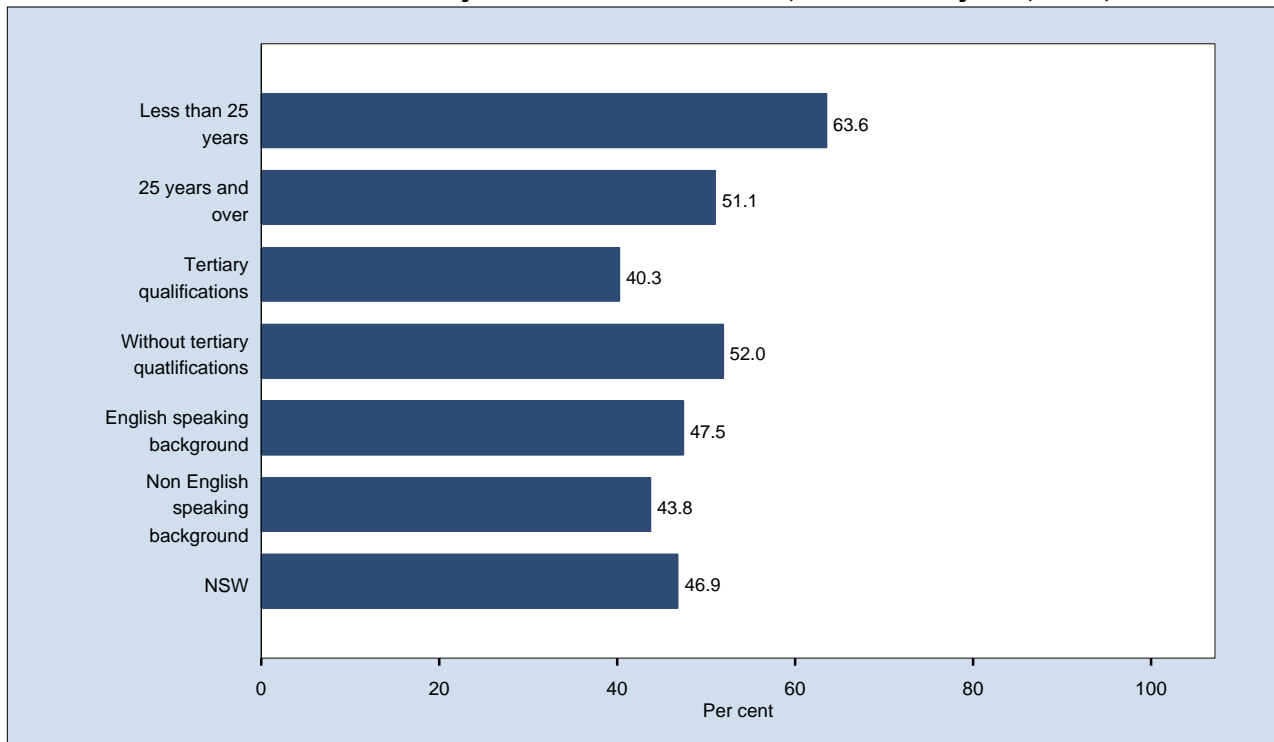
Introduced solids before 6 months by socioeconomic disadvantage, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 763 respondents in NSW. For this indicator 5 (0.65%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were given solids before 6 months of age. The questions used to define the indicator were: At what age was child first given solid food regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

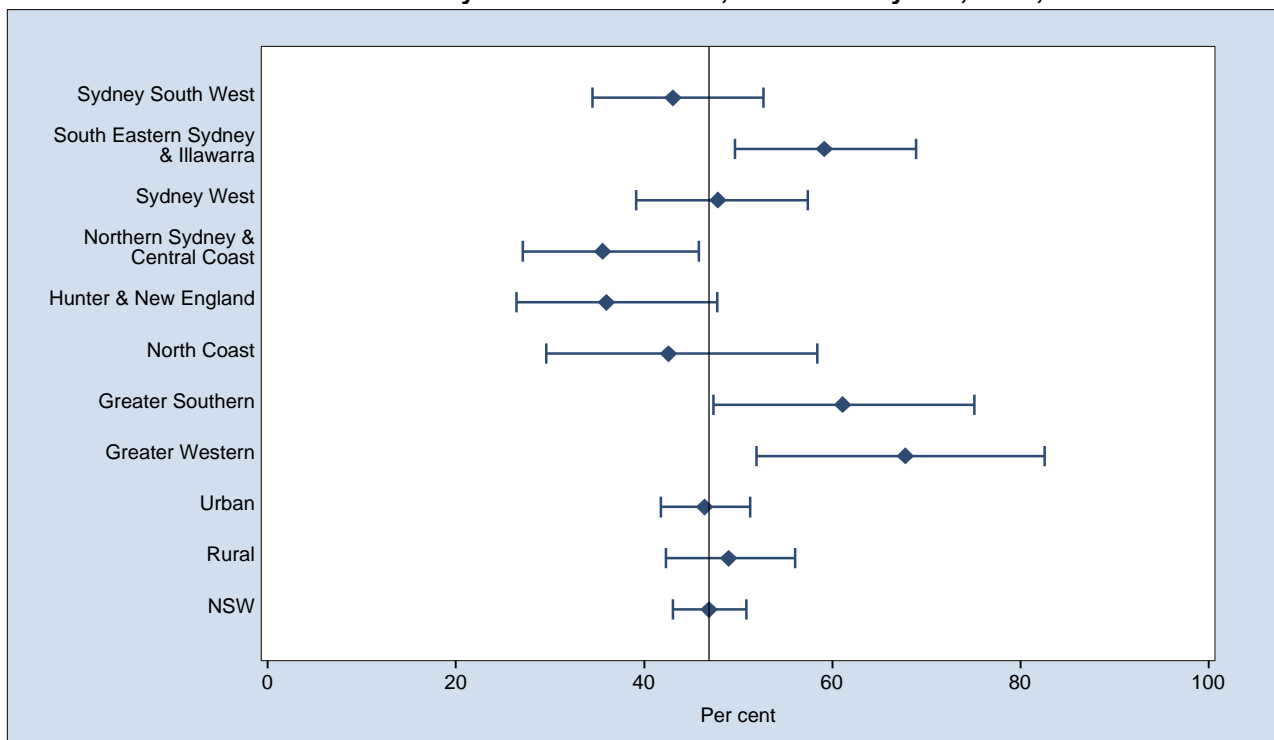
Introduced solids before 6 months by mothers' characteristics, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 763 respondents in NSW. For this indicator 5 (0.65%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were given solids before 6 months of age. The questions used to define the indicator were: At what age was child first given solid food regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

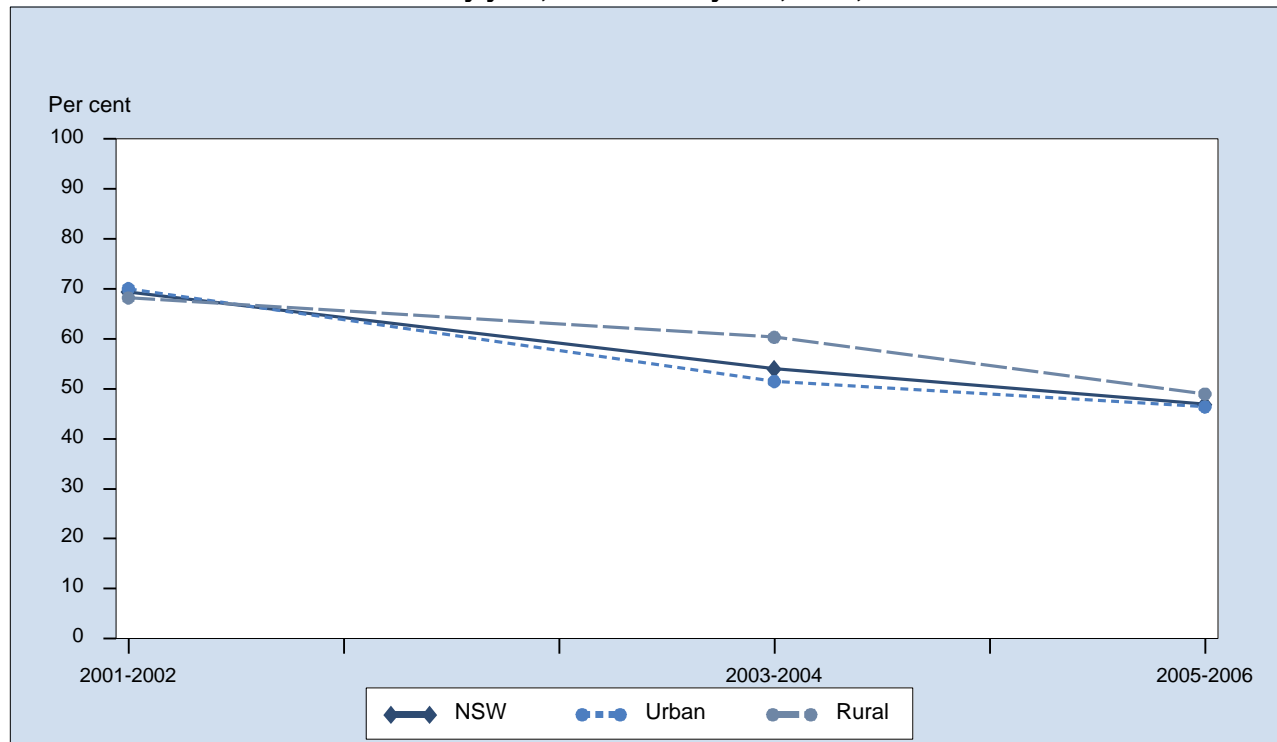
Introduced solids before 6 months by area health service, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 763 respondents in NSW. For this indicator 5 (0.65%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were given solids before 6 months of age. The questions used to define the indicator were: At what age was child first given solid food regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

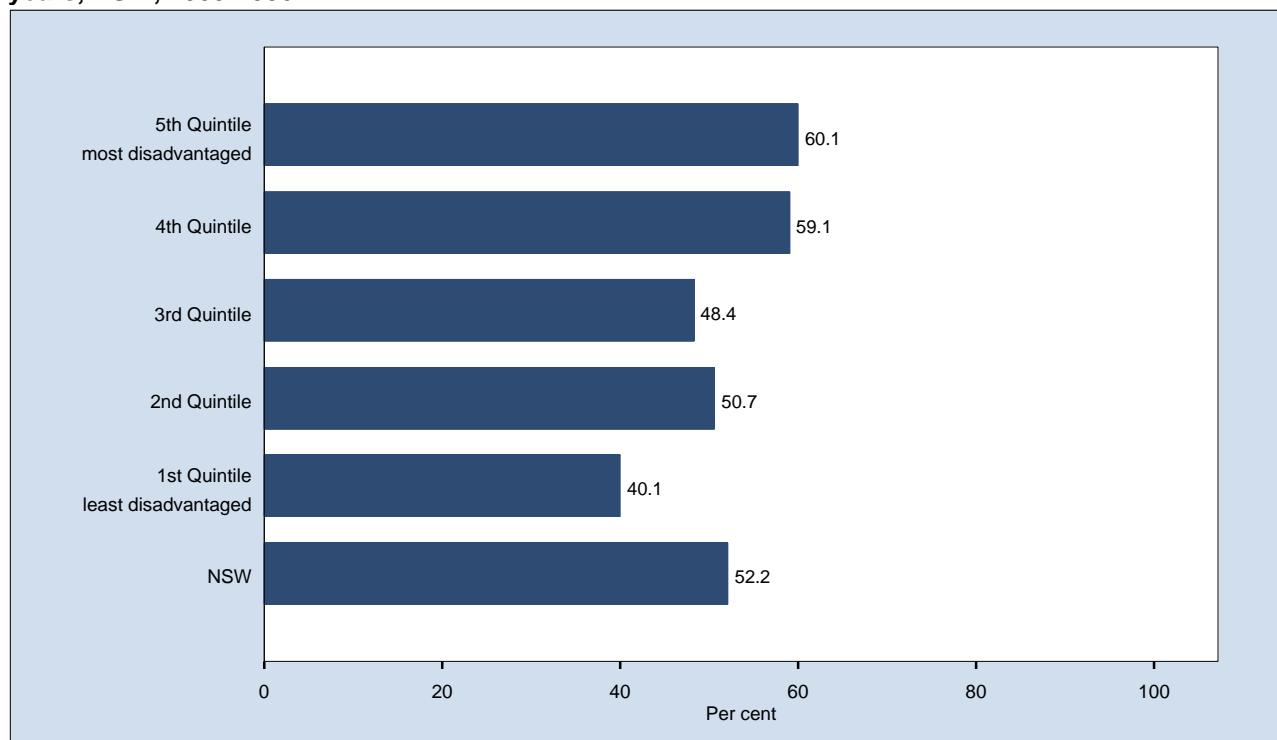
Introduced solids before 6 months by year, children 0-4 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (1,477), 2004 (1,452), 2006 (763). The indicator includes those children who were given solids before 6 months of age. The questions used to define the indicator were: At what age was child first given solid food regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

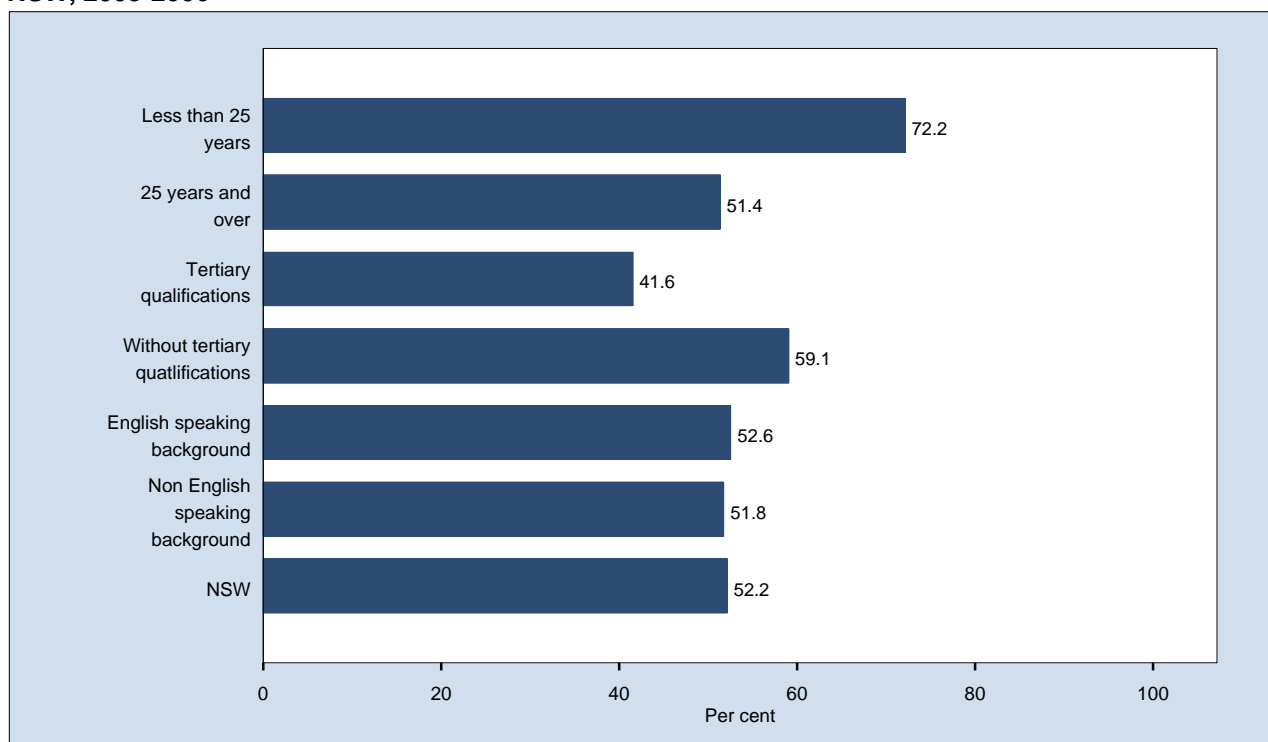
Introduced breastmilk substitutes before 6 months by socioeconomic disadvantage, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 752 respondents in NSW. For this indicator 16 (2.08%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who received breastmilk substitutes before 6 months. The questions used to define the indicator were: Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cows milk)? At what age was child first given milk substitutes regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

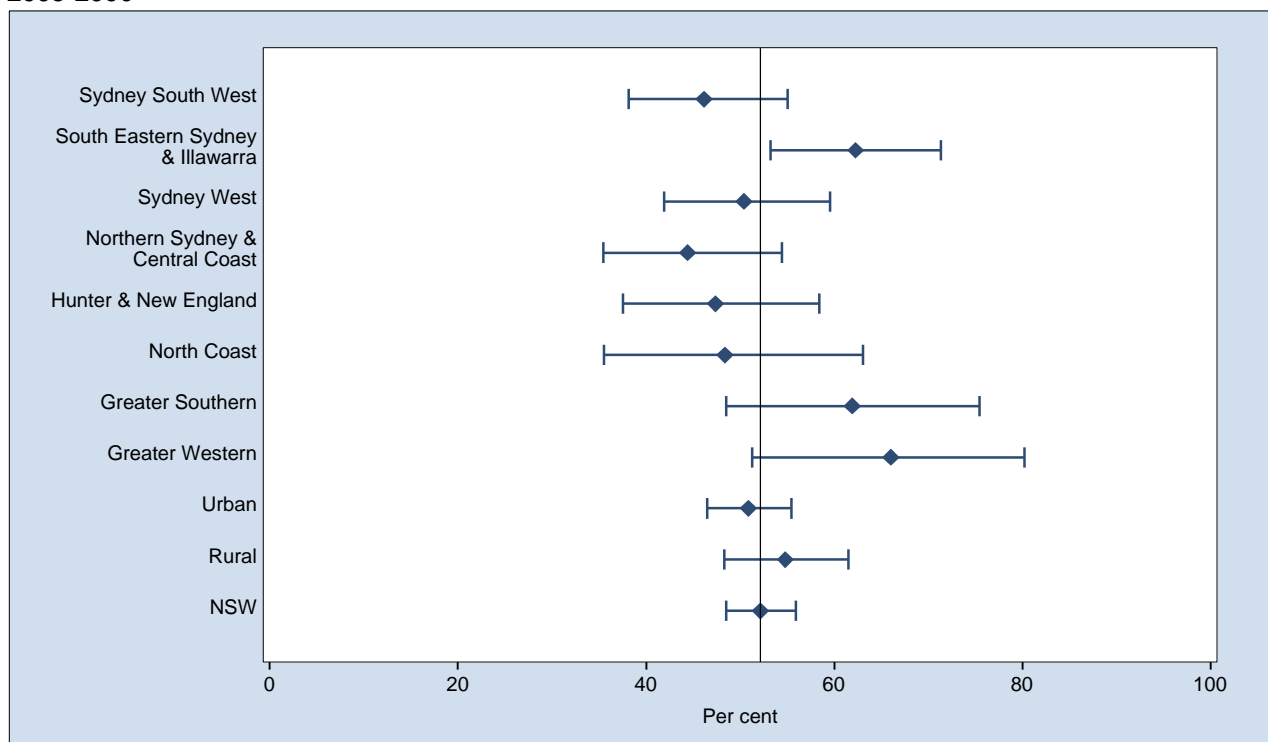
Introduced breastmilk substitutes before 6 months by mothers' characteristics, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 752 respondents in NSW. For this indicator 16 (2.08%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who received breastmilk substitutes before 6 months. The questions used to define the indicator were: Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cows milk)? At what age was child first given milk substitutes regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

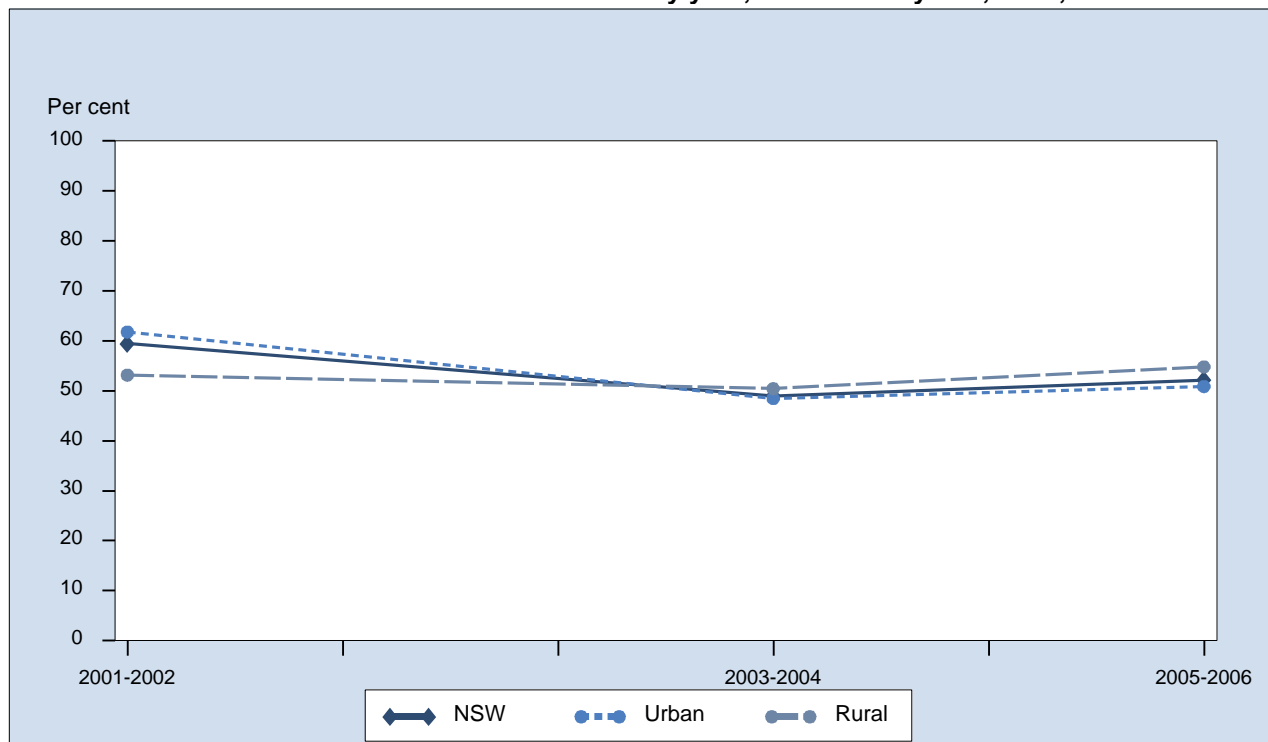
Introduced breastmilk substitutes before 6 months by area health service, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 752 respondents in NSW. For this indicator 16 (2.08%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who received breastmilk substitutes before 6 months. The questions used to define the indicator were: Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cows milk)? At what age was child first given milk substitutes regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Introduced breastmilk substitutes before 6 months by year, children 0-4 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (1,481), 2004 (1,447), 2006 (752). The indicator includes those children who received breastmilk substitutes before 6 months. The questions used to define the indicator were: Has child ever been given infant or toddler formula regularly (regularly means at least once a day)? At what age was child first given infant or toddler formula regularly? Has child ever been given cow's milk regularly? At what age was child first given cow's milk regularly? Has child ever been given any other type of milk substitute on a regular basis (apart from breast milk/infant formula/cows milk)? At what age was child first given milk substitutes regularly? Estimates derived using survival analysis based on a life table method.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Folate and pregnancy

Introduction

Folate is a B group vitamin found naturally in foods such as fresh vegetables and fruit, orange juice, legumes, nuts, liver and yeast. It is also present in fortified products such as breads and breakfast cereals, and can be taken in supplementary form in tablets or capsules. An adequate intake of folate around the time of conception can reduce the risk of neural tube defects, which are reported in around 65 pregnancies in New South Wales each year. It is recommended that women take at least 400 mg of folate at least 1 month before and during the first 3 months of pregnancy.[1-3]

During 2005 and 2006, the New South Wales Population Health Survey asked mothers of infants aged less than 12 months: Did you take tablets or capsules containing folate or folic acid in the month immediately before and/or in the first 3 months of this pregnancy?

Results

Overall, among mothers of infants aged less than 12 months, 53.1 per cent took folate supplements 1 month before and during the first trimester of pregnancy, 2.3 per cent took supplements 1 month before pregnancy only, and 27.4 per cent took supplements in the first trimester of pregnancy only.

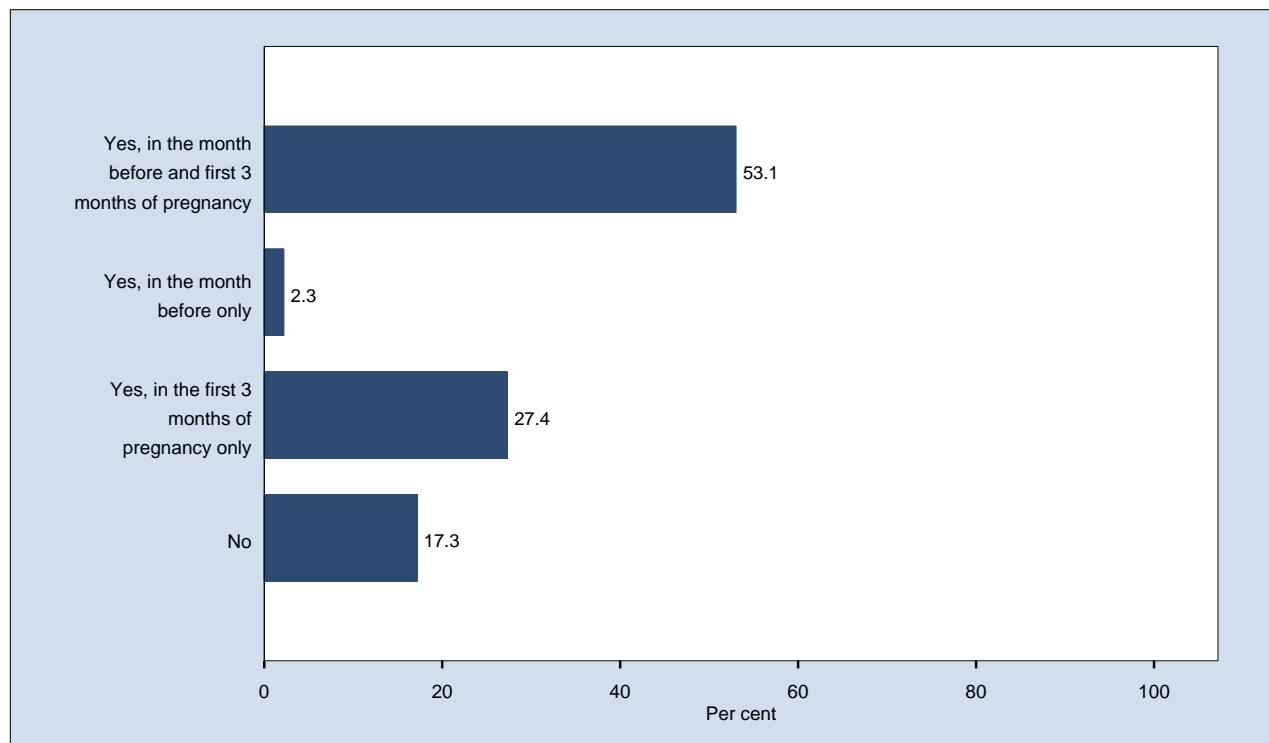
There was no significant variation in the proportion of mothers who took folate supplements 1 month before and during the first trimester of pregnancy by socioeconomic status, between urban areas and rural areas, or among health areas. A significantly lower proportion of mothers without tertiary qualifications (47.6 per cent) compared with mother with tertiary qualifications (61.3 per cent), and mothers from a non English speaking background (26.0 per cent) compared with mothers from an English speaking background (58.4 per cent), took folate supplements 1 month before and during the first trimester of pregnancy.

Overall, the proportion of mothers who took folate supplements 1 month before and during the first trimester of pregnancy has not changed significantly between 2001-2002 and 2005-2006; however, the proportion of mothers in rural areas who took folate supplements 1 month before and during the first trimester of pregnancy has changed significantly between 2001-2002 (44.0 per cent) and 2005-2006 (53.1 per cent).

References

1. Lumley J, Watson L, Watson M, Bower C. Periconceptual supplementation with folate and/or multivitamins to prevent neural tube defects. *The Cochrane Database of Systematic Reviews* 2006; CD001056. Available online at www.cochrane.org/reviews/en/ab001056.html, accessed 7 November 2007.
2. Centre for Epidemiology and Research, NSW Department of Health. New South Wales Mothers and Babies 2005. *N S W Public Health Bull* 2007; 18(S-1). Available online at www.health.nsw.gov.au/pubs/2007/mcd05.html, accessed 7 November 2007.
3. Food Standards Australia New Zealand. *What is folate?*. Available online at www.foodstandards.gov.au/foodmatters/folate.cfm, accessed 26 November 2007.

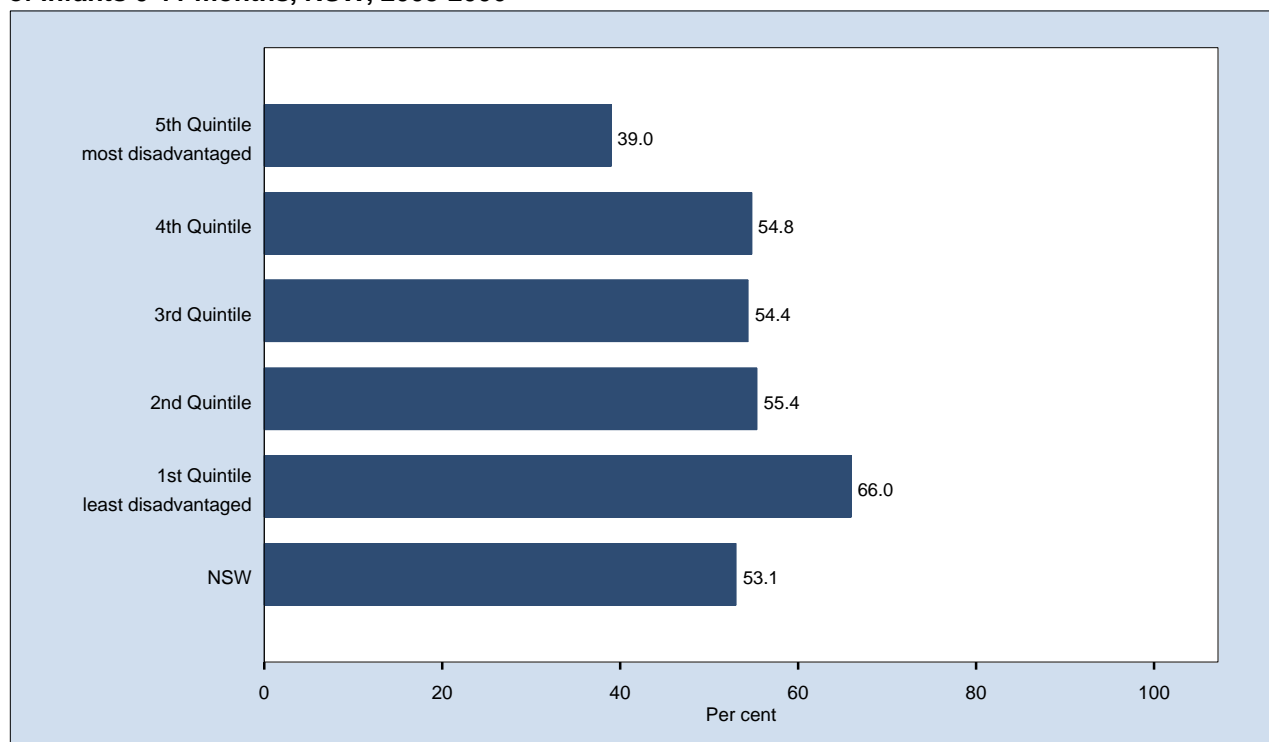
When folate supplements taken before and during pregnancy, mothers of infants 0-11 months, NSW, 2005-2006



Note: Estimates are based on 263 respondents in NSW. For this indicator 3 (1.13%) were not stated (Don't know or Refused) in NSW. The question was: Did you take tablets or capsules containing folate or folic acid in the month immediately before and/or in the first 3 months of this pregnancy?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

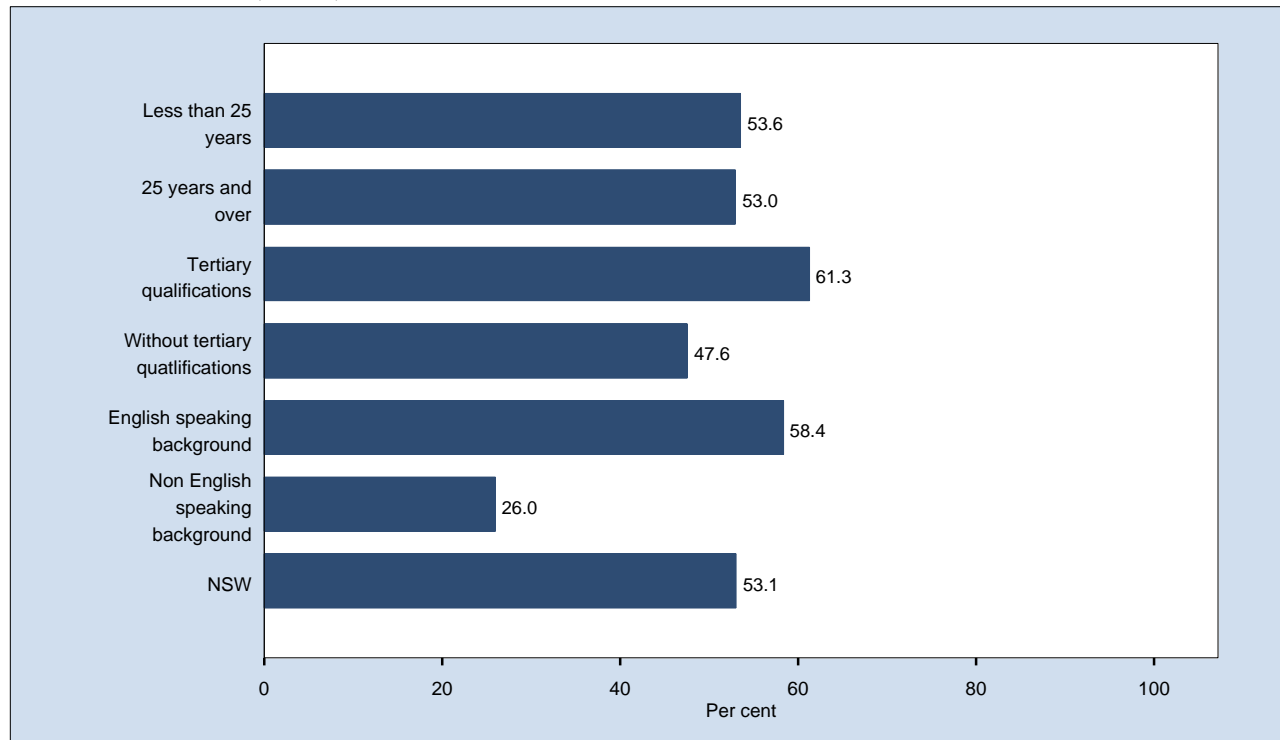
Folate supplements 1 month before and during pregnancy by socioeconomic disadvantage, mothers of infants 0-11 months, NSW, 2005-2006



Note: Estimates are based on 263 respondents in NSW. For this indicator 3 (1.13%) were not stated (Don't know or Refused) in NSW. The indicator includes mothers of infants aged 0-11 months who took folate supplements 1 month before and 3 months after conception. The question used to define the indicator was: Did you take tablets or capsules containing folate or folic acid in the month immediately before and/or in the first 3 months of this pregnancy?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

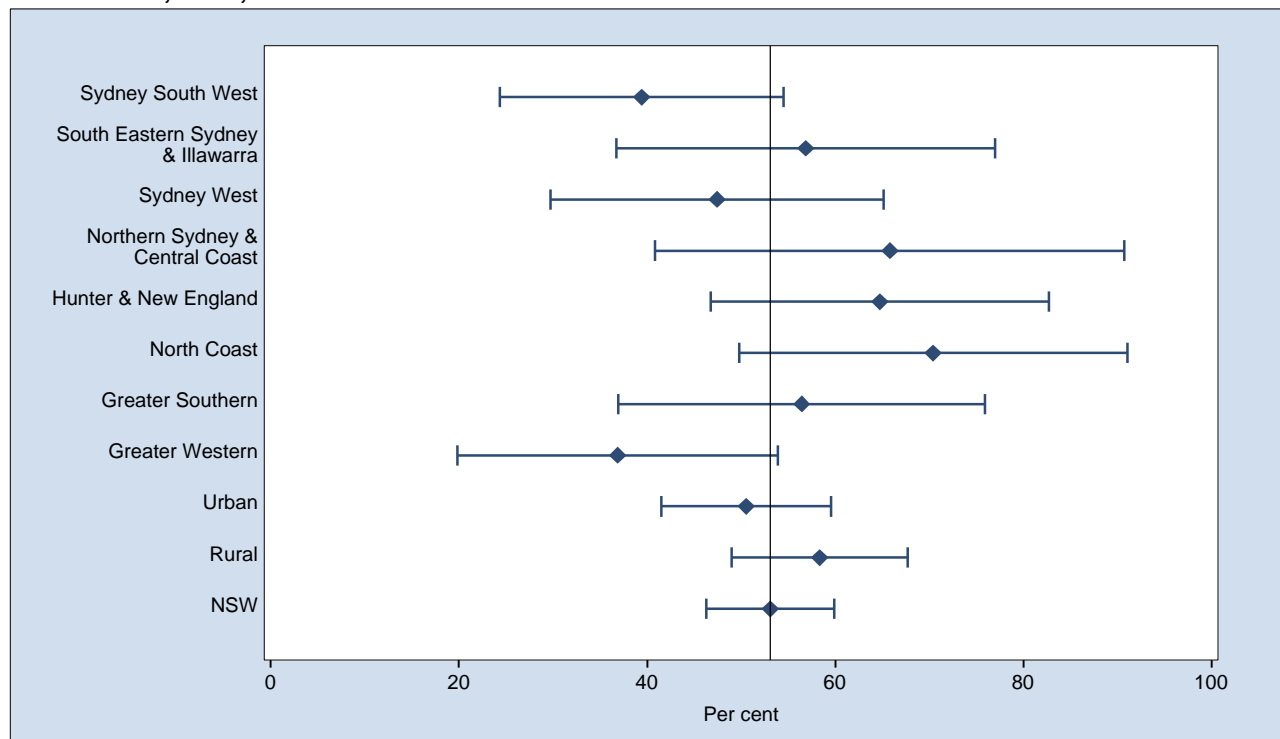
Folate supplements 1 month before and during pregnancy by mothers' characteristics, mothers of infants 0-11 months, NSW, 2005-2006



Note: Estimates are based on 263 respondents in NSW. For this indicator 3 (1.13%) were not stated (Don't know or Refused) in NSW. The indicator includes mothers of infants aged 0-11 months who took folate supplements 1 month before and 3 months after conception. The question used to define the indicator was: Did you take tablets or capsules containing folate or folic acid in the month immediately before and/or in the first 3 months of this pregnancy?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

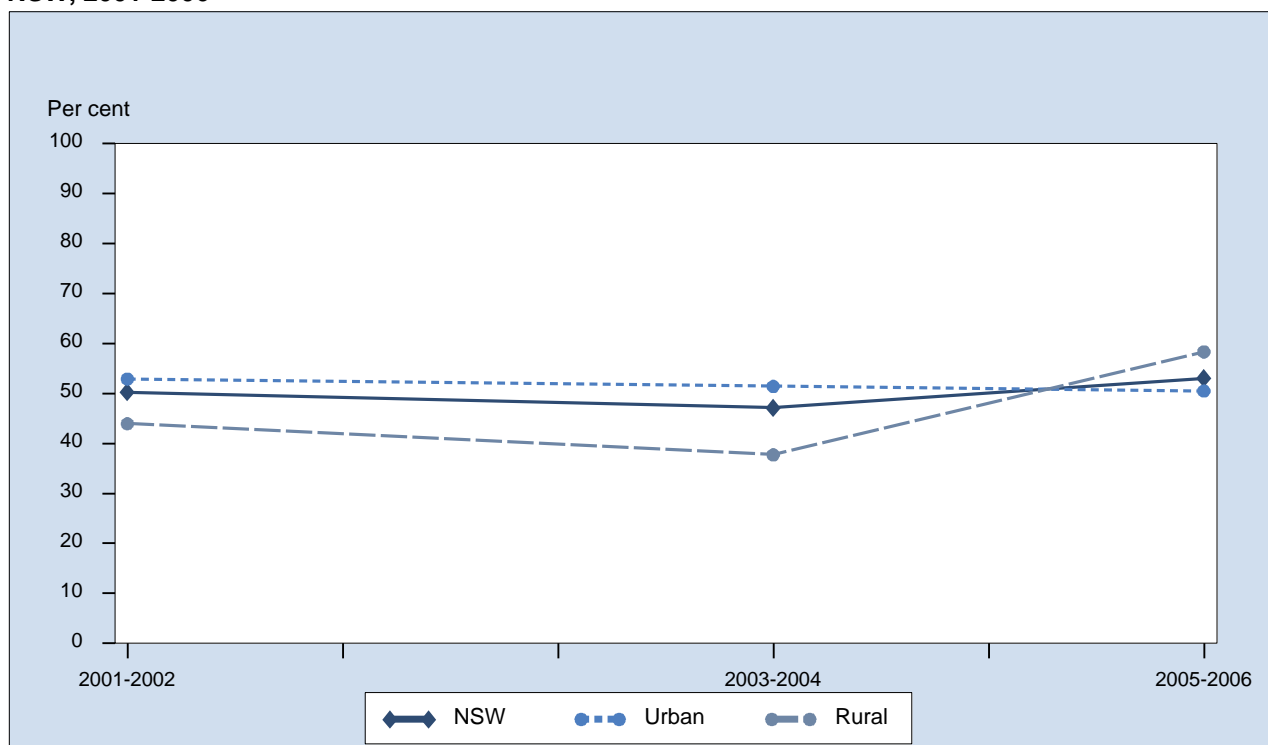
Folate supplements 1 month before and during pregnancy by area health service, mothers of infants 0-11 months, NSW, 2005-2006



Note: Estimates are based on 263 respondents in NSW. For this indicator 3 (1.13%) were not stated (Don't know or Refused) in NSW. The indicator includes mothers of infants aged 0-11 months who took folate supplements 1 month before and 3 months after conception. The question used to define the indicator was: Did you take tablets or capsules containing folate or folic acid in the month immediately before and/or in the first 3 months of this pregnancy?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Folate supplements 1 month before and during pregnancy by year, mothers of infants 0-11 months, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (601), 2004 (262), 2006 (263). The indicator includes mothers of infants aged 0-11 months who took folate supplements 1 month before and 3 months after conception. The question used to define the indicator was: Did you take tablets or capsules containing folate or folic acid in the month immediately before and/or in the first 3 months of this pregnancy?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Immunisation

Introduction

Despite a reduction in the national incidence of vaccine-preventable diseases since the introduction of immunisation, a range of vaccine-preventable diseases remain a problem in Australia. One such vaccine-preventable disease that continues to remain a problem is meningococcal disease.[1-3]

Meningococcal disease is a serious illness that usually manifests as meningitis and septicaemia. It can occur at any age but high risk groups include children under 5 years of age and adolescents 15-19 years of age. Serogroup A occurs predominantly in developing countries such as those of Africa and Asia. Serogroup B is the major cause of sporadic disease in most developed countries. Serogroup C has a more cyclic pattern of occurrence and has been increasing in developed countries since the early 1990s. In populations with a temperate climate, the incidence of disease peaks in winter and spring. In Australia vaccine is available for meningococcal C only.[4]

Since 2003, all Australian children turning 12 months of age have been eligible to receive free meningococcal C vaccine under the National Immunisation Program. On completion of the program in June 2006, NSW continues to provide free vaccine to the eligible cohort (that is, those who were aged 1-19 years in 2003).[5]

To evaluate the success of the National Meningococcal C Vaccination Program, during 2005 and 2006 the New South Wales Population Health Survey asked parents or carers of children aged 1-15 years: Since January [of the previous year] has child been vaccinated against meningococcal C disease? When was child vaccinated? Where did child receive the vaccine? Parents or carers who answered no to the first question were asked: The Commonwealth has made meningococcal C vaccine available free from general practitioners, community health centres, or local councils. Do you intend to have your child vaccinated?

Results

In 2005 and 2006, 73.1 per cent of children aged 1-15 years were vaccinated against meningococcal C in the last year. There was no significant variation between children 1-8 years of age and 9-15 years of age. There was no significant variation by socioeconomic status or between urban areas and rural areas; however, a significantly lower proportion of children in the North Coast (65.8 per cent) and Greater Southern (68.2 per cent) Health Areas were vaccinated in the last year. A significantly higher proportion of children of mothers without tertiary qualifications (74.5 per cent) compared with mothers with tertiary qualifications (70.2 per cent), and a significantly lower proportion of children of mothers from a non English speaking background (69.4 per cent) compared with mothers from an English speaking background (74.0 per cent), were vaccinated in the last year.

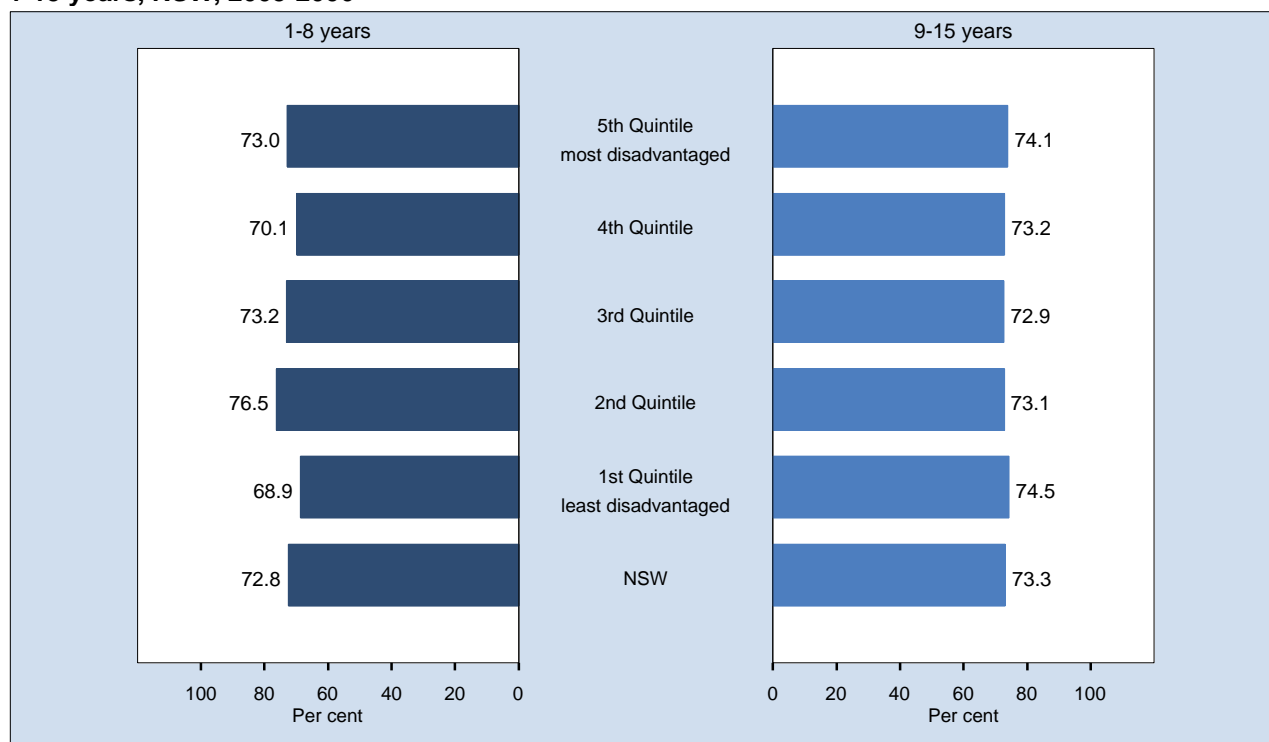
Of those 73.1 per cent immunised, 45.2 per cent were immunised at a school clinic, 46.6 per cent by a general practitioner, 6.5 per cent at a community health centre, and 1.2 per cent by a local council.

The proportion of children aged 1-15 years vaccinated against meningococcal C in the last year increased significantly between 2003-2004 (58.1 per cent) and 2005-2006 (73.1 per cent). The increase was significant in 1-8 year olds (60.1 per cent to 72.8 per cent) and 9-15 year olds (55.9 per cent to 73.3 per cent).

References

1. NSW Department of Health. *Meningococcal Disease Update New South Wales, September 2007*. Available from www.health.nsw.gov.au/infect/pdf/mening_update.pdf, accessed 5 November 2007.
2. Brotherton J, McIntyre P, Puech M, Wang H, Gidding H, Hull B, Lawrence G, MacIntyre R, Wood N, and Armstrong D. Vaccine preventable diseases and vaccination coverage in Australia, 2001-2002: Executive Summary. *Communicable Diseases Intelligence* 2004; 28(S-2).
3. Yohannes K, Roche P, Blumer C, Spencer J, Milton A, Bunn C, Gidding H, Kirk M, Della-Porta T. Australia's notifiable disease statistics 2002: Annual report of the National Notifiable Diseases Surveillance System. *Communicable Diseases Intelligence* 2004; 28(1).
4. Commonwealth of Australia. *The Australian Immunisation Handbook (8th Edition)*. Canberra: National Health and Medical Research Council, 2003.
5. Commonwealth Department of Health and Ageing. The National Meningococcal C Vaccination Program website at www.immunise.health.gov.au, accessed 5 November 2007.

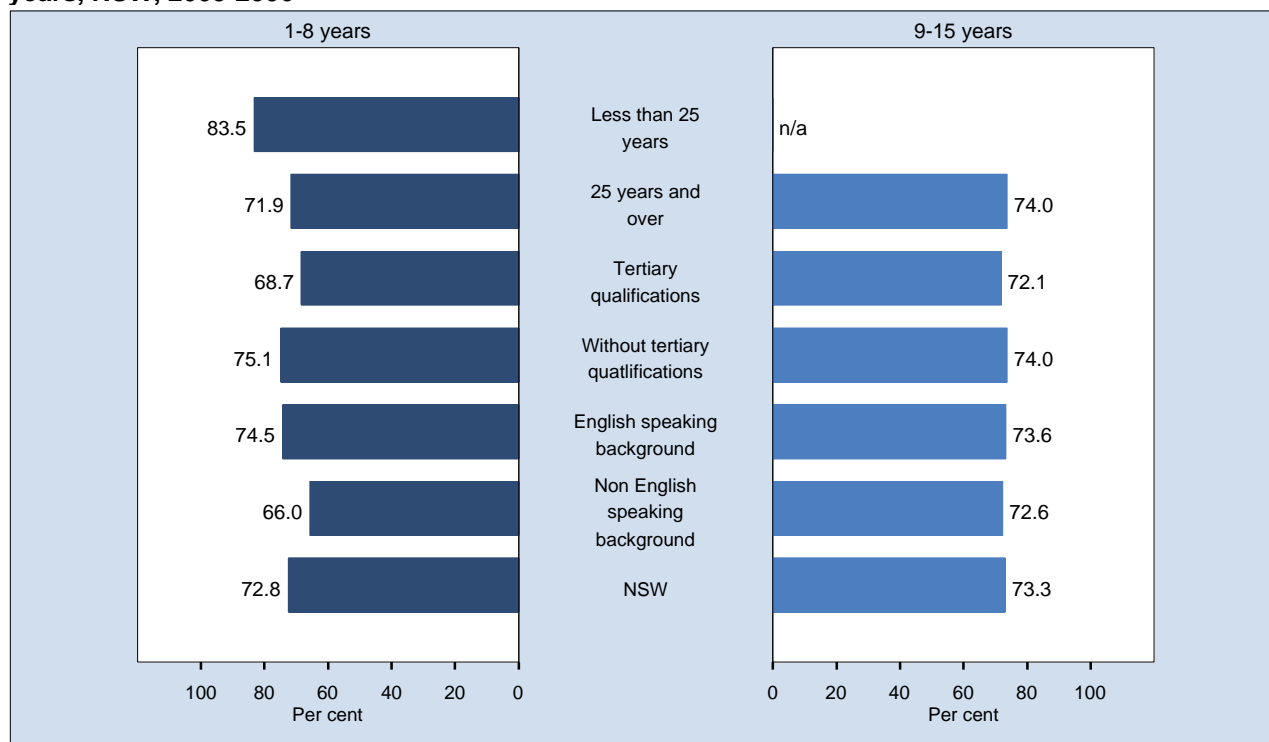
Vaccinated against meningococcal C disease in last year by socioeconomic disadvantage, children 1-15 years, NSW, 2005-2006



Note: Estimates are based on 3,848 respondents in NSW. For this indicator 408 (9.59%) were not stated (Don't know or Refused) in NSW. The indicator includes children who were vaccinated in the last year. The question asked was: Since January [of the previous year], has child been vaccinated against meningococcal C disease?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

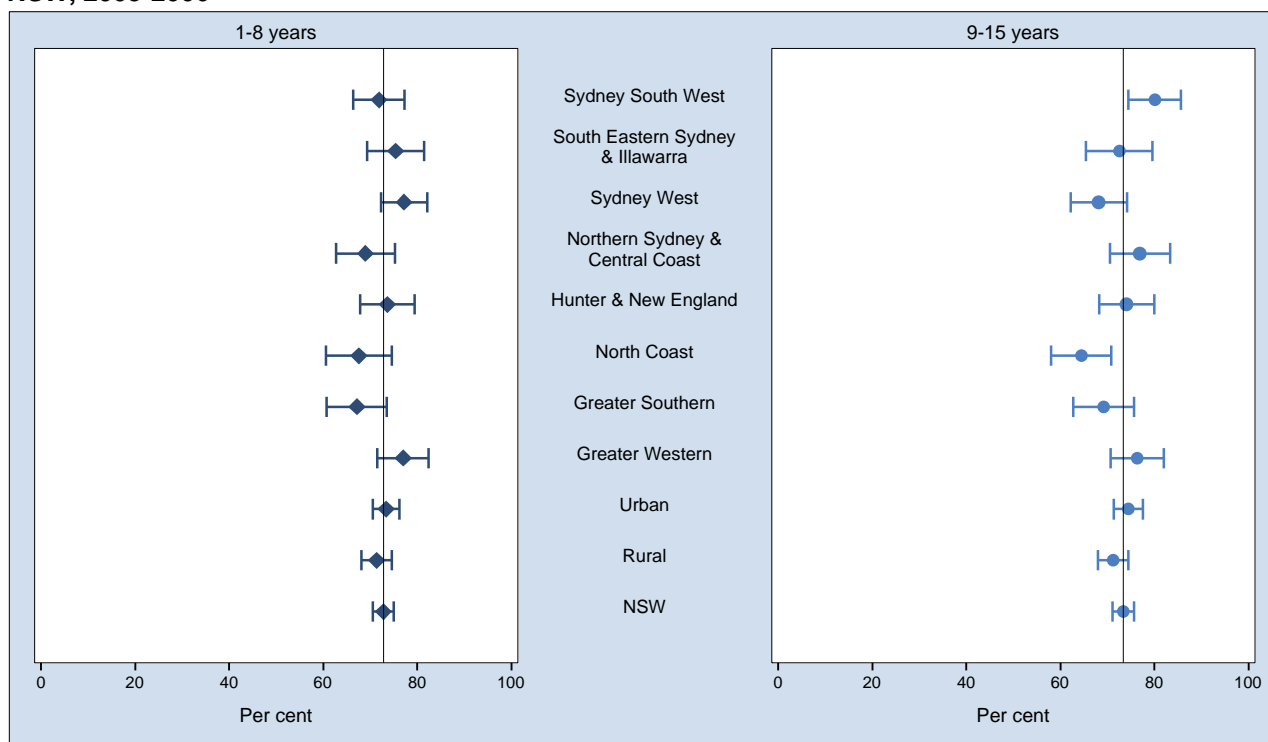
Vaccinated against meningococcal C disease in last year by mothers' characteristics, children 1-15 years, NSW, 2005-2006



Note: Estimates are based on 3,848 respondents in NSW. For this indicator 408 (9.59%) were not stated (Don't know or Refused) in NSW. The indicator includes children who were vaccinated in the last year. The question asked was: Since January [of the previous year], has child been vaccinated against meningococcal C disease? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

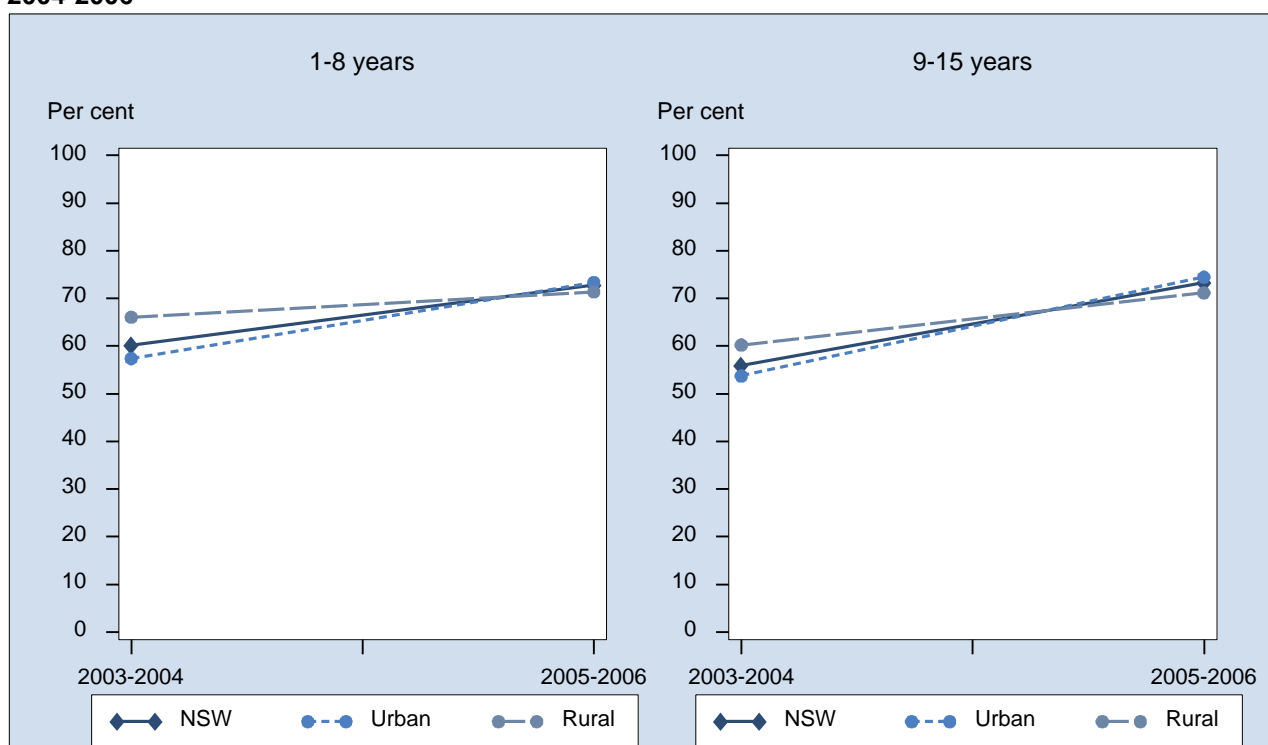
Vaccinated against meningococcal C disease in last year by area health service, children 1-15 years, NSW, 2005-2006



Note: Estimates are based on 3,848 respondents in NSW. For this indicator 408 (9.59%) were not stated (Don't know or Refused) in NSW. The indicator includes children who were vaccinated in the last year. The question asked was: Since January [of the previous year], has child been vaccinated against meningococcal C disease?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

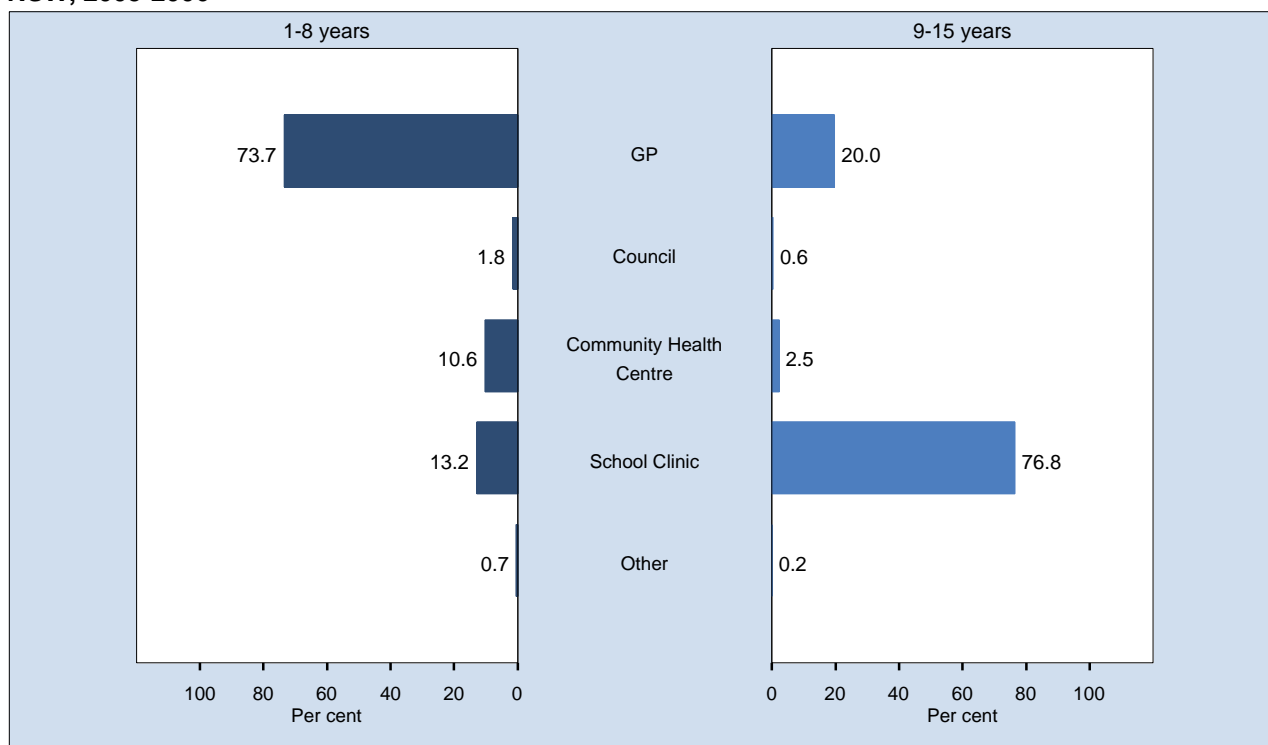
Vaccinated against meningococcal C disease in last year by year, children 1-15 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (3,017), 2006 (3,848). The indicator includes children who were vaccinated in the last year. The question asked was: Since January [of the previous year], has child been vaccinated against meningococcal C disease?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Place where vaccinated against meningococcal C disease, children 1-15 years who were vaccinated, NSW, 2005-2006



Note: Estimates are based on 2,771 respondents in NSW. For this indicator 33 (1.18%) were not stated (Don't know or Refused) in NSW. The questions used were: Since January [of the previous year], has child been vaccinated against meningococcal C disease? Where did child receive the vaccine?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Injury prevention

Introduction

In 2005 and 2006, the New South Wales Population Health Survey asked questions about smoke alarms in the home, participation in a school fire education program, and infant sleeping position.

Most mortality and morbidity associated with house fires happens at night, while people are sleeping, and is due to smoke inhalation rather than burns. Functional and correctly-situated smoke alarms detect low levels of smoke and sound an alarm before the smoke becomes too dense for people to escape; however, studies show a significant proportion of smoke alarms are not functional.[1-6]

NSW Fire Brigades runs FireEd, a fire safety program in schools, which teaches children fire safety practices and behaviours that could save lives.[7]

Sudden infant death syndrome (SIDS) is the sudden and unexpected death of an infant under one year of age where the death remains unexplained despite complete postmortem examination.[8] The 2 major risk factors are sleeping position and maternal smoking.[8] Guidelines issued by the NSW Department of Health recommend 3 main ways to reduce the risk: put infant on the back to sleep from birth, make sure infant's head remains uncovered during sleep, and keep infant smoke-free before and after birth.[9] Results for infant sleeping position are reported in this chapter. Results for maternal smoking are reported in the smoking chapter.

During 2005 and 2006, the New South Wales Population Health Survey asked parents and carers of children aged 0-15 years: Do you have any of the following fire safety measures in your home: fire alarm (hard wired), fire alarm (battery operated only), fire sprinkler system, safety switch or circuit breaker, fire extinguisher, fire evacuation plan, external water supply, external sprinkler, other (specify)? Parents and carers of children aged 5-12 years were asked: Has child participated in the fire education program in schools? Did child tell you about any of the following: get down low and go go go, home evacuation plan, stop drop and roll, install smoke alarms, and knotted rope? Did you take action on any of these things? Parents or carers of infants aged 0-11 months were asked: What position did you put infant to sleep in from birth: on back, on side, or on tummy?

Results

Smoke alarms in the home

Overall, 82.5 per cent of children aged 0-15 years had a smoke alarm or detector in their home. A significantly higher proportion of children aged 9-15 years (84.7 per cent), compared with children aged 0-8 years (80.6 per cent), had a smoke alarm or detector in their home. A significantly lower proportion of children in the least disadvantaged quintile (76.2 per cent), and a significantly higher proportion of children in the second least disadvantaged quintile (87.5 per cent), had a smoke alarm or detector in their home. A significantly higher proportion of children in rural areas (87.3 per cent) than urban areas (80.1 per cent) had a smoke alarm or detector in their home. A significantly higher proportion of children in the Hunter & New England Health Area (89.6 per cent) and Greater Southern (89.8 per cent) and Greater Western (87.2 per cent) Health Areas, and a significantly lower proportion of children in the Northern Sydney & Central Coast Health Area (74.8 per cent), had a smoke alarm or detector in their home. A significantly lower proportion of children of mothers from a non English speaking background (67.4 per cent), compared with children of mothers from an English speaking background (86.6 per cent), had a smoke alarm or detector in their home.

Overall, the proportion of children aged 0-15 years with a smoke alarm or detector in their home has not changed significantly between 2003-2004 and 2005-2006.

Participation in a school fire education program

Overall, 79.2 per cent of children aged 5-12 years participated in a fire education program at school. A significantly higher proportion of children aged 9-15 years (83.2 per cent) participated in a fire education program at school. There was no significant difference by level of socioeconomic disadvantage. A significantly higher proportion of children in rural areas (85.6 per cent) than urban areas (76.0 per cent) participated in a fire education program at school. A significantly higher proportion of children in the North Coast (88.4 per cent) and Greater Southern (87.3 per cent) participated in a fire education program at school. A significantly lower proportion of children of mothers from a non English speaking background (73.7 per cent), compared with children of mothers from an English speaking background (80.8 per cent),

participated in a fire education program at school.

The proportion of children aged 5-12 years participating in a fire education program at school has not varied significantly between 2003-2004 and 2005-2006.

Parental messages received from a child's participation in a fire education program at school included: get down low and go go go (53.3 per cent), home evacuation plan (39.8 per cent), stop drop and roll (44.9 per cent), install smoke alarms (42.4 per cent), and knotted rope (11.0 per cent).

Overall, 63.8 per cent of parents or carers of children aged 5-12 years took action on messages received from child's fire education program. There was no significant variation between age groups. A significantly higher proportion of parents or carers in the second most disadvantaged quintile (72.1 per cent) took action on messages received. A significantly higher proportion of parents and carers in rural areas (67.3 per cent) than urban areas (61.6 per cent) took action on messages received. There was no significant variation among health areas. A significantly lower proportion of mothers from a non English speaking background (53.8 per cent), compared with mothers from an English speaking background (65.8 per cent), took action on messages received from child's fire education program.

The proportion of parents or carers of children aged 5-12 years who took action on messages received from child's fire education program has increased significantly between 2003-2004 (53.3 per cent) and 2005-2006 (63.8 per cent). The increase was significant among children aged 5-8 years (from 54.3 per cent to 62.0 per cent) and among children aged 9-15 years (from 52.4 per cent to 65.4 per cent).

Infant sleeping position

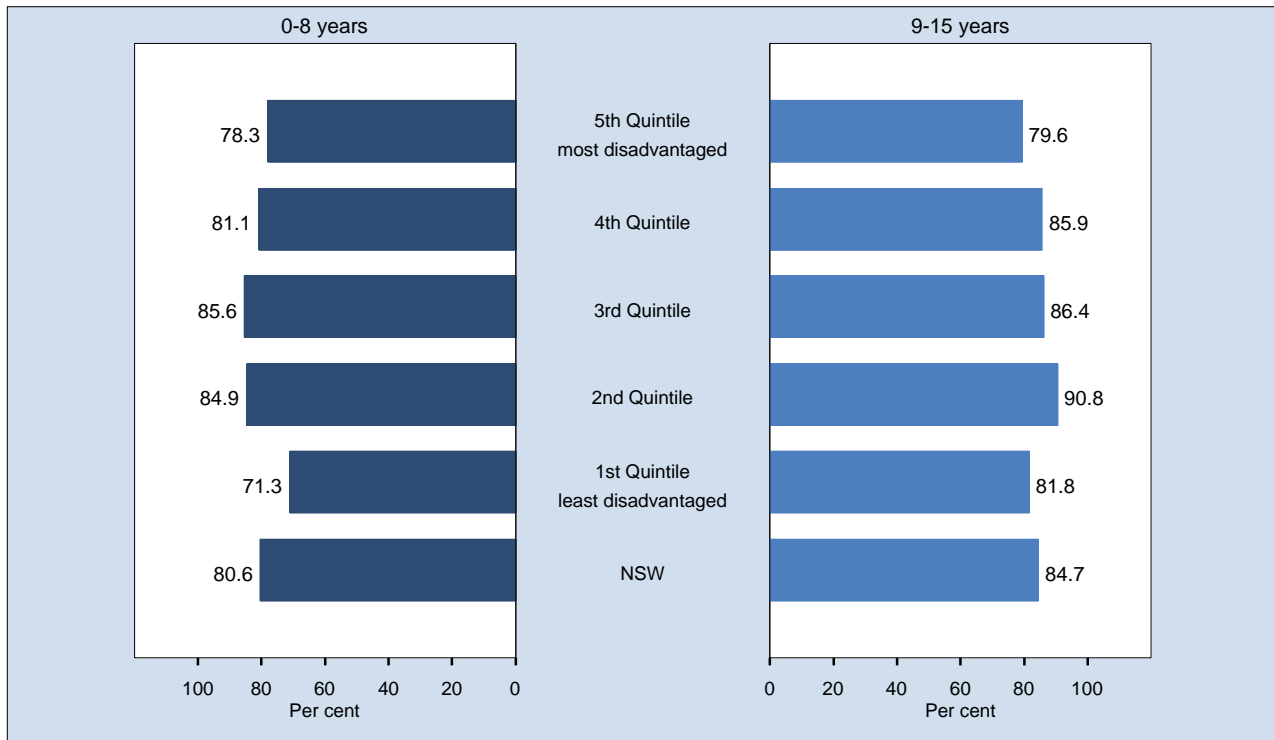
Overall, 83.1 per cent of parents or carers of infants aged 0-11 months put infants on their back to sleep from birth. A significantly higher proportion of parents or carers in the second least disadvantaged quintile (94.0 per cent) put infants on their back to sleep. There was no significant difference between rural residents and urban residents or among health areas. A significantly lower proportion of mothers without tertiary qualifications (78.1 per cent), compared with mothers with tertiary qualifications (90.1 per cent), put infants on their back to sleep.

The proportion of parents or carers putting infants on their back to sleep increased significantly between 2001-2002 (63.6 per cent) and 2005-2006 (83.1 per cent).

References

1. Schmertmann M, Finch C, and Williamson A. *NSW Injury Profile: A Review Of Injury Deaths During 1998-2002*. Sydney: NSW Injury Risk Management Research Centre, 2004, available online at www.irmrc.unsw.edu.au, accessed 7 November 2007.
2. Hayen A, and Mitchell R. *NSW Injury Profile: A Review of Injury Hospitalisations During 1989-90 to 2003-04*. Sydney: NSW Injury Risk Management Research Centre, 2005, available online at www.irmrc.unsw.edu.au, accessed 7 November 2007.
3. Haddix A, Mallonee S, Waxweiler R, Douglas M. Cost effectiveness analysis of a smoke alarm giveaway program in Oklahoma City, Oklahoma. *Injury Prevention* 2001; 7: 276-281, abstract available online at www.injuryprevention.bmj.com/cgi/content/abstract/7/4/276, accessed 7 November 2007.
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): 1112-1114, abstract available online at www.ajph.org/cgi/content/abstract/89/7/1112.
5. Australasian Fire Authorities Council. *Accidental fire fatalities in residential structures: Who's at risk?* Melbourne: Australasian Fire Authorities Council, 2005, available online at www.afac.com.au, accessed 7 November 2007.
6. NSW Fire Brigades. Smoke Alarm website and What Does The Legislation Mean? website at www.nswfb.nsw.gov.au, accessed 7 November 2007.
7. NSW Fire Brigades. FireEd website at www.nswfb.nsw.gov.au, accessed 7 November 2007.
8. Al-Yaman F, Bryant M and Sargeant H. *Australia's Children: Their Health and Wellbeing 2002*. Canberra: Australian Institute of Health and Welfare, 2002, available online at www.aihw.gov.au/publications/index.cfm/title/7516, accessed 7 November 2007.
9. NSW Department of Health. *Guidelines for Sudden Infant Death Syndrome (SIDS) and safe sleeping position for infants*. Sydney: NSW Department of Health, 2005, available online at www.health.nsw.gov.au/policies/gl/2005/GL2005_063.html, accessed 7 November 2007.

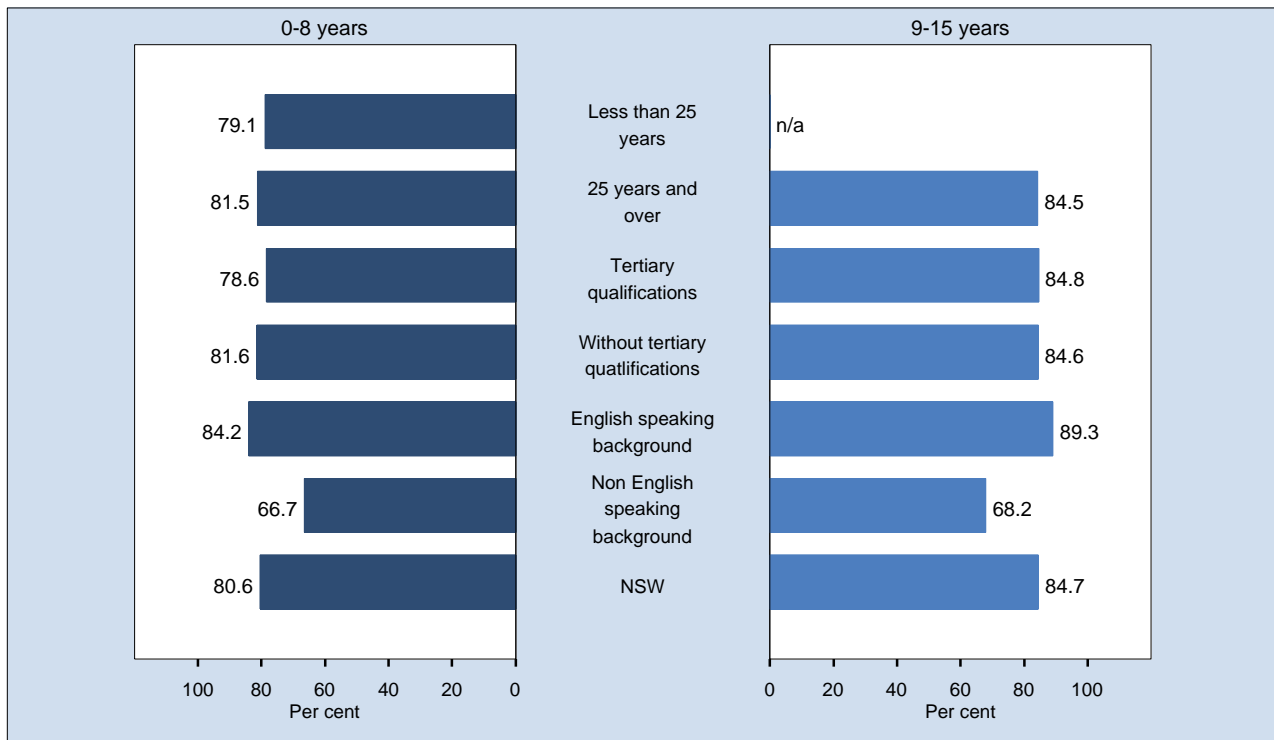
Homes with a smoke alarm or detector by socioeconomic disadvantage, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 2,201 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have a smoke alarm or detector in their home. The question used to define the indicator was: Do you have any of the following fire safety measures in your home: fire alarm (hard wired), fire alarm (battery operated only), fire sprinkler system, safety switch or circuit breaker, fire extinguisher, fire evacuation plan, external water supply, external sprinkler?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

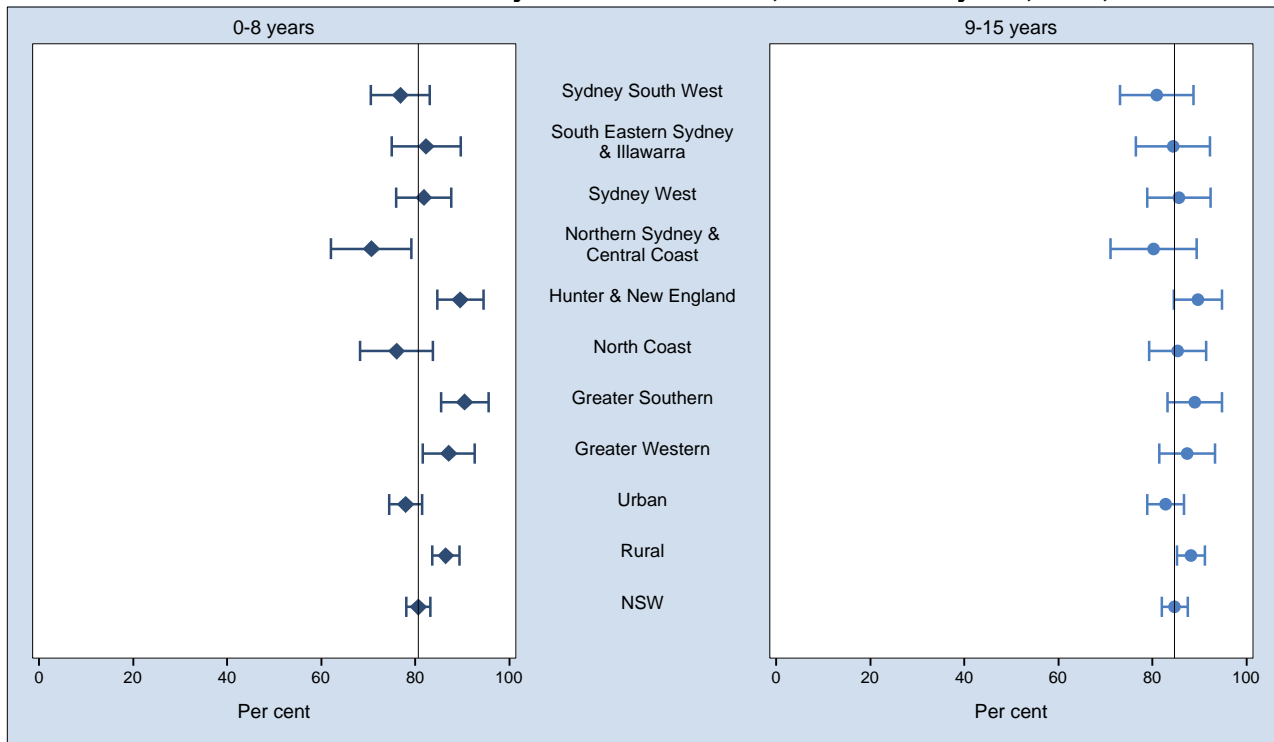
Homes with a smoke alarm or detector by mothers' characteristics, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 2,201 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have a smoke alarm or detector in their home. The question used to define the indicator was: Do you have any of the following fire safety measures in your home: fire alarm (hard wired), fire alarm (battery operated only), fire sprinkler system, safety switch or circuit breaker, fire extinguisher, fire evacuation plan, external water supply, external sprinkler? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

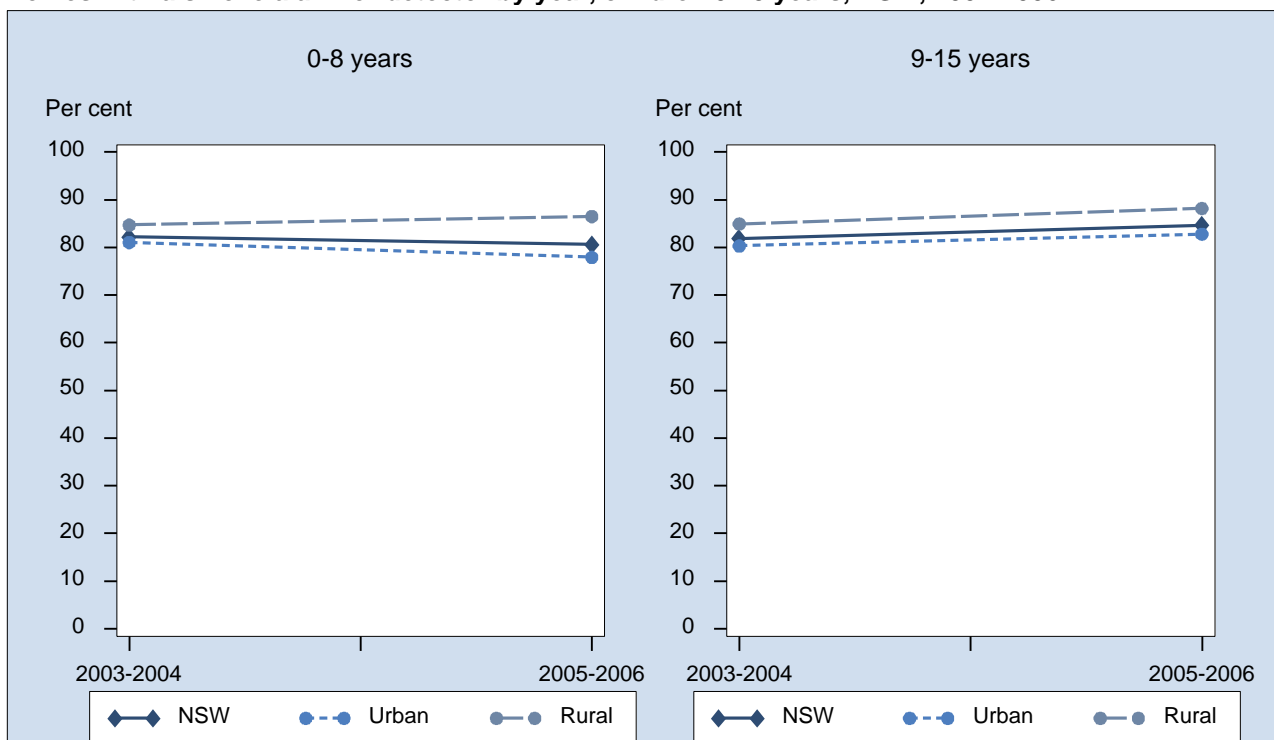
Homes with a smoke alarm or detector by area health service, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 2,201 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have a smoke alarm or detector in their home. The question used to define the indicator was: Do you have any of the following fire safety measures in your home: fire alarm (hard wired), fire alarm (battery operated only), fire sprinkler system, safety switch or circuit breaker, fire extinguisher, fire evacuation plan, external water supply, external sprinkler?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

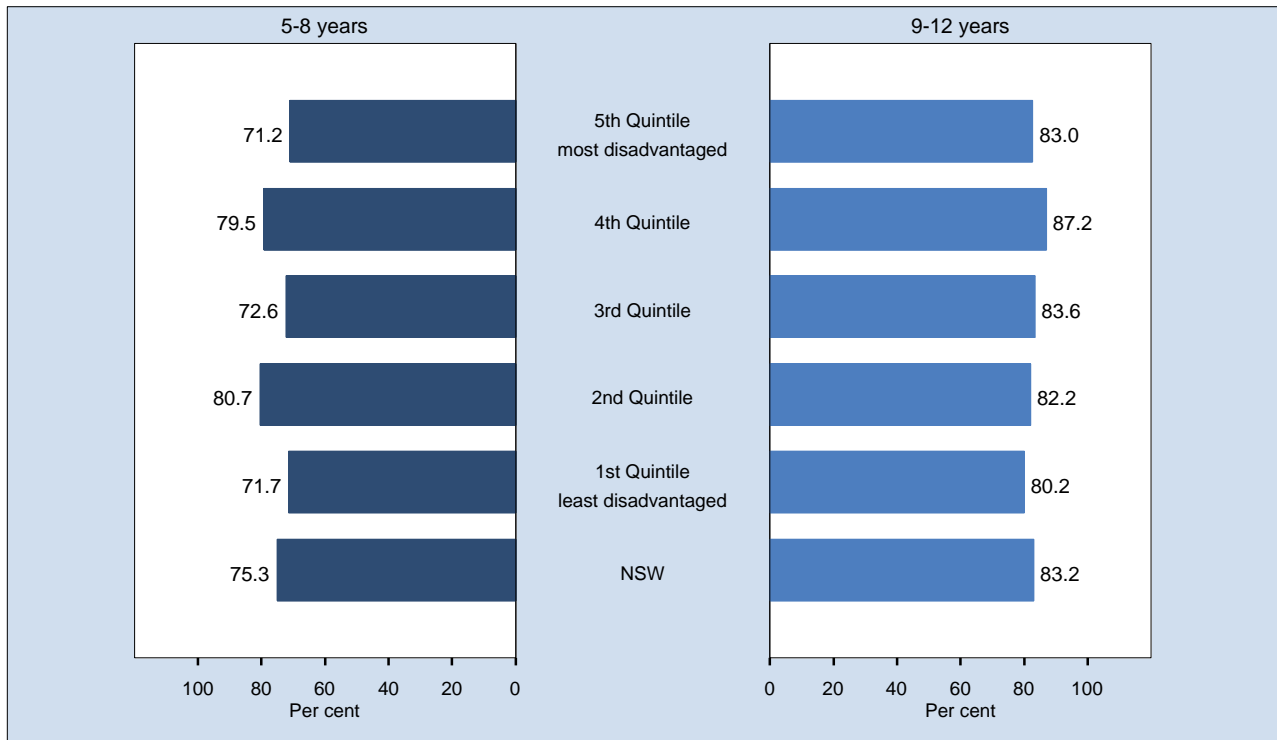
Homes with a smoke alarm or detector by year, children 0-15 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (4,865), 2006 (2,201). The indicator includes children who have a smoke alarm or detector in their home. The question used to define the indicator was: Do you have any of the following fire safety measures in your home: fire alarm (hard wired), fire alarm (battery operated only), fire sprinkler system, safety switch or circuit breaker, fire extinguisher, fire evacuation plan, external water supply, external sprinkler?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

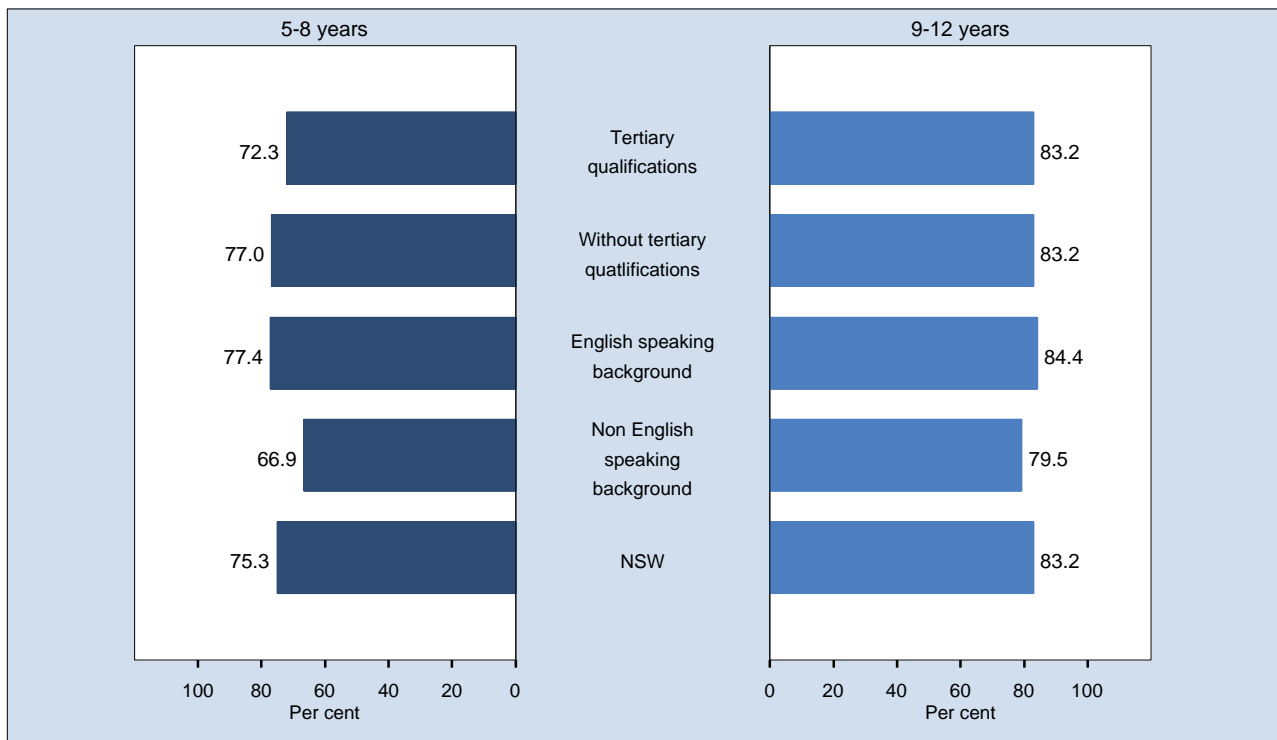
Participation in fire education program by socioeconomic disadvantage, children 5-12 years, NSW, 2005-2006



Note: Estimates are based on 1,820 respondents in NSW. For this indicator 395 (17.83%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who have participated in a fire education program. The question used to define the indicator was: Has child participated in the fire education program in schools?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

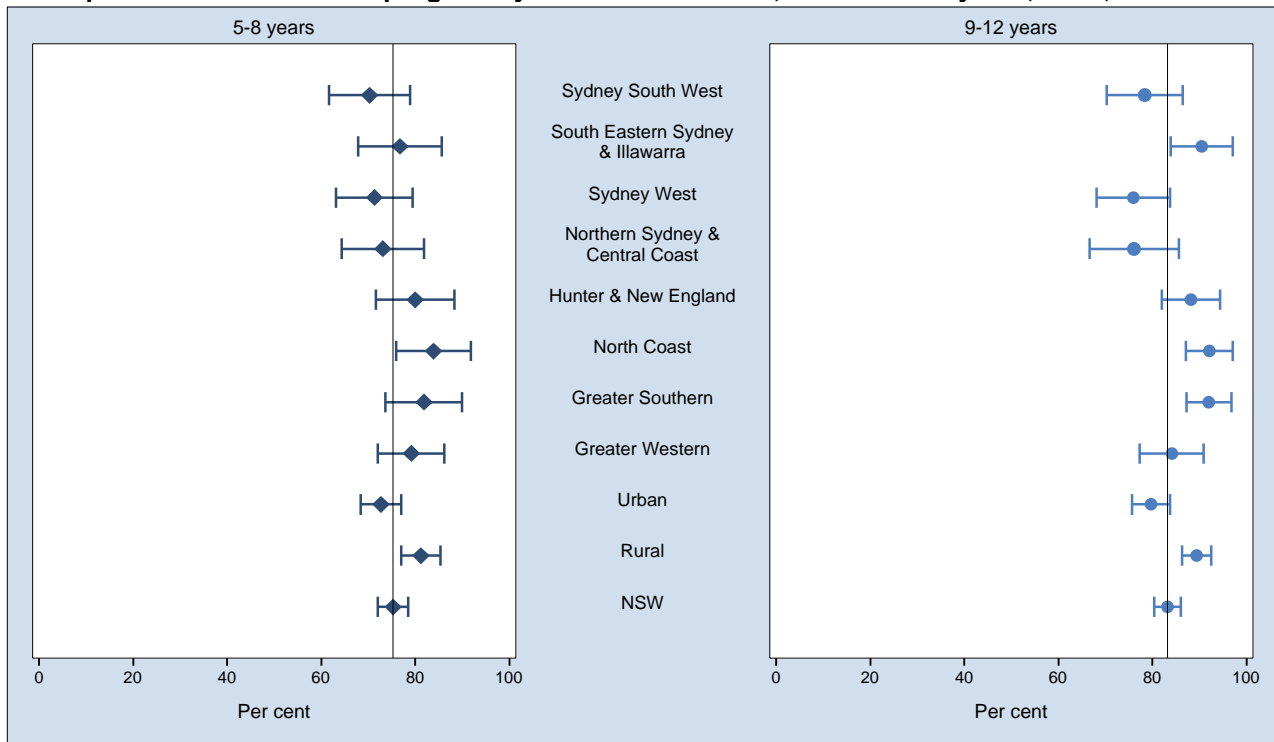
Participation in fire education program by mothers' characteristics, children 5-12 years, NSW, 2005-2006



Note: Estimates are based on 1,820 respondents in NSW. For this indicator 395 (17.83%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who have participated in a fire education program. The question used to define the indicator was: Has child participated in the fire education program in schools?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

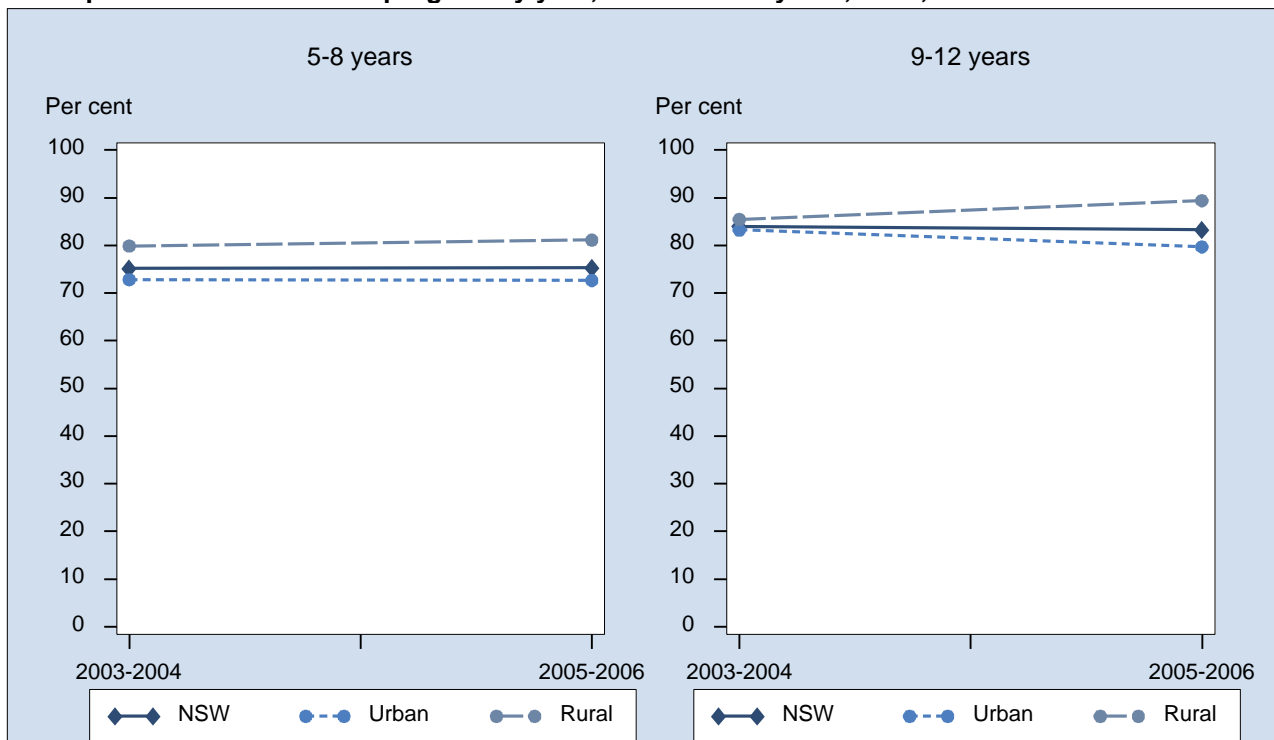
Participation in fire education program by area health service, children 5-12 years, NSW, 2005-2006



Note: Estimates are based on 1,820 respondents in NSW. For this indicator 395 (17.83%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who have participated in a fire education program. The question used to define the indicator was: Has child participated in the fire education program in schools?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

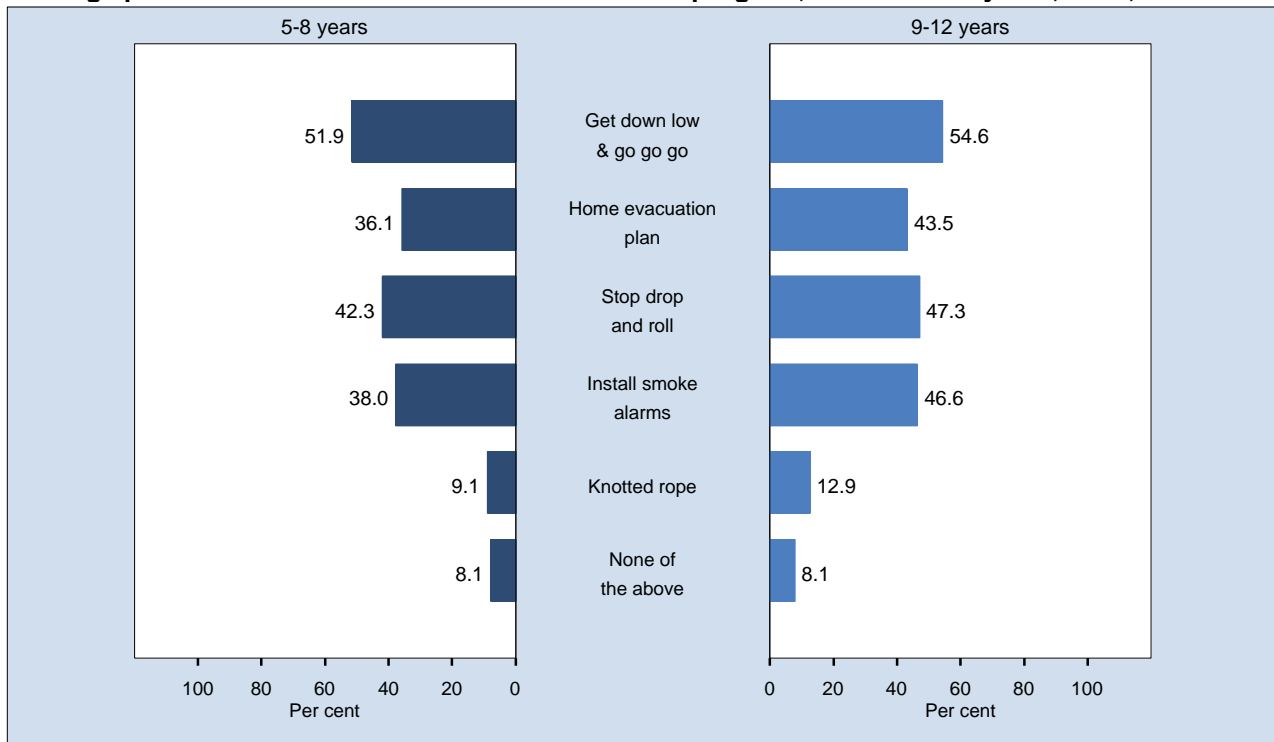
Participation in fire education program by year, children 5-12 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (1,903), 2006 (1,820). The indicator includes those children who have participated in a fire education program. The question used to define the indicator was: Has child participated in the fire education program in schools?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

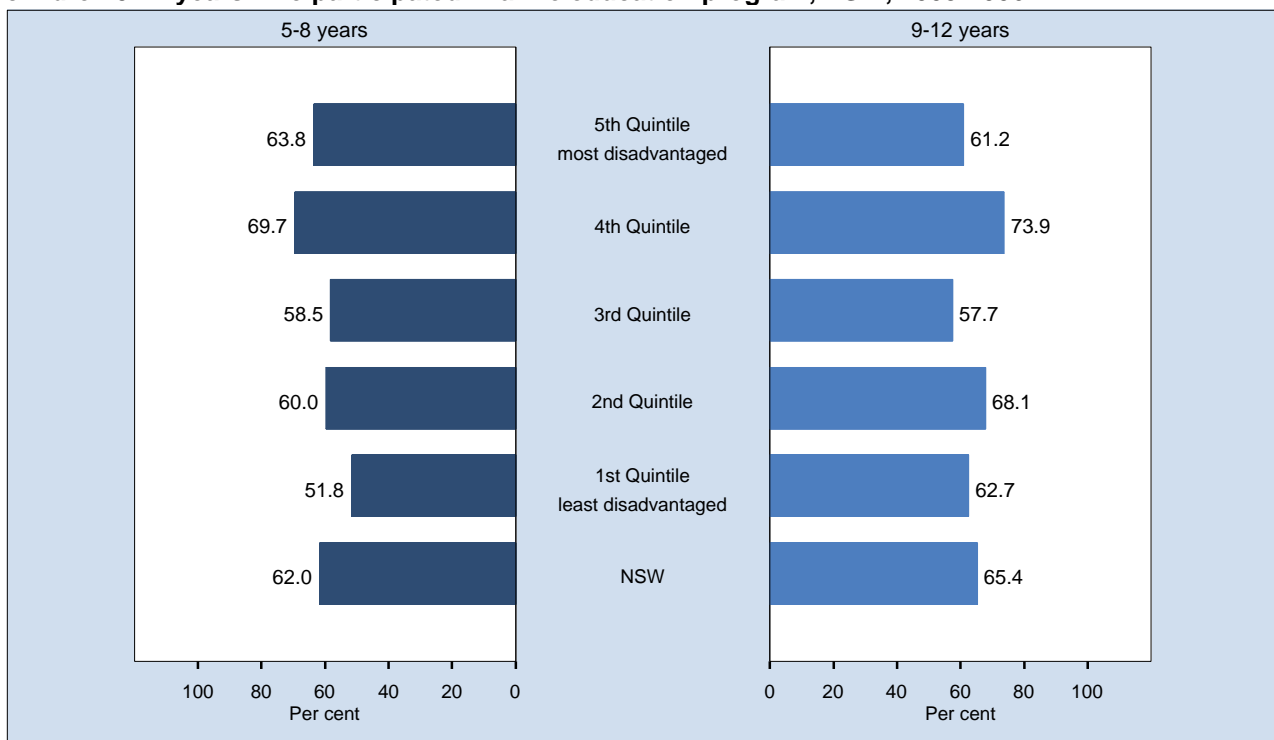
Message parent or carer received about fire education program, children 5-12 years, NSW, 2005-2006



Note: Estimates are based on 2,212 respondents in NSW. For this indicator 3 (0.14%) were not stated (Don't know or Refused) in NSW. The questions used were: Has child participated in a fire education program in schools? Did child tell you about any of the following: get down low and go go go, home evacuation plan, stop drop and roll, install smoke alarms, knotted rope, none of the above? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

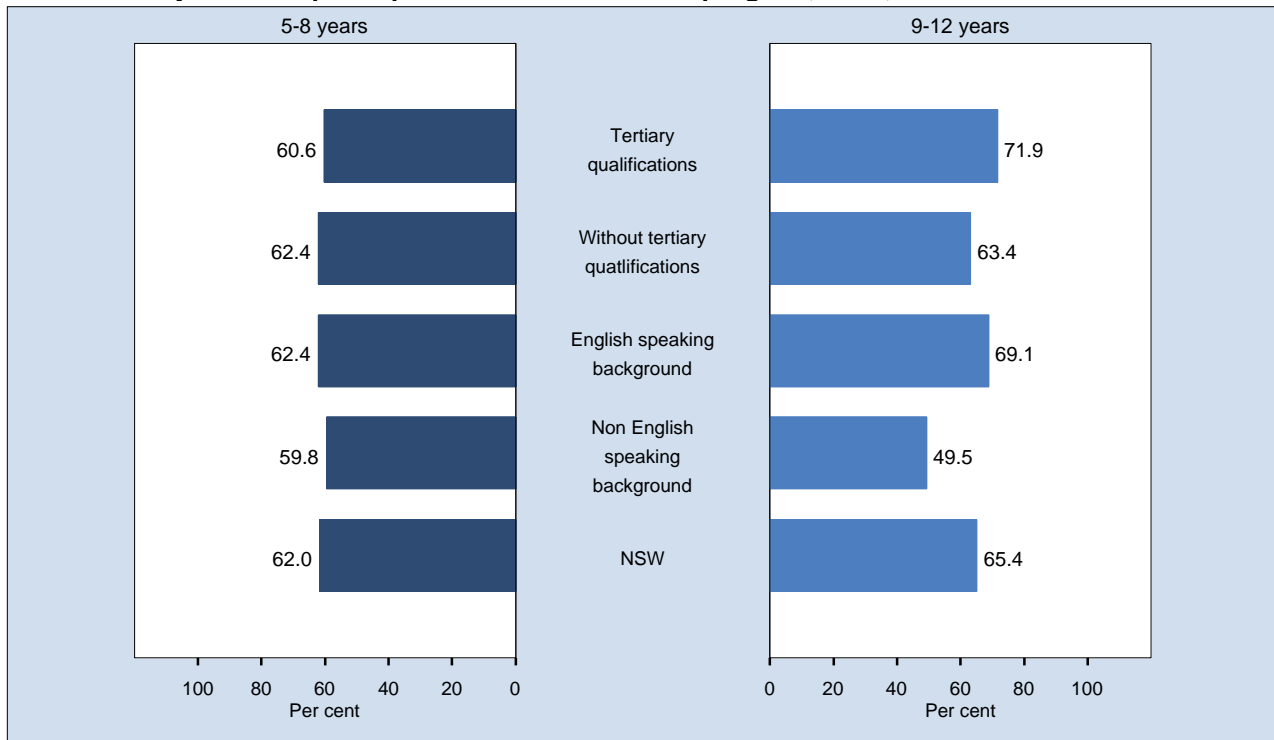
Action taken following fire education program by socioeconomic disadvantage, parents or carers of children 5-12 years who participated in a fire education program, NSW, 2005-2006



Note: Estimates are based on 1,286 respondents in NSW. For this indicator 21 (1.61%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who had taken action on information from the children the fire education program in schools. The questions used to define the indicator were: Has child participated in the fire education program in schools? Did child tell you about any of the following: get down low and go go go, home evacuation plan, stop drop and roll, install smoke alarms, knotted rope, none of the above? Did you take action on any of these things?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

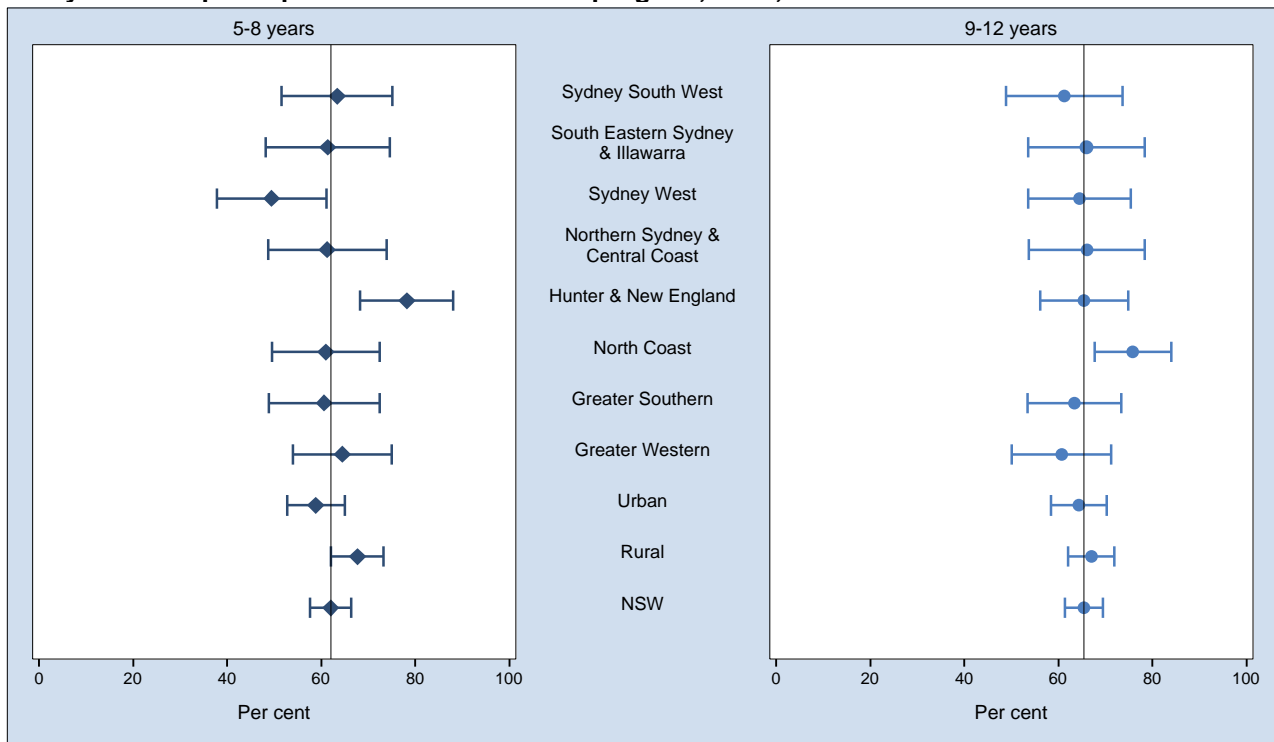
Action taken following fire education program by mothers' characteristics, parents or carers of children 5-12 years who participated in a fire education program, NSW, 2005-2006



Note: Estimates are based on 1,286 respondents in NSW. For this indicator 21 (1.61%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who had taken action on information from the children the fire education program in schools. The questions used to define the indicator were: Has child participated in the fire education program in schools? Did child tell you about any of the following: get down low and go go go, home evacuation plan, stop drop and roll, install smoke alarms, knotted rope, none of the above? Did you take action on any of these things?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

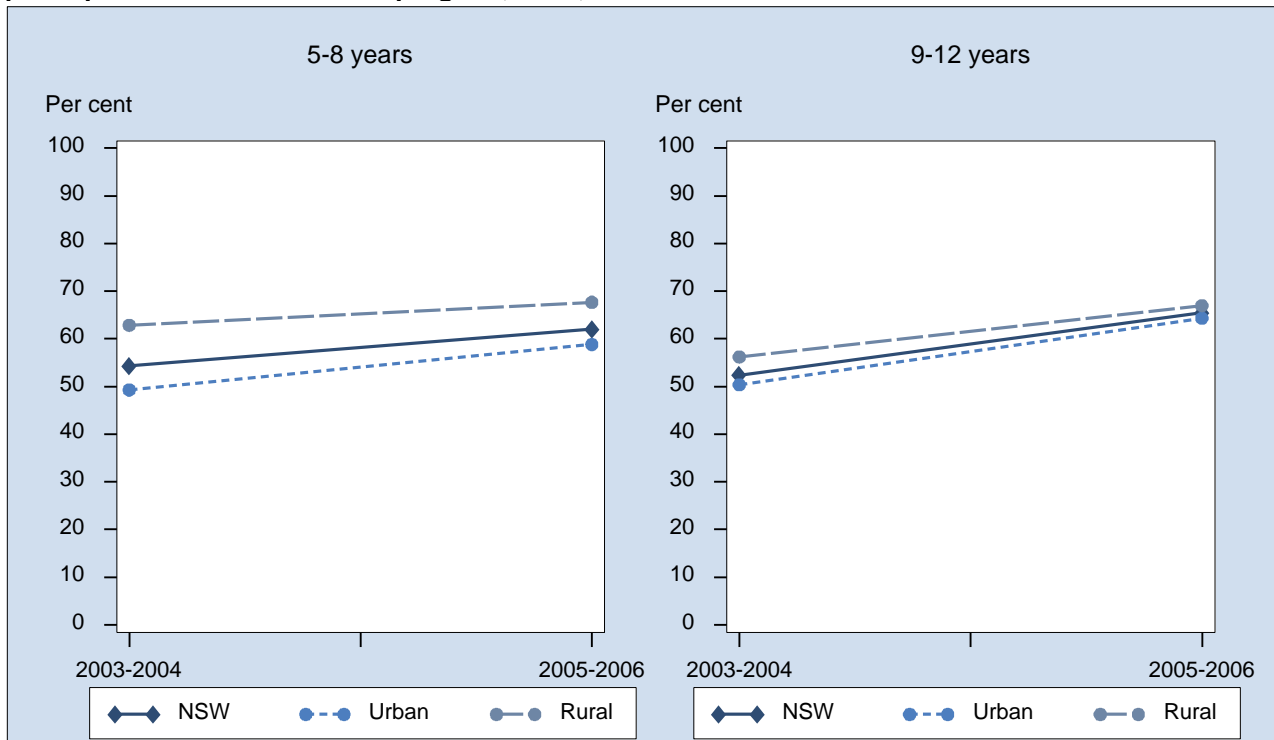
Action taken following fire education program by area health service, parents or carers of children 5-12 years who participated in a fire education program, NSW, 2005-2006



Note: Estimates are based on 1,286 respondents in NSW. For this indicator 21 (1.61%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who had taken action on information from the children the fire education program in schools. The questions used to define the indicator were: Has child participated in the fire education program in schools? Did child tell you about any of the following: get down low and go go go, home evacuation plan, stop drop and roll, install smoke alarms, knotted rope, none of the above? Did you take action on any of these things?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

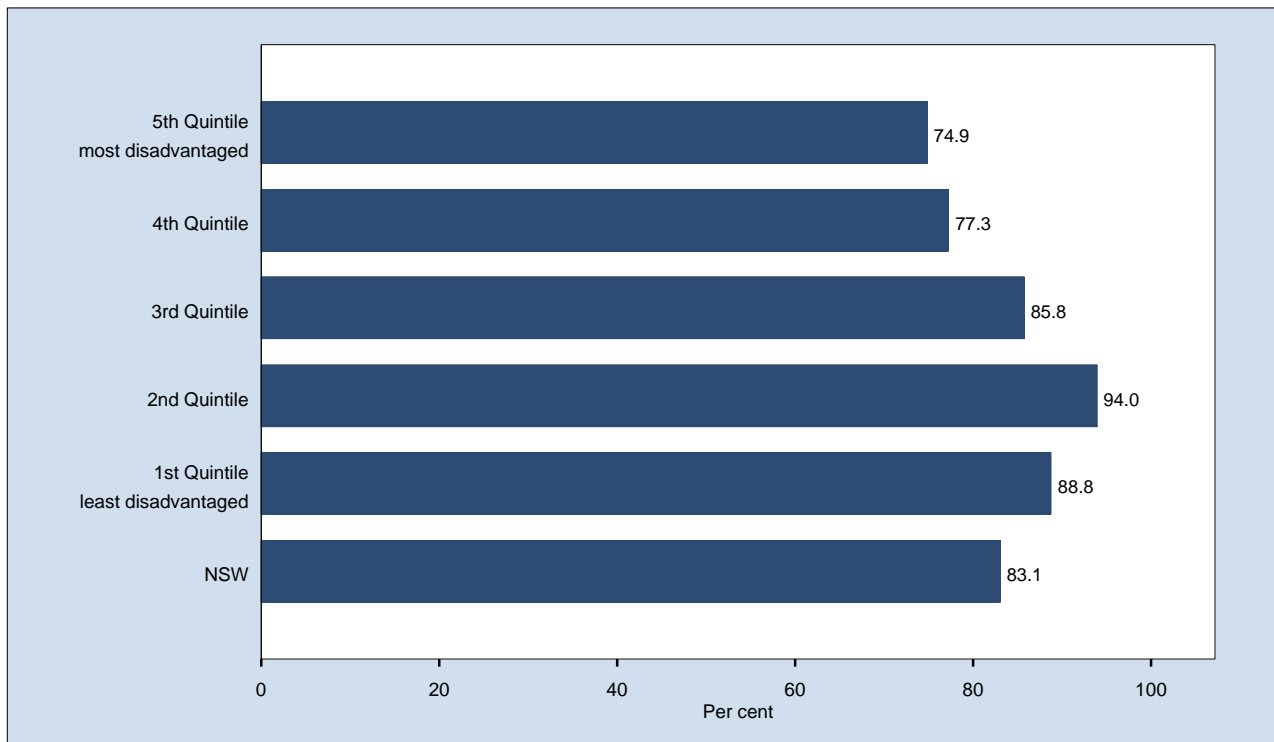
Action taken following fire education program by year, parents or carers of children 5-12 years who participated in a fire education program, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (1,320), 2006 (1,286). The indicator includes parents or carers who had taken action on information from the children the fire education program in schools. The questions used to define the indicator were: Has child participated in the fire education program in schools? Did child tell you about any of the following: get down low and go go go, home evacuation plan, stop drop and roll, install smoke alarms, knotted rope, none of the above? Did you take action on any of these things?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

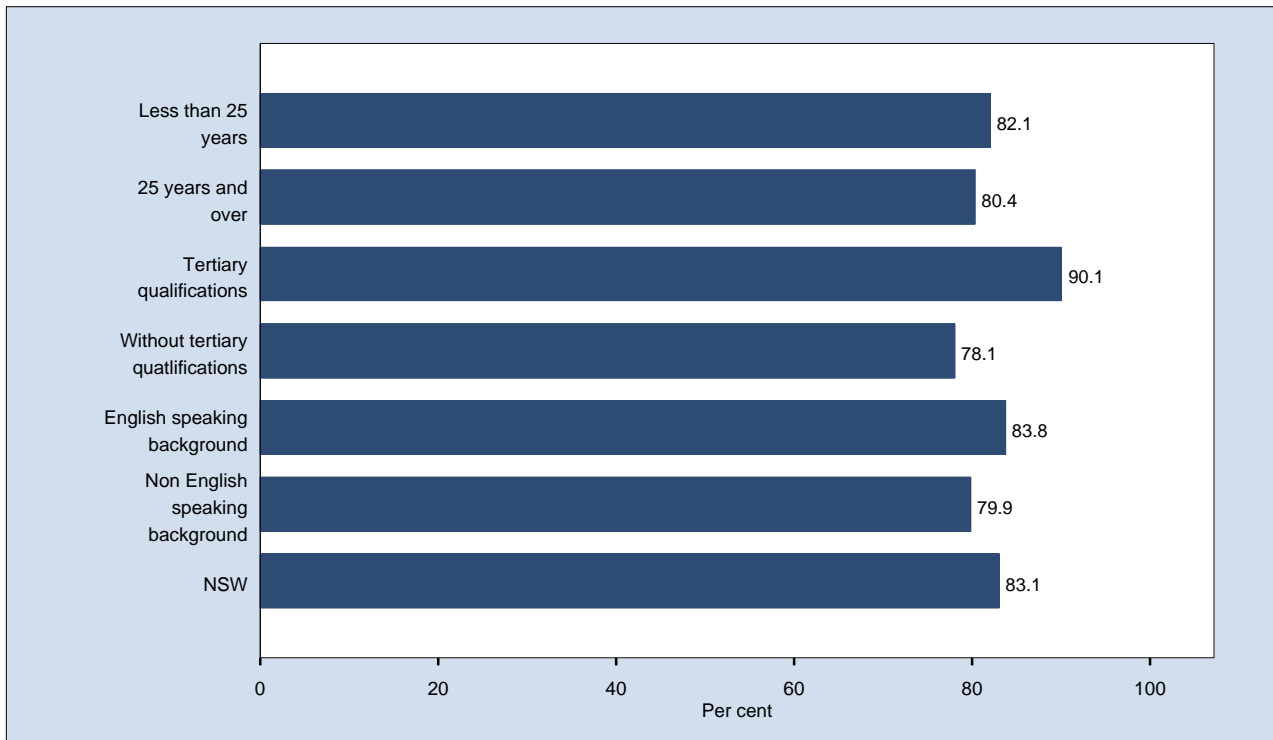
Placed on their back to sleep from birth by socioeconomic disadvantage, infants 0-11 months, NSW, 2005-2006



Note: Estimates are based on 319 respondents in NSW. For this indicator 3 (0.93%) were not stated (Don't know or Refused) in NSW. The indicator includes infants who were placed on their back to sleep from birth. The question used to define the indicator was: What position did you put child to sleep from birth on his/her back, on his/her side, on his/her tummy, any other position?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

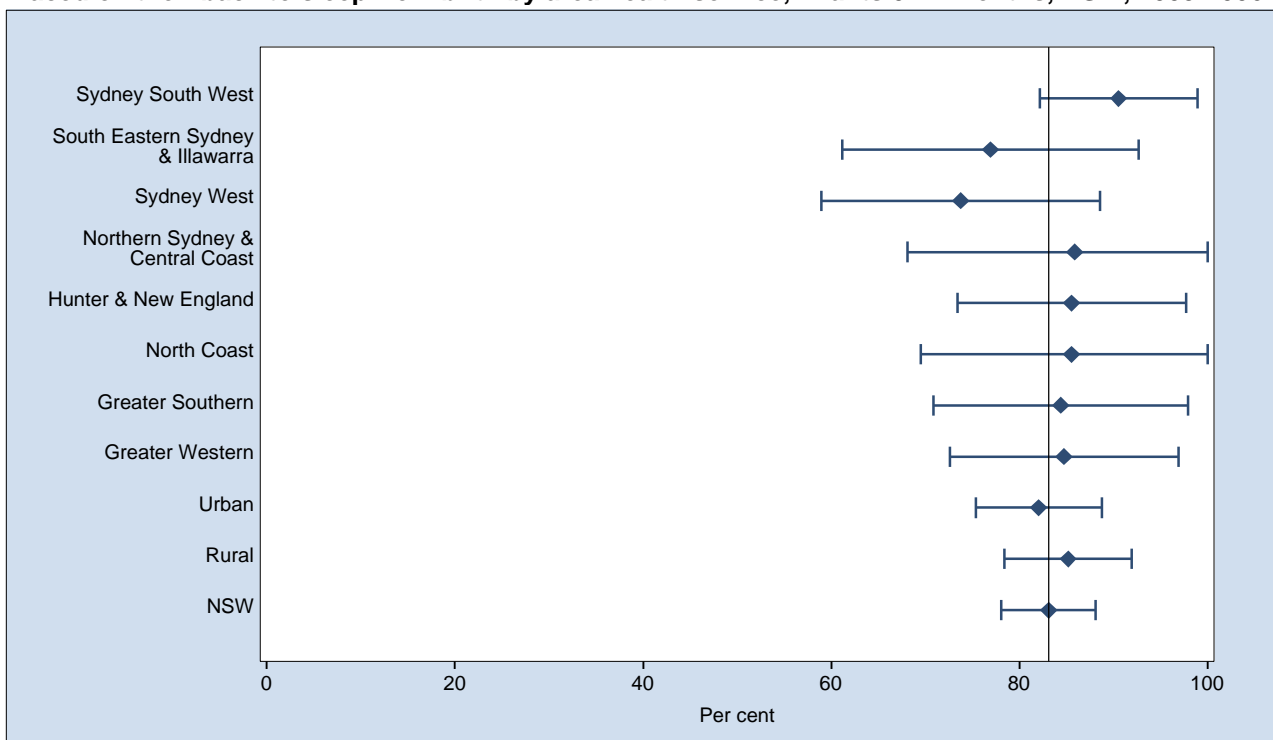
Placed on their back to sleep from birth by mothers' characteristics, infants 0-11 months, NSW, 2005-2006



Note: Estimates are based on 319 respondents in NSW. For this indicator 3 (0.93%) were not stated (Don't know or Refused) in NSW. The indicator includes infants who were placed on their back to sleep from birth. The question used to define the indicator was: What position did you put child to sleep from birth on his/her back, on his/her side, on his/her tummy, any other position?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

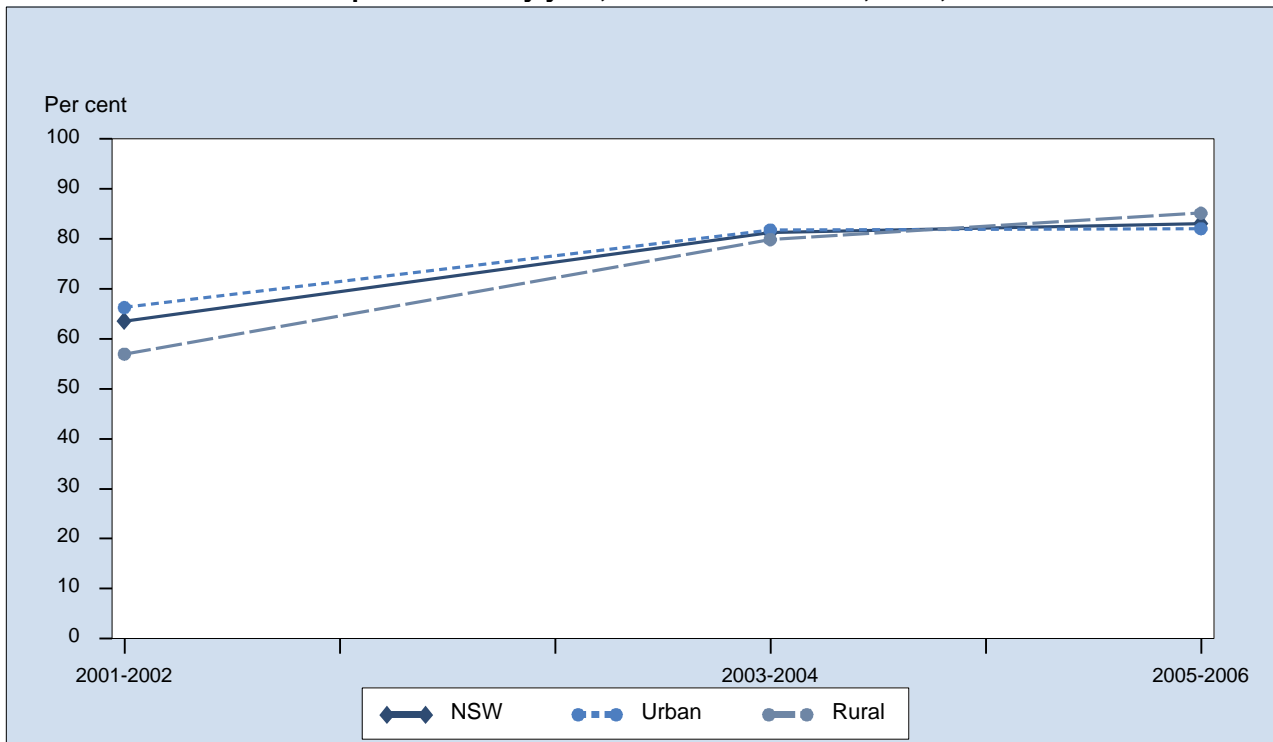
Placed on their back to sleep from birth by area health service, infants 0-11 months, NSW, 2005-2006



Note: Estimates are based on 319 respondents in NSW. For this indicator 3 (0.93%) were not stated (Don't know or Refused) in NSW. The indicator includes infants who were placed on their back to sleep from birth. The question used to define the indicator was: What position did you put child to sleep from birth on his/her back, on his/her side, on his/her tummy, any other position?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Placed on their back to sleep from birth by year, infants 0-11 months, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (723), 2004 (303), 2006 (319). The indicator includes infants who were placed on their back to sleep from birth. The question used to define the indicator was: What position did you put child to sleep from birth on his/her back, on his/her side, on his/her tummy, any other position?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Nutrition

Introduction

Healthy eating promotes physical growth and cognitive development during childhood. Children are nutritionally vulnerable and their nutrient and energy requirements per kilo of bodyweight are greater than adults. Dietary factors are linked to health and wellbeing, and there is a relationship between nutrition in childhood and the development of diseases in adulthood.[1,2,3] Current dietary recommendations are fully described in the *Dietary Guidelines for Children and Adolescents in Australia: Incorporating the Infant Feeding Guidelines for Health Workers*.^[1]

Fruit and vegetable consumption plays an important role in preventing disease. The recommended daily consumption of fruit is 1 serve for children aged 4-11 years, and 3 serves for children aged 12-18 years. The recommended daily vegetable intake is 2 serves for children aged 4-7 years and 3 serves for children aged 8 years and over.^[1] As the guidelines do not provide recommendations for children aged 2-3 years the recommendations for 4-7 year olds have been applied.^[1]

Fruit juice is an important source of vitamins and minerals; however, it is recommended to choose fruit more often than juice which is lower in fibre. Also, increasing juice consumption among children can be accompanied by a reduced consumption of milk (and hence calcium), and excessive consumption of fruit juice has been associated with carbohydrate malabsorption, chronic diarrhoea, excessive energy intake, and nursing-related bottle caries.

Milk is an excellent source of many nutrients including calcium, protein, riboflavin, and vitamin B12. Calcium is important for bone growth and attaining peak bone mass at adolescence, which protects against osteoporosis and fractures in later life. Other dairy foods such as yoghurt and cheese are also good sources of nutrients such as protein, vitamin A, some B group vitamins, and calcium. The recommended daily consumption of dairy products (including milk, yoghurt and cheese) 2 serves for children aged 4-11 years, and 3 serves for children aged 12-18 years.

A diet high in sugar, salt and fat is associated with increased health risk. Soft drinks or cordials, takeaway foods, fried potatoes and potato crisps and salty snacks, and processed meat products, have been monitored because they are significant contributors to these nutrients.

Television influences the food preferences of children.^[4,5] One recent study, which compared children's food preferences with the recommendations of the Dietary Guidelines, concluded that interventions are needed to shift children's preferences away from non-nutritious foods towards fruits and vegetables.^[6] In another recent study, parents expressed concern over the negative influence of television advertising on children's food preferences, suggested the current regulations governing food advertising were not adequately enforced, and wanted to see an overall reduction in food advertising directed at children as well as an increase in advertisements promoting healthy foods.^[7]

The NSW Government launched the NSW Healthy School Canteen Strategy following the NSW Childhood Obesity Summit in 2002. Branded as *Fresh Tastes @ School*, it defines, through a set of nutrient criteria, foods and drinks that should be sold on no more than 2 designated occasions per school term. These are foods that contain minimal nutritional value and contribute excess levels of saturated fat, kilojoules, added sugar or salt, or a combination of these.^[8]

Despite the good quality of the food supply in general, some population groups lack food security: that is, do not have sufficient access at all times to sufficient food for an active and healthy life. In children, food insecurity is a likely contributor to failure to thrive and ill health and is associated with socioeconomic disadvantage.

During 2005 and 2006, the New South Wales Population Health Survey asked parents or carers of children aged 2-15 years: How many serves of vegetables does child usually eat each day? How many serves of fruit does child usually eat each day? How many cups of fruit juice does child usually drink in a day? How many cups of milk does child usually drink in a day? How many serves of yoghurt does child usually eat each day? How many serves of custard does child usually eat each day? How many serves of cheese does child usually eat each day? How many cups of soft drink, cordials or sports drink, such as lemonade or Gatorade, does child usually drink in a day? How often does child have meals or snacks such as burgers, pizza, chicken or chips from places like McDonald's, Hungry Jacks, Pizza Hut, KFC, Red Rooster, or local takeaway places? How often does child eat hot chips, french fries, wedges or fried potatoes? How often

does child eat potato crisps or other salty snacks? How often does child eat processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon or ham? Who do you think should control the amount of television advertising of confectionary and takeaway food during children's viewing times? Are the types of foods child asks you to buy influenced by the television advertisements child sees? Parents or carers of children aged 5-15 years were also asked: Have you heard of the NSW Healthy School Canteen Strategy *Fresh Tastes @ School*? How did you hear about the strategy? In the last 12 months were there any times you ran out of food and couldn't afford to buy more? How do you cope with feeding child when this happens? What do you think about the amount of television advertising of confectionary and takeaway food during children's viewing times?

Results

Consumption of vegetables

Overall, 3.2 per cent of children did not consume vegetables each day, 6.8 per cent consumed less than 1 serve, 35.4 per cent consumed 1 serve, 27.6 per cent consumed 2 serves, 15.5 per cent consumed 3 serves, 7.7 per cent consumed 4 serves, 2.4 per cent consumed 5 serves, and 1.2 per cent consumed more than 5 serves.

Overall, 38.2 per cent of children aged 2-15 years consumed the recommended daily vegetable intake. A significantly lower proportion of children aged 9-15 years (32.5 per cent) consumed the recommended daily vegetable intake, compared with children aged 2-8 years (44.9 per cent). A significantly lower proportion of children in the most disadvantaged quintile (33.8 per cent) consumed the recommended daily vegetable intake. A significantly higher proportion of children in rural areas (41.1 per cent) than urban areas (36.8 per cent) consumed the recommended daily vegetable intake. A significantly lower proportion of children in the Sydney South West Health Area (33.5 per cent) consumed the recommended daily vegetable intake. A significantly lower proportion of children of mothers without tertiary qualifications (35.7 per cent) compared with children of mothers with tertiary qualifications (43.8 per cent), or children with mothers from a non English speaking background (28.9 per cent) compared with children of mothers from an English speaking background (40.8 per cent), consumed the recommended daily vegetable intake.

The proportion of children consuming the recommended daily vegetable intake increased significantly between 2001-2002 (13.0 per cent) and 2005-2006 (38.2 per cent). The increase was significant in both the 2-8 year age group (16.4 per cent to 44.9 per cent) and the 9-15 year age group (9.0 per cent to 32.5 per cent).

Consumption of fruit

Overall, 3.6 per cent of children did not consume fruit each day, 7.1 per cent consumed less than 1 serve, 32.1 per cent consumed 1 serve, 32.9 per cent consumed 2 serves, 15.4 per cent consumed 3 serves, and 8.9 per cent consumed more than 3 serves.

Overall, 68.8 per cent of children aged 2-15 years consumed the recommended daily fruit intake. A significantly lower proportion of children aged 9-15 years (48.2 per cent) consumed the recommended daily fruit intake, compared with children aged 2-8 years (92.5 per cent). There was no significant variation by socioeconomic status, or between rural areas and urban areas, or among health areas. A significantly lower proportion of children of mothers without tertiary qualifications (66.7 per cent) compared with children of mothers with tertiary qualifications (73.3 per cent), or children of mothers from a non English speaking background (65.2 per cent) compared with children of mothers from an English speaking background (69.8 per cent), consumed the recommended daily fruit intake.

Overall, the proportion of children aged 2-15 years consuming the recommended daily fruit intake has not increased significantly between 2001-2002 and 2005-2006. However, consumption among children aged 2-8 years has increased significantly (from 79.3 per cent to 92.5 per cent).

Consumption of fruit juice

Overall, 19.2 per cent of children did not consume fruit juice each day, 17.0 per cent consumed less than 1 cup, 35.1 per cent consumed 1 cup, 17.7 per cent consumed 2 cups, 6.8 per cent consumed 3 cups, and 4.2 per cent consumed more than 3 cups.

Consumption of milk and dairy products

Overall, 3.2 per cent of children did not consume milk each day, 7.7 per cent consumed less than 1 cup, 35.1 per cent consumed 1 cup, 33.3 per cent consumed 2 cups, 13.5 per cent consumed 3 cups, and 7.3 per cent consumed more than 3 cups.

Overall, 54.0 per cent of children aged 2-15 years consumed 2 or more cups of milk each day. A significantly lower proportion of children aged 9-15 years (51.8 per cent) consumed 2 or more cups of milk a day, compared with children aged 2-8 years (56.5 per cent). There was no significant variation by socioeconomic status. A significantly higher proportion of children in rural areas (57.9 per cent) than urban areas (52.1 per cent) consumed 2 or more cups of milk each day. A significantly higher proportion of children in the Hunter & New England Health Area (59.9 per cent) consumed 2 or more cups of milk each day. A significantly lower proportion of children of mothers from a non English speaking background (46.6 per cent) compared with children of mothers from an English speaking background (56.1 per cent), consumed 2 or more cups of milk each day.

The proportion of children consuming 2 or more cups of milk each day has decreased significantly between 2001-2002 (58.2 per cent) and 2005-2006 (54.0 per cent). The decrease was not significant in the 2-8 year age group but was significant in the 9-15 year age group (from 56.8 per cent to 51.8 per cent).

Overall, 71.1 per cent of children aged 2-15 years consumed the recommended dairy intake each day. A significantly lower proportion of children aged 9-15 years (59.4 per cent) consumed the recommended dairy intake each day, compared with children aged 2-8 years (84.5 per cent). A significantly higher proportion of children in the second least disadvantaged quintile (76.6 per cent) consumed the recommended dairy intake each day. A significantly higher proportion of children in rural areas (73.4 per cent) than urban areas (70.0 per cent) consumed the recommended dairy intake each day. A significantly higher proportion of children in the Greater Western Health Area (76.2 per cent), and a significantly lower proportion of children in the Northern Sydney & Central Coast Health Area (65.2 per cent), consumed the recommended dairy intake each day. A significantly lower proportion of children of mothers from a non English speaking background (64.2 per cent), compared with children of mothers from an English speaking background (73.0 per cent), consumed the recommended dairy intake each day.

The proportion of children consuming the recommended dairy intake each day has increased significantly between 2001-2002 (53.0 per cent) and 2005-2006 (71.1 per cent). The increase was significant in both the 2-8 year age group (from 58.0 per cent to 84.5 per cent) and the 9-15 year age group (from 47.3 per cent to 59.4 per cent).

Consumption of foods high in sugar and salt and fat

Overall, 36.8 per cent of children did not consume soft drink or cordial, 9.5 per cent consumed 1 cup, 9.8 per cent consumed 2 cups, 10.6 per cent consumed 3-5 cups, 17.3 per cent consumed 6-10 cups, and 16.1 per cent consumed 11 or more cups a week.

Overall, 17.7 per cent of children did not consume takeaway foods, 44.1 per cent consumed them less than once a week, 28.9 per cent consumed them once a week, 9.2 per cent consumed them more than once a week but less than daily, and 0.1 per cent consumed them daily or more.

Overall, 24.1 per cent of children did not consume hot fried potatoes, 32.4 per cent consumed them less than once a week, 28.0 per cent consumed them once a week, 9.3 per cent consumed them twice a week, 3.9 per cent consumed them 3 times a week, 1.1 per cent consumed them 4 times a week, 0.4 per cent consumed them 5 times a week, and 0.8 per cent consumed them more than 5 times a week.

Overall, 20.2 per cent of children did not consume potato crisps or salty snacks, 16.1 per cent consumed them less than once a week, 17.8 per cent consumed them once a week, 12.8 per cent consumed them twice a week, 9.8 per cent consumed them 3 times a week, 3.4 per cent consumed them 4 times a week, 3.0 per cent consumed them 5 times a week, and 16.9 per cent consumed them more than 5 times a week.

Overall, 14.2 per cent of children did not consume processed meats, 10.3 per cent consumed them less than once a week, 22.4 per cent consumed them once a week, 21.8 per cent consumed them twice a week, 12.7 per cent consumed them 3 times a week, 5.4 per cent consumed them 4 times a week, 2.1 per cent consumed them 5 times a week, and 11.2 per cent consumed them more than 5 times a week.

Effect of television advertising on child food preferences

Overall, 81.2 per cent of parents or carers thought there was too much advertising of confectionary and takeaway food during children's television viewing time, 17.1 per cent thought the amount of advertising was about right, and 1.7 per cent thought there was not enough advertising.

Overall, 46.7 per cent of parents or carers thought government should be responsible, 29.1 per cent thought parents should be responsible, and 16.7 per cent thought television stations should be responsible, for regulation of advertising of confectionary and takeaway food during children's television viewing time.

Overall, 43.5 per cent of parents or carers believe television advertising influences what food their child asks them to buy. There was no significant variation by the child's age group. A significantly lower proportion of parents or carers in the least disadvantaged quintile (36.8 per cent) believe television advertising influences what food their child asks them to buy. There was no significant variation between rural areas and urban areas, or among health areas. A significantly higher proportion of mothers from a non English speaking background (51.3 per cent), compared with mothers from an English speaking background (41.3 per cent), believe television advertising influences what food their child asks them to buy.

Knowledge of Fresh Tastes @ School

Overall, 77.4 per cent of parents or carers of children aged 5-15 years had heard about *Fresh Tastes @ School*. Parents or carers heard about the strategy through: school newsletter (50.3 per cent), the media (20.3 per cent), working in the school canteen (10.3 per cent), information session at school (7.8 per cent), heard from other parents (4.9 per cent), heard from my children (3.0 per cent), and being on the school canteen committee (2.4 per cent).

There was no significant variation among parents or carers who had heard about the strategy by the child's age group. A significantly higher proportion of parents or carers in the second most disadvantaged quintile (85.1 per cent) had heard about the strategy. A significantly higher proportion of parents or carers in rural areas (86.1 per cent) than urban areas (73.3 per cent) had heard about the strategy. A significantly higher proportion of parents or carers in the Hunter & New England (86.4 per cent) and North Coast (87.9 per cent) and Greater Southern (86.1 per cent) Health Areas, and a significantly lower proportion of parents or carers in the Sydney South West Health Area (70.3 per cent), had heard about the strategy. A significantly lower proportion of mothers from a non English speaking background (64.0 per cent), compared with mothers from an English speaking background (81.2 per cent), had heard about the strategy.

Food insecurity

Overall, 5.5 per cent of parents or carers of children aged 2-15 years experienced food insecurity in the last 12 months. There was no significant variation between age groups, by socioeconomic status, or between rural areas and urban areas, or among health areas. A significantly higher proportion of mothers without tertiary qualifications (6.5 per cent), compared with mothers with tertiary qualifications (3.3 per cent), experienced food insecurity in the last 12 months.

Overall, the proportion of parents or carers experiencing food insecurity has not varied significantly between 2001-2002 and 2005-2006. However, a significantly lower proportion of parents or carers of children aged 9-15 years experienced food insecurity between 2001-2002 and 2005-2006 (from 7.3 per cent to 4.9 per cent).

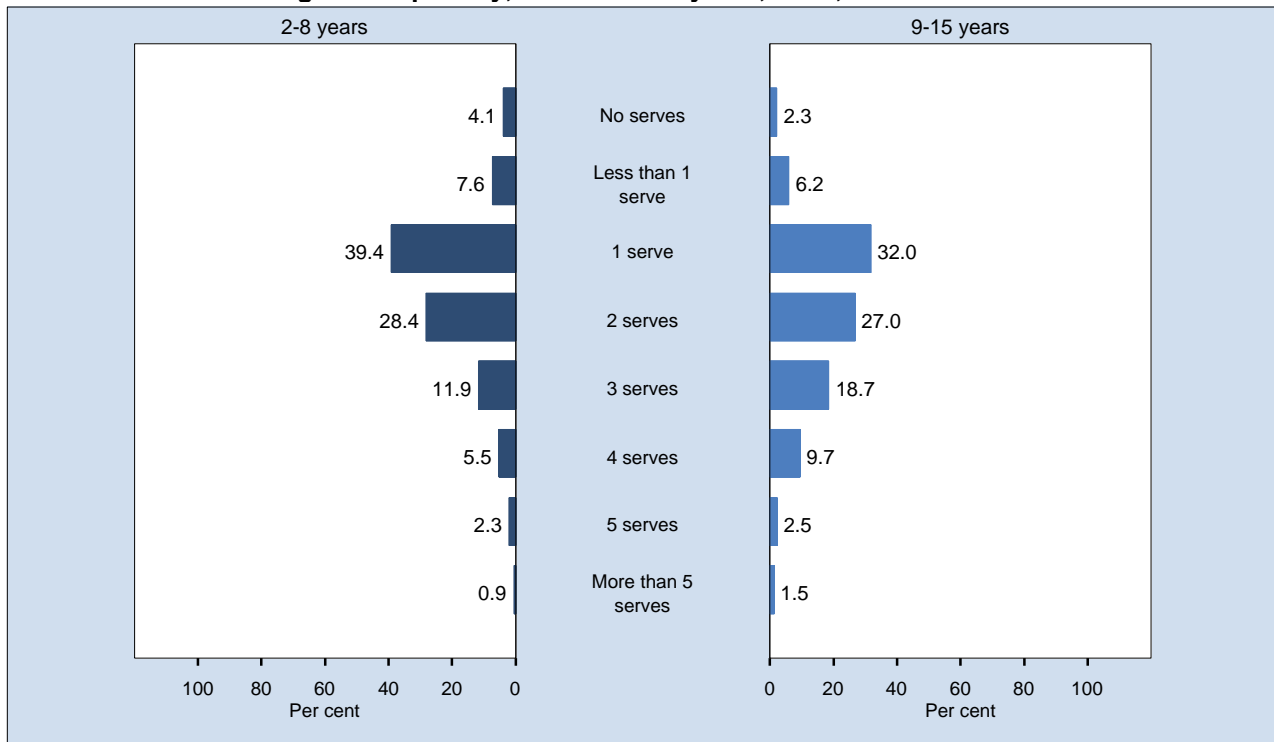
Family coping methods for food insecurity include: cut down on the variety of foods family eats (40.3 per cent), seek help from relatives (27.7 per cent), seek help from welfare agencies (12.8 per cent), parent or carer skips meals or eats less (13.2 per cent), seek help from friends (5.9 per cent), seek help from government or social security (2.7 per cent), and child skips meals or eats less (1.7 per cent).

References

1. National Health and Medical Research Council. Children and adolescents need sufficient nutritious foods to grow and develop normally. *Dietary Guidelines for Children and Adolescents in Australia: Incorporating the Infant Feeding Guidelines for Health Workers* online at www.nhmrc.gov.au/publications/synopses/dietsyn.htm, accessed 7 November 2007.
2. National Health and Medical Research Council. *Australian Guide to Healthy Eating* online at www.health.gov.au/internet/wcms/Publishing.nsf/Content/health-pubhlth-strateg-food-guide-index.htm, accessed 7 November 2007.

3. Smith A, Kellett E, and Schmerlaib Y. *Australian Guide to Healthy Eating: Background information for nutrition educators* online at www.health.gov.au/internet/wcms/Publishing.nsf/Content/health-pubhlth-strateg-food-guide-index.htm, accessed 7 November 2007.
4. Hancox RJ, Poulton R. Watching television is associated with childhood obesity: but is it clinically important? *Int J Obes* 2006; 30(1): 171-5. Abstract available online at www.ncbi.nlm.nih.gov, accessed 8 November 2007.
5. Hancox R, Milne B, Poulton R. Association between child and adolescent television viewing and adult health: a longitudinal birth cohort study. *The Lancet* 2004; 364: 257-262, abstract available online at www.thelancet.com, accessed 8 November 2007.
6. Russell CG and Worsley A. Do children's food preferences align with dietary recommendations? *Public Health Nutrition* 2007; 10(11): 1223-1233.
7. Ip J, Mehta KP, Coveney J. Exploring parents' perceptions of television food advertising directed at children: A South Australian study. *Nutrition & Dietetics* 2007, 64 (1): 5058.
8. Nutrition and Physical Activity Branch. *NSW Healthy School Canteen Strategy Evaluation Report 2005*. Sydney: NSW Department of Health, 2006. Available online at www.health.nsw.gov.au/pubs/2006/canteens_evaluation.html, accessed 22 November 2007.

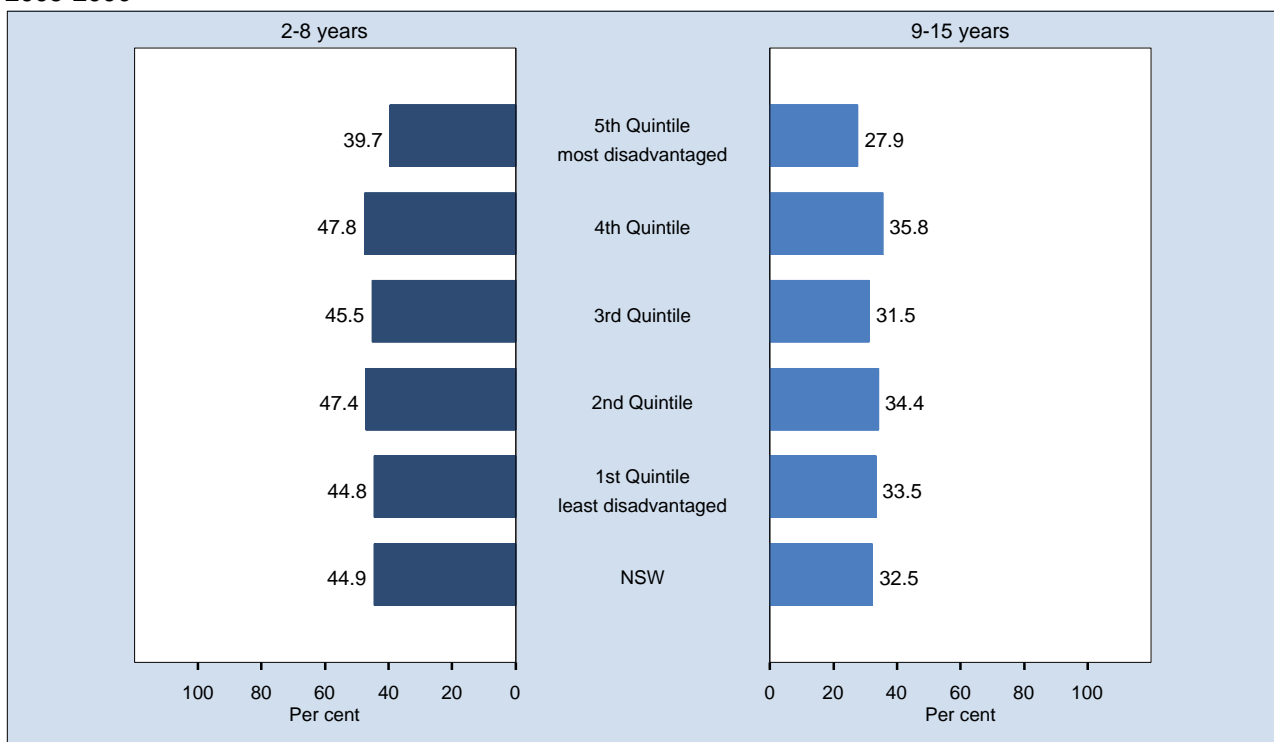
Number of serves of vegetables per day, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,919 respondents in NSW. For this indicator 30 (0.76%) were not stated (Don't know or Refused) in NSW. The question used was: How many serves of vegetables does child usually eat each day? One serve is equivalent to 1/2 cup of cooked vegetables or 1 cup of salad vegetables.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

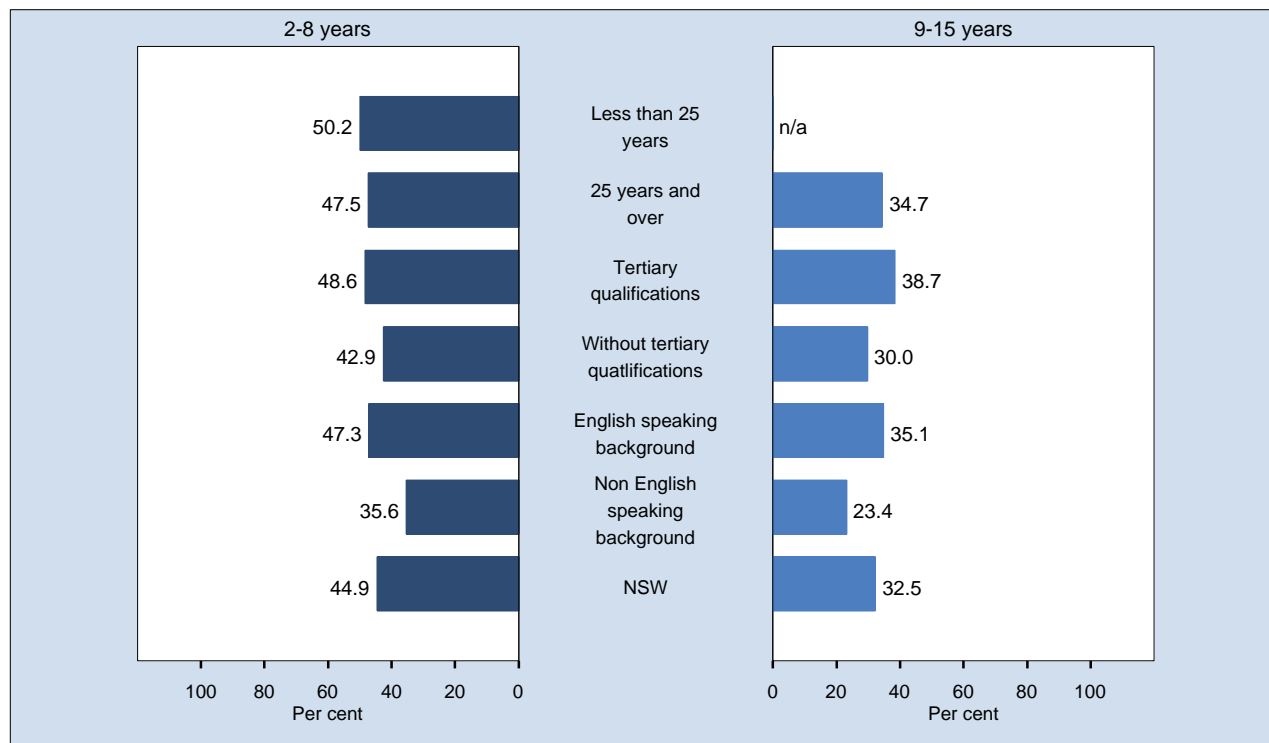
Recommended daily vegetable intake by socioeconomic disadvantage, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,919 respondents in NSW. For this indicator 30 (0.76%) were not stated (Don't know or Refused) in NSW. The indicator includes children who consumed the recommended daily intake of vegetables. The recommended daily vegetable intake according to the NHMRC Dietary Guidelines for Australian children and adolescents is defined as 2 serves per day for children aged 4-7 years and 3 serves per day for children aged 8 years and over. The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-7 year old children have been applied. 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 does child usually eat each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

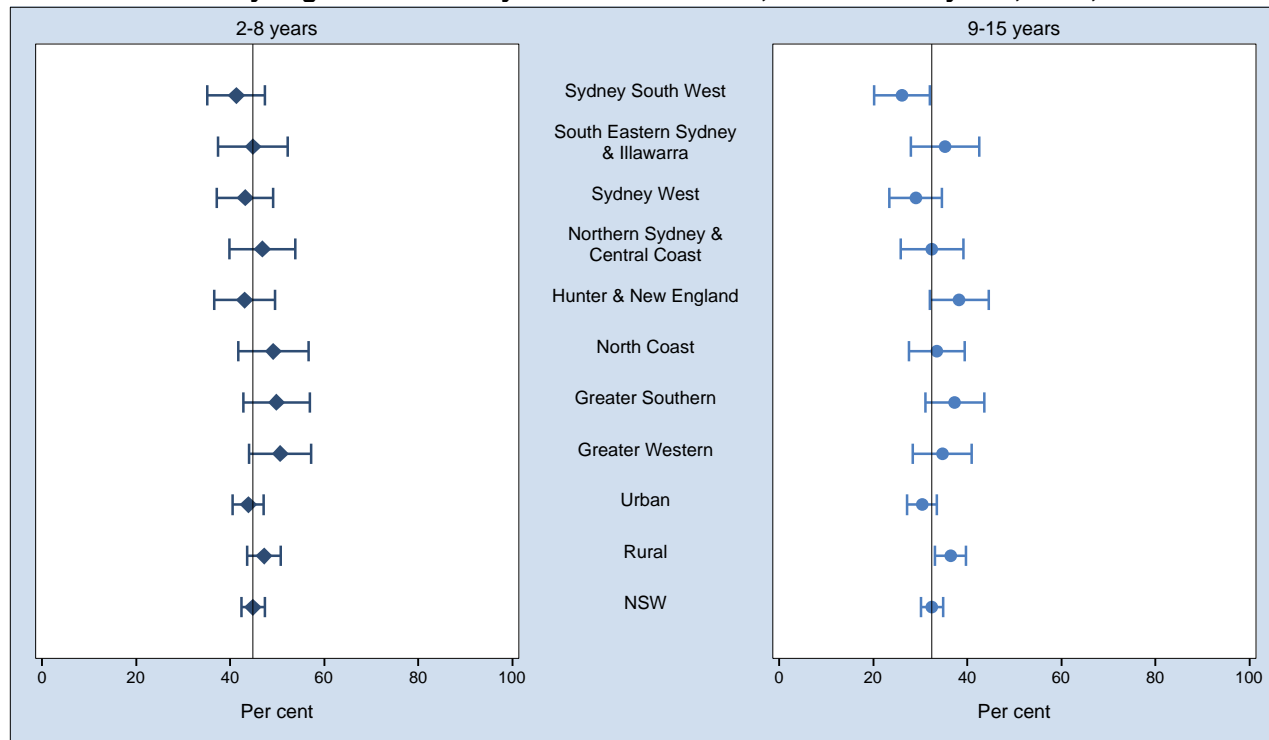
Recommended daily vegetable intake by mothers' characteristics, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,919 respondents in NSW. For this indicator 30 (0.76%) were not stated (Don't know or Refused) in NSW. The indicator includes children who consumed the recommended daily intake of vegetables. The recommended daily vegetable intake according to the NHMRC Dietary Guidelines for Australian children and adolescents is defined as 2 serves per day for children aged 4-7 years and 3 serves per day for children aged 8 years and over. The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-7 year old children have been applied. 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 does child usually eat each day? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

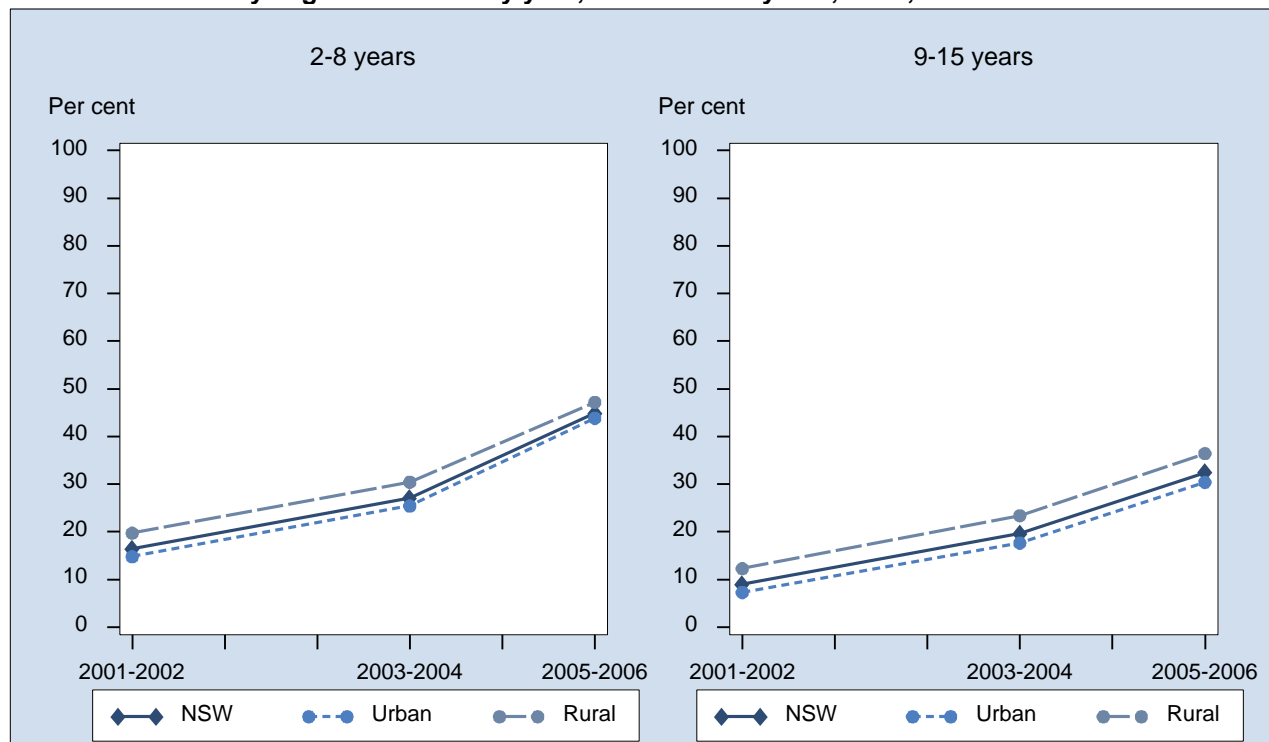
Recommended daily vegetable intake by area health service, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,919 respondents in NSW. For this indicator 30 (0.76%) were not stated (Don't know or Refused) in NSW. The indicator includes children who consumed the recommended daily intake of vegetables. The recommended daily vegetable intake according to the NHMRC Dietary Guidelines for Australian children and adolescents is defined as 2 serves per day for children aged 4-7 years and 3 serves per day for children aged 8 years and over. The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-7 year old children have been applied. 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 does child usually eat each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

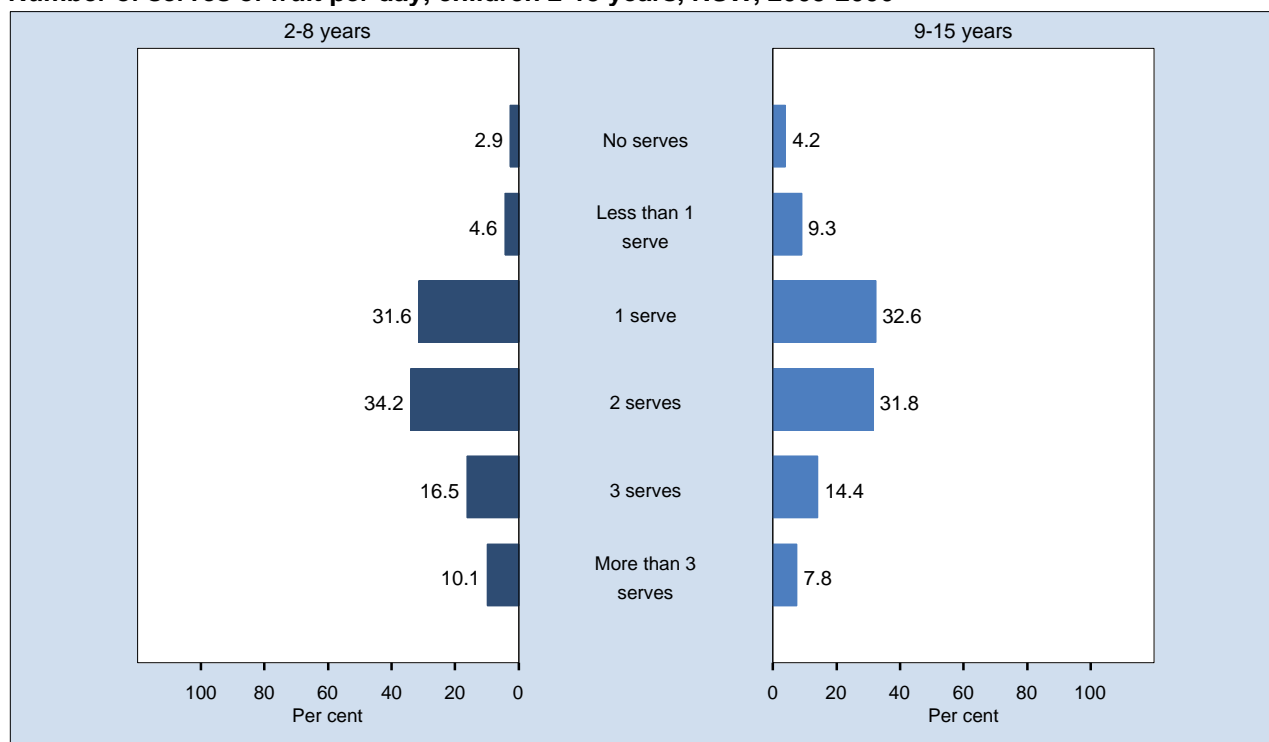
Recommended daily vegetable intake by year, children 2-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (7,847), 2004 (7,654), 2006 (3,919). The indicator includes children who consumed the recommended daily intake of vegetables. The recommended daily vegetable intake according to the NHMRC Dietary Guidelines for Australian children and adolescents is defined as 2 serves per day for children aged 4-7 years and 3 serves per day for children aged 8 years and over. The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-7 year old children have been applied. 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 does child usually eat each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

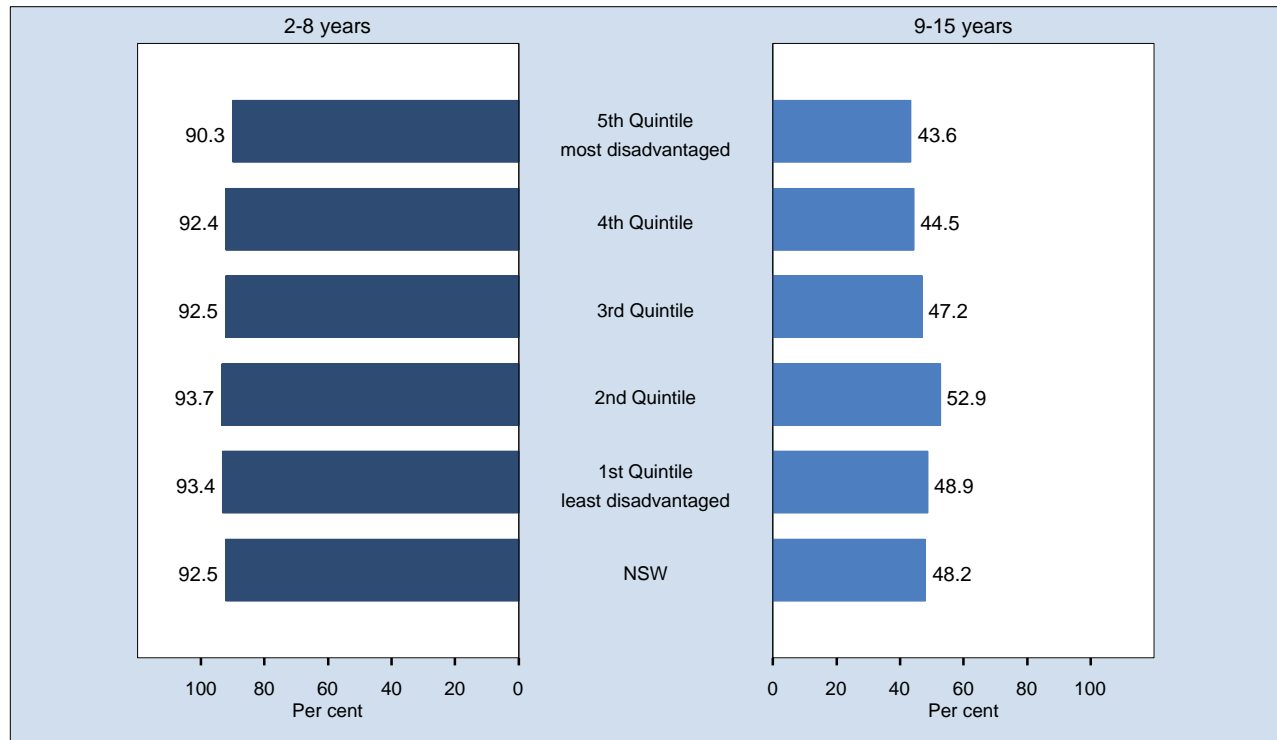
Number of serves of fruit per day, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,927 respondents in NSW. For this indicator 22 (0.56%) were not stated (Don't know or Refused) in NSW. The question used was: How many serves of fruit does child usually eat each day? One serve is equivalent to 1 medium piece or 2 small pieces of fruit.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

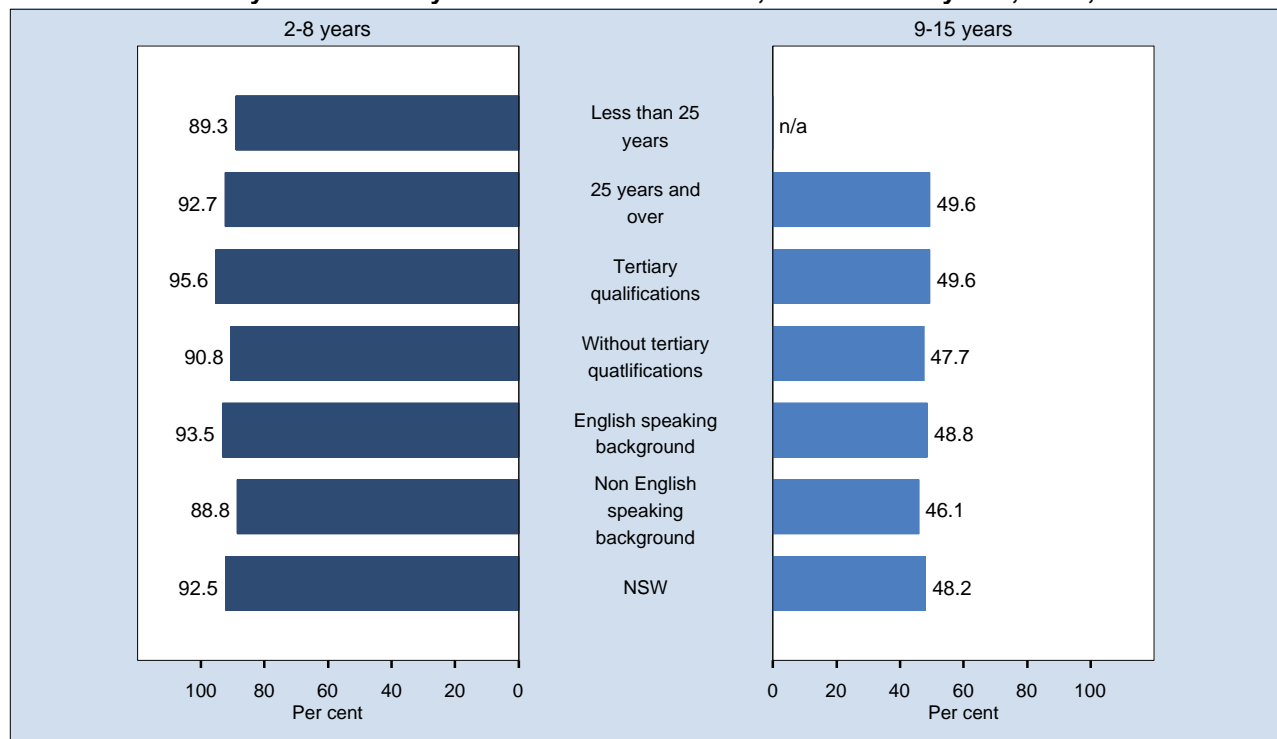
Recommended daily fruit intake by socioeconomic disadvantage, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,927 respondents in NSW. For this indicator 22 (0.56%) were not stated (Don't know or Refused) in NSW. The indicator includes children who meet the recommended daily consumption of fruit. The recommended daily consumption of fruit according to the NHMRC Dietary Guidelines for Australian children and adolescents is 1 serve for children aged 4-11 years and 3 serves for children aged 12-18. The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-11 year old children have been applied. One serve is equivalent to 1 medium piece or 2 small pieces of fruit. The question used to define the indicator was: How many serves of fruit does child usually eat each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

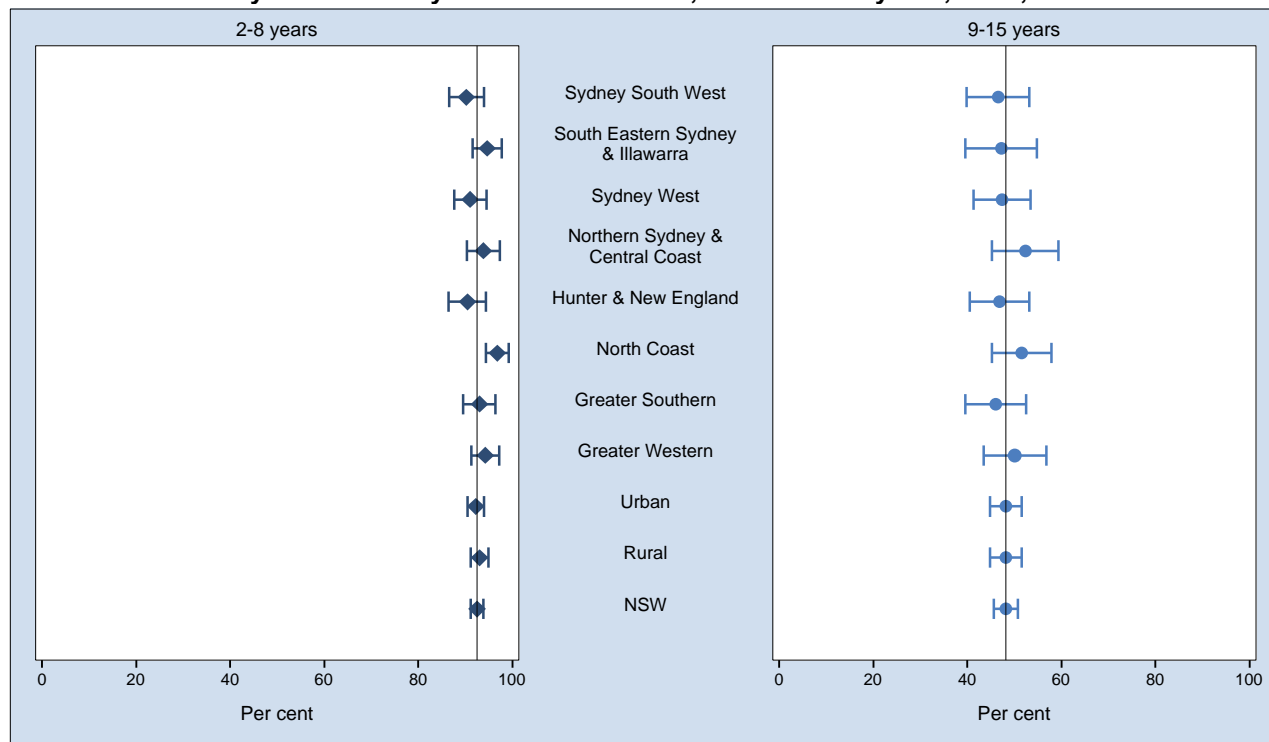
Recommended daily fruit intake by mothers' characteristics, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,927 respondents in NSW. For this indicator 22 (0.56%) were not stated (Don't know or Refused) in NSW. The indicator includes children who meet the recommended daily consumption of fruit. The recommended daily consumption of fruit according to the NHMRC Dietary Guidelines for Australian children and adolescents is 1 serve for children aged 4-11 years and 3 serves for children aged 12-18. The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-11 year old children have been applied. One serve is equivalent to 1 medium piece or 2 small pieces of fruit. The question used to define the indicator was: How many serves of fruit does child usually eat each day? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

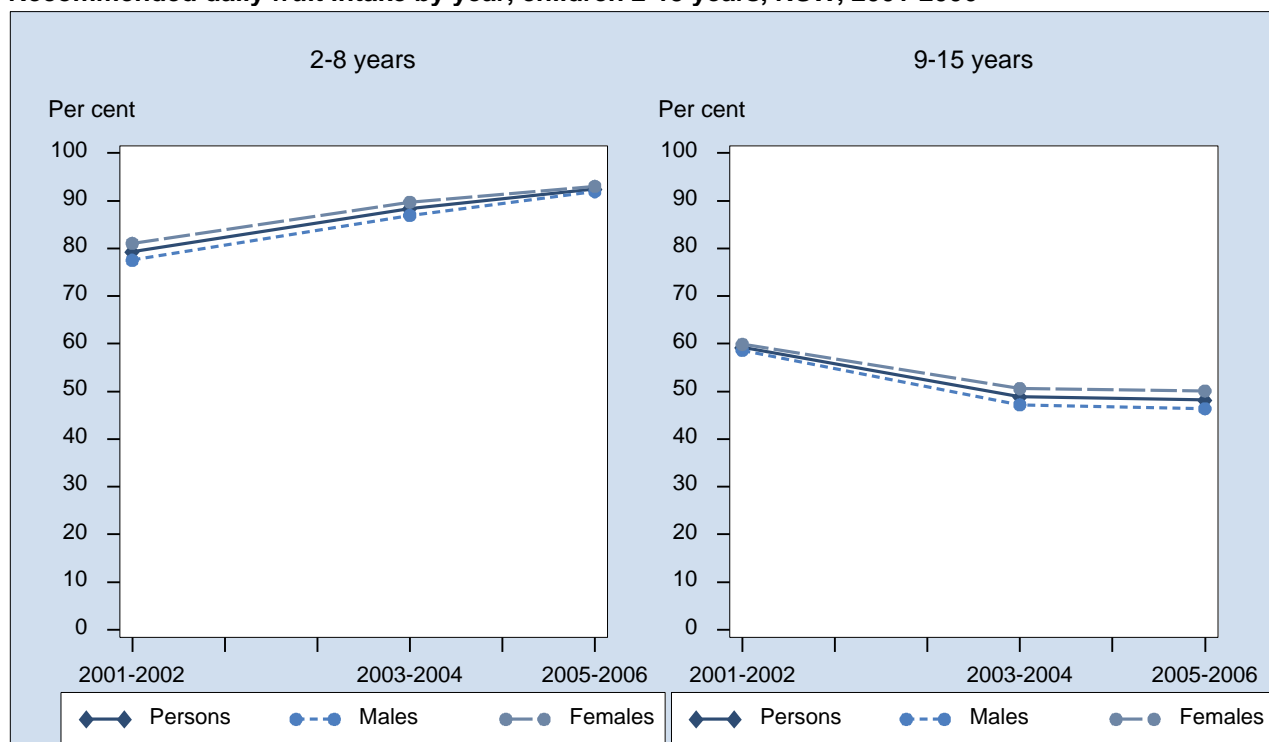
Recommended daily fruit intake by area health service, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,927 respondents in NSW. For this indicator 22 (0.56%) were not stated (Don't know or Refused) in NSW. The indicator includes children who meet the recommended daily consumption of fruit. The recommended daily consumption of fruit according to the NHMRC Dietary Guidelines for Australian children and adolescents is 1 serve for children aged 4-11 years and 3 serves for children aged 12-18. The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-11 year old children have been applied. One serve is equivalent to 1 medium piece or 2 small pieces of fruit. The question used to define the indicator was: How many serves of fruit does child usually eat each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

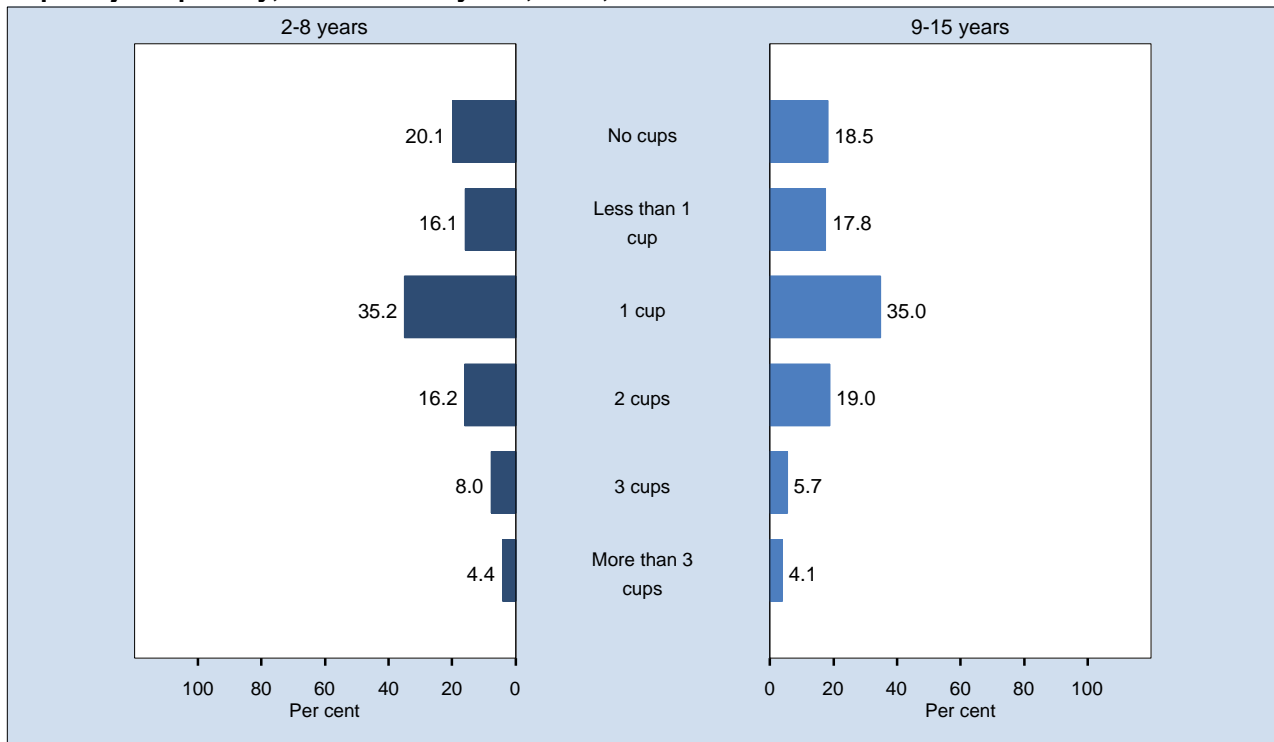
Recommended daily fruit intake by year, children 2-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (7,882), 2004 (4,250), 2006 (3,927). The indicator includes children who meet the recommended daily consumption of fruit. The recommended daily consumption of fruit according to the NHMRC Dietary Guidelines for Australian children and adolescents is 1 serve for children aged 4-11 years and 3 serves for children aged 12-18. The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-11 year old children have been applied. One serve is equivalent to 1 medium piece or 2 small pieces of fruit. The question used to define the indicator was: How many serves of fruit does child usually eat each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

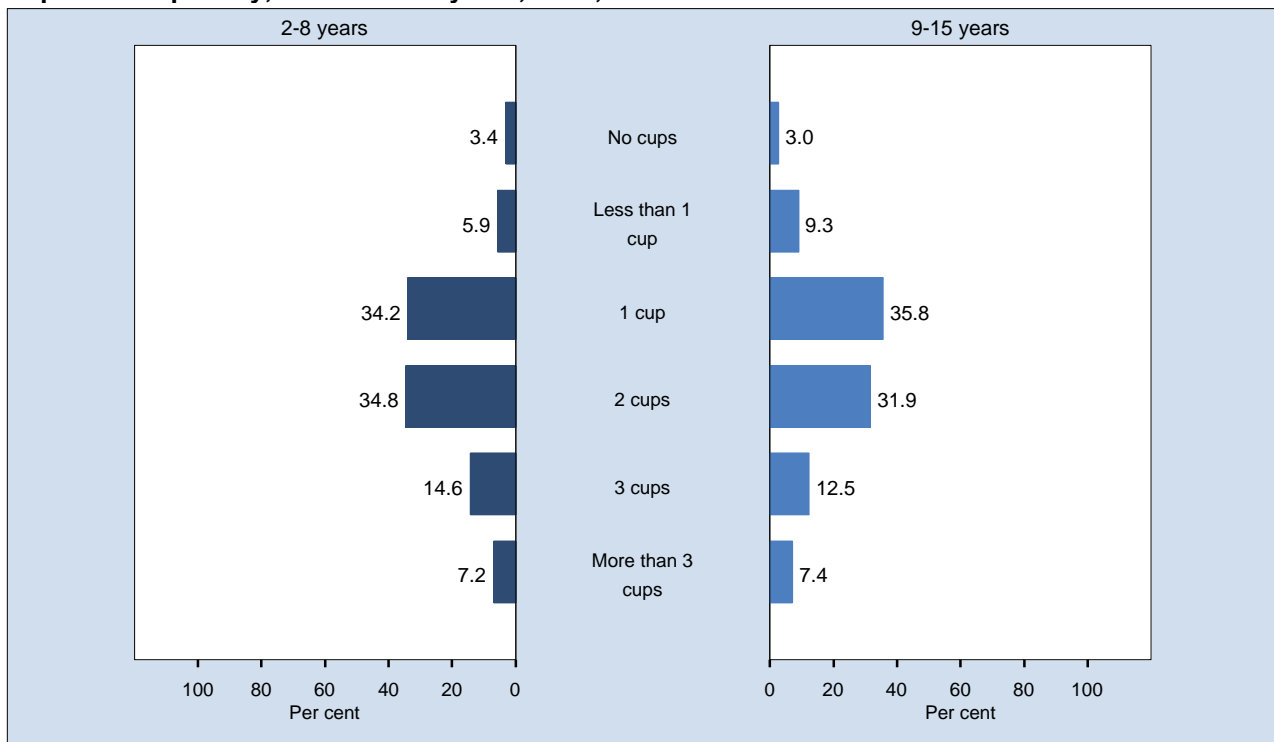
Cups of juice per day, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,925 respondents in NSW. For this indicator 24 (0.61%) were not stated (Don't know or Refused) in NSW. The question used was: How many cups of fruit juice does child usually drink in a day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

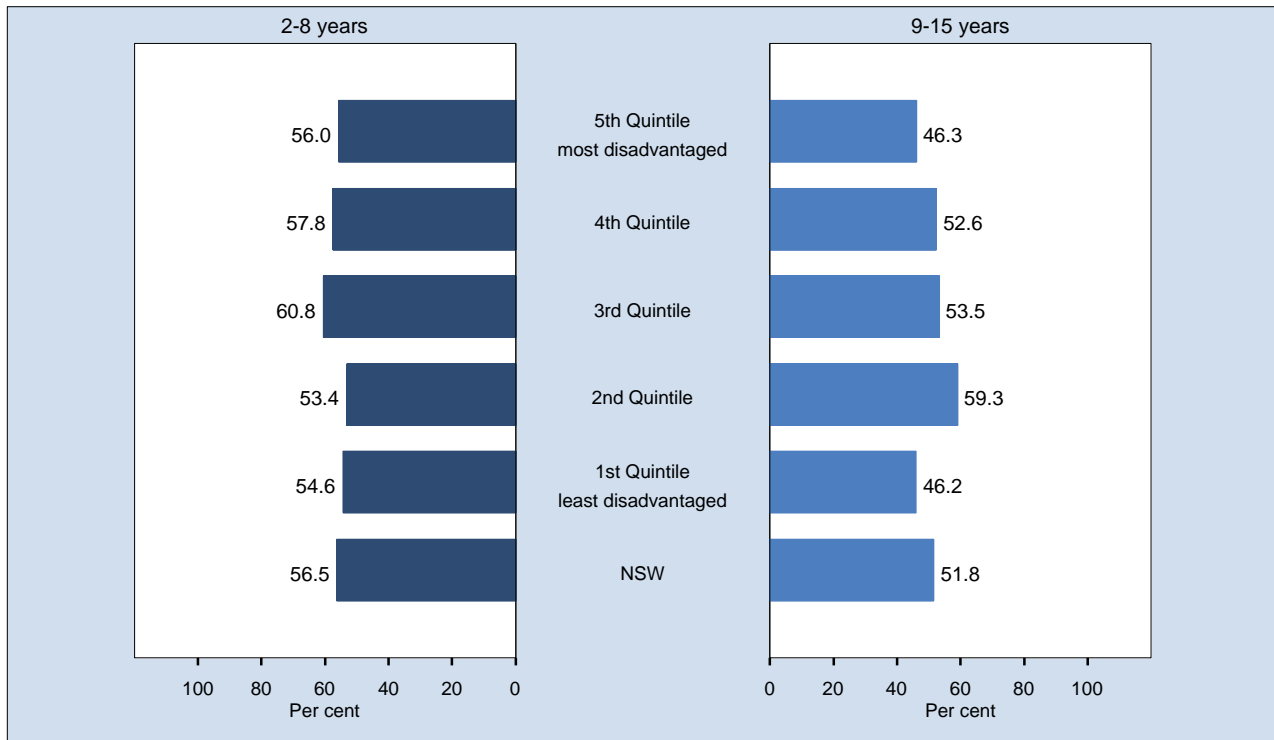
Cups of milk per day, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,893 respondents in NSW. For this indicator 18 (0.46%) were not stated (Don't know or Refused) in NSW. The question used was: How many cups of milk does child usually drink each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

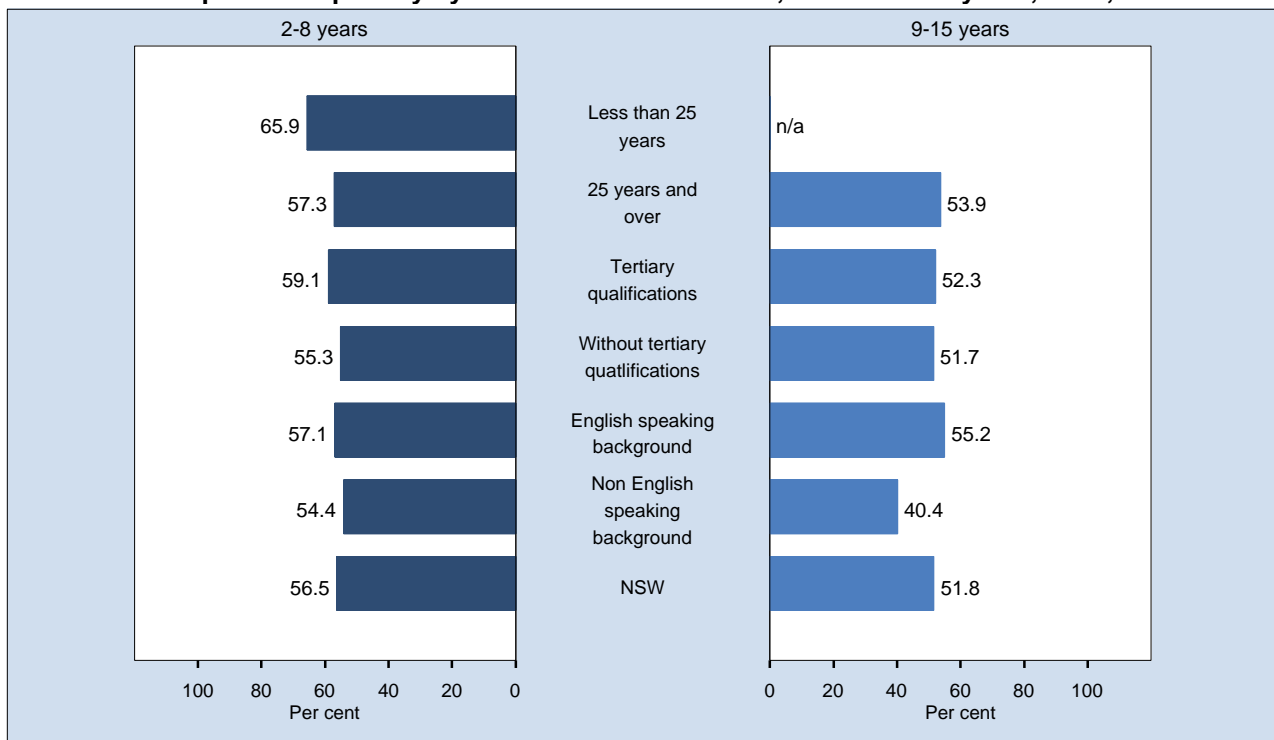
Two or more cups of milk per day by socioeconomic disadvantage, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,893 respondents in NSW. For this indicator 18 (0.46%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have 2 cups of milk or more per day. The question used to define the indicator was: How many cups of milk does child usually drink each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

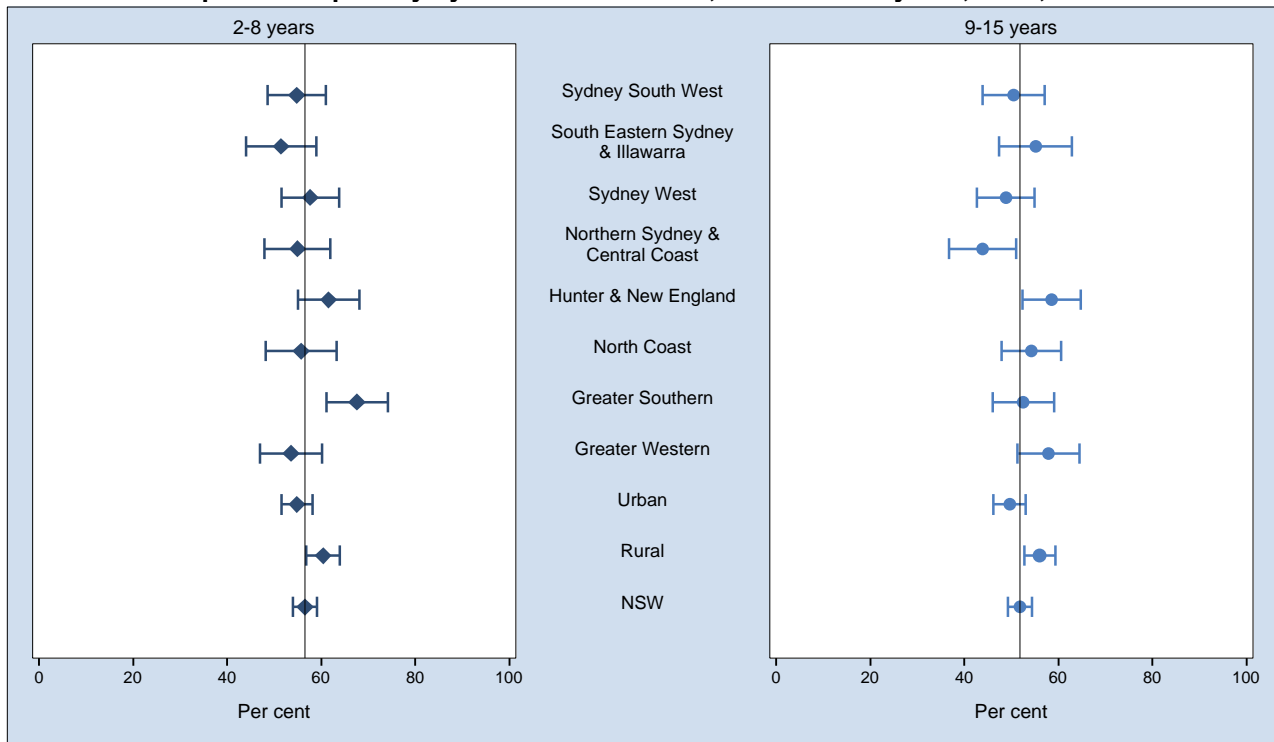
Two or more cups of milk per day by mothers' characteristics, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,893 respondents in NSW. For this indicator 18 (0.46%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have 2 cups of milk or more per day. The question used to define the indicator was: How many cups of milk does child usually drink each day? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

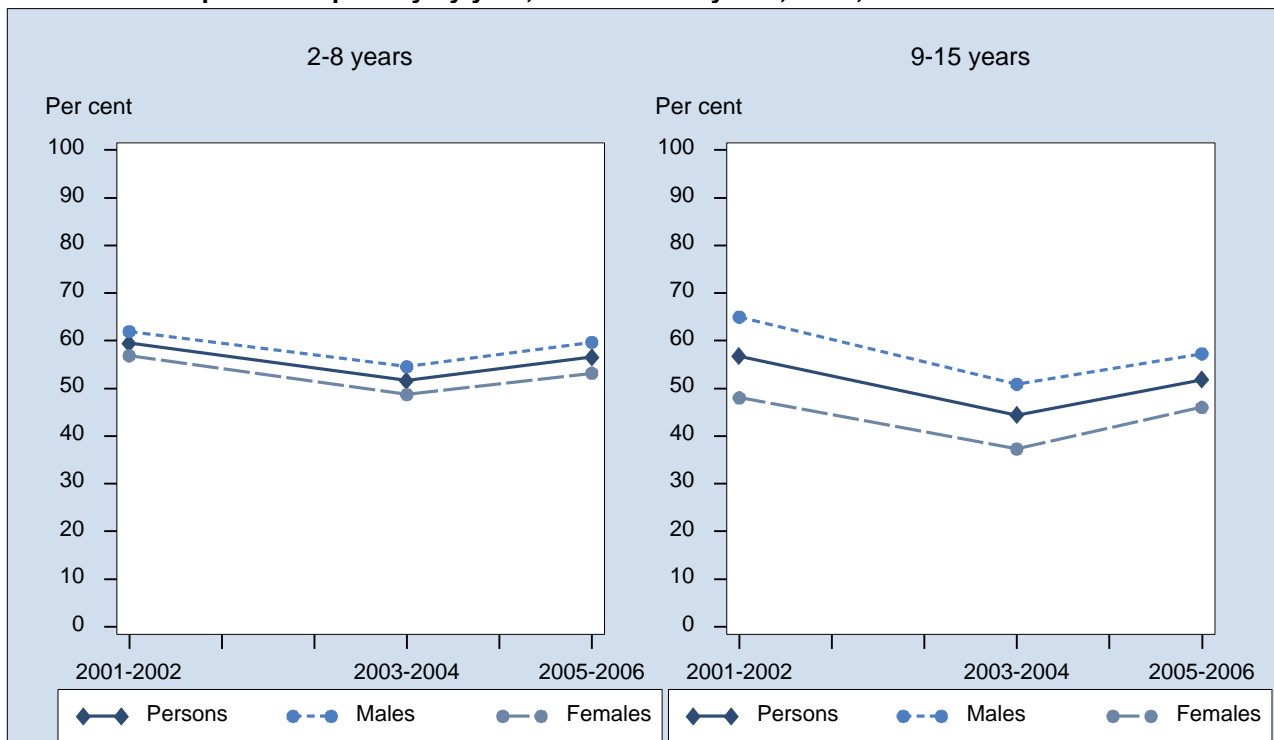
Two or more cups of milk per day by area health service, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,893 respondents in NSW. For this indicator 18 (0.46%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have 2 cups of milk or more per day. The question used to define the indicator was: How many cups of milk does child usually drink each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

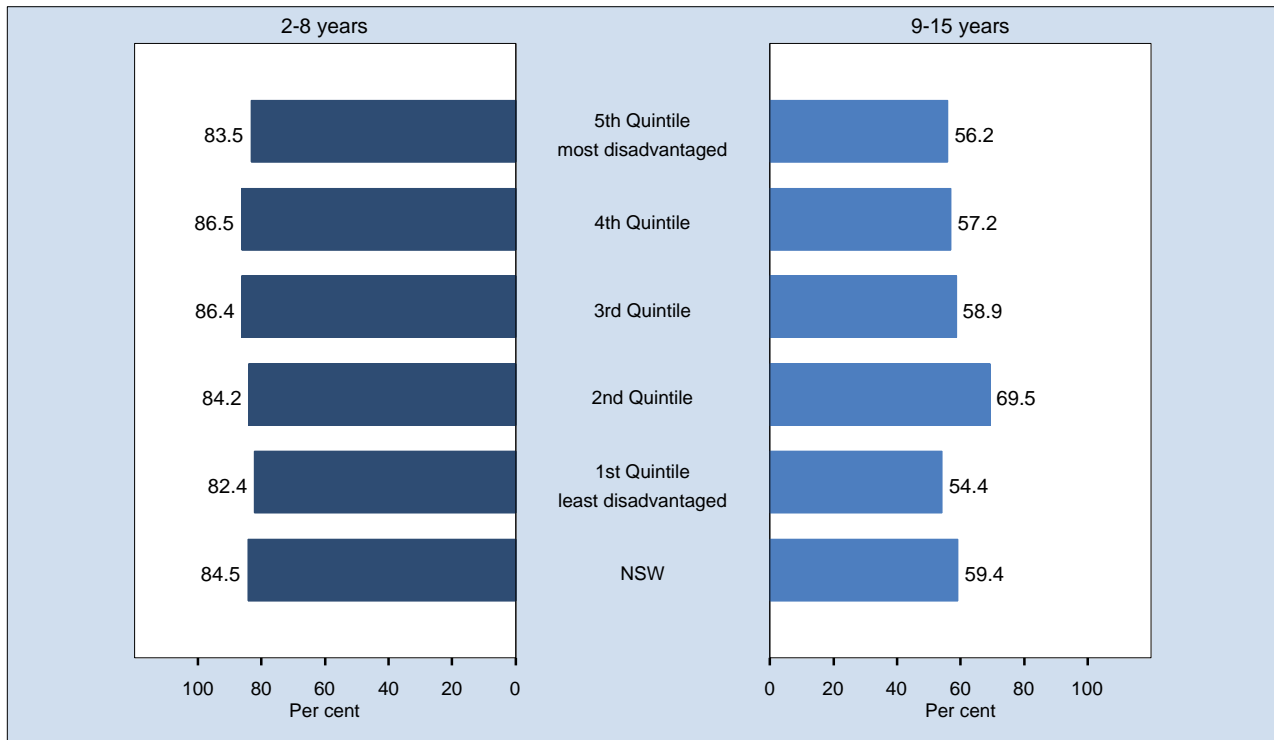
Two or more cups of milk per day by year, children 2-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (7,725), 2004 (4,186), 2006 (3,893). The indicator includes children who have 2 cups of milk or more per day. The question used to define the indicator was: How many cups of milk does child usually drink each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

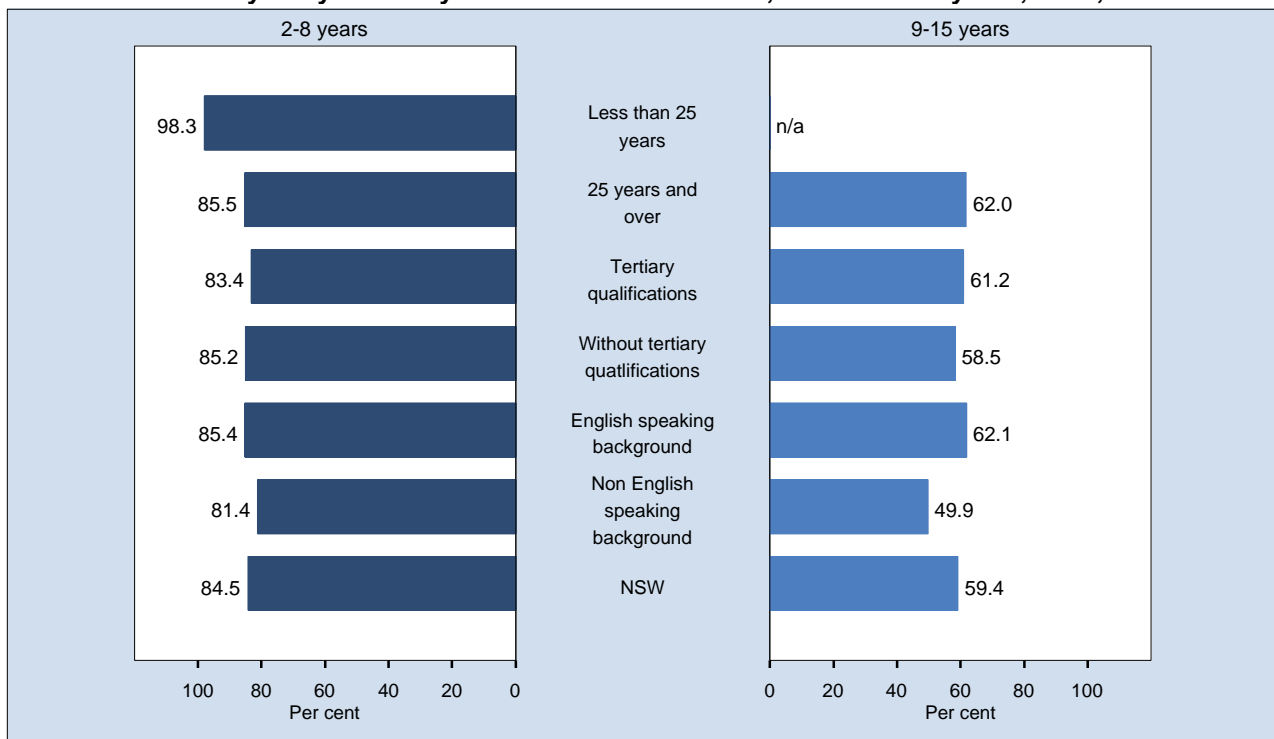
Recommended daily dairy intake by socioeconomic disadvantage, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,831 respondents in NSW. For this indicator 118 (2.99%) were not stated (Don't know or Refused) in NSW. The indicator includes children who consume the recommended daily intake of dairy products (2 serves per day of milk, cheese, yoghurt or custard if aged 4-11 years or 3 serves per day if aged 12-15 years). The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-11 year old children have been applied. The questions used to define the indicator were: How many cups of milk does child drink per day? How many serves of custard does child have per day? How many serves of yoghurt does child have per day? How many serves of cheese does child have per day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

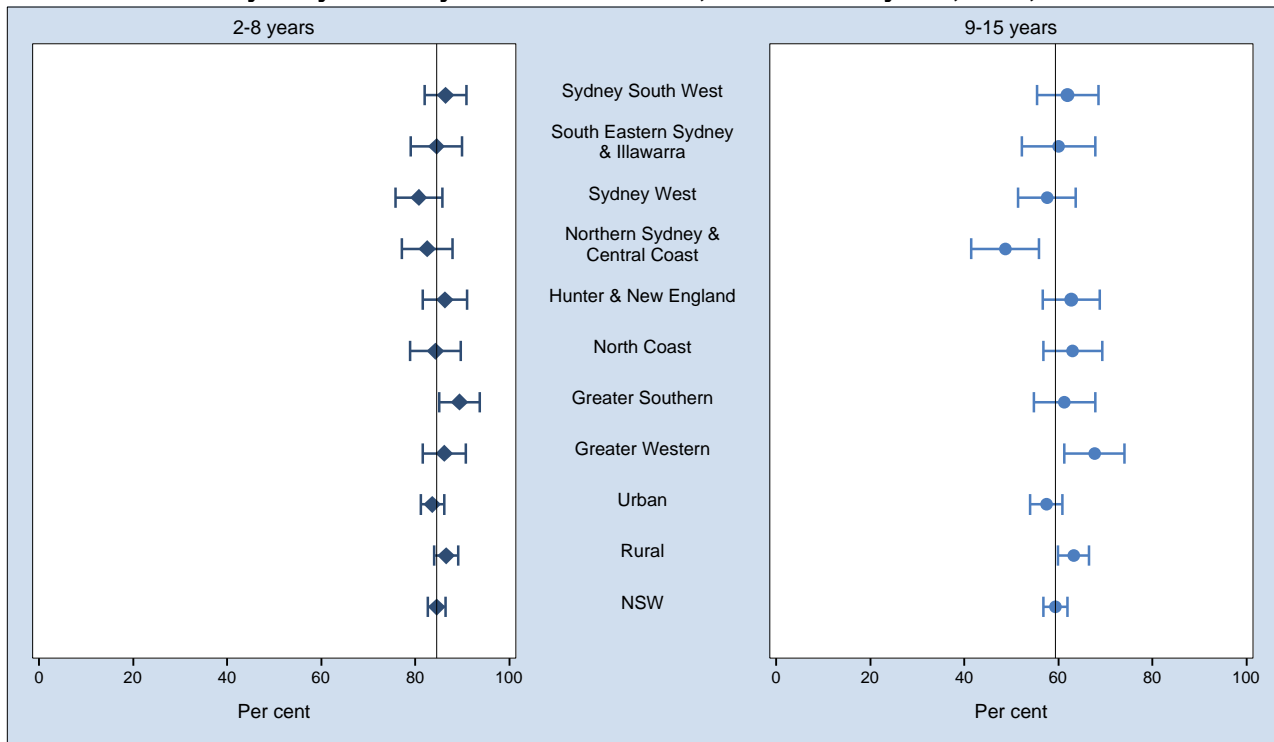
Recommended daily dairy intake by mothers' characteristics, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,831 respondents in NSW. For this indicator 118 (2.99%) were not stated (Don't know or Refused) in NSW. The indicator includes children who consume the recommended daily intake of dairy products (2 serves per day of milk, cheese, yoghurt or custard if aged 4-11 years or 3 serves per day if aged 12-15 years). The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-11 year old children have been applied. The questions used to define the indicator were: How many cups of milk does child drink per day? How many serves of custard does child have per day? How many serves of yoghurt does child have per day? How many serves of cheese does child have per day? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

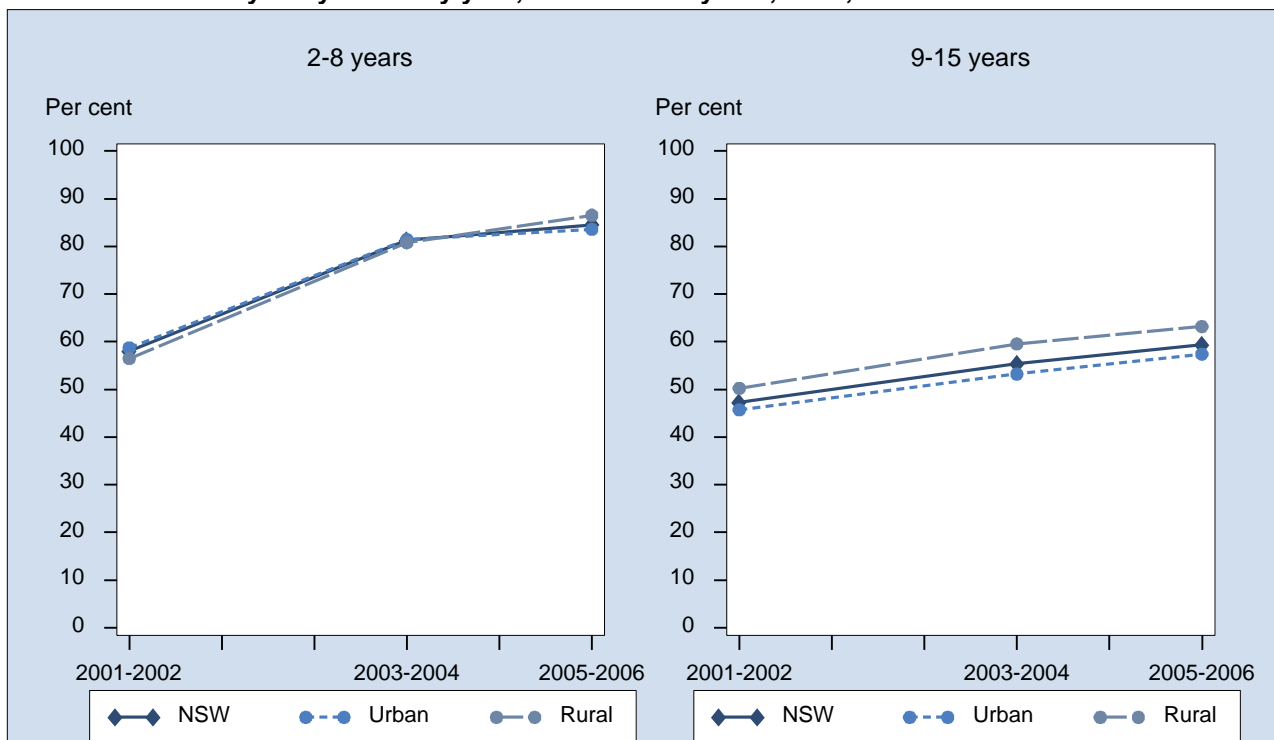
Recommended daily dairy intake by area health service, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,831 respondents in NSW. For this indicator 118 (2.99%) were not stated (Don't know or Refused) in NSW. The indicator includes children who consume the recommended daily intake of dairy products (2 serves per day of milk, cheese, yoghurt or custard if aged 4-11 years or 3 serves per day if aged 12-15 years). The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-11 year old children have been applied. The questions used to define the indicator were: How many cups of milk does child drink per day? How many serves of custard does child have per day? How many serves of yoghurt does child have per day? How many serves of cheese does child have per day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

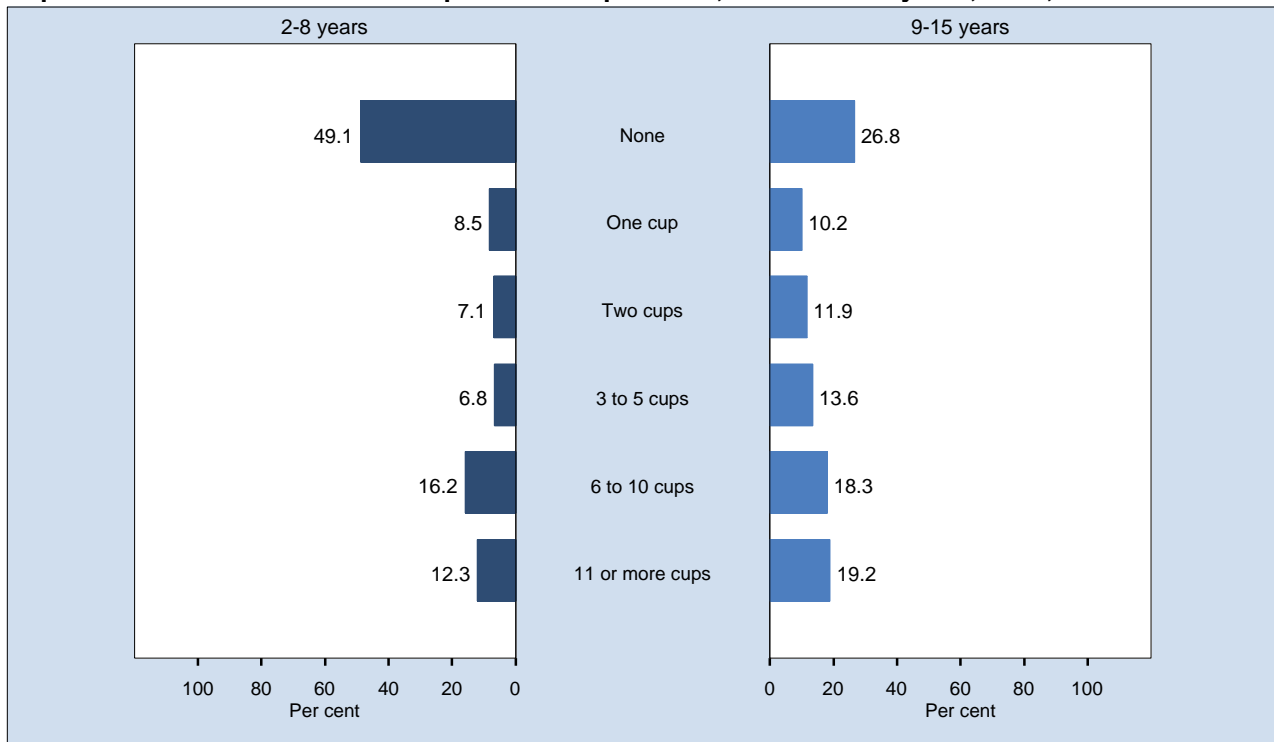
Recommended daily dairy intake by year, children 2-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (7,905), 2004 (4,174), 2006 (3,831). The indicator includes children who consume the recommended daily intake of dairy products (2 serves per day of milk, cheese, yoghurt or custard if aged 4-11 years or 3 serves per day if aged 12-15 years). The guide does not provide recommendations for children aged 2-3 years and so the recommendations for 4-11 year old children have been applied. The questions used to define the indicator were: How many cups of milk does child drink per day? How many serves of custard does child have per day? How many serves of yoghurt does child have per day? How many serves of cheese does child have per day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

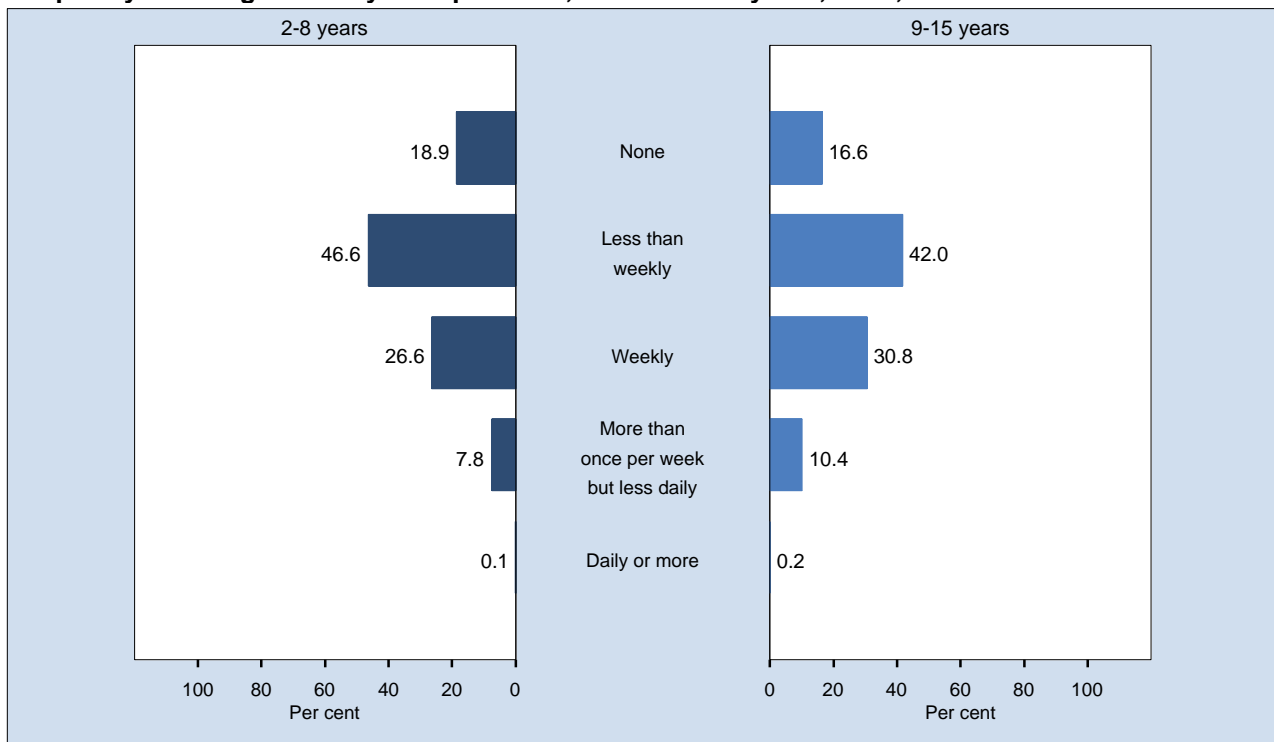
Cups of soft drinks or cordials or sports drinks per week, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 2,016 respondents in NSW. For this indicator 22 (1.08%) were not stated (Don't know or Refused) in NSW. The question used was: How many cups of soft drink, cordials or sports drink, such as lemonade or Gatorade, does child usually drink in a day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

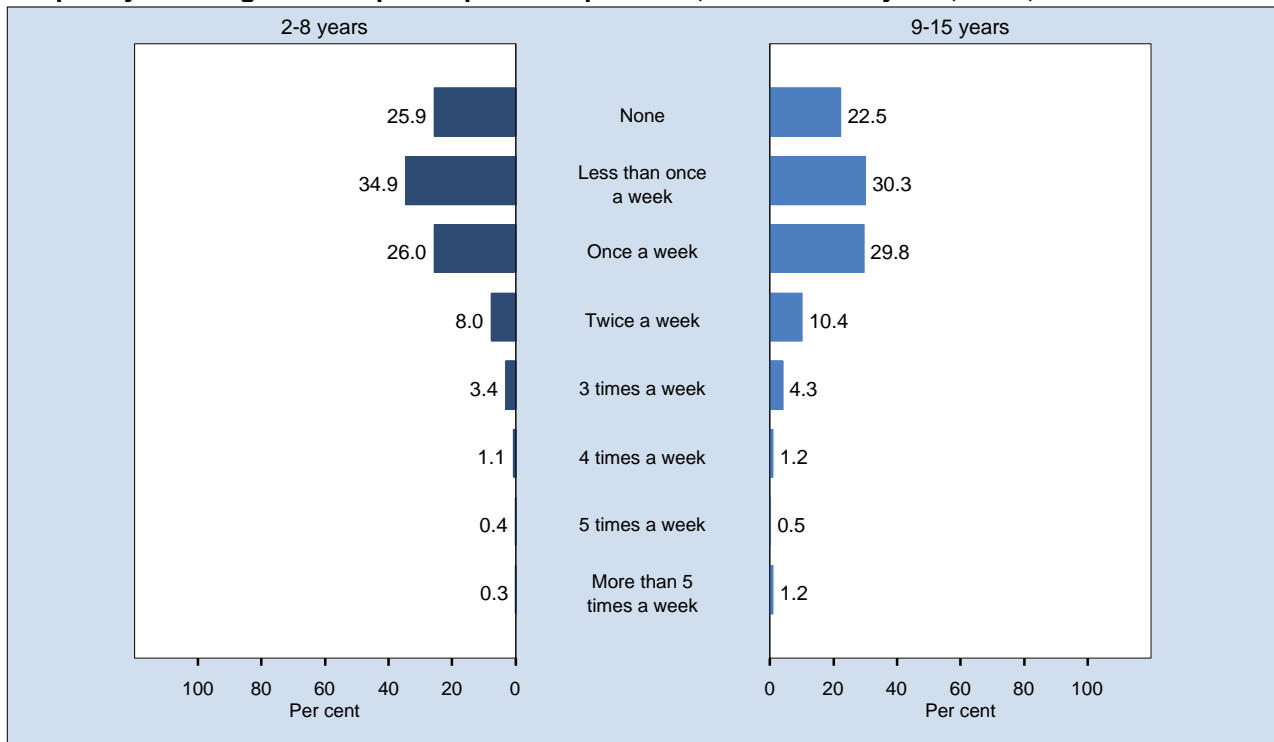
Frequency of eating takeaway food per week, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,867 respondents in NSW. For this indicator 9 (0.23%) were not stated (Don't know or Refused) in NSW. The question used was: How often does child have meals or snacks such as burgers, pizza, chicken or chips from places like McDonald's, Hungry Jacks, Pizza Hut, KFC, Red Rooster, or local takeaway places?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

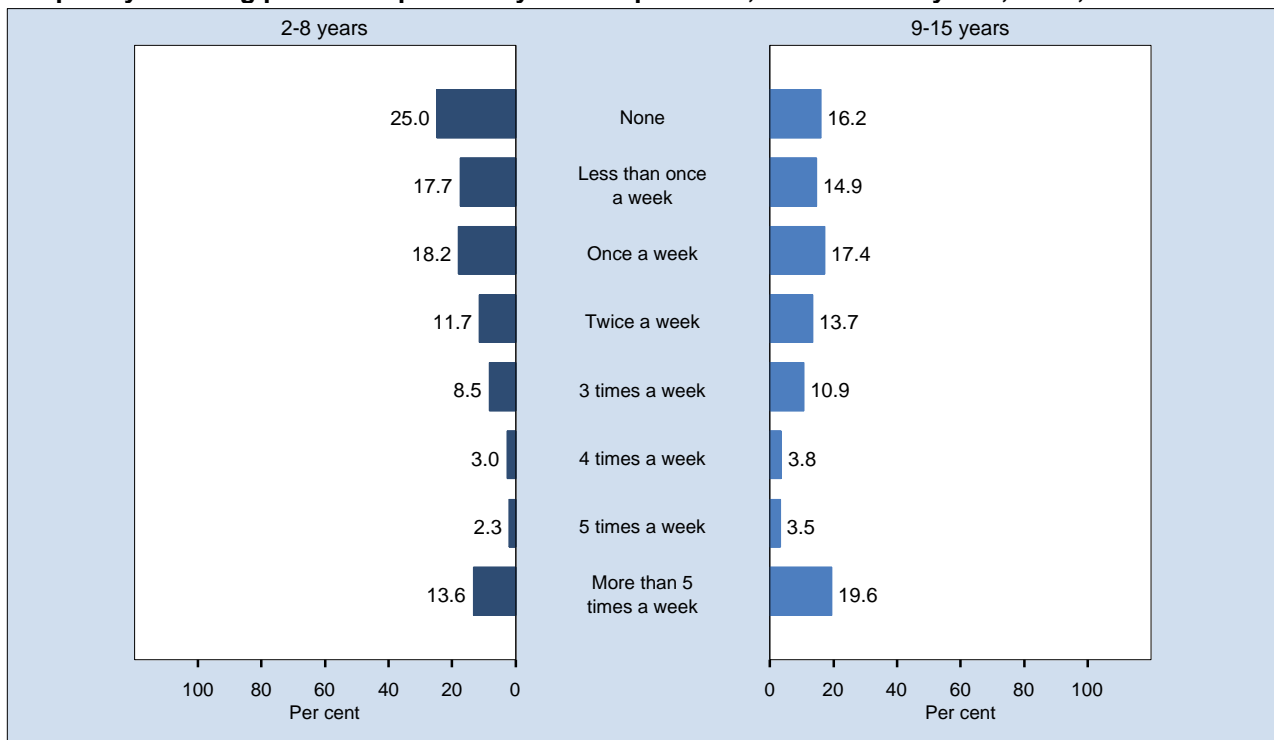
Frequency of eating hot fried potato products per week, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 2,944 respondents in NSW. For this indicator 5 (0.17%) were not stated (Don't know or Refused) in NSW. The question used was: How often does child eat hot chips, french fries, wedges or fried potatoes?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

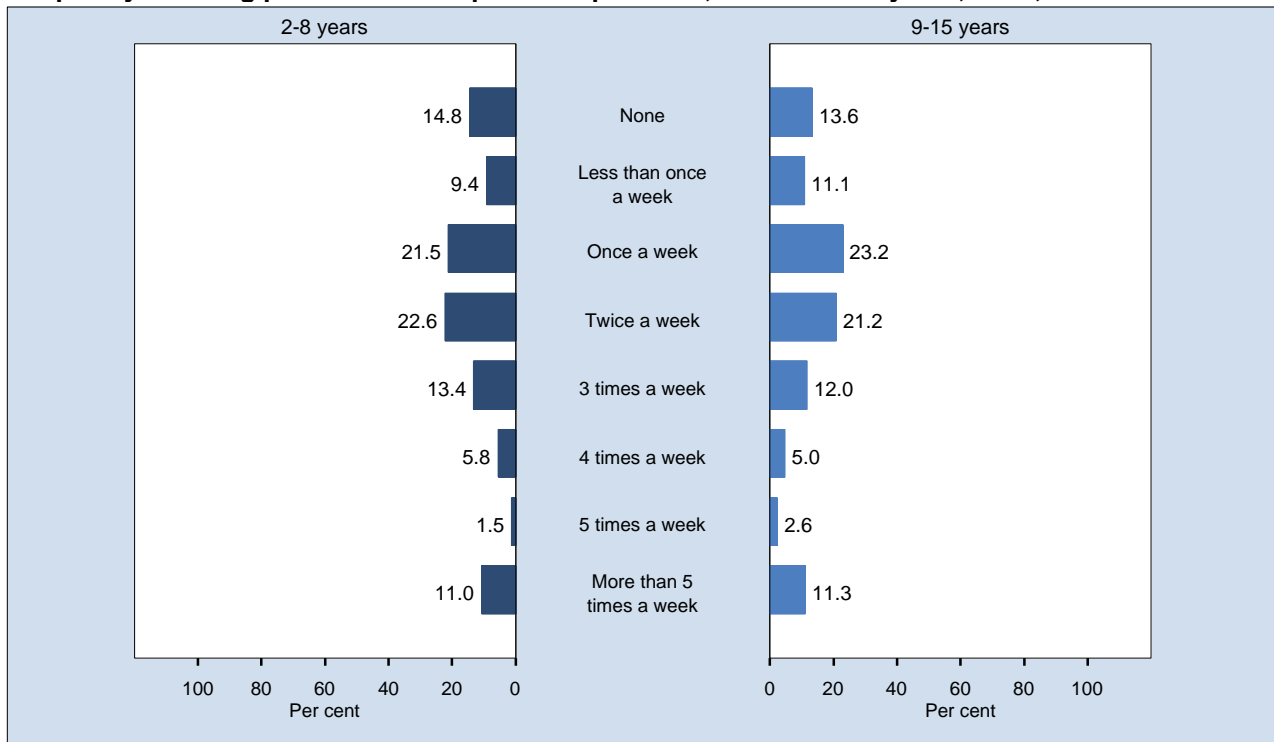
Frequency of eating potato crisps or salty snacks per week, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 2,883 respondents in NSW. For this indicator 10 (0.35%) were not stated (Don't know or Refused) in NSW. The question used was: How often does child eat potato crisps or other salty snacks?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

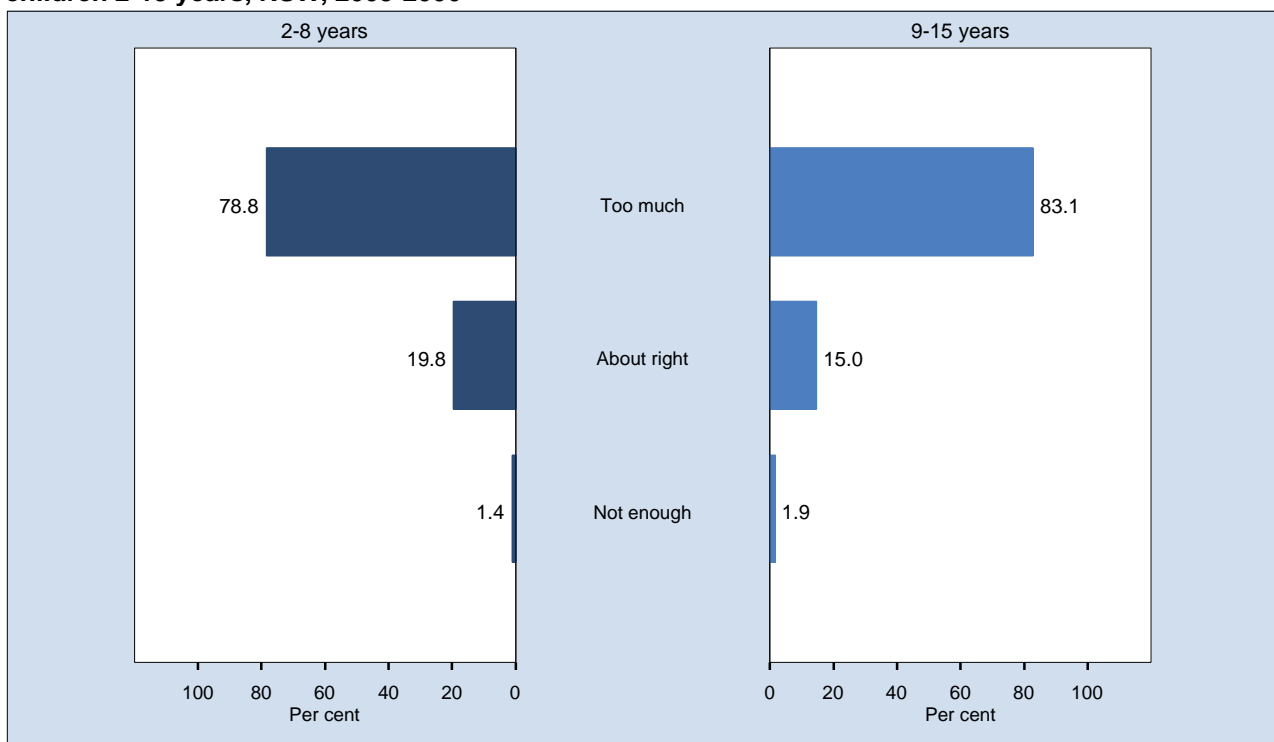
Frequency of eating processed meat products per week, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,938 respondents in NSW. For this indicator 11 (0.28%) were not stated (Don't know or Refused) in NSW. The question used was: How often does child eat processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon or ham?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

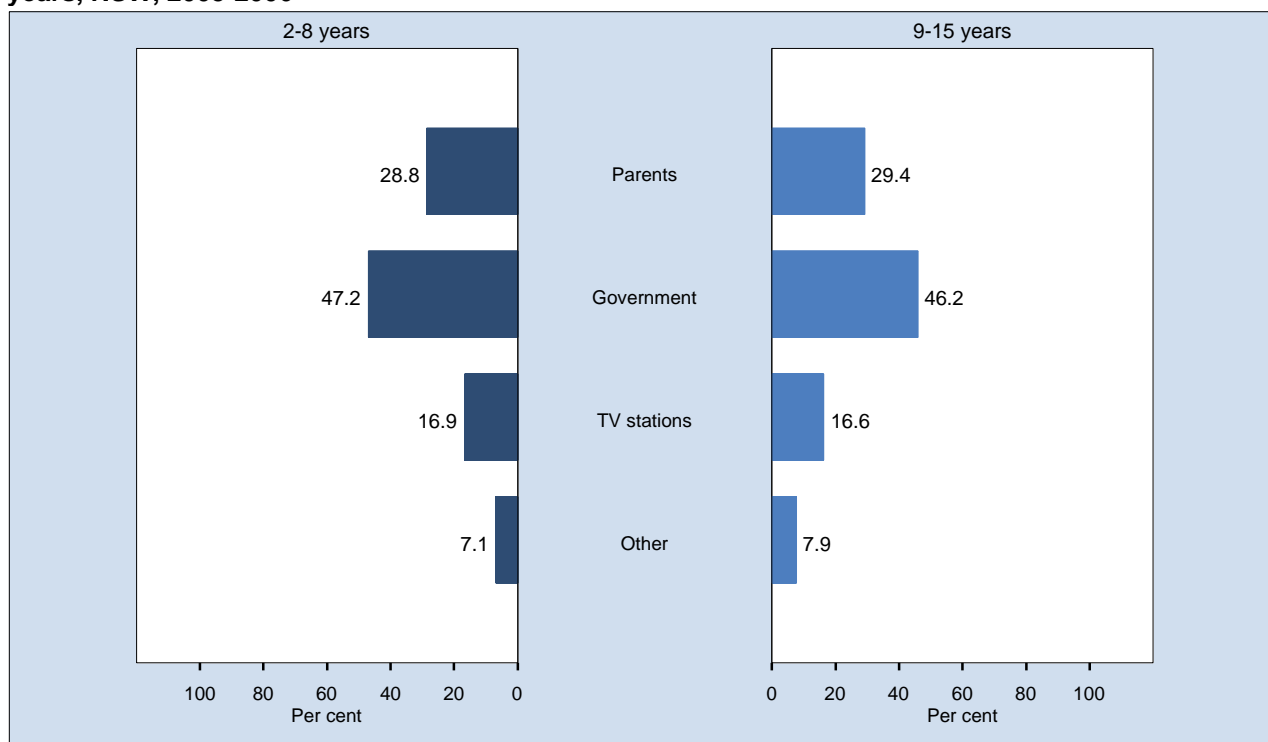
Opinion on amount of television advertising during children's viewing time, parents or carers of children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 1,539 respondents in NSW. For this indicator 499 (24.48%) were not stated (Don't know or Refused) in NSW. The question used was: What do you think about the amount of television advertising of confectionary and takeaway food during children's viewing times?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

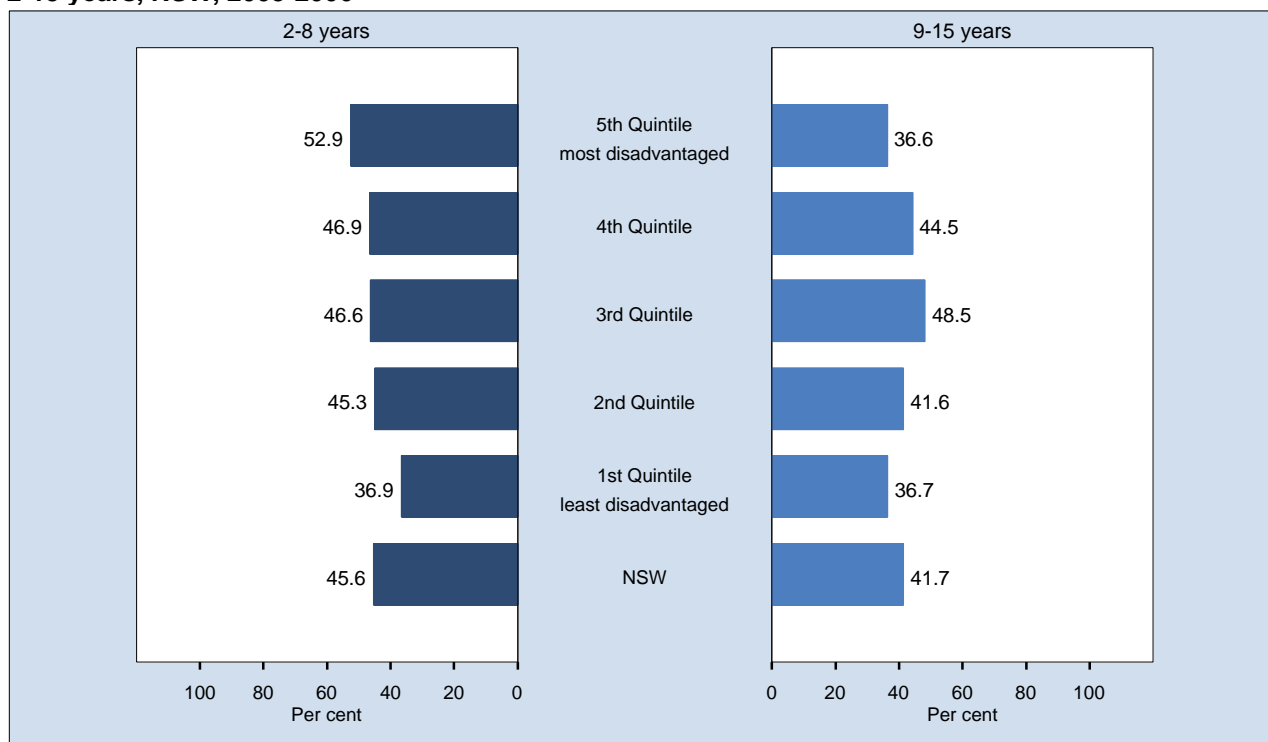
Regulation of television advertising during children's viewing time, parents or carers of children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 1,771 respondents in NSW. For this indicator 267 (13.10%) were not stated (Don't know or Refused) in NSW. The question used was: Who do you think should control the amount of television advertising of confectionary and takeaway food during children's viewing times?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

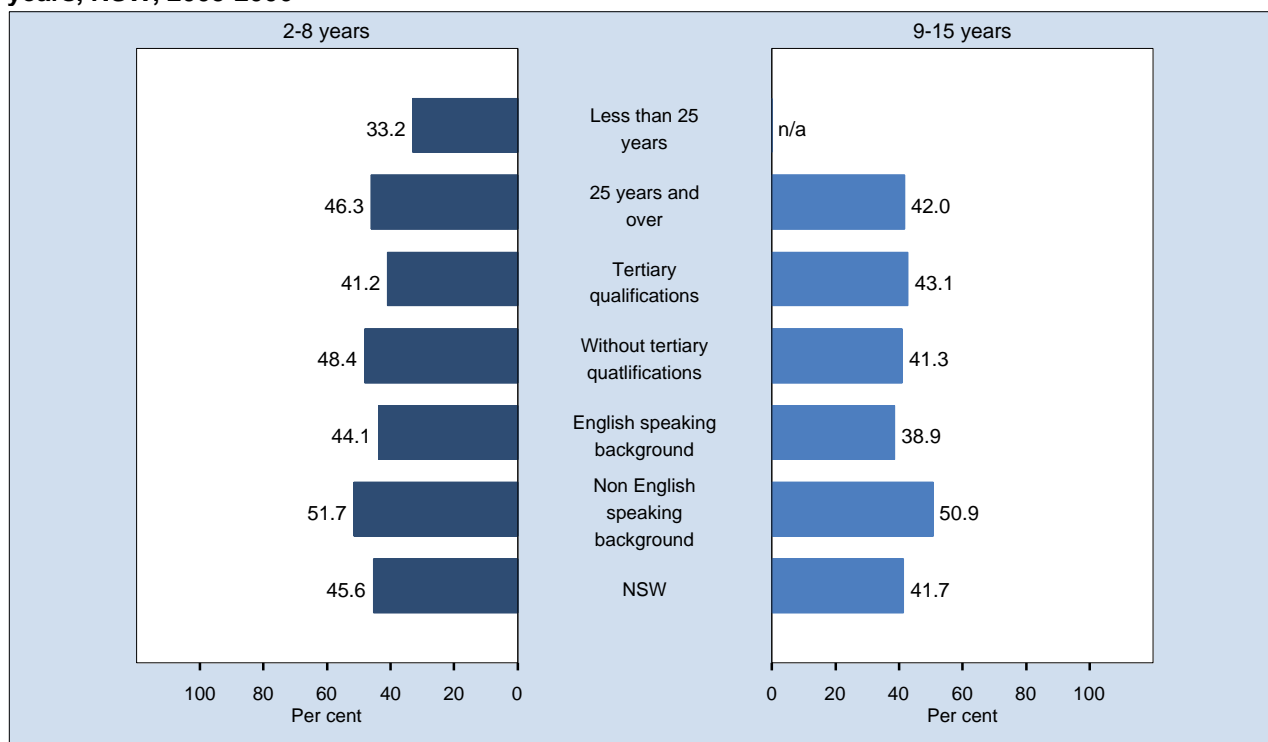
Influence of television on food choices by socioeconomic disadvantage, parents or carers of children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 1,993 respondents in NSW. For this indicator 45 (2.21%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who thought television advertisements influence child's food preferences. The question used to define the indicator was: Are the types of foods child asks you to buy influenced by the television advertisements child sees?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

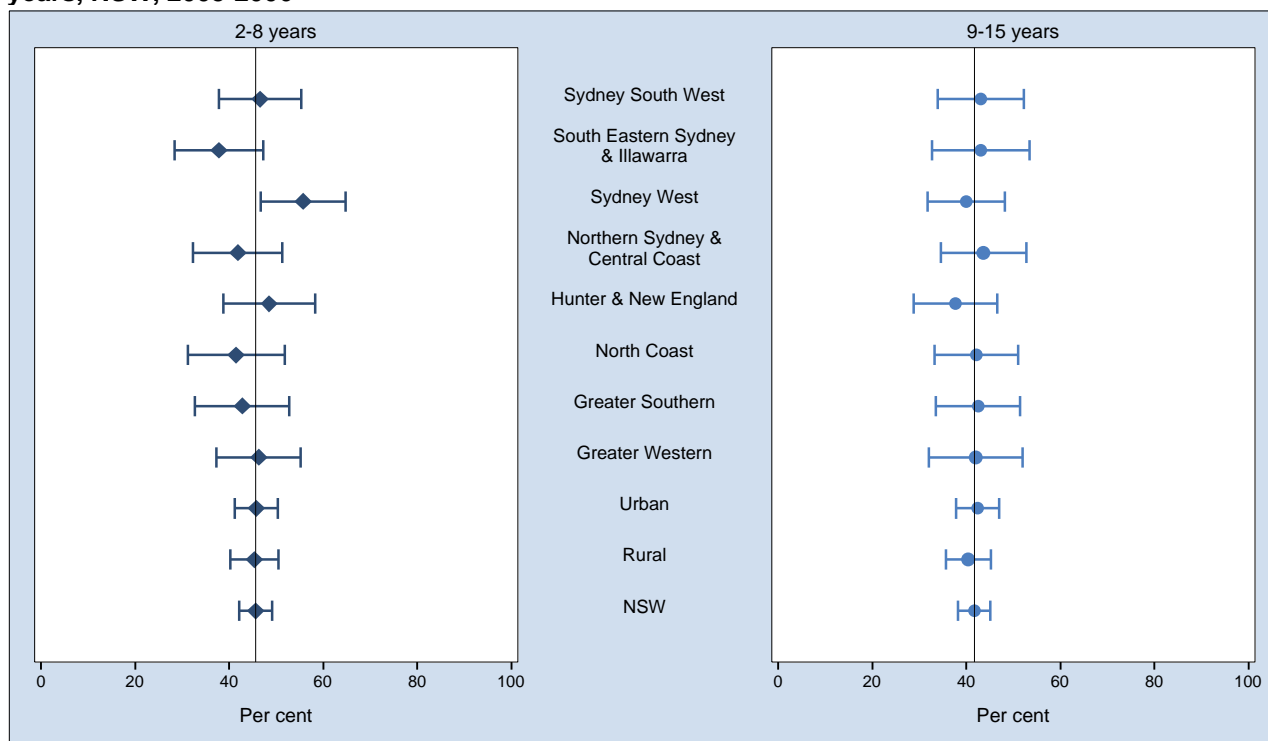
Influence of television on food choices by mothers' characteristics, parents or carers of children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 1,993 respondents in NSW. For this indicator 45 (2.21%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who thought television advertisements influence child's food preferences. The question used to define the indicator was: Are the types of foods child asks you to buy influenced by the television advertisements child sees? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

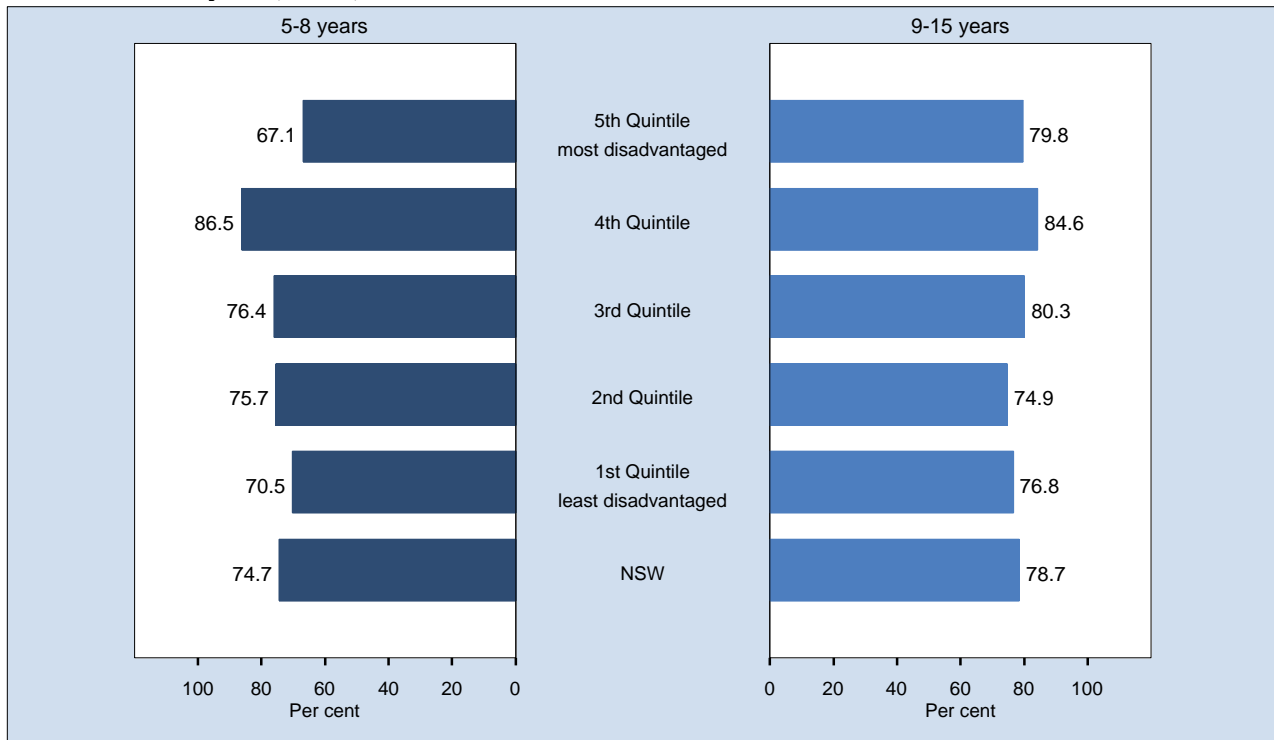
Influence of television on food choices by area health service, parents or carers of children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 1,993 respondents in NSW. For this indicator 45 (2.21%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who thought television advertisements influence child's food preferences. The question used to define the indicator was: Are the types of foods child asks you to buy influenced by the television advertisements child sees?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

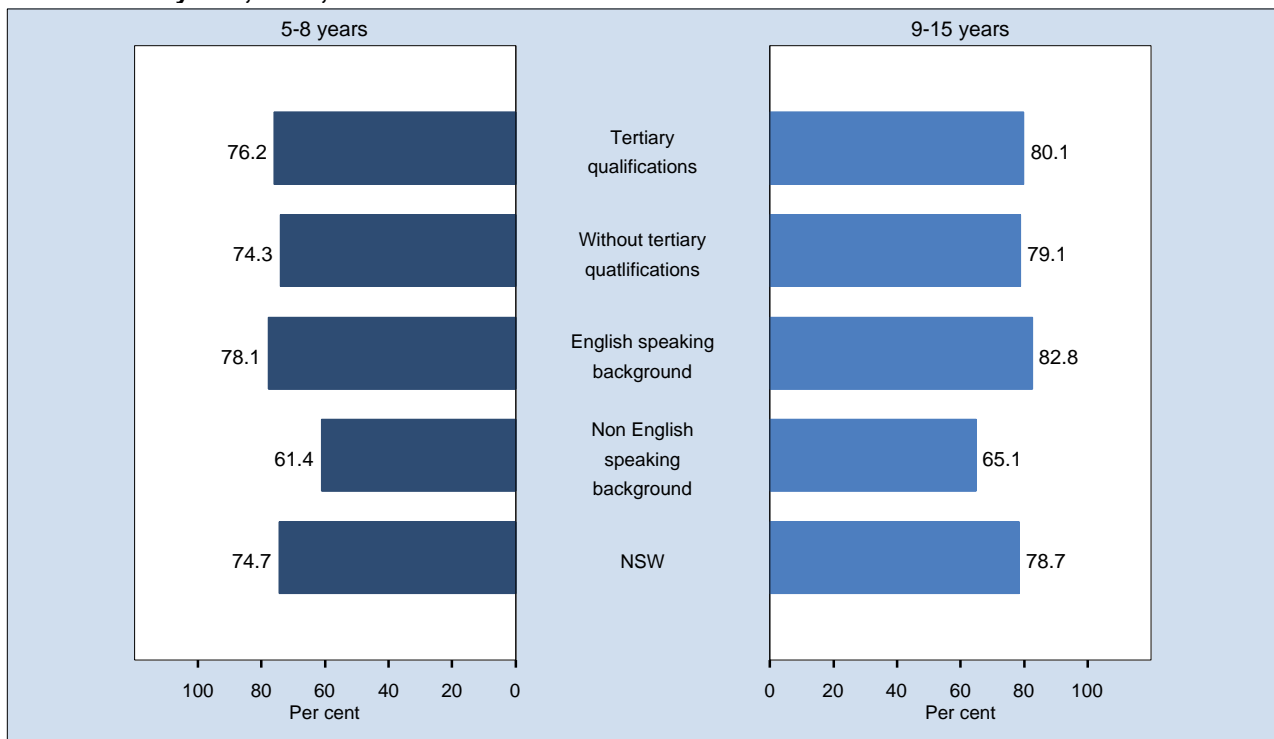
Ever heard about healthy school canteen strategy by socioeconomic disadvantage, parents or carers of children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,602 respondents in NSW. For this indicator 14 (0.87%) were not stated (Don't know or Refused) in NSW. This indicator includes parents or carers who have heard about NSW Healthy School Canteen Strategy (Fresh Tastes@School). The question used to define the indicator was: Have you heard of the NSW Healthy School Canteen Strategy (Fresh Tastes@School)?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

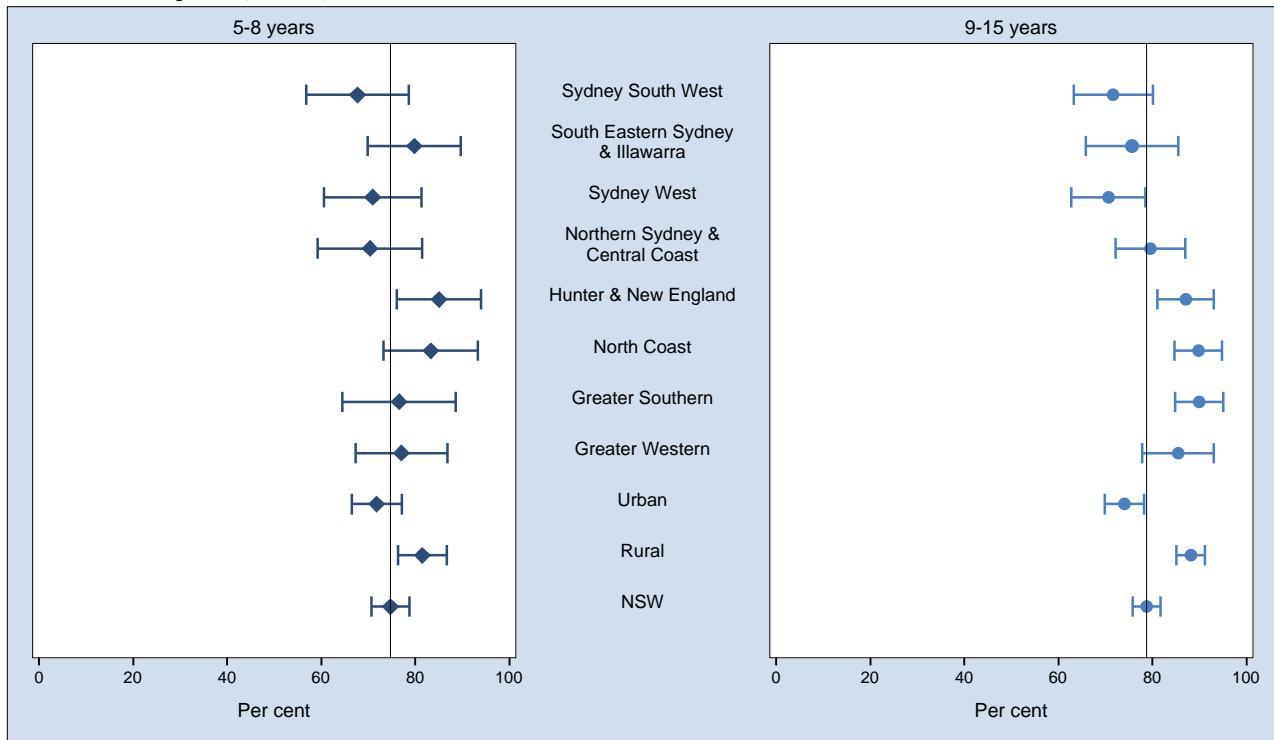
Ever heard about healthy school canteen strategy by mothers' characteristics, parents or carers of children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,602 respondents in NSW. For this indicator 14 (0.87%) were not stated (Don't know or Refused) in NSW. This indicator includes parents or carers who have heard about NSW Healthy School Canteen Strategy (Fresh Tastes@School). The question used to define the indicator was: Have you heard of the NSW Healthy School Canteen Strategy (Fresh Tastes@School)?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

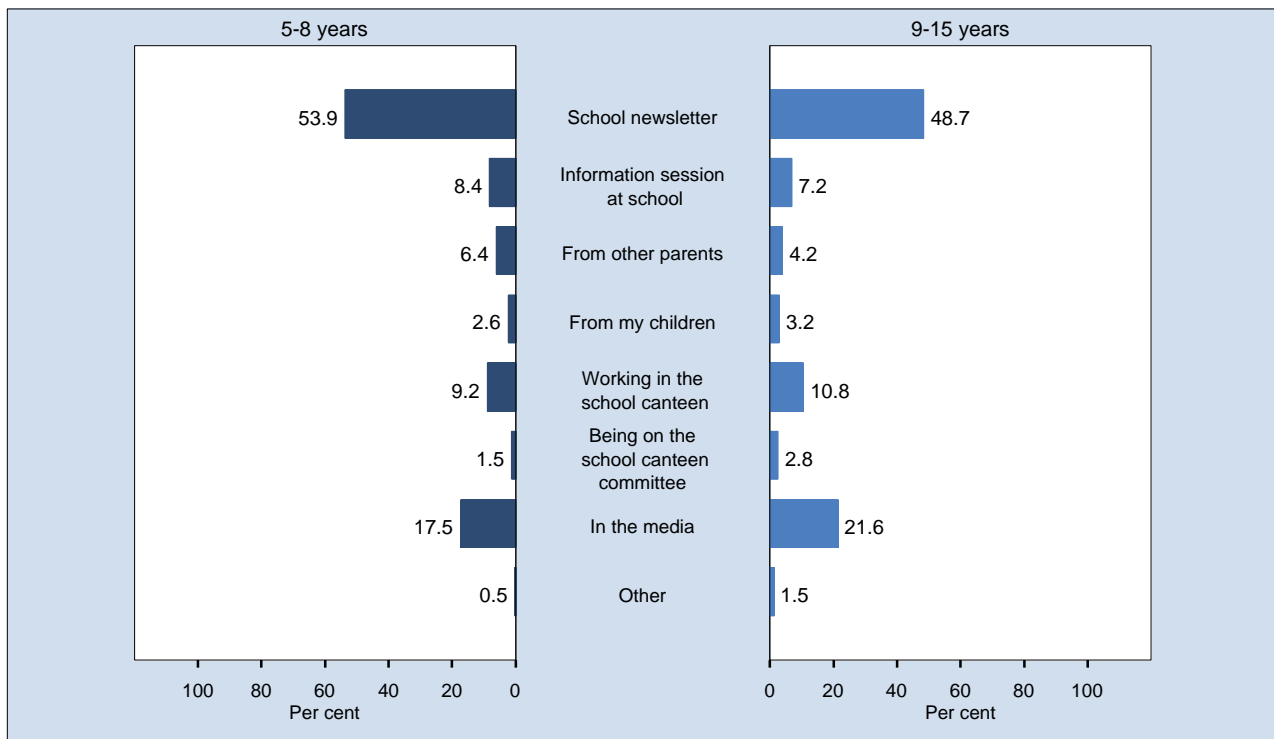
Ever heard about healthy school canteen strategy by area health service, parents or carers of children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,602 respondents in NSW. For this indicator 14 (0.87%) were not stated (Don't know or Refused) in NSW. This indicator includes parents or carers who have heard about NSW Healthy School Canteen Strategy (Fresh Tastes@School). The question used to define the indicator was: Have you heard of the NSW Healthy School Canteen Strategy (Fresh Tastes@School)?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

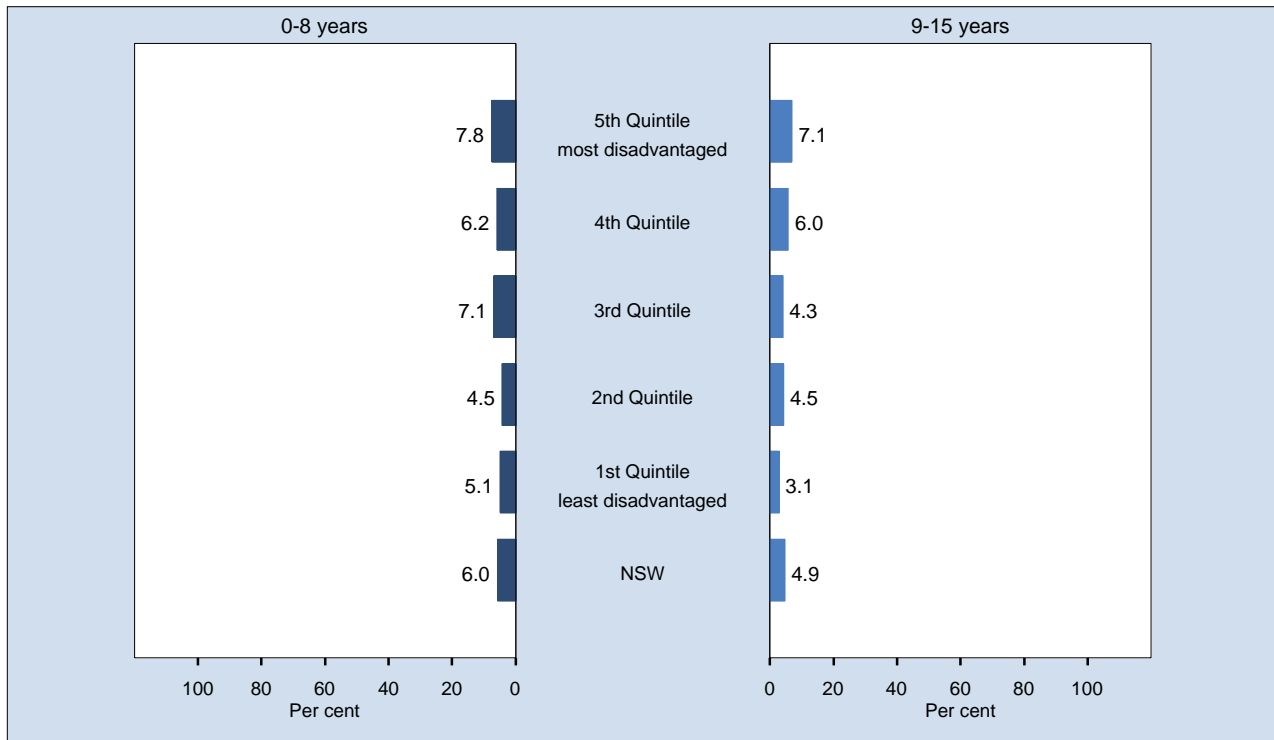
How heard about healthy school canteen strategy, parents or carers of children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,263 respondents in NSW. For this indicator 11 (0.86%) were not stated (Don't know or Refused) in NSW. The question used was: How did you hear about the strategy? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

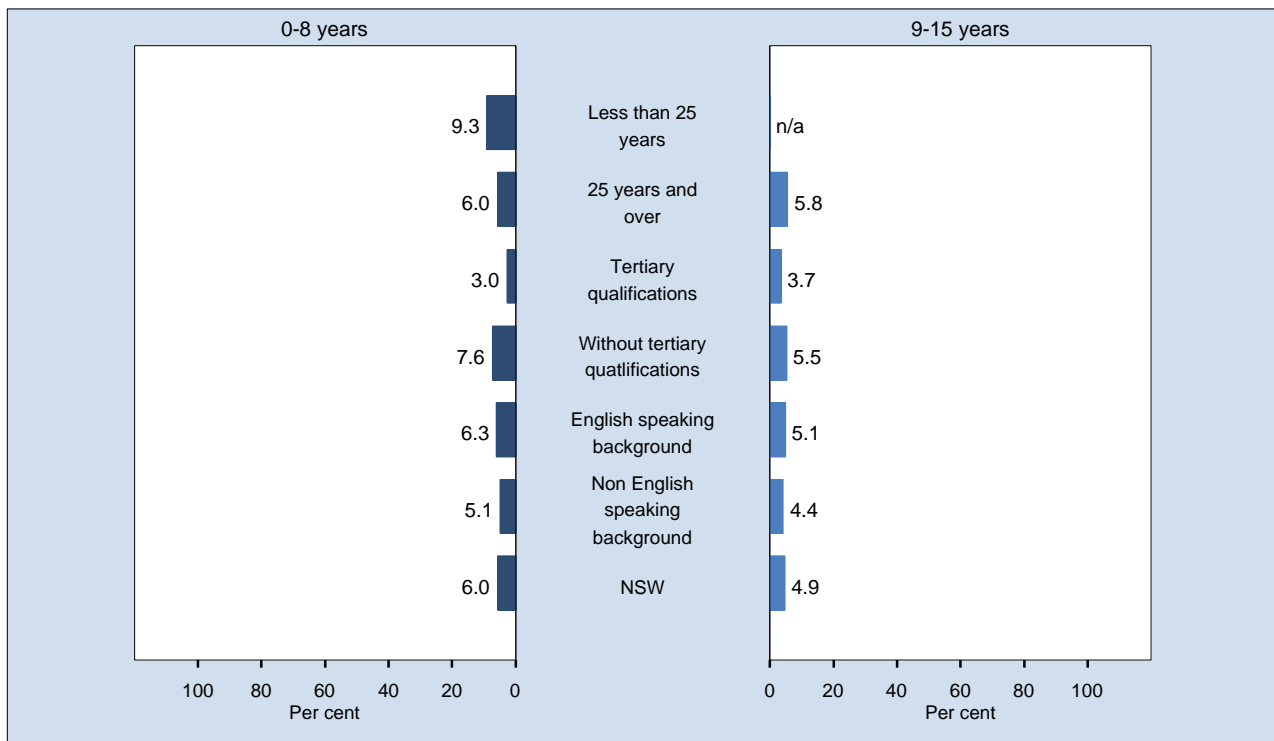
Food insecurity in the last 12 months by socioeconomic disadvantage, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,574 respondents in NSW. For this indicator 4 (0.09%) were not stated (Don't know or Refused) in NSW. The indicator includes children who had suffered some food insecurity in the last 12 months. The question used to define the indicator was: In the last 12 months, were there any times you ran out of food and couldn't afford to buy more?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

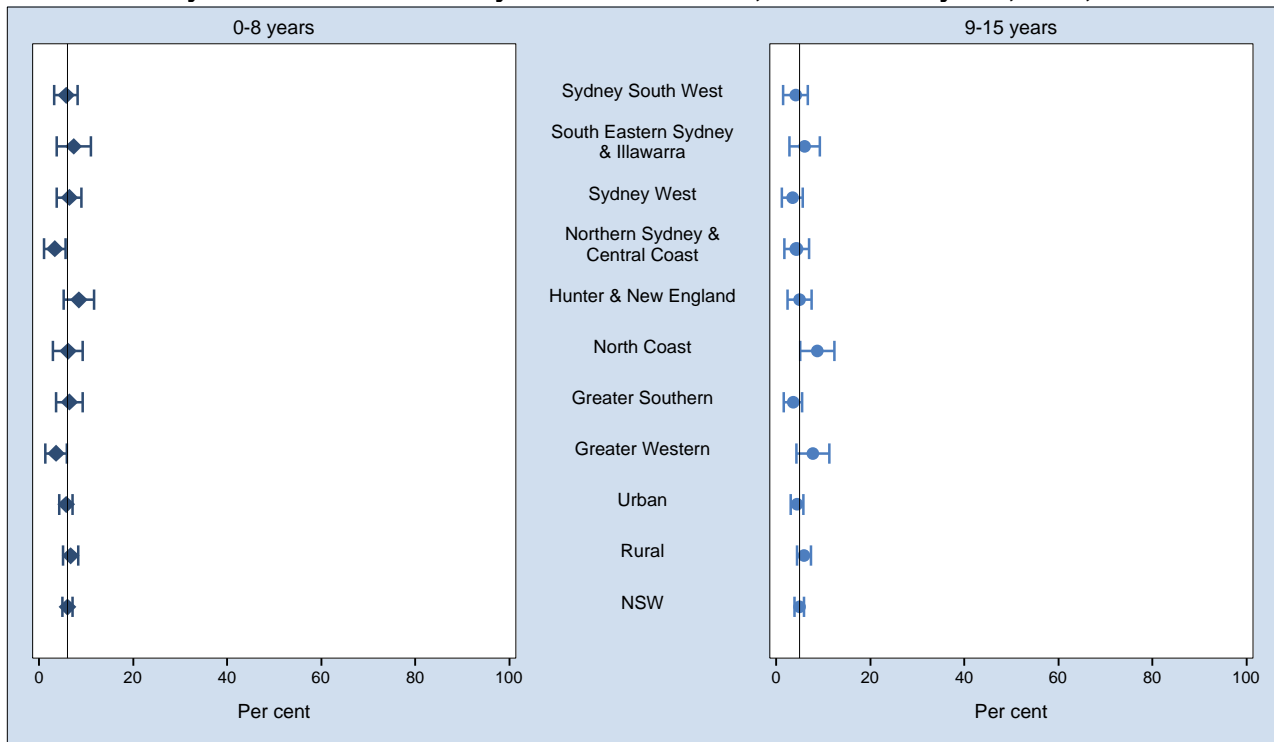
Food insecurity in the last 12 months by mothers' characteristics, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,574 respondents in NSW. For this indicator 4 (0.09%) were not stated (Don't know or Refused) in NSW. The indicator includes children who had suffered some food insecurity in the last 12 months. The question used to define the indicator was: In the last 12 months, were there any times you ran out of food and couldn't afford to buy more? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

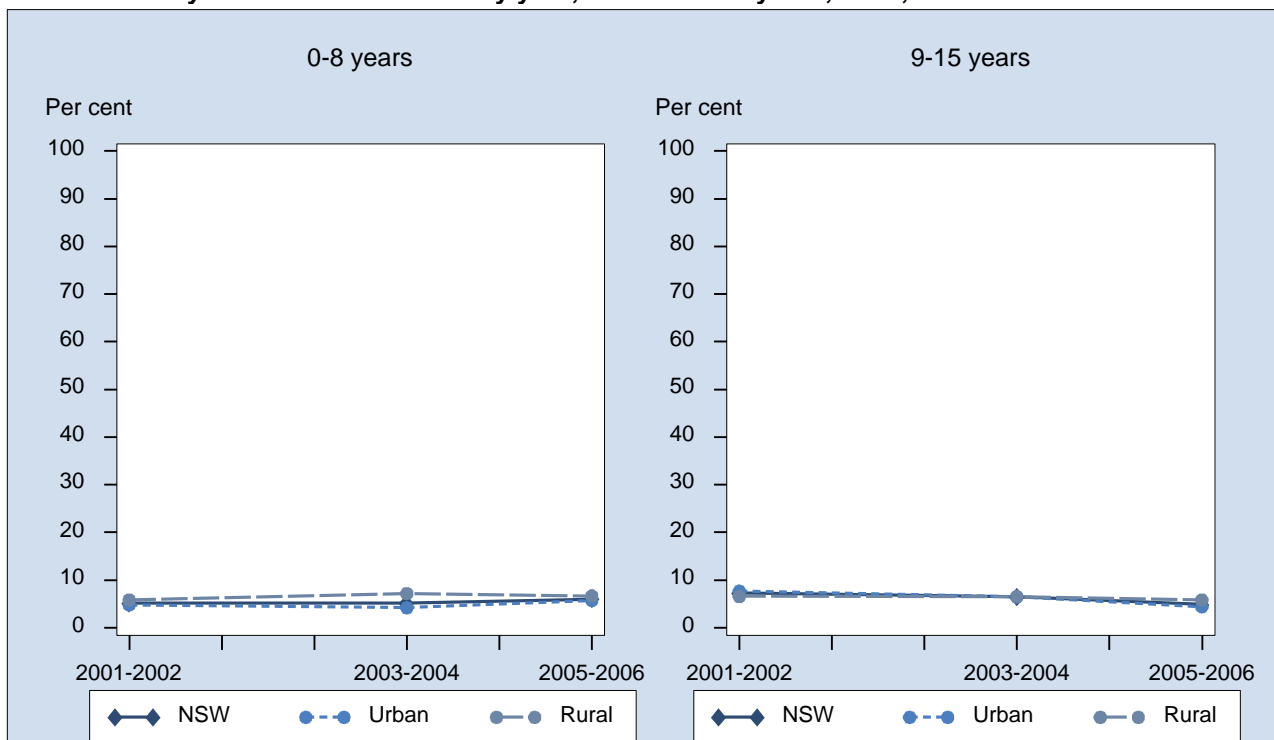
Food insecurity in the last 12 months by area health service, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,574 respondents in NSW. For this indicator 4 (0.09%) were not stated (Don't know or Refused) in NSW. The indicator includes children who had suffered some food insecurity in the last 12 months. The question used to define the indicator was: In the last 12 months, were there any times you ran out of food and couldn't afford to buy more?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

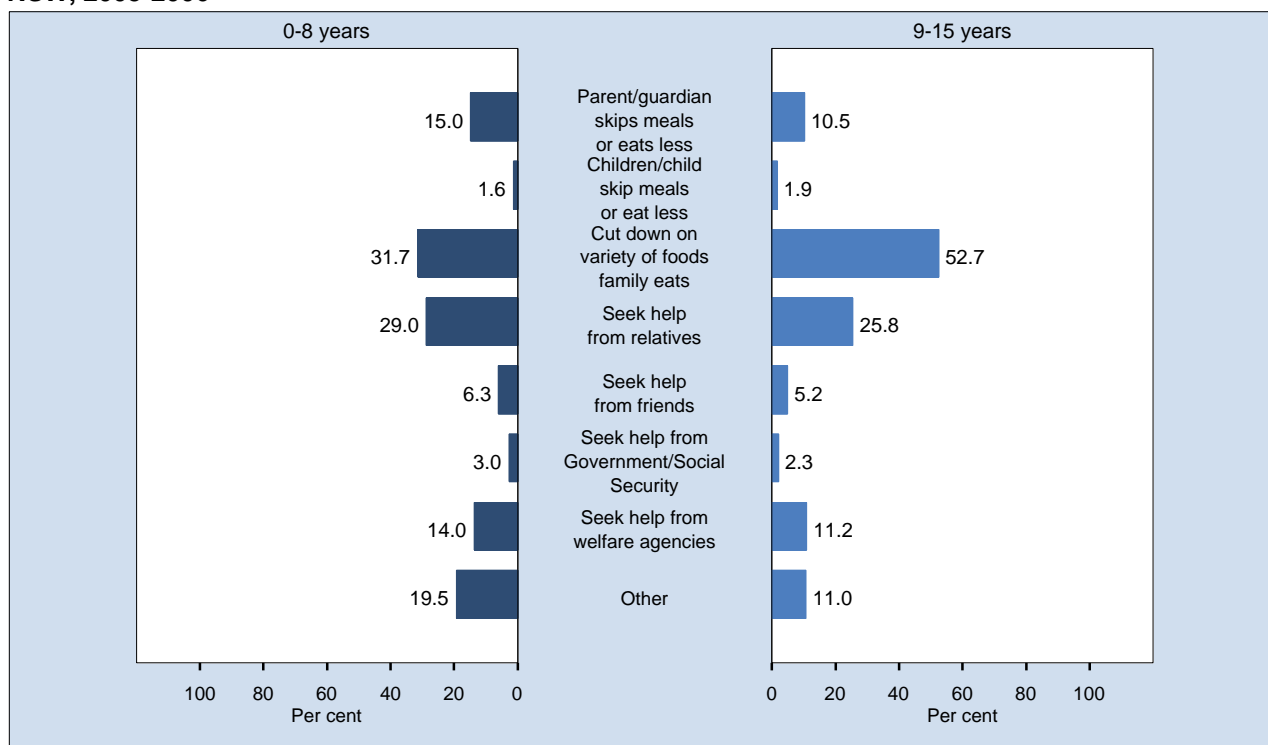
Food insecurity in the last 12 months by year, children 0-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (9,416), 2004 (7,668), 2006 (4,574). The indicator includes children who had suffered some food insecurity in the last 12 months. The question used to define the indicator was: In the last 12 months, were there any times you ran out of food and couldn't afford to buy more?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Family coping methods when run out of food, families with children 0-15 years who ran out of food, NSW, 2005-2006



Note: Estimates are based on 256 respondents in NSW. For this indicator 13 (4.83%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, were there any times you ran out of food and couldn't afford to buy more? If yes, asked: How do you cope with feeding child when this happens? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Physical activity

Introduction

Physical activity is an important factor in health and wellbeing. Those who are physically active have lower rates of preventable mortality and lower incidence of preventable diseases and conditions.

Children and adolescents need at least 60 minutes (and up to several hours) of moderate to vigorous physical activity every day. Moderate activities include brisk walking, bike riding, skateboarding, and dancing. Vigorous activities include football, netball, soccer, running, swimming laps, or training for sport, and are those activities that make you 'huff and puff'.^[1,2] In this report, adequate physical activity is measured as 1 hour or more of physical activity outside of school hours each day.

Sedentary behaviour in childhood influences health in adulthood, and is a predictor of body mass index and being overweight in children.^[3,4] It is recommended that during leisure time children and adolescents should not spend more than 2 hours a day using electronic media for entertainment (for example, computer games, television, or the internet), particularly during daylight hours.^[1,2]

During 2005 and 2006, the New South Wales Population Health Survey asked parents or carers of children aged 5-15 years: On about how many days during the school week does child usually do physical activity outside of school hours? On those days, about how many hours does child usually do physical activity? On about how many weekend days does child usually do physical activity? On a typical weekend day, about how many hours does child usually do physical activity? In the last 12 months, what types of sports and outdoor activities did child play? On about how many days during the school week, does child usually watch TV, videos or DVDs at home? On those days, about how many hours does child usually spend watching TV, videos or DVDs? On about how many weekend days does child usually watch TV, videos or DVDs at home? On a typical weekend day, about how many hours does child usually spend watching TV, videos or DVDs? On about how many days during the school week does child usually play video or computer games? On those days, about how many hours does child usually spend playing video or computer games? On about how many weekend days does child usually play video or computer games? On a typical weekend day, about how many hours does child usually spend playing video or computer games? How many minutes of physical activity is it recommended that children do each day? Up to how many hours of television, video, DVD or computer games is it recommended that children watch each day?

Results

Adequate physical activity

Overall, 25.6 per cent of children aged 5-15 years met the criteria for adequate physical activity, which is at least 60 minutes of moderate to vigorous physical activity every day. A significantly lower proportion of children aged 9-15 years (21.2 per cent) than children aged 5-8 years (34.3 per cent) met the criteria for adequate physical activity. A significantly lower proportion of children in the least disadvantaged quintile (17.2 per cent), and a significantly higher proportion of children in the most disadvantaged quintile (31.6 per cent), met the criteria for adequate physical activity.

A significantly higher proportion of children in rural areas (32.1 per cent) than urban areas (22.3 per cent) met the criteria for adequate physical activity. A significantly higher proportion of children in the Hunter & New England (32.6 per cent) and North Coast (31.5 per cent) and Greater Southern (33.1 per cent) Health Areas, and a significantly lower proportion of children in the Sydney South West (20.2 per cent) and Sydney West (20.7 per cent) Health Area, met the criteria for adequate physical activity.

A significantly higher proportion of children of mothers without tertiary qualifications (27.6 per cent) compared with children of mothers with tertiary qualifications (21.2 per cent), and a significantly lower proportion of children of mothers from a non English speaking background (13.7 per cent) compared with children of mothers from an English speaking background (28.6 per cent), met the criteria for adequate physical activity.

Among parents or carers, 10.8 per cent thought recommended physical activity was less than 30 minutes a day, 42.2 per cent thought it was 30-59 minutes a day, 38.2 per cent thought it was 60-89 minutes a day, 1.0 per cent thought it was 90-119 minutes a day, and 7.8 per cent thought it was 120 minutes or more a day. Therefore, 47.0 per cent of parents or carers thought the recommended level of physical activity was 60 minutes or more each day.

The most common physical activities among males were: cycling or bike riding (21.6 per cent), cricket (21.1 per cent), basketball (13.0 per cent), and soccer (12.2 per cent). The most common physical activities among females were: dancing or ballet (22.3 per cent), cycling or bike riding (21.8 per cent), netball (11.3 per cent), and jogging or athletics or running (9.5 per cent).

Sedentary behaviour

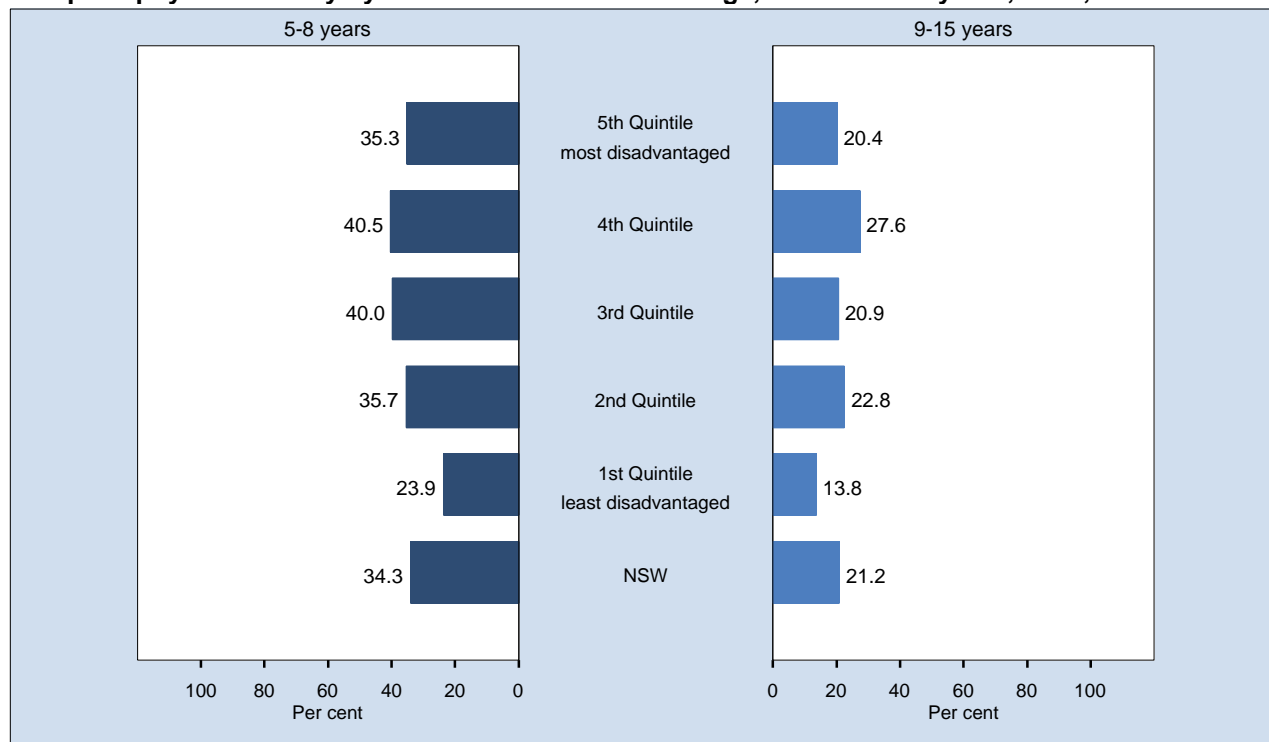
Overall, 84.4 per cent of children aged 5-15 years were sedentary for more than the recommended maximum of 2 hours a day during leisure time. A significantly higher proportion of children aged 9-15 years (88.2 per cent), compared with children aged 5-8 years (75.2 per cent), were sedentary for more than the recommended maximum of 2 hours a day during leisure time. There was no significant variation by socioeconomic status, or between rural areas and urban areas, or among health areas. A significantly higher proportion of children of mothers without tertiary qualifications (87.4 per cent) compared with children of mothers with tertiary qualifications (77.9 per cent) were sedentary for more than the recommended maximum of 2 hours a day during leisure time.

Among parents or carers, 13.7 per cent thought no sedentary behaviour was allowed, 60.1 per cent thought 1 hour a day was allowed, 22.5 per cent thought 2 hours a day was allowed, 2.0 per cent thought 3 hours a day was allowed, 0.3 per cent thought 4 hours a day was allowed, 0.9 per cent thought 5 hours a day was allowed, and 0.4 per cent thought 6 or more hours a day was allowed. Therefore, 96.3 per cent of parents or carers thought the maximum sedentary behaviour during leisure time was 2 hours or less a day.

References

1. Australian Government Department of Health and Ageing. *Australia's physical activity recommendations for 5-12 year olds*. Available online at www.healthyactive.gov.au/internet/healthyactive/publishing.nsf/Content/recommendations-guidelines, accessed 8 November 2007.
2. Australian Government Department of Health and Ageing. *Australia's physical activity recommendations for 12-18 year olds*. Available online at www.healthyactive.gov.au/internet/healthyactive/publishing.nsf/Content/recommendations-guidelines, accessed 8 November 2007.
3. Hancox R, Milne B, Poulton R. Association between child and adolescent television viewing and adult health: a longitudinal birth cohort study. *The Lancet* 2004; 364: 257-262, abstract available online at www.thelancet.com, accessed 8 November 2007.
4. Hancox RJ, Poulton R. Watching television is associated with childhood obesity: but is it clinically important? *Int J Obes* 2006; 30(1): 171-5. Abstract available online at www.ncbi.nlm.nih.gov, accessed 8 November 2007.

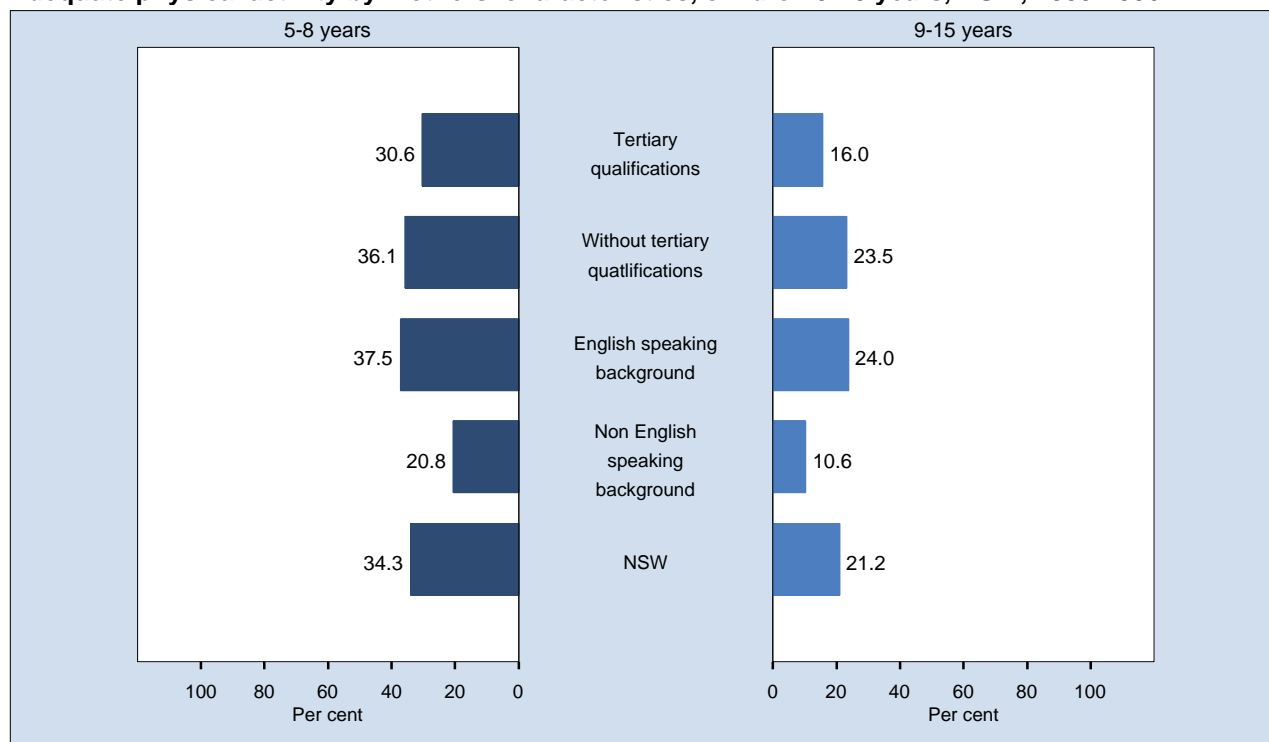
Adequate physical activity by socioeconomic disadvantage, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 2,943 respondents in NSW. For this indicator 121 (3.95%) were not stated (Don't know or Refused) in NSW. This indicator includes children who do 1 hour or more of physical activity outside of school hours everyday. The questions used to define the indicator were: On about how many days during the school week does child usually do physical activity outside of school hours? On those days, about how many hours does child usually do physical activity? On about how many weekend days does child usually do physical activity? On a typical weekend day, about how many hours does child usually do physical activity?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

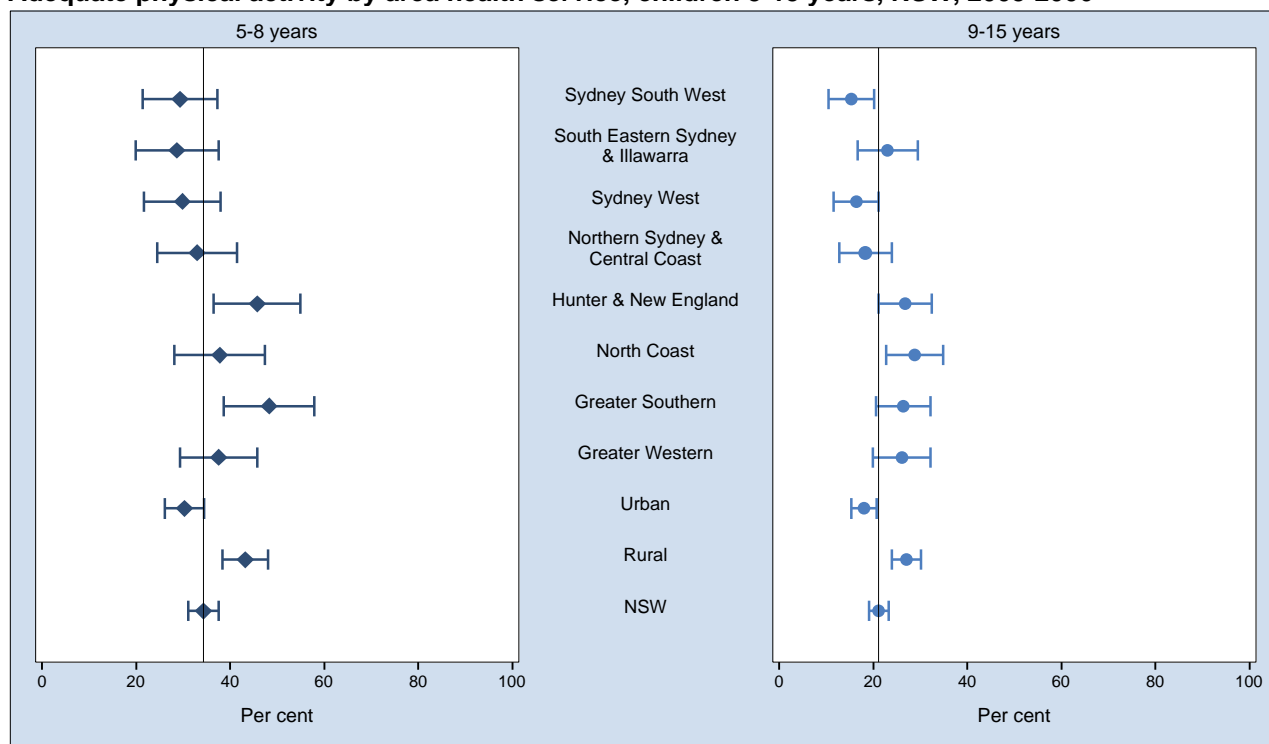
Adequate physical activity by mothers' characteristics, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 2,943 respondents in NSW. For this indicator 121 (3.95%) were not stated (Don't know or Refused) in NSW. This indicator includes children who do 1 hour or more of physical activity outside of school hours everyday. The questions used to define the indicator were: On about how many days during the school week does child usually do physical activity outside of school hours? On those days, about how many hours does child usually do physical activity? On about how many weekend days does child usually do physical activity? On a typical weekend day, about how many hours does child usually do physical activity?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

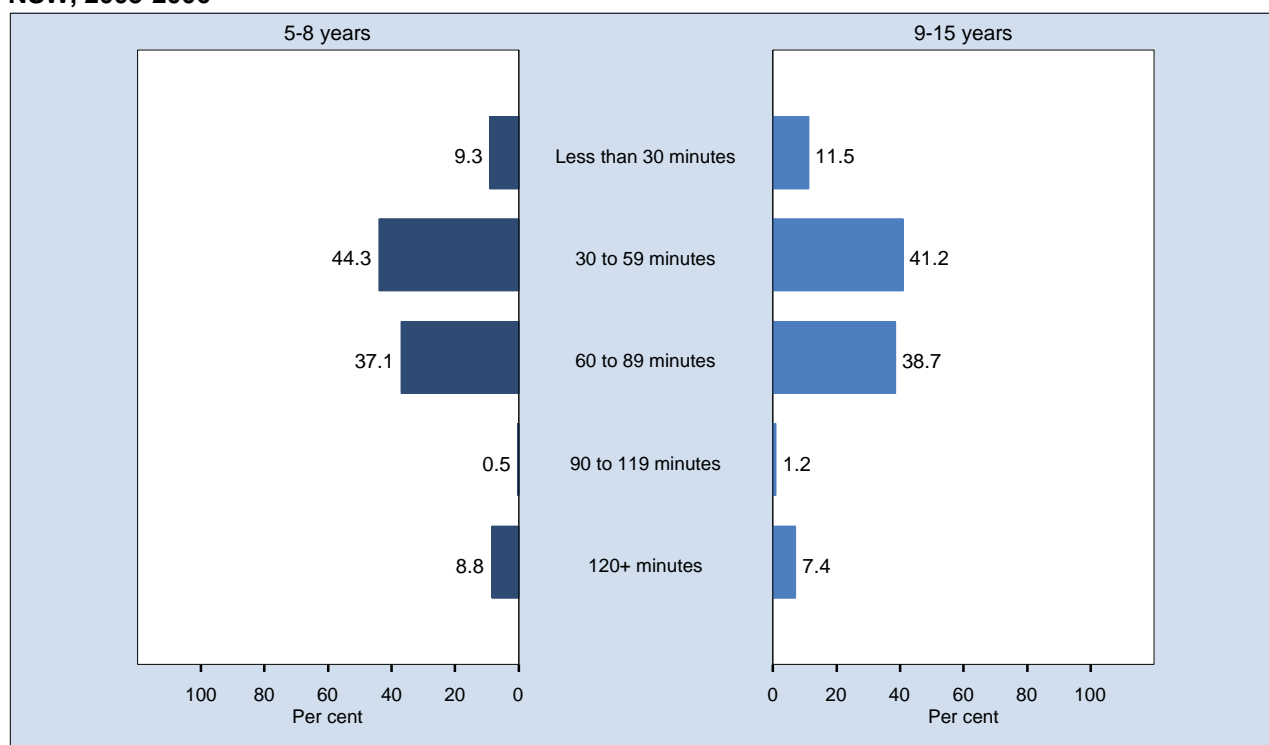
Adequate physical activity by area health service, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 2,943 respondents in NSW. For this indicator 121 (3.95%) were not stated (Don't know or Refused) in NSW. This indicator includes children who do 1 hour or more of physical activity outside of school hours everyday. The questions used to define the indicator were: On about how many days during the school week does child usually do physical activity outside of school hours? On those days, about how many hours does child usually do physical activity? On about how many weekend days does child usually do physical activity? On a typical weekend day, about how many hours does child usually do physical activity?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

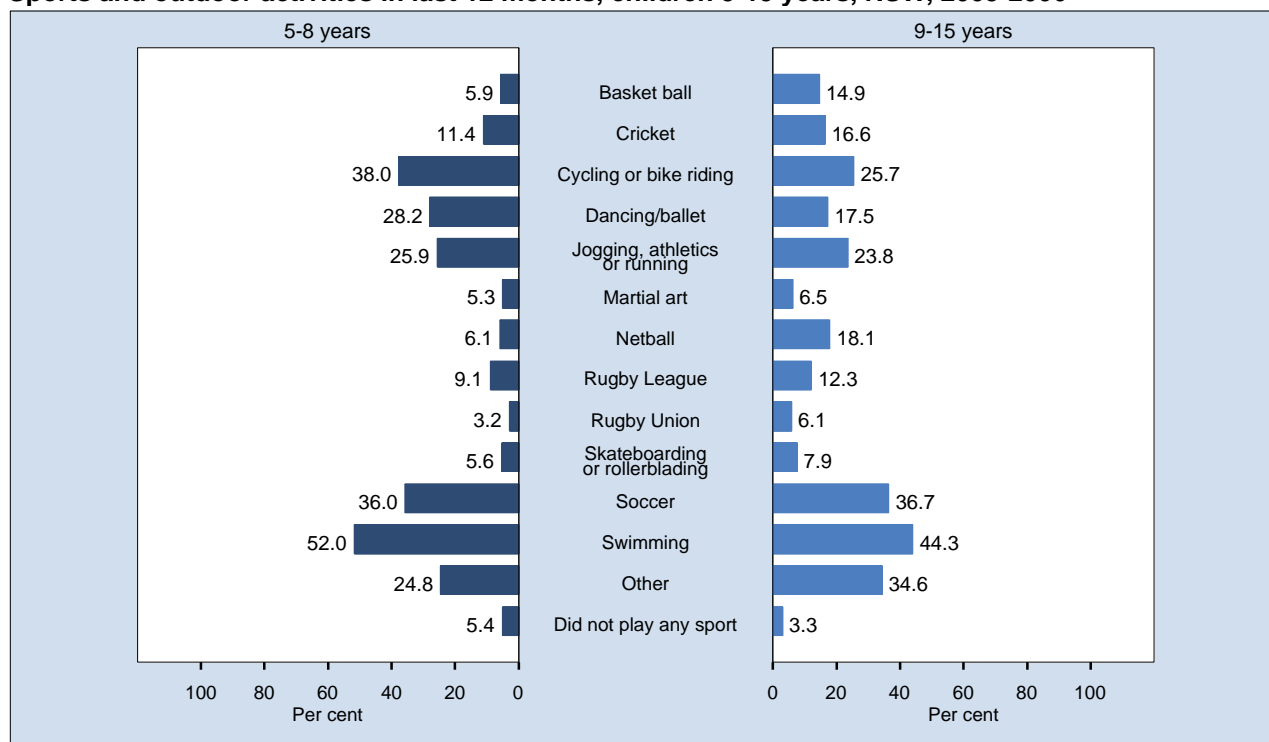
Knowledge of recommended minimum physical activity, parents or carers of children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,034 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The question used was: How many minutes of physical activity is it recommended that children do each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

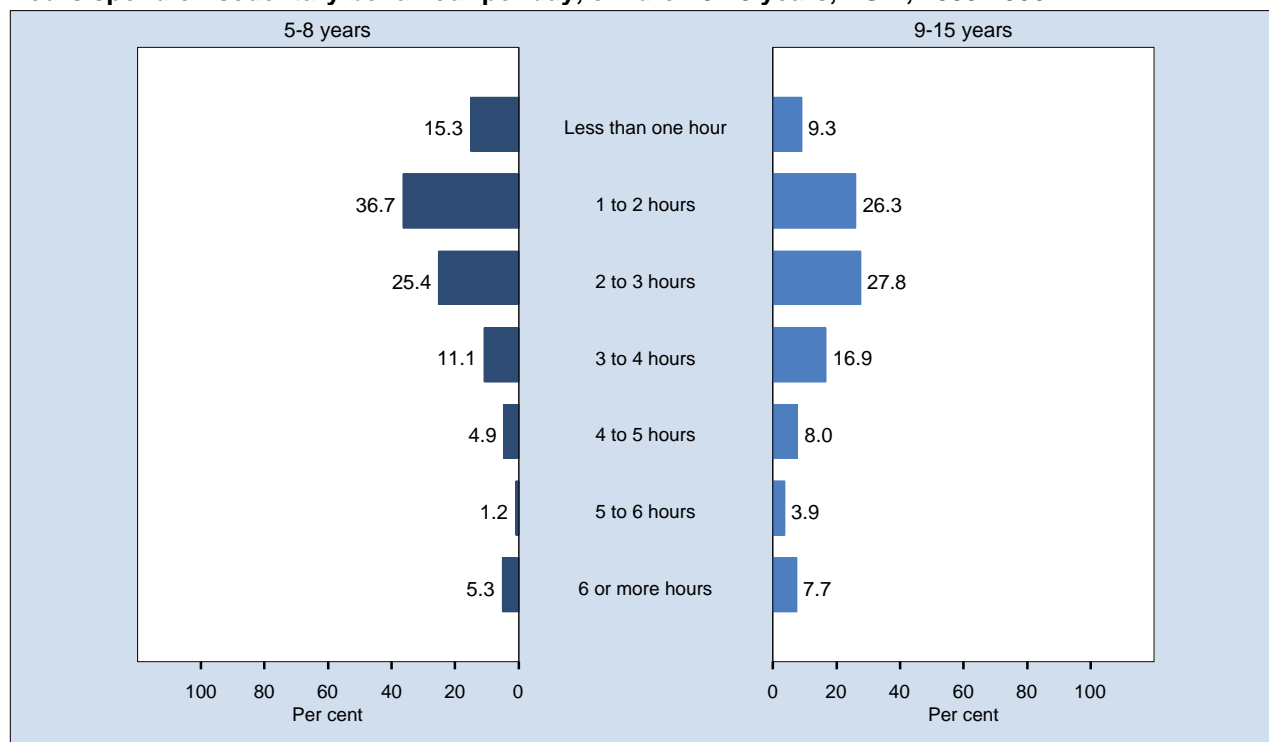
Sports and outdoor activities in last 12 months, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 3,069 respondents in NSW. For this indicator 22 (0.71%) were not stated (Don't know or Refused) in NSW. The question used was: In the last 12 months, what types of sports and outdoor activities did child play? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

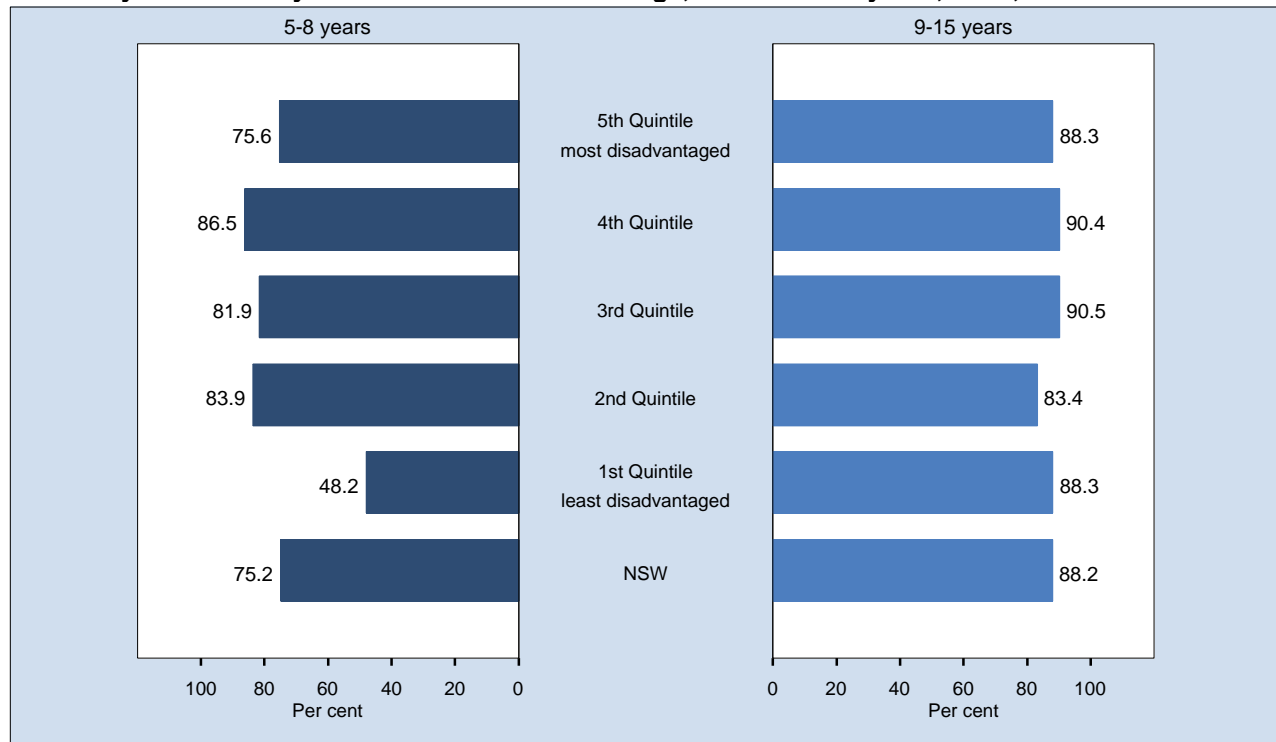
Hours spend on sedentary behaviour per day, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 2,704 respondents in NSW. For this indicator 190 (6.57%) were not stated (Don't know or Refused) in NSW. The questions used were: On about how many days during the school week, does child usually watch TV, videos or DVDs at home? On those days, about how many hours does child usually spend watching TV, videos or DVDs? On about how many weekend days does child usually watch TV, videos or DVDs at home? On a typical weekend day, about how many hours does child usually spend watching TV, videos or DVDs? On about how many days during the school week does child usually play video or computer games? On those days, about how many hours does child usually spend playing video or computer games? On about how many weekend days does child usually play video or computer games? On a typical weekend day, about how many hours does child usually spend playing video or computer games?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

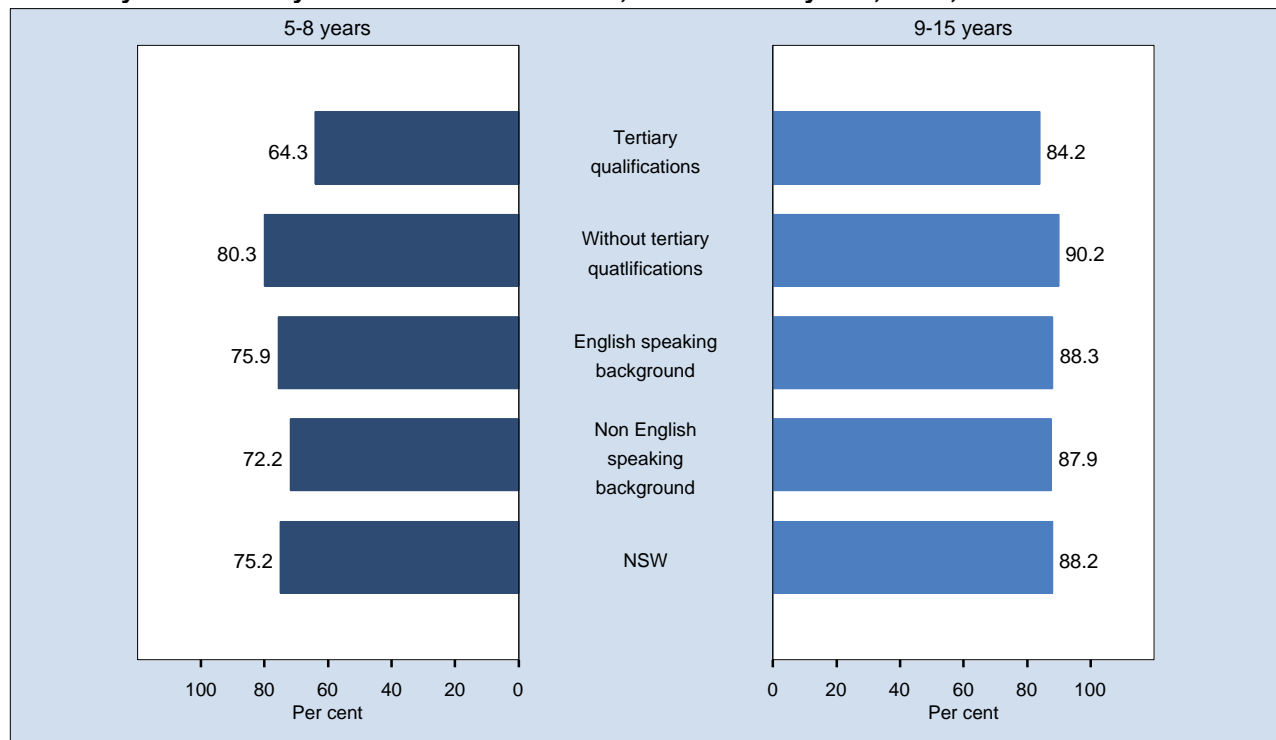
Sedentary behaviour by socioeconomic disadvantage, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,041 respondents in NSW. For this indicator 19 (1.79%) were not stated (Don't know or Refused) in NSW. This indicator includes children who had an average of 2 hours or more sedentary activity a day. The questions used to define the indicator were: On about how many days during the school week, does child usually watch TV, videos or DVDs at home? On those days, about how many hours does child usually spend watching TV, videos or DVDs? On about how many weekend days does child usually watch TV, videos or DVDs at home? On a typical weekend day, about how many hours does child usually spend watching TV, videos or DVDs? On about how many days during the school week does child usually play video or computer games? On those days, about how many hours does child usually spend playing video or computer games? On about how many weekend days does child usually play video or computer games? On a typical weekend day, about how many hours does child usually spend playing video or computer games?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

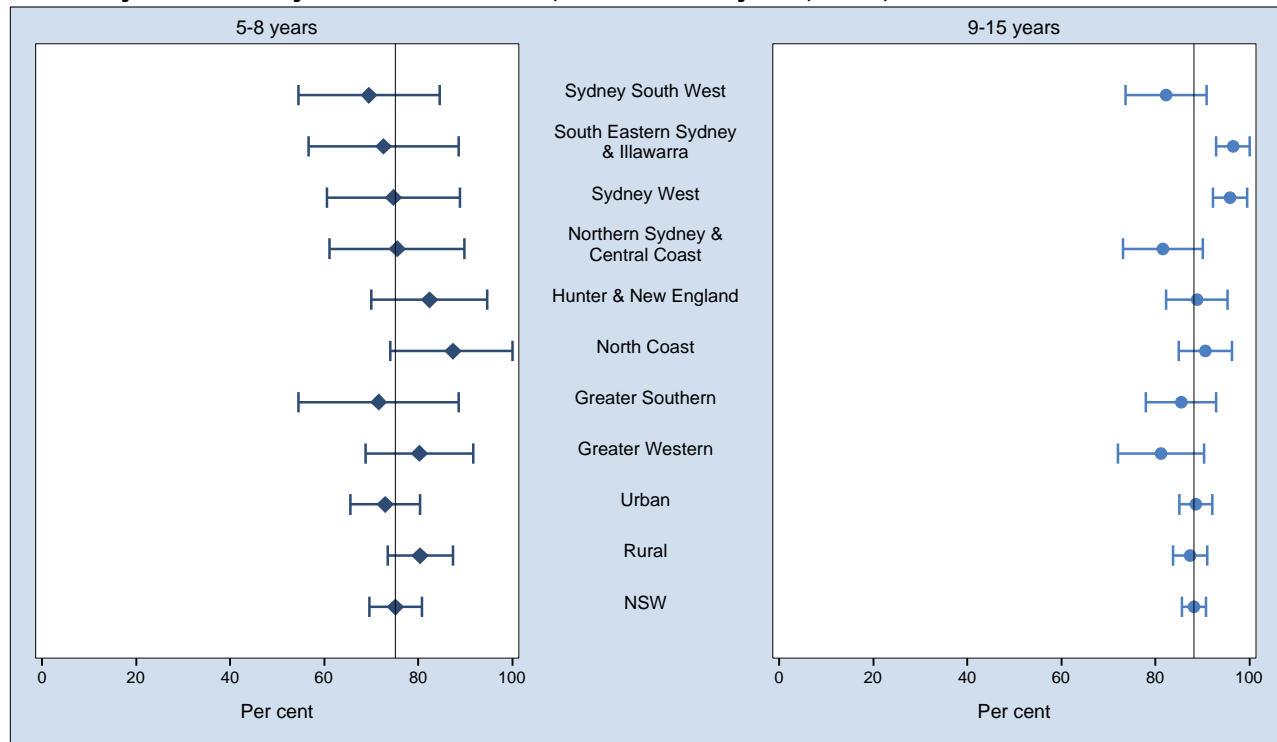
Sedentary behaviour by mothers' characteristics, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,041 respondents in NSW. For this indicator 19 (1.79%) were not stated (Don't know or Refused) in NSW. This indicator includes children who had an average of 2 hours or more sedentary activity a day. The questions used to define the indicator were: On about how many days during the school week, does child usually watch TV, videos or DVDs at home? On those days, about how many hours does child usually spend watching TV, videos or DVDs? On about how many weekend days does child usually watch TV, videos or DVDs at home? On a typical weekend day, about how many hours does child usually spend watching TV, videos or DVDs? On about how many days during the school week does child usually play video or computer games? On those days, about how many hours does child usually spend playing video or computer games? On about how many weekend days does child usually play video or computer games? On a typical weekend day, about how many hours does child usually spend playing video or computer games?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

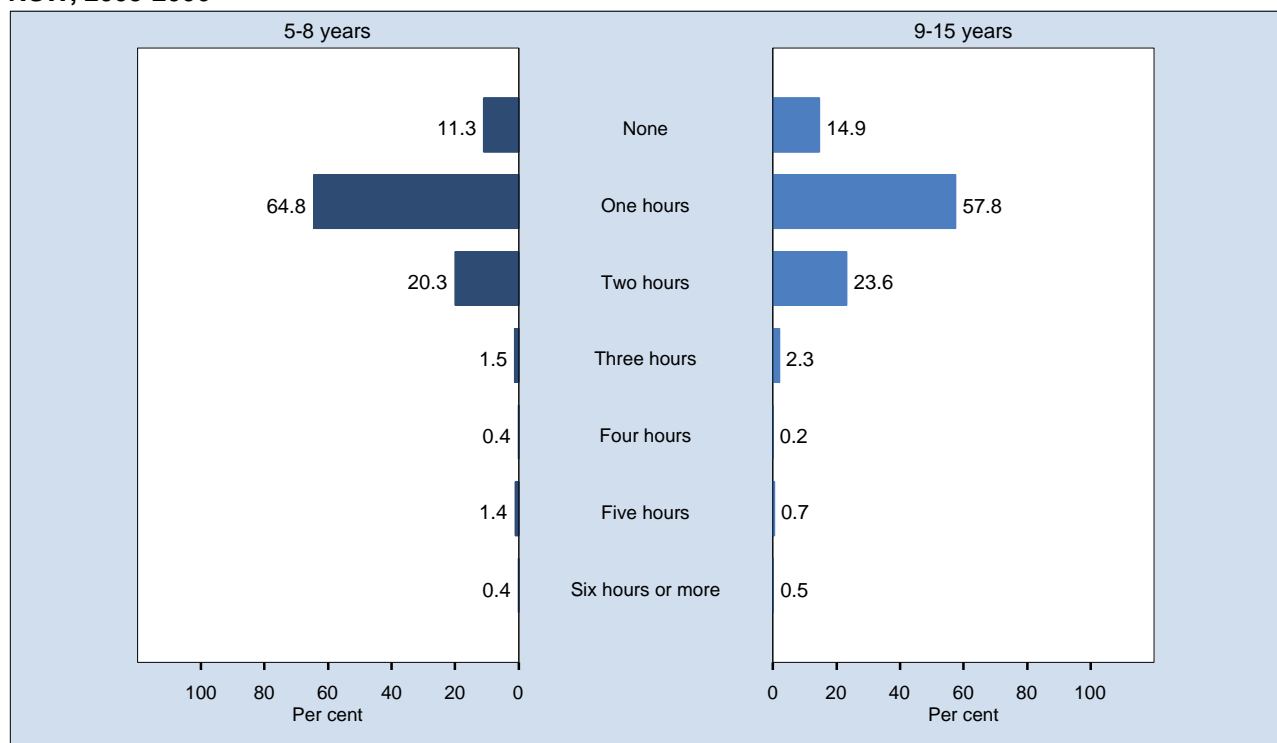
Sedentary behaviour by area health service, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,041 respondents in NSW. For this indicator 19 (1.79%) were not stated (Don't know or Refused) in NSW. This indicator includes children who had an average of 2 hours or more sedentary activity a day. The questions used to define the indicator were: On about how many days during the school week, does child usually watch TV, videos or DVDs at home? On those days, about how many hours does child usually spend watching TV, videos or DVDs? On about how many weekend days does child usually watch TV, videos or DVDs at home? On a typical weekend day, about how many hours does child usually spend watching TV, videos or DVDs? On about how many days during the school week does child usually play video or computer games? On those days, about how many hours does child usually spend playing video or computer games? On about how many weekend days does child usually play video or computer games? On a typical weekend day, about how many hours does child usually spend playing video or computer games?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Knowledge of recommended maximum sedentary behaviour, parents or carers of children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 863 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The question used was: Up to how many hours of television, video, DVD or computer games is it recommended that children watch each day?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Smoking

Introduction

Smoking in pregnancy doubles the risk of having a low birthweight baby and significantly increases the rate of perinatal mortality and several other adverse perinatal outcomes. Children of mothers who smoked during pregnancy are at increased risk of childhood allergies and asthma; tend to be shorter than other children; have more difficulty with reading, mathematics and related skills; and have an increased risk of developing attention deficit hyperactivity disorder.[1,2]

The adverse effects of exposure to environmental tobacco smoke (passive smoking) are well documented.[3] Children are particularly vulnerable to the effects of passive smoking, having smaller and more delicate lungs than adults. Passive smoking has been associated with several childhood respiratory illnesses including asthma and bronchitis and pneumonia, the development of chronic ear infections, the retardation of height and weight, impaired cognitive development, changes in behaviour, and Sudden Infant Death Syndrome.[3]

During 2005 and 2006, the New South Wales Population Health Survey asked mothers of infants 0-11 months: When you were pregnant, did you ever smoke cigarettes, cigars, pipes or other tobacco products? When you were pregnant, did you: reduce the amount of tobacco you smoked, try to give up smoking but were unsuccessful, or successfully gave up smoking? Parents or carers of children aged 0-15 years were asked: Which of the following best describes your home situation: my home is smoke-free, people occasionally smoke in the house, or people frequently smoke in the house? Are people allowed to smoke in your car?

Results

Smoking during pregnancy

Overall, 12.1 per cent of mothers of infants 0-11 months smoked during pregnancy. There was no significant variation by socioeconomic status, between rural areas and urban areas, among health areas, or mothers' characteristics. Of those mothers who smoked during pregnancy, 53.1 per cent reduced the amount of tobacco they smoked, 19.4 per cent tried to give up smoking but were unsuccessful, and 27.5 per cent successfully gave up smoking.

The proportion of mothers of infants 0-11 months who smoked during pregnancy has not varied significantly between 2001-2002 and 2005-2006; however, it has decreased significantly in rural areas (from 21.1 per cent to 11.7 per cent).

Exposure to environmental tobacco smoke (passive smoking)

Overall, 90.9 per cent of children aged 0-15 years lived in smoke-free homes. A significantly lower proportion of children aged 9-15 years (88.2 per cent) lived in smoke-free homes, compared with children aged 0-8 years (93.3 per cent). A significantly higher proportion of children in the 3 least disadvantaged quintiles (96.7 per cent and 94.1 per cent and 93.1 per cent), and a significantly lower proportion of children in the 2 most disadvantaged quintiles (88.0 per cent and 81.8 per cent), lived in smoke-free homes. There was no significant variation between urban areas and rural areas; however, a significantly higher proportion of children in the Northern Sydney & Central Coast Health Area (94.2 per cent) lived in smoke-free homes. A significantly lower proportion of children of mothers without tertiary qualifications (87.9 per cent), compared with children of mother's with tertiary qualifications (96.8 per cent), lived in smoke-free homes.

The proportion of children aged 0-15 years living in smoke-free homes increased significantly between 2001-2002 (84.8 per cent) and 2005-2006 (90.9 per cent). The increase was significant among children aged 0-8 years (from 89.3 per cent to 93.3 per cent) and 9-15 years (from 84.1 per cent to 88.2 per cent).

Overall, 91.5 per cent of parents or carers of children 0-15 years have smoke-free cars. A significantly lower proportion of parents or carers of children aged 9-15 years (90.3 per cent) have smoke-free cars, compared with parents or carers of children aged 0-8 years (92.7 per cent). A significantly higher proportion of parents or carers in the least disadvantaged quintile (94.2 per cent), and a significantly lower proportion in the second most disadvantaged quintile (88.5 per cent), have smoke-free cars. There was no significant variation between urban areas and rural areas; however, a significantly higher proportion of parents and carers in the Northern Sydney & Central Coast Health Area (94.9 per cent) have smoke-free cars.

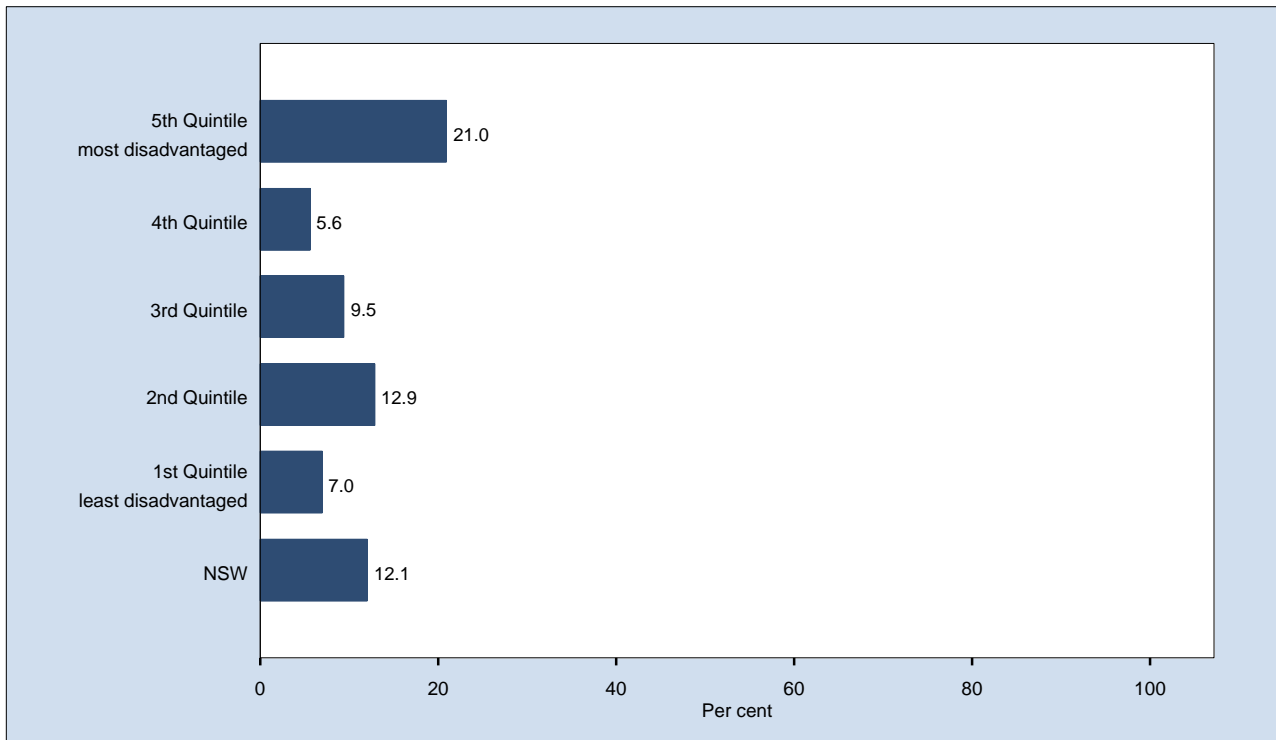
A significantly lower proportion of children of mothers without tertiary qualifications (89.6 per cent) compared with children of mothers with tertiary qualifications (95.3 per cent), and a significantly higher proportion of mothers from a non English speaking background (93.5 per cent) compared with mothers from an English speaking background (91.0 per cent), have smoke-free cars.

The proportion of parents or carers with smoke-free cars has not varied significantly between 2003-2004 and 2005-2006.

References

1. Walsh RA, Lowe JB, Hopkins PJ. Quitting smoking in pregnancy. *Med J Aust* 2001; 175: 320323, available online at www.mja.com.au/public/issues/175_06_170901/walsh/walsh.html, accessed 8 November 2007.
2. NSW Department of Health. *Smoking and Pregnancy Fact Sheet*, available online at www.health.nsw.gov.au/pubs/2006/pdf/smoking_preg_fs.pdf, accessed 8 November 2007.
3. Commonwealth Department of Health and Ageing. *Environmental Tobacco Smoke in Australia*. Canberra: Publications Production Unit, Commonwealth Department of Health and Ageing, 2001, available online at www.health.gov.au/internet/wcms/Publishing.nsf/Content/health-pubhlth-publicat-document-env_ets-cnt.htm, accessed 8 November 2007.

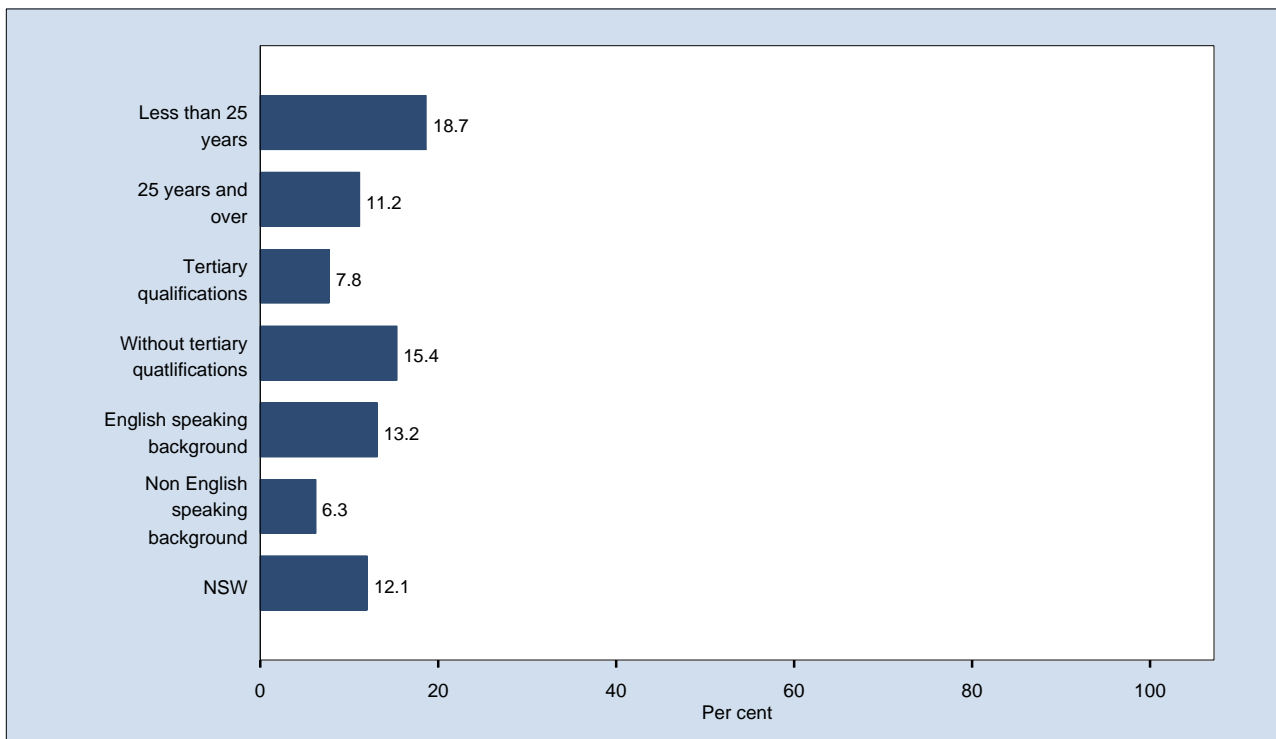
Smoking during pregnancy by socioeconomic disadvantage, mothers of infants 0-11 months, NSW, 2005-2006



Note: Estimates are based on 263 respondents in NSW. For this indicator 3 (1.13%) were not stated (Don't know or Refused) in NSW. The indicator includes those mothers who smoked during pregnancy. The question used to define the indicator was: When you were pregnant with child, did you ever smoke cigarettes, cigars, pipes or other tobacco products?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

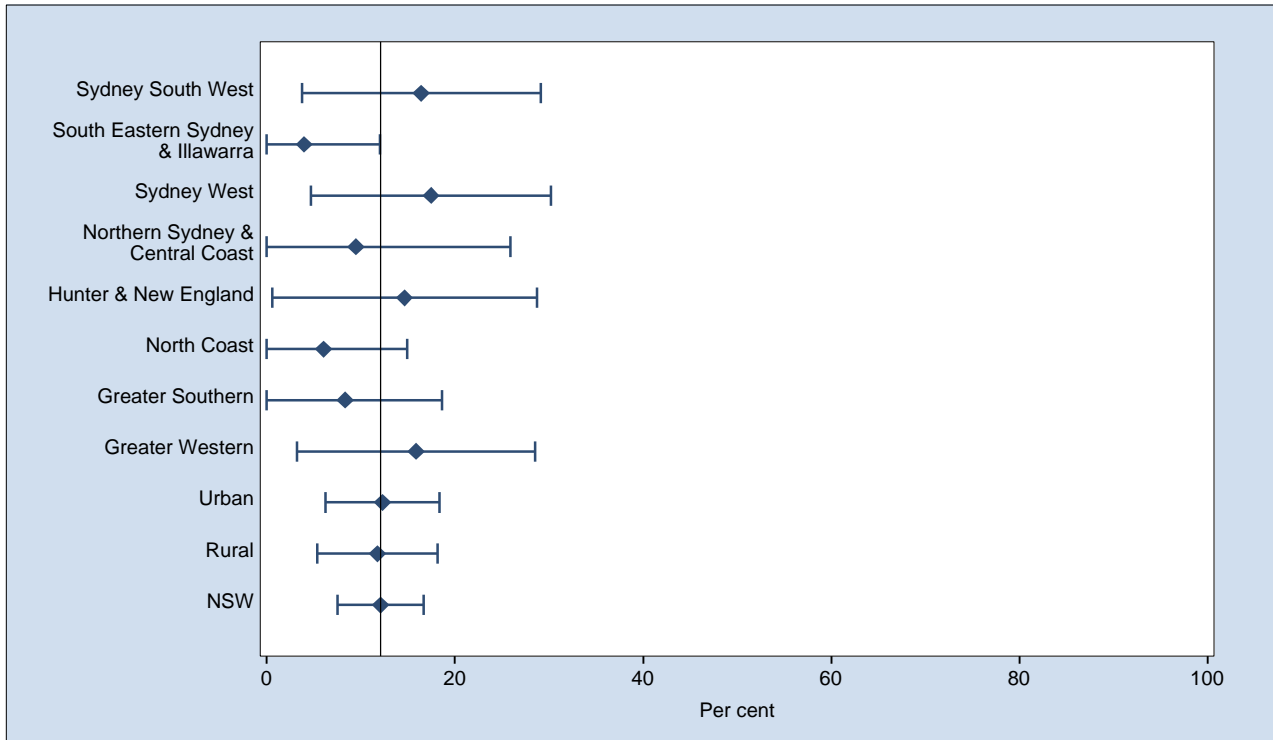
Smoking during pregnancy by mothers' characteristics, mothers of infants 0-11 months, NSW, 2005-2006



Note: Estimates are based on 263 respondents in NSW. For this indicator 3 (1.13%) were not stated (Don't know or Refused) in NSW. The indicator includes those mothers who smoked during pregnancy. The question used to define the indicator was: When you were pregnant with child, did you ever smoke cigarettes, cigars, pipes or other tobacco products?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

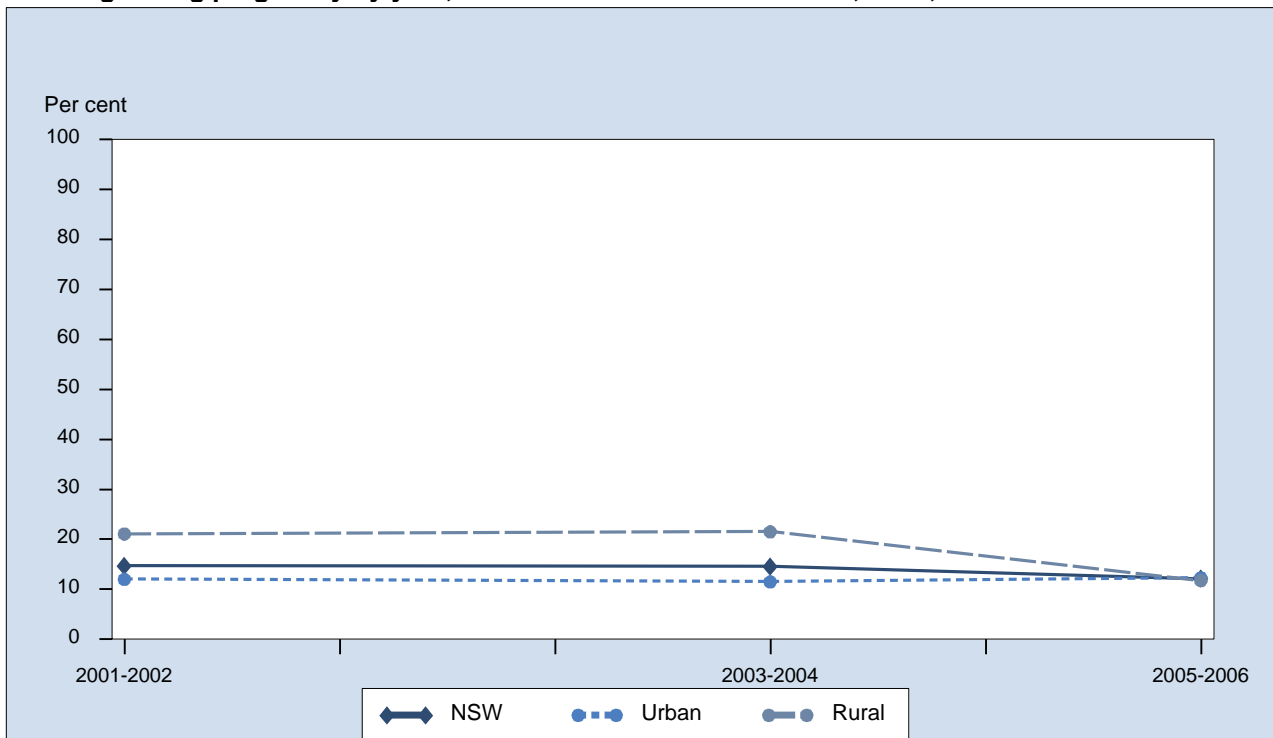
Smoking during pregnancy by area health service, mothers of infants 0-11 months, NSW, 2005-2006



Note: Estimates are based on 263 respondents in NSW. For this indicator 3 (1.13%) were not stated (Don't know or Refused) in NSW. The indicator includes those mothers who smoked during pregnancy. The question used to define the indicator was: When you were pregnant with child, did you ever smoke cigarettes, cigars, pipes or other tobacco products?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

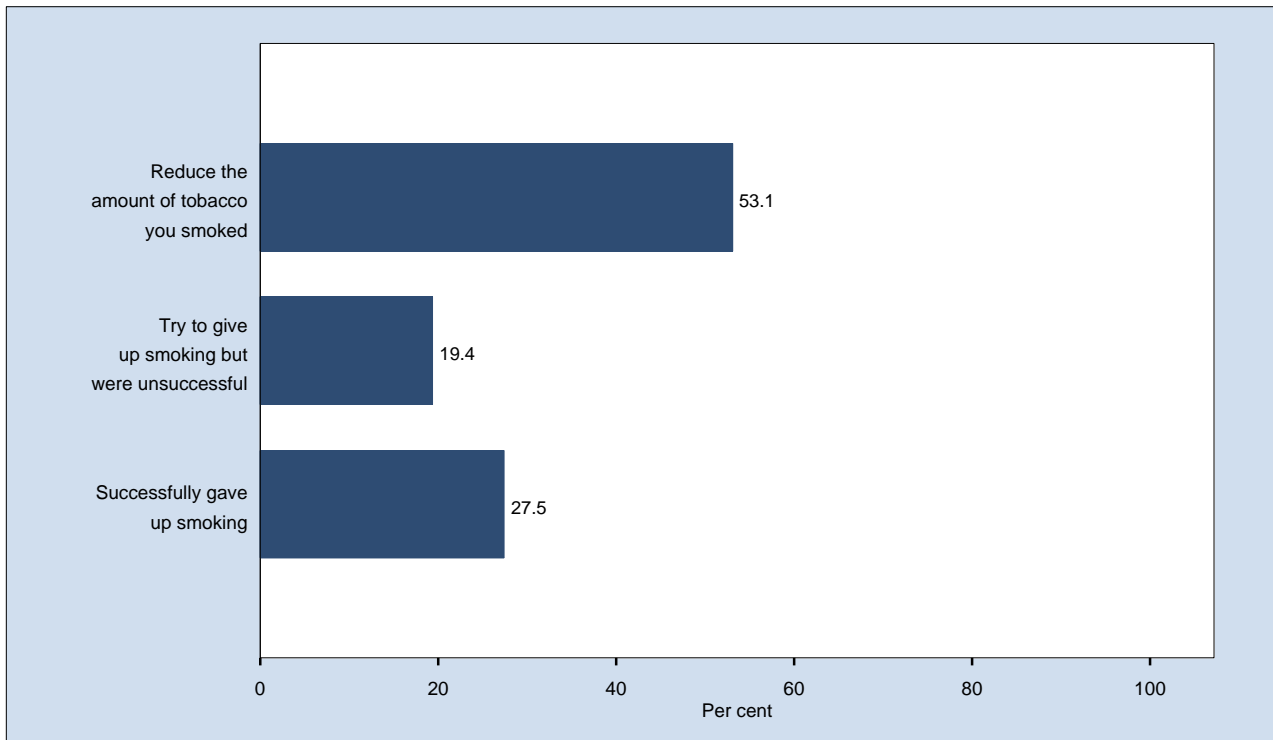
Smoking during pregnancy by year, mothers of infants 0-11 months, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (646), 2004 (263), 2006 (263). The indicator includes those mothers who smoked during pregnancy. The question used to define the indicator was: When you were pregnant with child, did you ever smoke cigarettes, cigars, pipes or other tobacco products?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

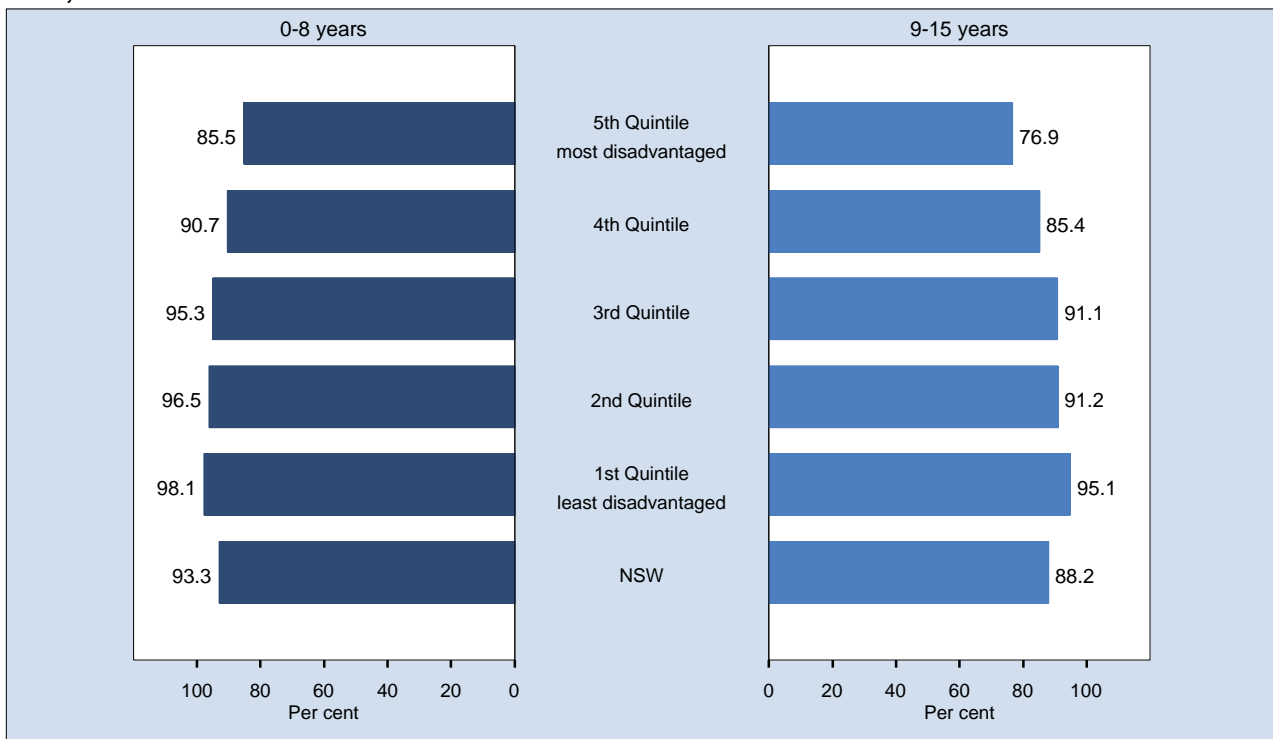
Smoking quitting status during pregnancy, mothers of infants 0-11 months who smoked, NSW, 2005-2006



Note: Estimates are based on 36 respondents in NSW. For this indicator 2 (5.26%) were not stated (Don't know or Refused) in NSW. The questions used were: When you were pregnant with child, did you ever smoke cigarettes, cigars, pipes or other tobacco products? When you were pregnant with child, did you reduce the amount of tobacco you smoked, try to give up smoking but were unsuccessful, successfully gave up smoking, none of the above?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

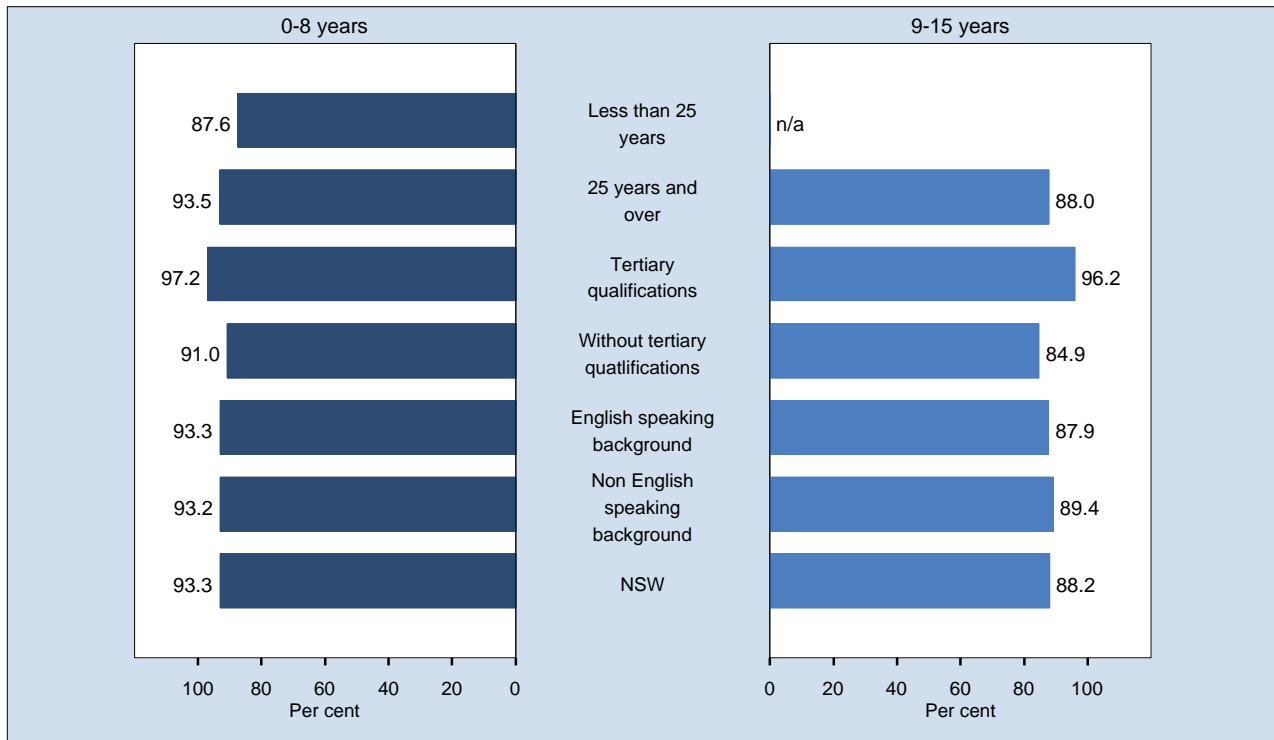
Smoke-free households by socioeconomic disadvantage, parents or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,534 respondents in NSW. For this indicator 6 (0.13%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who said 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, people frequently smoke in the house?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

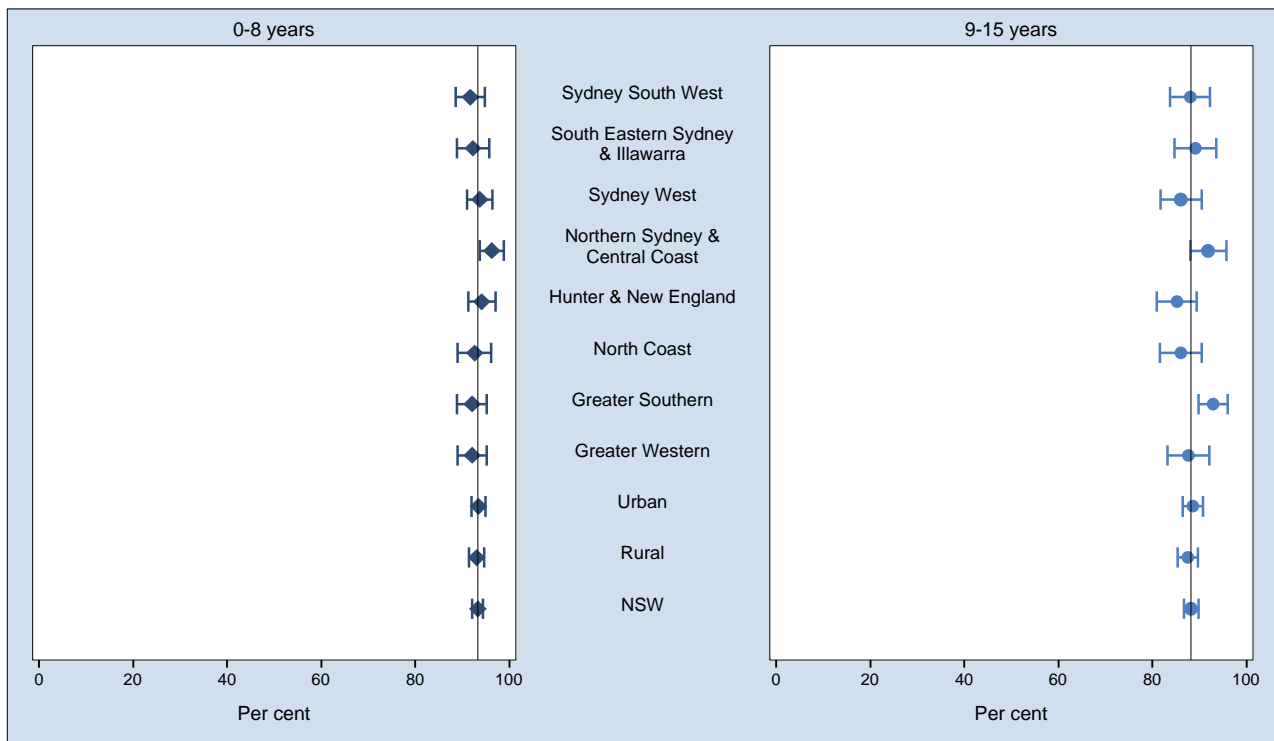
Smoke-free households by mothers' characteristics, parents or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,534 respondents in NSW. For this indicator 6 (0.13%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who said 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, people frequently smoke in the house? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

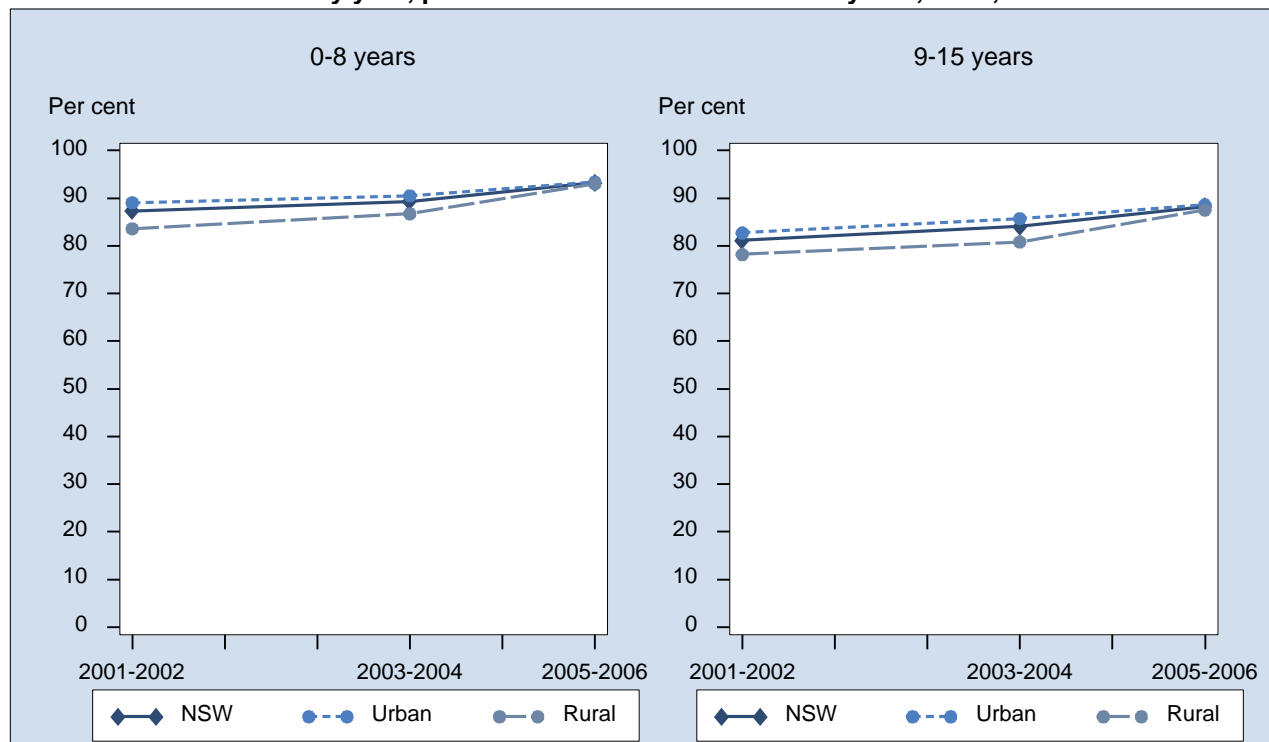
Smoke-free households by area health service, parents or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,534 respondents in NSW. For this indicator 6 (0.13%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who said 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, people frequently smoke in the house?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

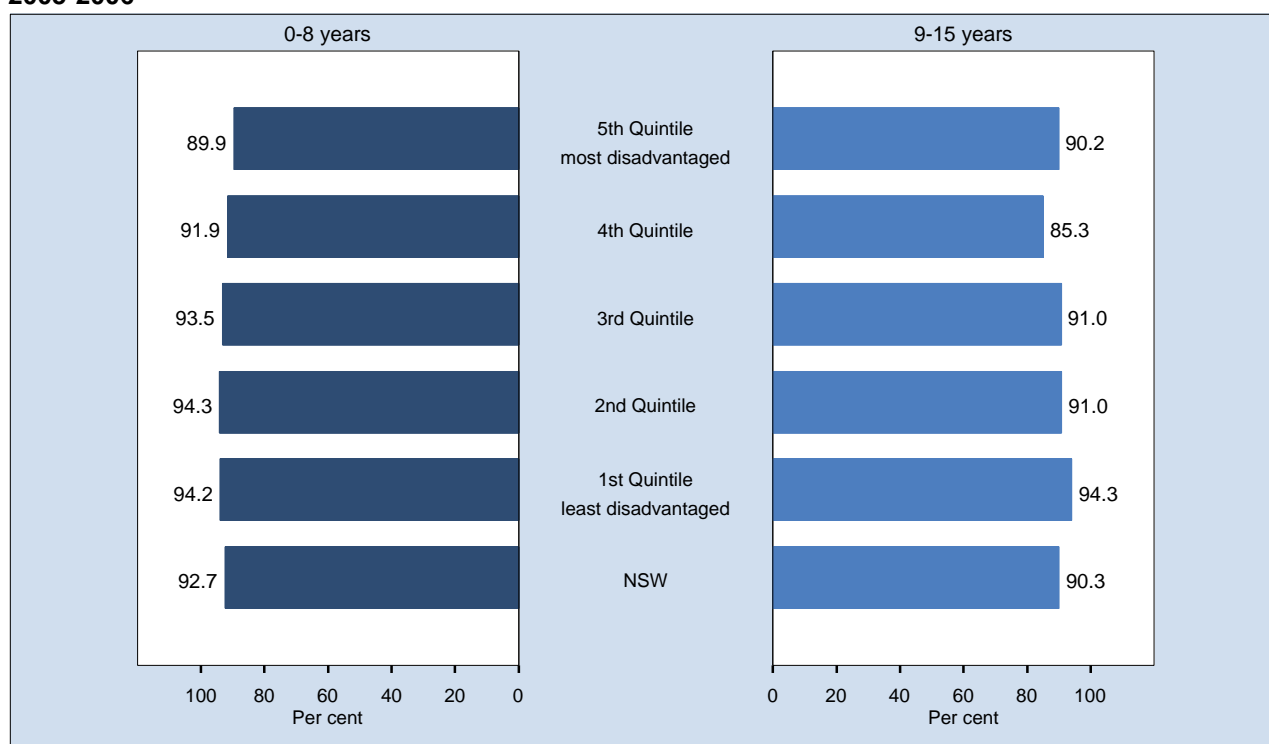
Smoke-free households by year, parents or carers of children 0-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (9,415), 2004 (7,674), 2006 (4,534). The indicator includes parents or carers who said 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, people frequently smoke in the house?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

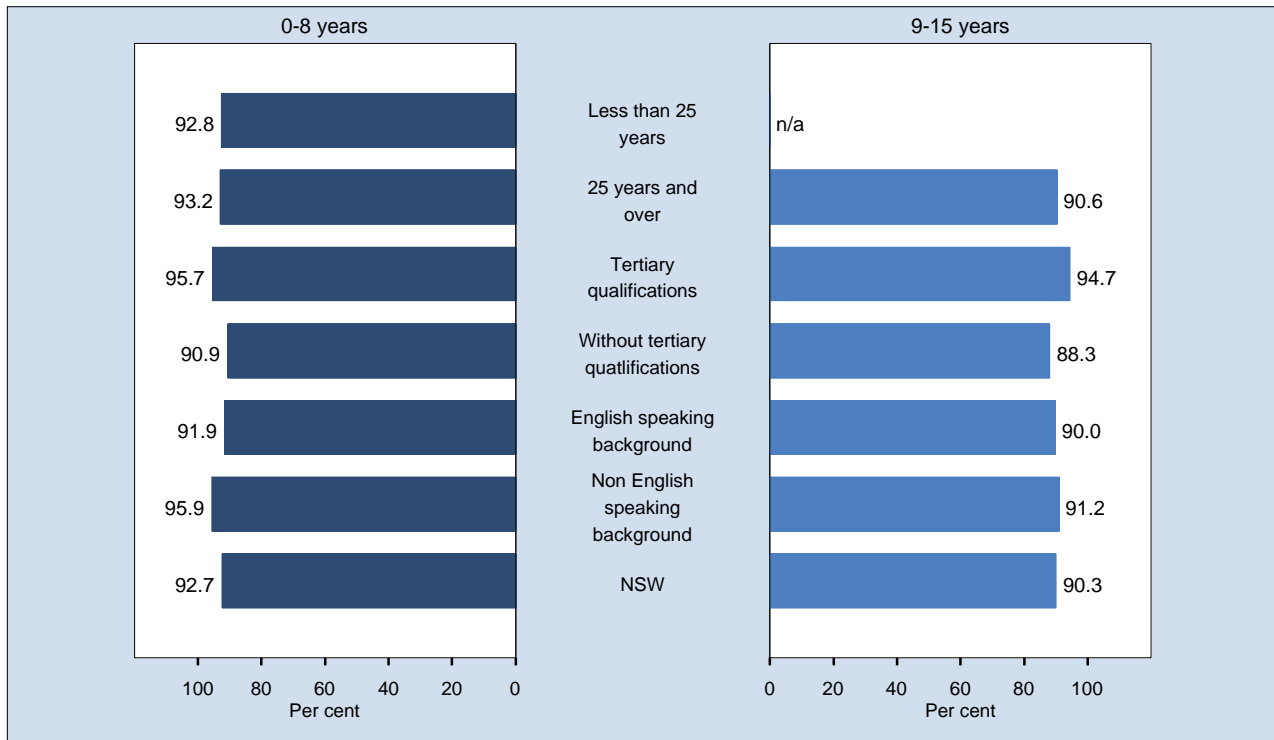
Smoke-free cars by socioeconomic disadvantage, parents or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,451 respondents in NSW. For this indicator 8 (0.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those parents or carers who said their car was smoke-free. The question used to define the indicator was: Are people allowed to smoke in your car?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

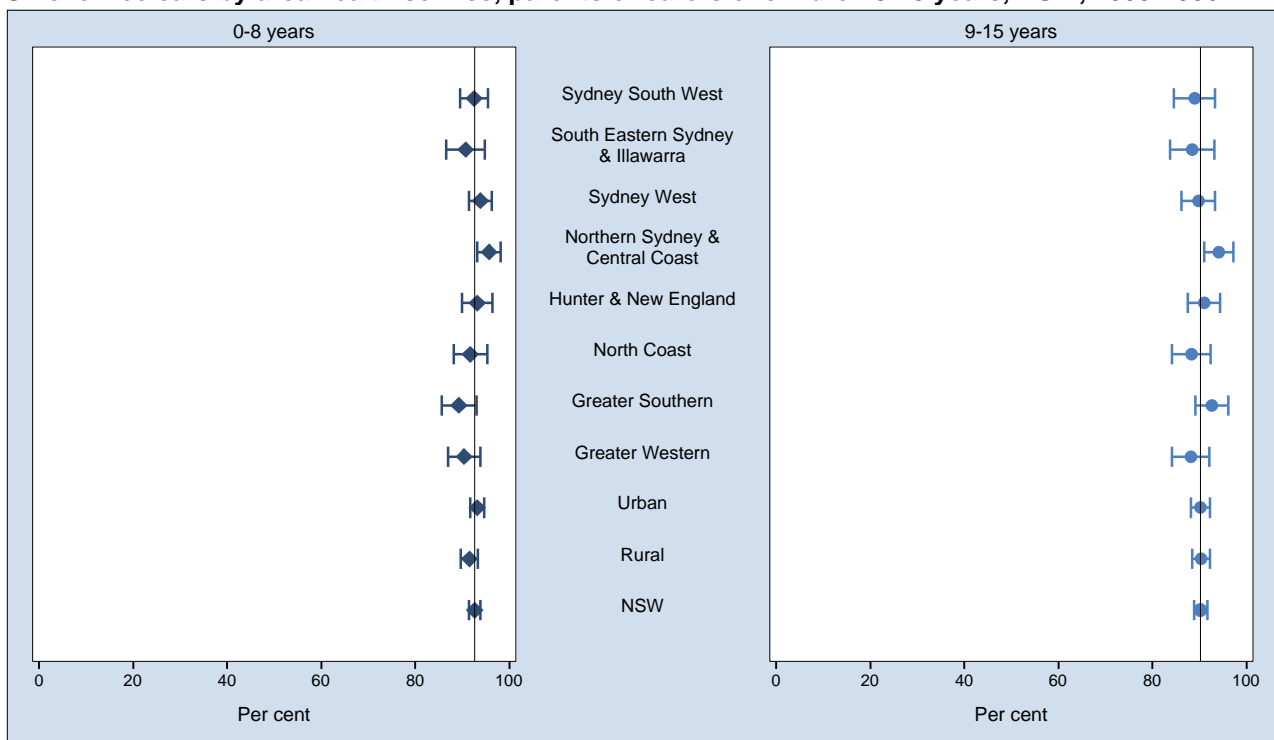
Smoke-free cars by mothers' characteristics, parents or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,451 respondents in NSW. For this indicator 8 (0.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those parents or carers who said their car was smoke-free. The question used to define the indicator was: Are people allowed to smoke in your car? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

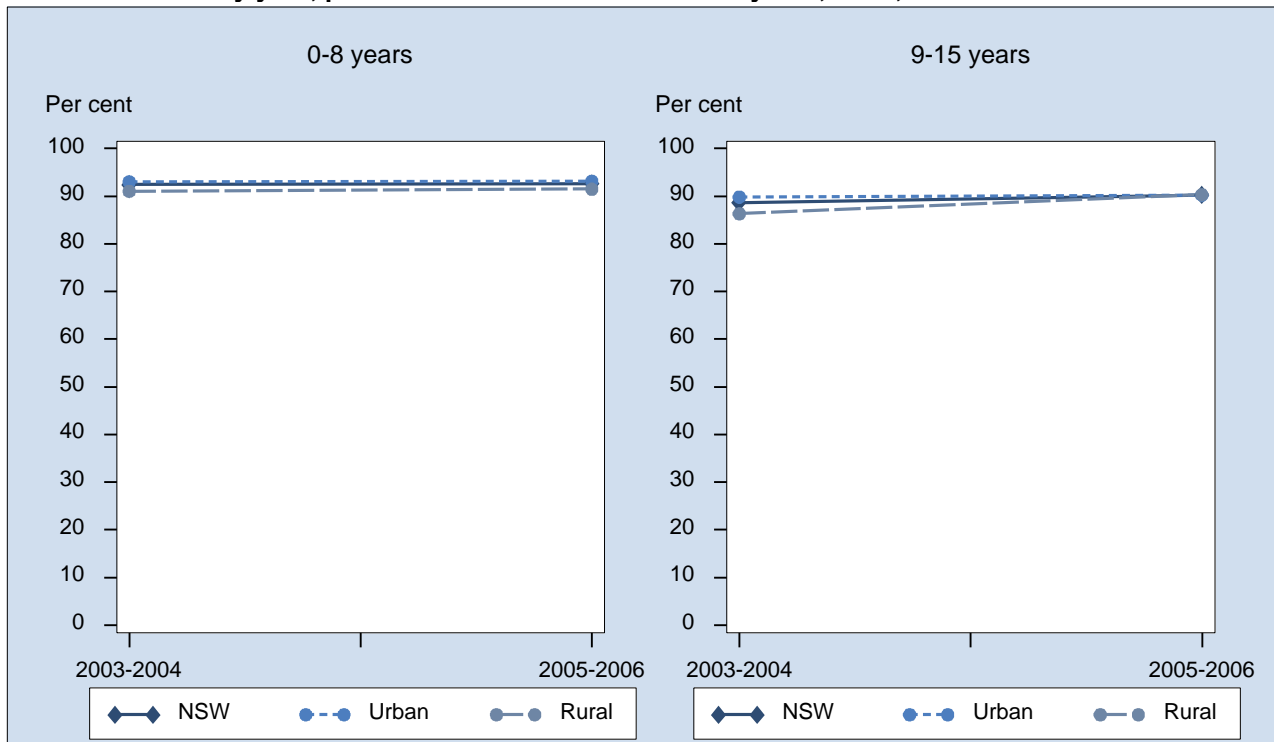
Smoke-free cars by area health service, parents or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,451 respondents in NSW. For this indicator 8 (0.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those parents or carers who said their car was smoke-free. The question used to define the indicator was: Are people allowed to smoke in your car?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Smoke-free cars by year, parents or carers of children 0-15 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (4,729), 2006 (4,451). The indicator includes those parents or carers who said their car was smoke-free. The question used to define the indicator was: Are people allowed to smoke in your car?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Health status

While most children are healthy, it is important to monitor the health status of children to detect emerging patterns of illness and to inform policy for and planning of child health services. This section reports on asthma, mental health, oral health, and self-rated health status.

Asthma

Introduction

Asthma is a chronic inflammatory disorder of the airways where the airways narrow too much and too easily, in response to a wide range of triggers, resulting in episodes of wheeze and chest tightness and shortness of breath. By international standards, the prevalence of asthma is high in Australia. The consequences of asthma in children can include disturbed sleep, tiredness, and reduced participation in play or sport or activities. Asthma ranks high among the conditions managed by general practitioners and is a major cause of hospital admission in children.[1-5]

While asthma is not curable it can be managed effectively. Recommended management strategies currently include, where appropriate: increased use of preventer medications, reduced use of reliever medications, a structured management plan, avoidance of triggers where they are known, education for self-management, and regular review by a general practitioner. Research has shown that most patients with a structured management plan find these useful.[5-7]

During 2005 and 2006, the New South Wales Population Health Survey asked parents or carers of children aged 2-15 years: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or taken treatment for asthma in the last 12 months? During the last 4 weeks, did child's asthma interfere with his or her ability to manage his or her day to day activities? Did child's asthma interfere with these activities: a little bit, moderately, quite a lot, or extremely? Does child have a written asthma management plan from his or her doctor on how to treat his or her asthma. What are the names or brands of all medications child took for asthma in the last 12 months?

Results

Asthma prevalence

Overall, 22.7 per cent of children aged 2-15 years ever had asthma. A significantly higher proportion of children aged 9-15 years (25.3 per cent) than 2-8 years (19.7 per cent) ever had asthma. There was no significant variation by socioeconomic status. A significantly higher proportion of children in rural areas (27.4 per cent) than urban areas (20.5 per cent) ever had asthma. A significantly higher proportion of children in the Greater Southern (27.3 per cent) and Greater Western (33.3 per cent) Health Areas, and a significantly lower proportion of children in the Sydney South West Health Area (18.7 per cent), ever had asthma. A significantly lower proportion of children with mothers from a non English speaking background (18.9 per cent), compared with children of mothers from an English speaking background (23.8 per cent), ever had asthma.

The proportion of children who ever had asthma decreased significantly between 2001-2002 (27.2 per cent) and 2005-2006 (22.7 per cent). The increase was significant among children aged 2-8 years (from 24.2 per cent to 19.7 per cent) and 9-15 years (from 30.6 per cent to 25.3 per cent).

Overall, 12.9 per cent of children aged 2-15 years currently have asthma. There was no significant variation by age group. A significantly lower proportion of children in the least disadvantaged quintile (9.9 per cent) currently have asthma. A significantly higher proportion of children in rural areas (15.0 per cent) than urban areas (11.9 per cent) currently have asthma. A significantly higher proportion of children in the Greater Western Health Area (19.1 per cent) currently have asthma. A significantly lower proportion of children with mothers from a non English speaking background (10.6 per cent), compared with mothers from an English speaking background (13.6 per cent), currently have asthma.

The proportion of children who currently have asthma has decreased significantly between 2001-2002 (15.7 per cent) and 2005-2006 (12.9 per cent). The increase was significant among children aged 9-15 years (from 15.7 per cent to 12.2 per cent), and among children from urban areas (from 15.9 per cent to 11.9 per cent).

Asthma severity

Of those children aged 2-15 years who had current asthma, 80.6 per cent experienced no interference with their daily activities in the last 4 weeks, 6.9 per cent experienced a little interference, 4.9 per cent experienced moderate interference, 5.7 per cent experienced quite a lot of interference, and 1.9 per cent experienced extreme interference. Therefore, 12.5 per cent of children aged 2-15 years with current asthma

experienced moderate to extreme interference with daily activities in the last 4 weeks. There was no significant variation by age group, socioeconomic status, between urban areas and rural areas, among health areas, or by mothers' characteristics.

Asthma management plans

Overall, 55.6 per cent of children aged 2-15 years with current asthma had a written asthma management plan from their doctor on how to treat their asthma. There was no significant variation by age group, or socioeconomic status, between urban areas and rural areas, among health areas, or by mothers' characteristics.

The proportion of children with current asthma who have a written asthma management plan from their doctor on how to treat their asthma has not varied significantly between 2003-2004 and 2005-2006.

Asthma medications

Overall, 41.7 per cent of children with current asthma used short-acting beta agonists, 14.7 per cent used inhaled corticosteroids, 10.4 per cent used combined inhaled steroids and long-acting beta agonists, 5.4 per cent used oral steroids, 4.0 per cent used leukotriene receptor antagonists, 2.9 per cent used short acting anti-cholinergics, 1.4 per cent used cromones, and 0.7 per cent used long-acting beta agonists.

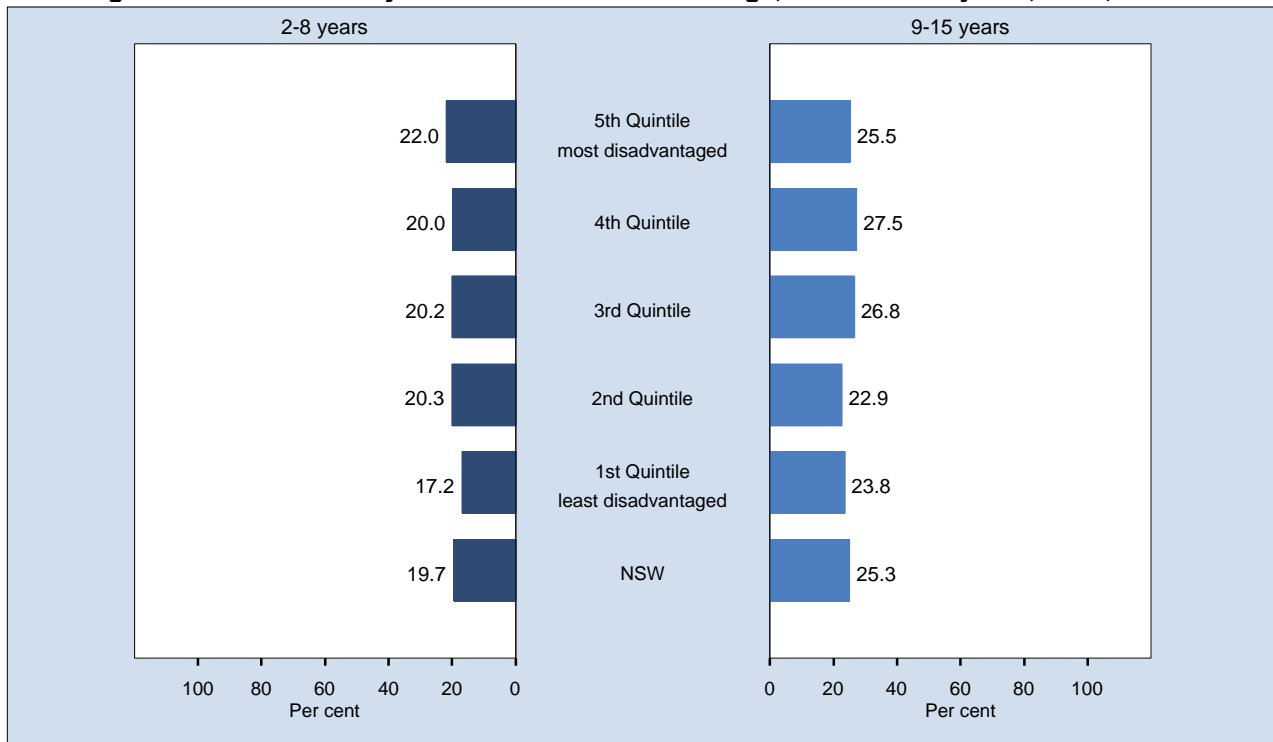
Overall, among those children with current asthma, 43.1 per cent used reliever medication (short-acting beta-agonists, short-acting anti-cholinergics, combined inhaled steroid and long-acting beta agonists and long acting beta agonists). There was no significant variation by age group, or socioeconomic status, between urban areas and rural areas, among health areas, or by mothers' characteristics.

Overall, among those children with current asthma, 27.6 per cent used preventer medication (combined inhaled steroids and long acting beta agonists, inhaled corticosteroids, leukotriene receptor antagonists and cromones). There was no significant variation by age group, or socioeconomic status, between urban areas and rural areas, among health areas, or by mothers' characteristics.

References

1. Australian Centre for Asthma Monitoring. *Asthma in Australia 2005*. Sydney: Australian Centre for Asthma Monitoring, 2005. Available online at www.aihw.gov.au/publications/index.cfm/title/10158, accessed 8 November 2007.
2. Wilson DH, Adams RJ, Appleton SL et al. Prevalence of asthma and asthma action plans in South Australia: Population surveys from 1990 to 2001. *Med J Aust* 2003; 178: 483-485. Available online at www.mja.com.au/public/issues/178_10_190503/wil10749_fm.pdf, accessed 8 November 2007.
3. Australian Bureau of Statistics. *National Health Survey 2001: Summary of Results* Canberra: Australian Bureau of Statistics, 2002. Available online at www.abs.gov.au/ausstats/abs@.nsf/mf/4364.0, accessed 8 November 2007.
4. Australian Government Department of Health and Ageing. Health Insite: Asthma website at www.healthinsite.gov.au/topics/asthma, accessed 8 November 2007.
5. Toelle BG, Ng K, Belousova E, Salome CM, Peat JK, and Marks GB. Prevalence of asthma and allergy in schoolchildren in Belmont, Australia: Three cross sectional surveys over 20 years. *BMJ* 2004; 328(7436): 386-87. Available online at www.bmj.com/cgi/content/full/328/7436/386, accessed 8 November 2007.
6. Gibson PG, Coughlan J, Wilson AJ et al. Self-management education and regular practitioner review for adults with asthma. *Cochrane Database of Systematic Reviews*. Oxford: John Wiley & Sons, 2006. Abstract and plain language summary online at www.cochrane.org/reviews/en/ab001117.html, accessed 8 November 2007.
7. Douglass J, Aroni R, Goeman D, Stewart K, Sawyer S, Thien F, Abramson M. A qualitative study of action plans for asthma. *BMJ* 2002; 324: 1003. Available online at www.bmj.com/cgi/content/abstract/324/7344/1003, accessed 8 November 2007.

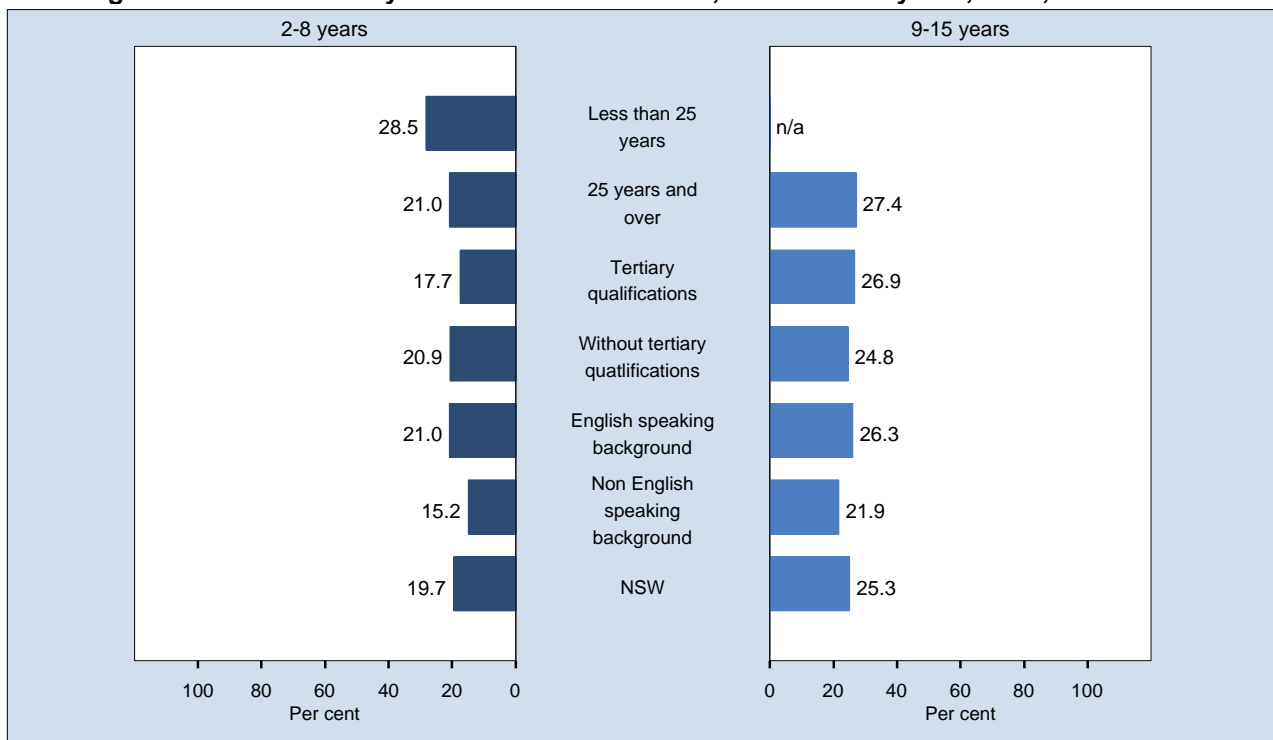
Ever diagnosed with asthma by socioeconomic disadvantage, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,938 respondents in NSW. For this indicator 11 (0.28%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who have ever been told by a doctor or hospital that they have asthma. The question used to define the indicator was: Has child ever been told by a doctor or hospital he/she has asthma?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

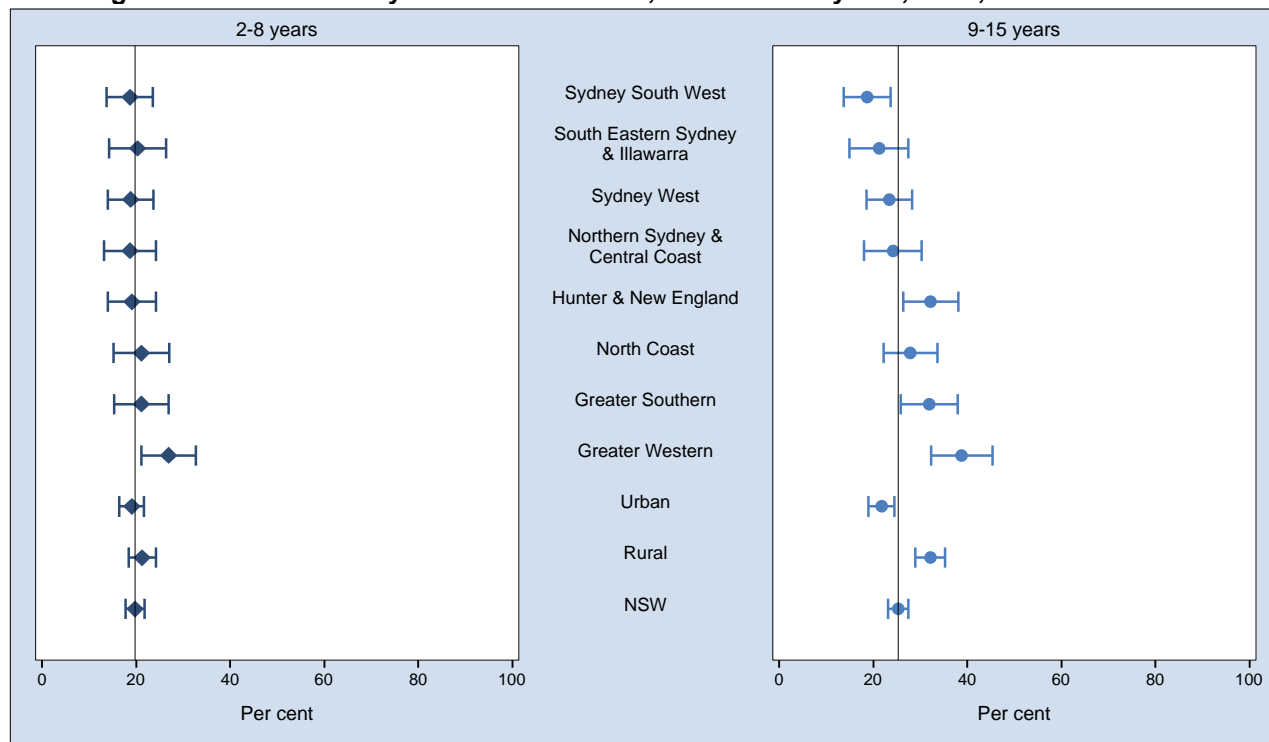
Ever diagnosed with asthma by mothers' characteristics, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,938 respondents in NSW. For this indicator 11 (0.28%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who have ever been told by a doctor or hospital that they have asthma. The question used to define the indicator was: Has child ever been told by a doctor or hospital he/she has asthma? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

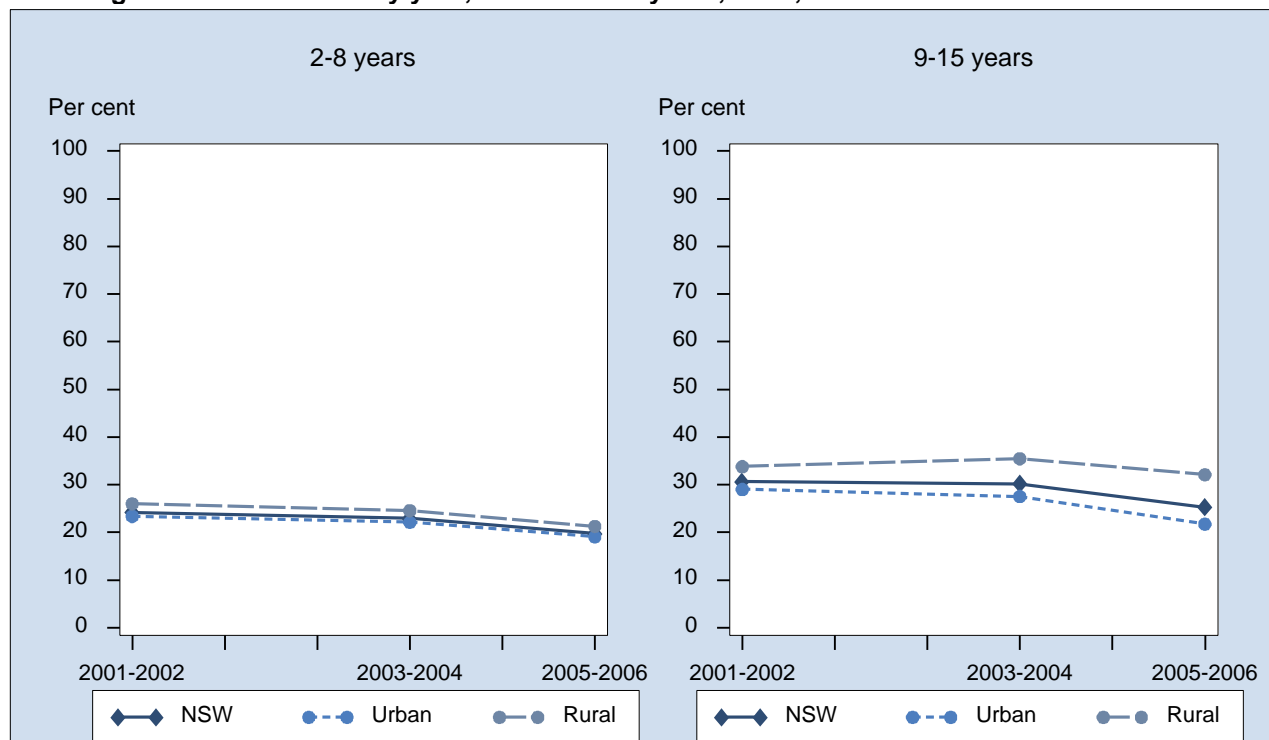
Ever diagnosed with asthma by area health service, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,938 respondents in NSW. For this indicator 11 (0.28%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who have ever been told by a doctor or hospital that they have asthma. The question used to define the indicator was: Has child ever been told by a doctor or hospital he/she has asthma?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

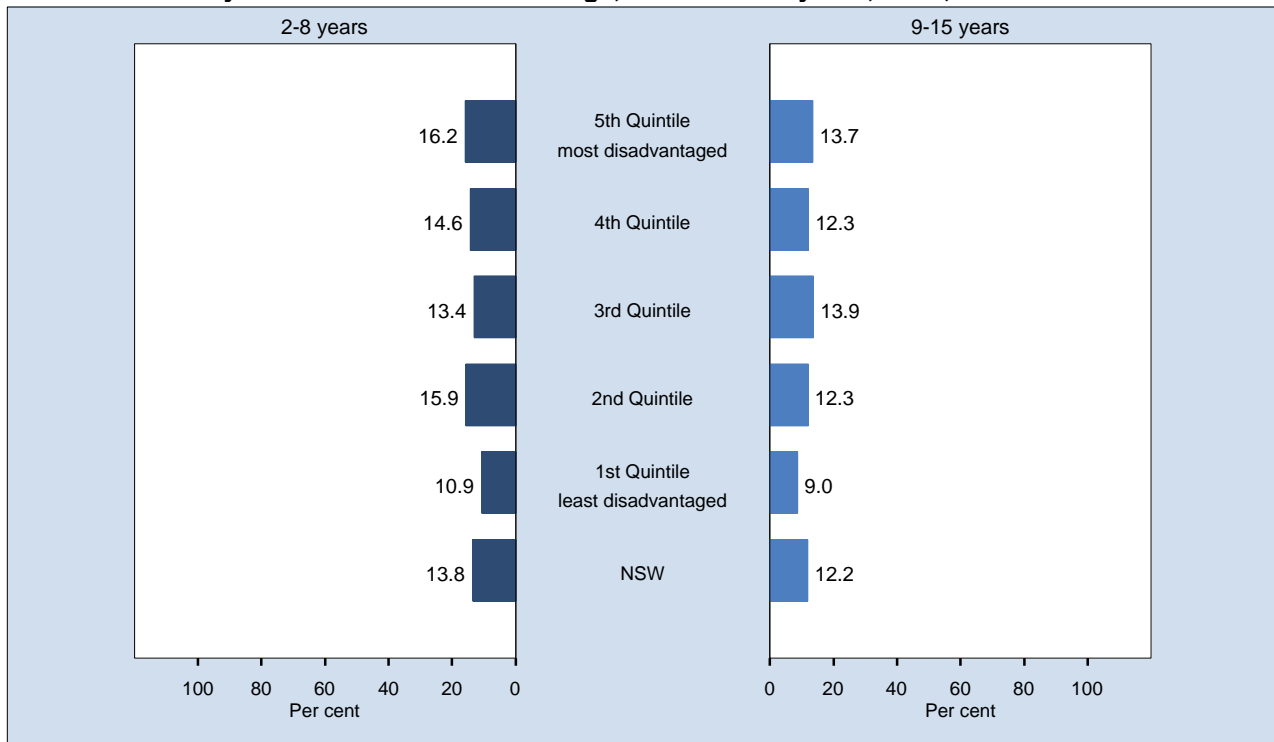
Ever diagnosed with asthma by year, children 2-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (7,899), 2004 (6,701), 2006 (3,938). The indicator includes those children who have ever been told by a doctor or hospital that they have asthma. The question used to define the indicator was: Has child ever been told by a doctor or hospital he/she has asthma?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

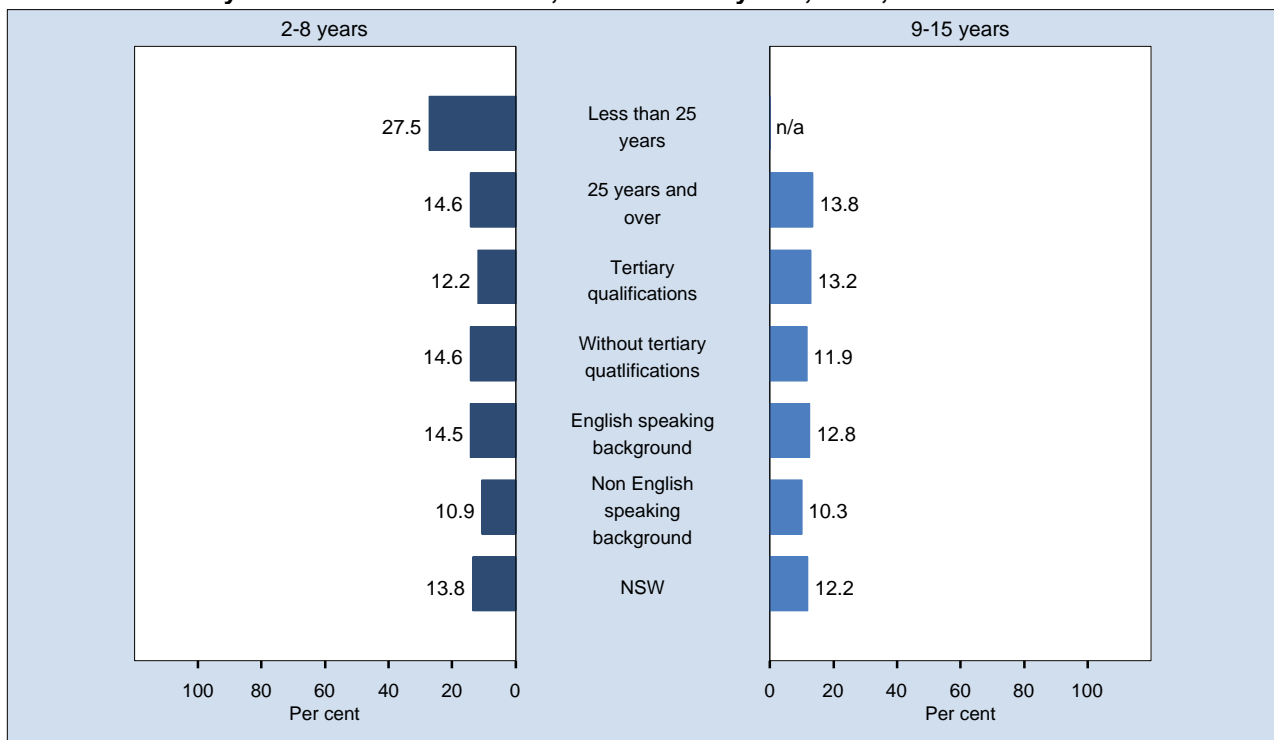
Current asthma by socioeconomic disadvantage, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,937 respondents in NSW. For this indicator 12 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those children with symptoms of asthma or who had treatment for asthma in the last 12 months. The questions used to define the indicator were: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or treatment for asthma in the last 12 months?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

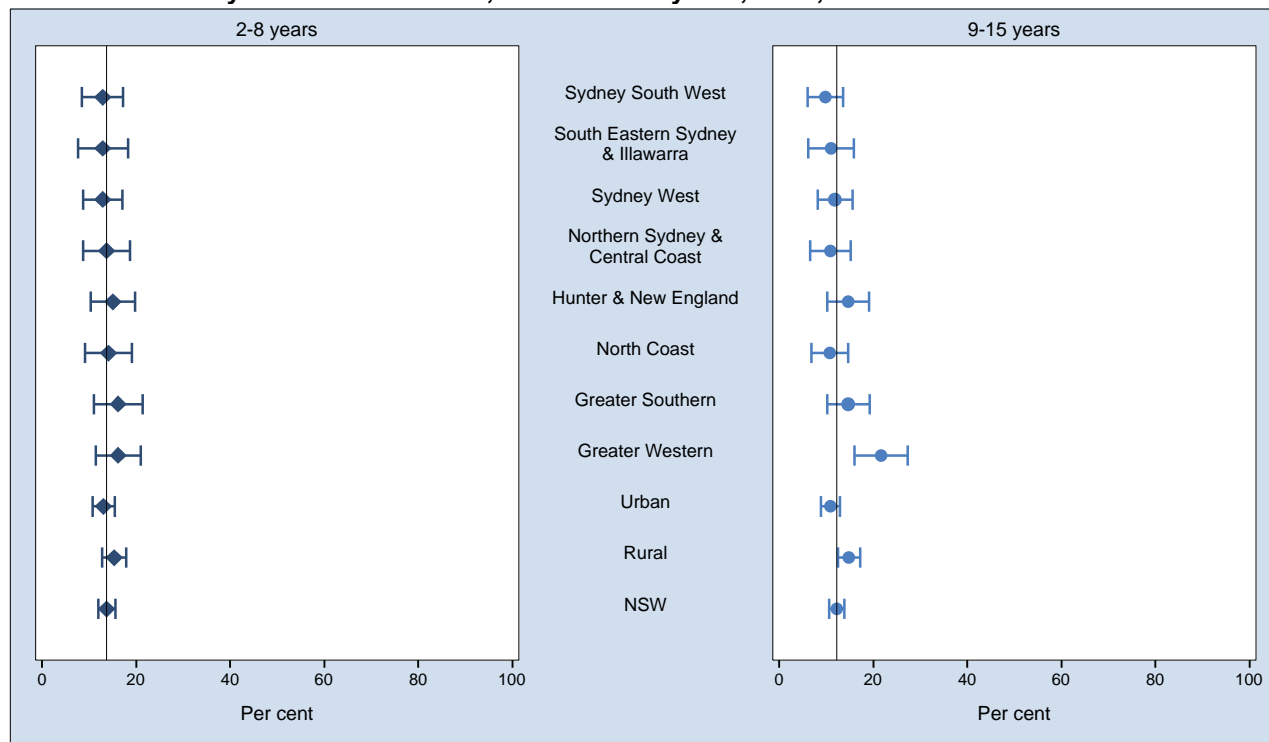
Current asthma by mothers' characteristics, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,937 respondents in NSW. For this indicator 12 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those children with symptoms of asthma or who had treatment for asthma in the last 12 months. The questions used to define the indicator were: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or treatment for asthma in the last 12 months? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

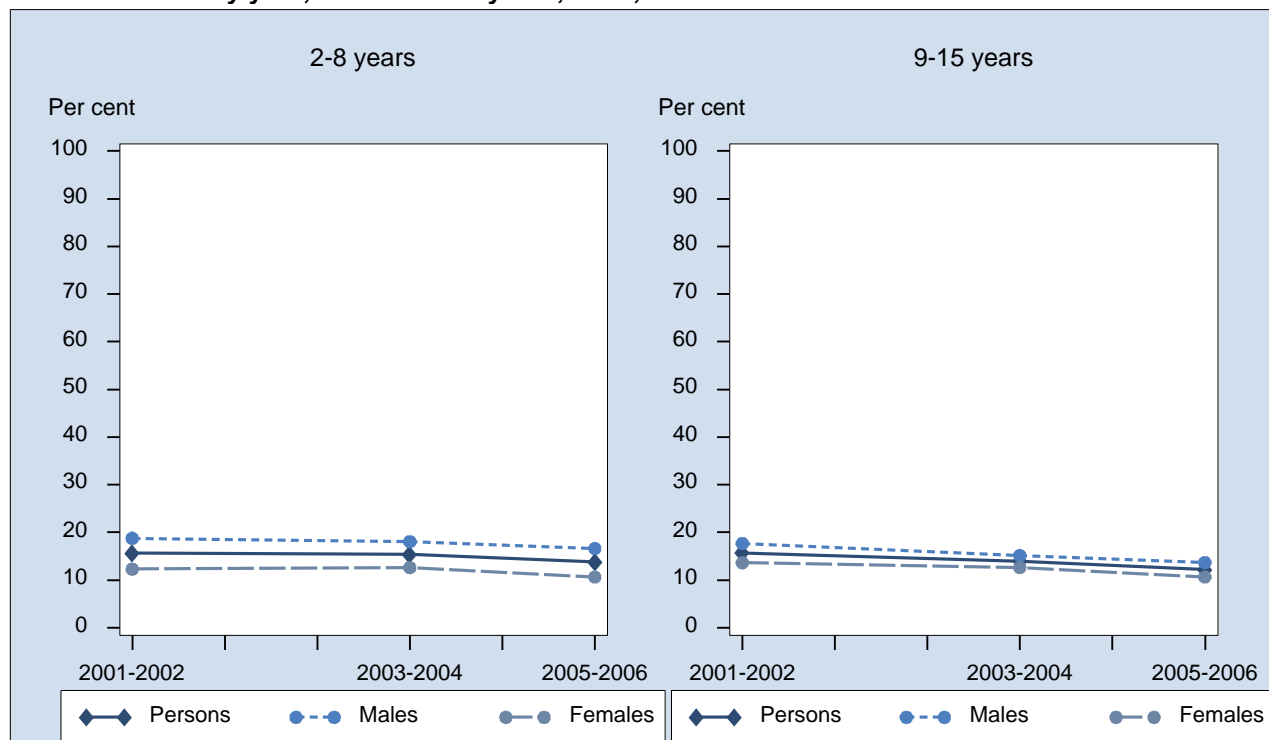
Current asthma by area health service, children 2-15 years, NSW, 2005-2006



Note: Estimates are based on 3,937 respondents in NSW. For this indicator 12 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those children with symptoms of asthma or who had treatment for asthma in the last 12 months. The questions used to define the indicator were: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or treatment for asthma in the last 12 months?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

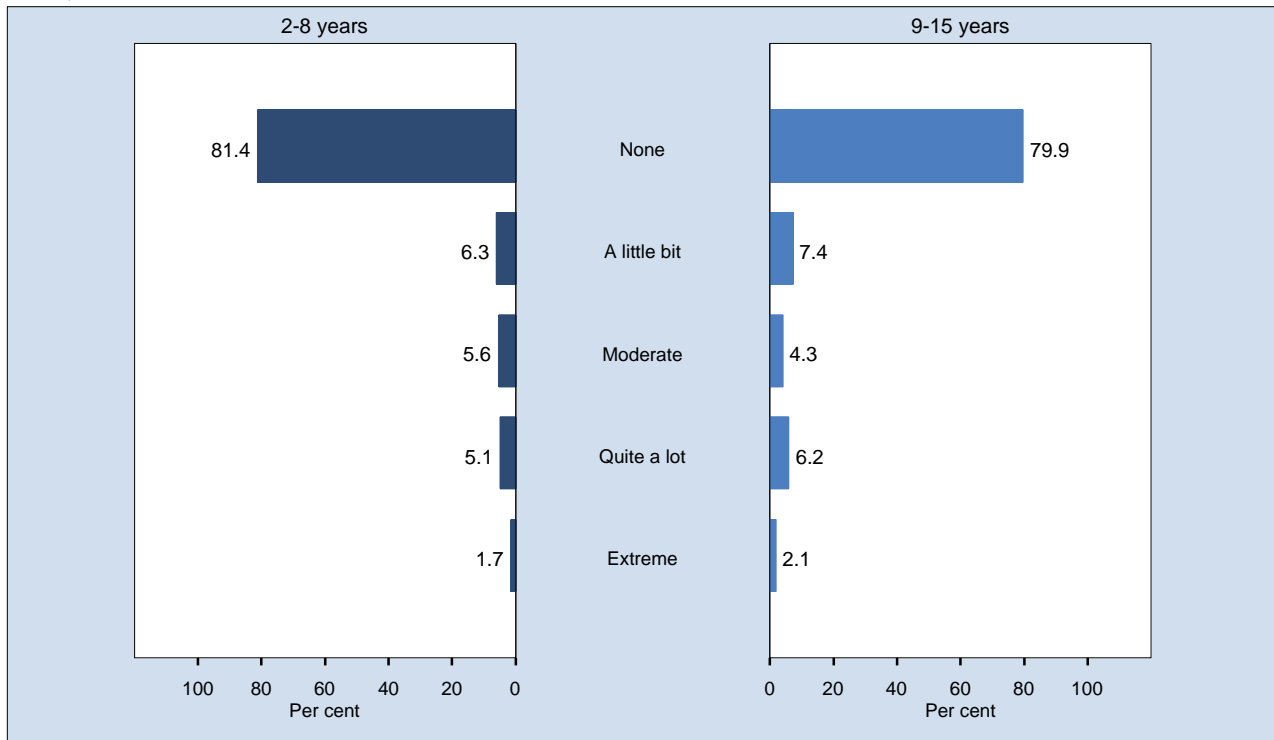
Current asthma by year, children 2-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (7,898), 2004 (6,696), 2006 (3,937). The indicator includes those children with symptoms of asthma or who had treatment for asthma in the last 12 months. The questions used to define the indicator were: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or treatment for asthma in the last 12 months?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

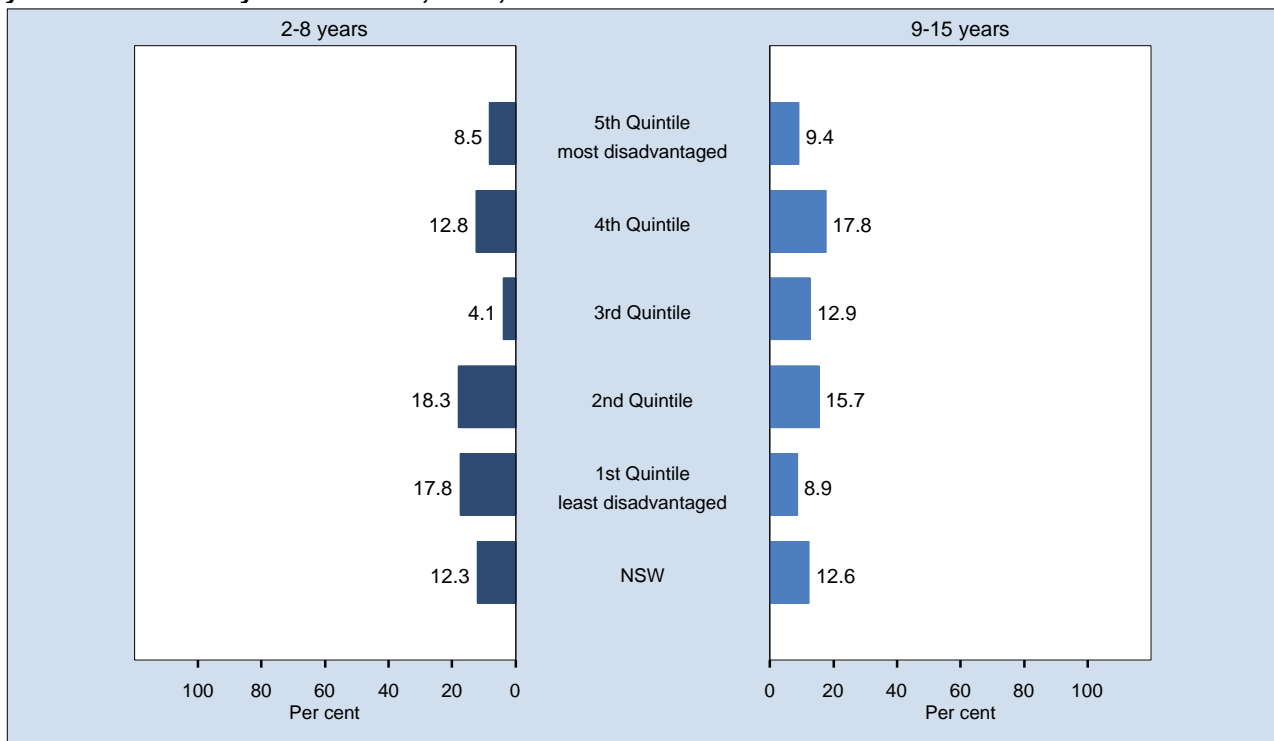
Level of interference with daily activities in the last 4 weeks, children 2-15 years with current asthma, NSW, 2005-2006



Note: Estimates are based on 536 respondents in NSW. For this indicator 15 (2.72%) were not stated (Don't know or Refused) in NSW. The questions used were: During the last 4 weeks, did child's asthma interfere with child's ability to manage his or her day to day activities? Did it interfere with these activities: a little bit, moderately, quite a lot, extremely? Has child ever been told by a doctor that he or she has asthma? Has child had symptoms of asthma or taken treatment for asthma in the last 12 months?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

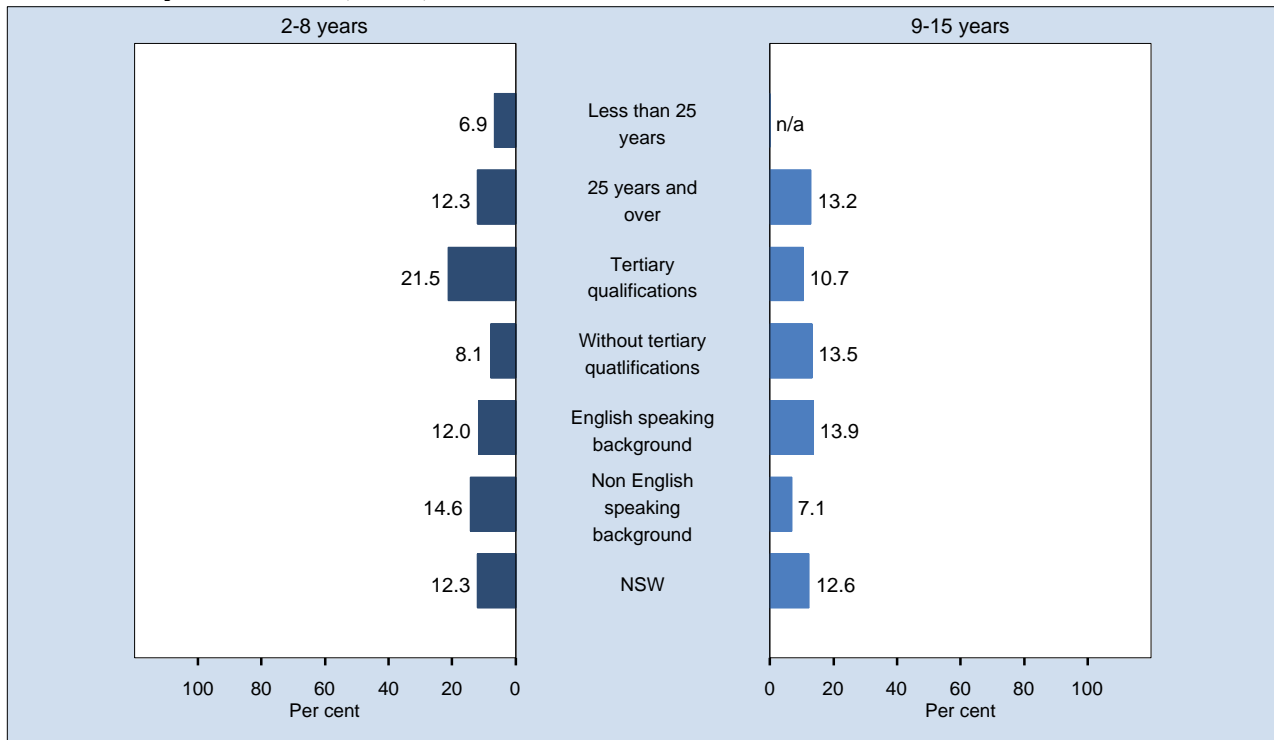
Moderate to extreme interference with daily activities by socioeconomic disadvantage, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 536 respondents in NSW. For this indicator 3 (0.56%) were not stated (Don't know or Refused) in NSW. The indicator includes those children whose asthma interfered with their ability to manage day-to-day activities moderately, quite a lot, or extremely in the last 4 weeks. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of asthma or taken treatment for asthma in the last 12 months? During the last 4 weeks, did your asthma interfere with your ability to manage your day to day activities? and Did it interfere with these activities: A little bit, Moderately, Quite a lot, or Extremely?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

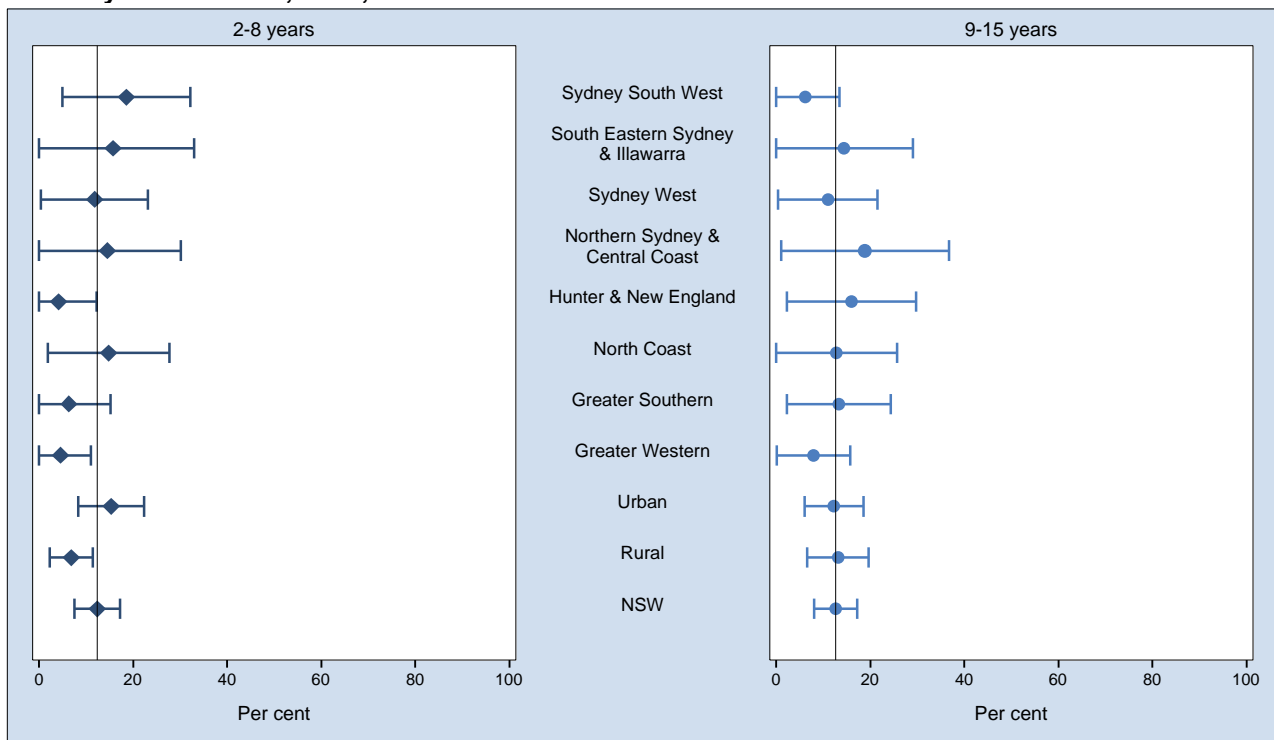
Moderate to extreme interference with daily activities by mothers' characteristics, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 536 respondents in NSW. For this indicator 3 (0.56%) were not stated (Don't know or Refused) in NSW. The indicator includes those children whose asthma interfered with their ability to manage day-to-day activities moderately, quite a lot, or extremely in the last 4 weeks. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of asthma or taken treatment for asthma in the last 12 months? During the last 4 weeks, did your asthma interfere with your ability to manage your day to day activities? and Did it interfere with these activities: A little bit, Moderately, Quite a lot, or Extremely? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Moderate to extreme interference with daily activities by area health service, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 536 respondents in NSW. For this indicator 3 (0.56%) were not stated (Don't know or Refused) in NSW. The indicator includes those children whose asthma interfered with their ability to manage day-to-day activities moderately, quite a lot, or extremely in the last 4 weeks. The questions used to define the indicator were: Have you ever been told by a doctor or hospital you have asthma? Have you had symptoms of asthma or taken treatment for asthma in the last 12 months? During the last 4 weeks, did your asthma interfere with your ability to manage your day to day activities? and Did it interfere with these activities: A little bit, Moderately, Quite a lot, or Extremely?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

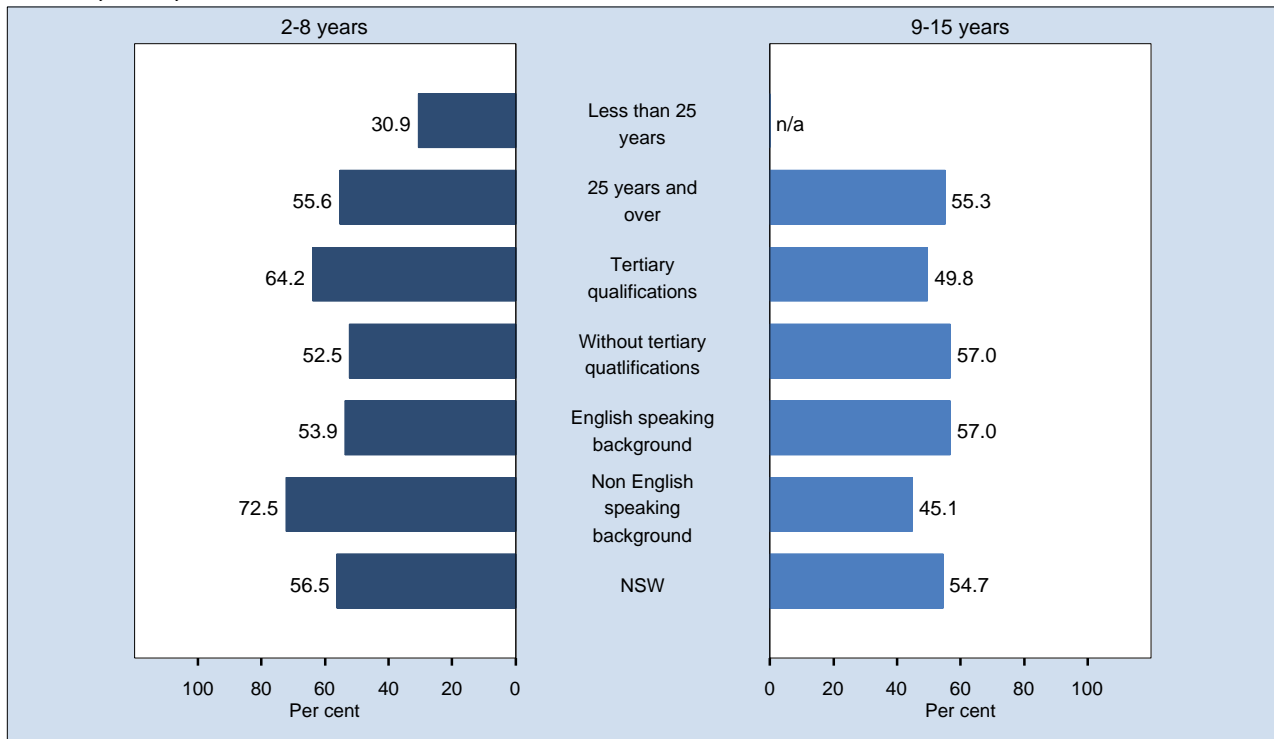
Written asthma management plan by socioeconomic disadvantage, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 536 respondents in NSW. For this indicator 3 (0.56%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have current asthma and who have a written asthma management plan. The questions used to define the indicator were: Has child ever been told by a doctor that he or she has asthma? Does child currently have asthma? Does child have a written asthma management plan from his or her doctor on how to treat their asthma?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

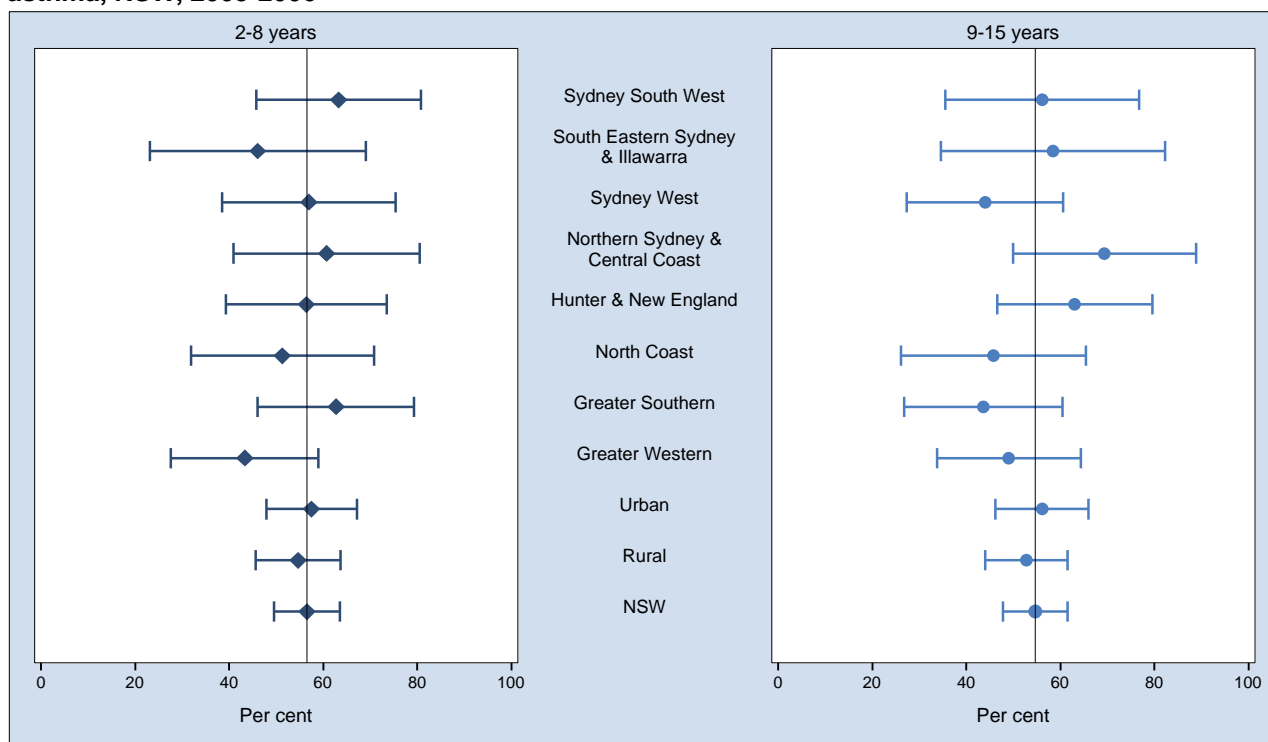
Written asthma management plan by mothers' characteristics, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 536 respondents in NSW. For this indicator 3 (0.56%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have current asthma and who have a written asthma management plan. The questions used to define the indicator were: Has child ever been told by a doctor that he or she has asthma? Does child currently have asthma? Does child have a written asthma management plan from his or her doctor on how to treat their asthma? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

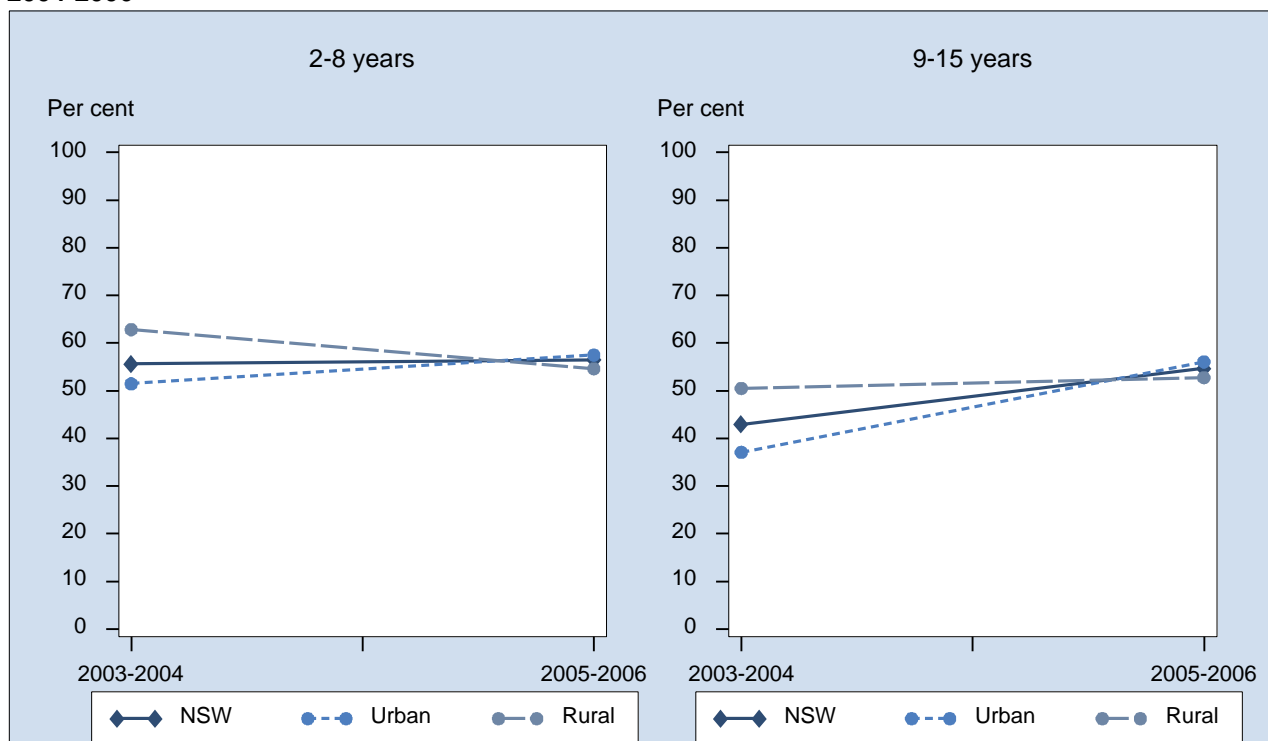
Written asthma management plan by area health service, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 536 respondents in NSW. For this indicator 3 (0.56%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have current asthma and who have a written asthma management plan. The questions used to define the indicator were: Has child ever been told by a doctor that he or she has asthma? Does child currently have asthma? Does child have a written asthma management plan from his or her doctor on how to treat their asthma?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

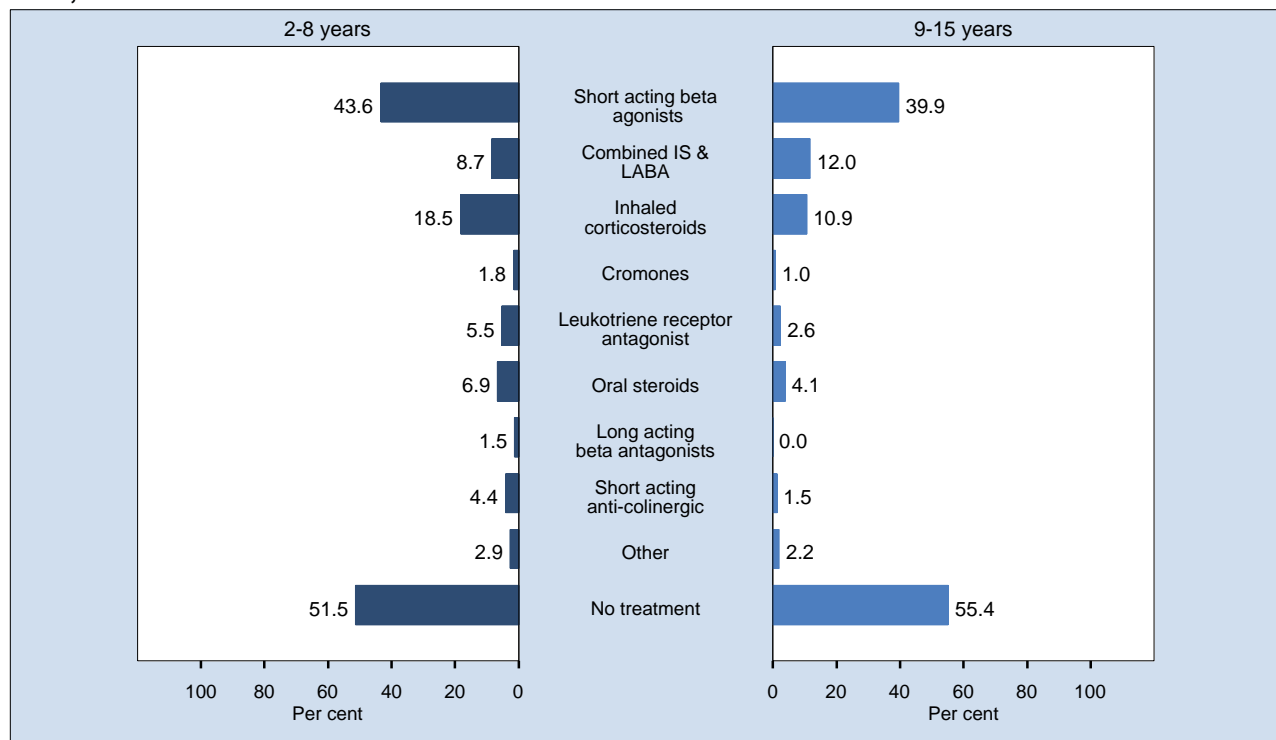
Written asthma management plan by year, children 2-15 years who currently have asthma, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (201), 2006 (536). The indicator includes those who have current asthma and who have a written asthma management plan. The questions used to define the indicator were: Has child ever been told by a doctor that he or she has asthma? Does child currently have asthma? Does child have a written asthma management plan from his or her doctor on how to treat their asthma?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

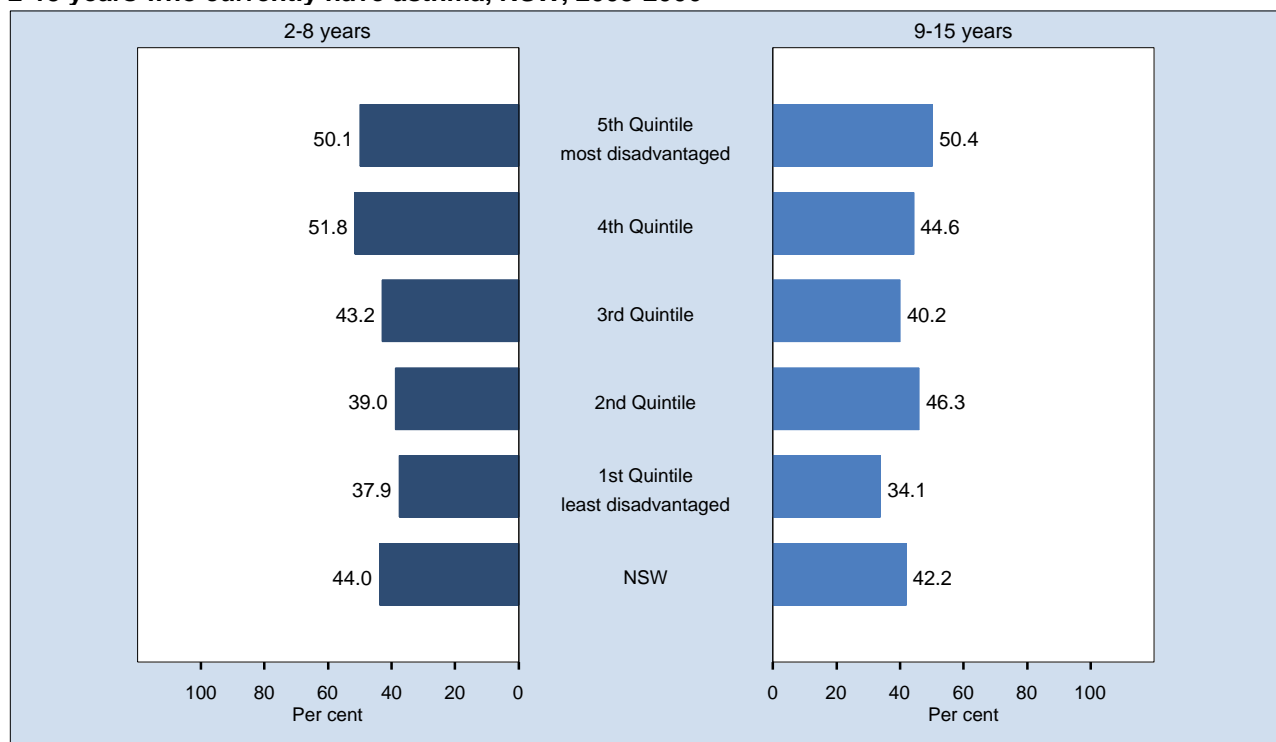
Asthma medications used in the last 12 months, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 544 respondents in NSW. For this indicator 12 (2.16%) were not stated (Don't know or Refused) in NSW. The questions used were: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or treatment for asthma in the last 12 months? What are the names or brands of all the medications child took for asthma in the last 12 months? Brands of short acting beta agonists include: Asmol, Ventolin, Bricanyl. Brands of combined inhaled steroid and long-acting beta agonists include: Symbicort and Seretide. Brands of inhaled corticosteroids include: Flixotide, Pulmicort, Qvar, and Alvesco. Brands of cromones include: Tilade, Intal, and Intal Forte. Brands of leukotriene receptor antagonist include: Singulair and Accolate. Oral steroids include: Prednisone. Brands of long acting beta antagonists include: Serevent. Brands of short acting anti-cholinergic include: Atrovent. Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

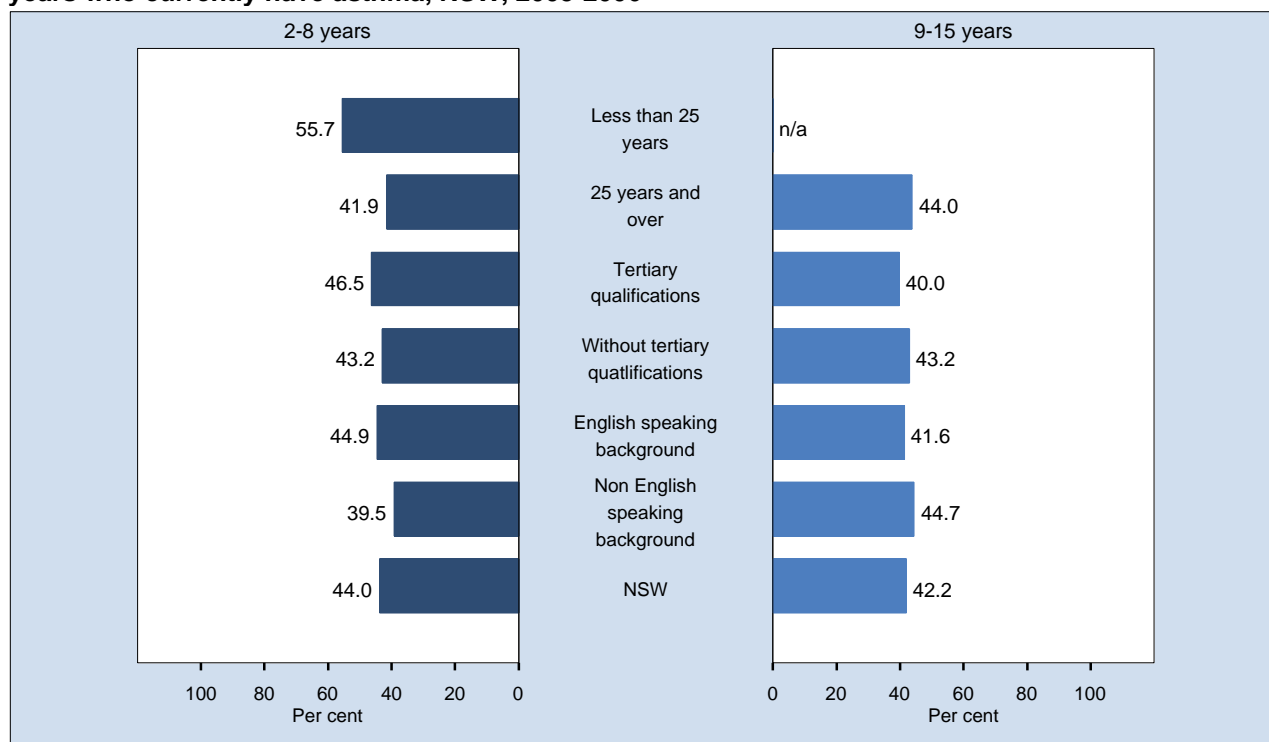
Asthma reliever medications used in the last 12 months by socioeconomic disadvantage, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 544 respondents in NSW. For this indicator 12 (2.16%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have used reliever medication for asthma in the last 12 months. The questions used to define the indicator were: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or treatment for asthma in the last 12 months? What are the names or brands of all the medications child took for asthma in the last 12 months? Reliever medications include short-acting beta-agonists (Salbutamol, Ventolin, Asmol, Bricanyl, short-acting anti-cholinergics (Atrovent), combined inhaled steroid and long-acting beta agonists (Seretide and Symbicort), and long acting beta agonists (Symbicort and Seretide).

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

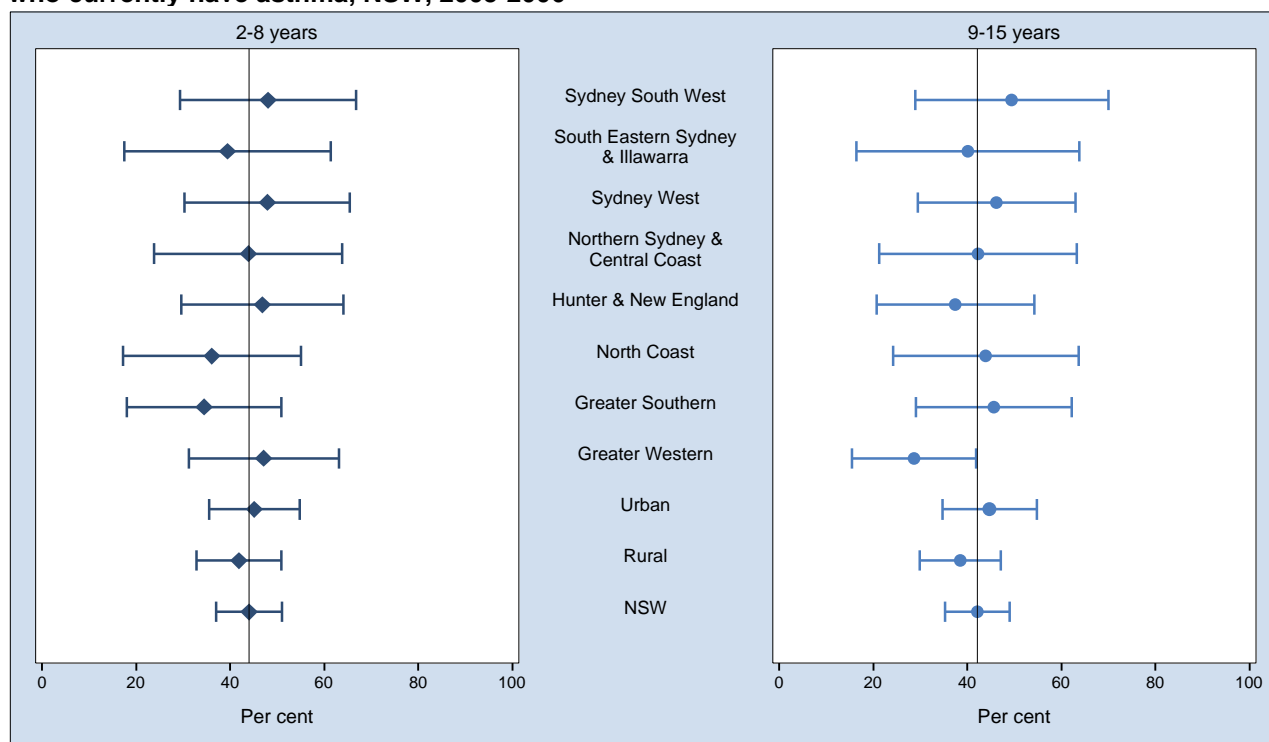
Asthma reliever medications used in the last 12 months by mothers' characteristics, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 544 respondents in NSW. For this indicator 12 (2.16%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have used reliever medication for asthma in the last 12 months. The questions used to define the indicator were: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or treatment for asthma in the last 12 months? What are the names or brands of all the medications child took for asthma in the last 12 months? Reliever medications include short-acting beta-agonists (Salbutamol, Ventolin, Asmol, Bricanyl, short-acting anti-cholinergics (Atrovent), combined inhaled steroid and long-acting beta agonists (Seretide and Symbicort), and long acting beta agonists (Symbicort and Seretide). n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

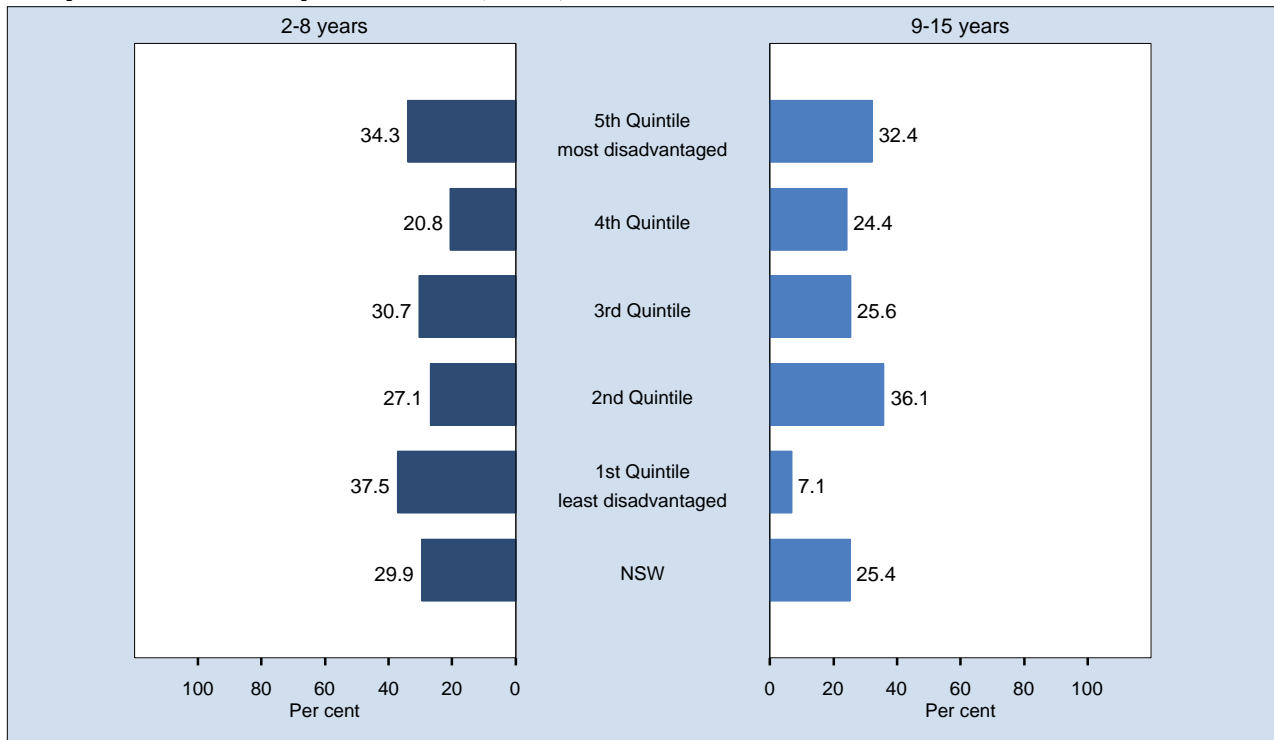
Asthma reliever medications used in the last 12 months by area health service, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 544 respondents in NSW. For this indicator 12 (2.16%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have used reliever medication for asthma in the last 12 months. The questions used to define the indicator were: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or treatment for asthma in the last 12 months? What are the names or brands of all the medications child took for asthma in the last 12 months? Reliever medications include short-acting beta-agonists (Salbutamol, Ventolin, Asmol, Bricanyl, short-acting anti-cholinergics (Atrovent), combined inhaled steroid and long-acting beta agonists (Seretide and Symbicort), and long acting beta agonists (Symbicort and Seretide).

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Asthma preventer medications used in the last 12 months by socioeconomic disadvantage, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 544 respondents in NSW. For this indicator 12 (2.16%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have used preventer medication for asthma in the last 12 months. The questions used to define the indicator were: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or treatment for asthma in the last 12 months? What are the names or brands of all the medications child took for asthma in the last 12 months? Preventer medications include combined inhaled steroids and long acting beta agonists (Seretide and Symbicort), inhaled corticosteroids (Pulmicort, Flixotide, Qvar; and Alvesco), leukotriene receptor antagonists (Singulair and Accolate), oral steroids (Prednisone), and cromones (Intal, Intal Forte, and Tilade).

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

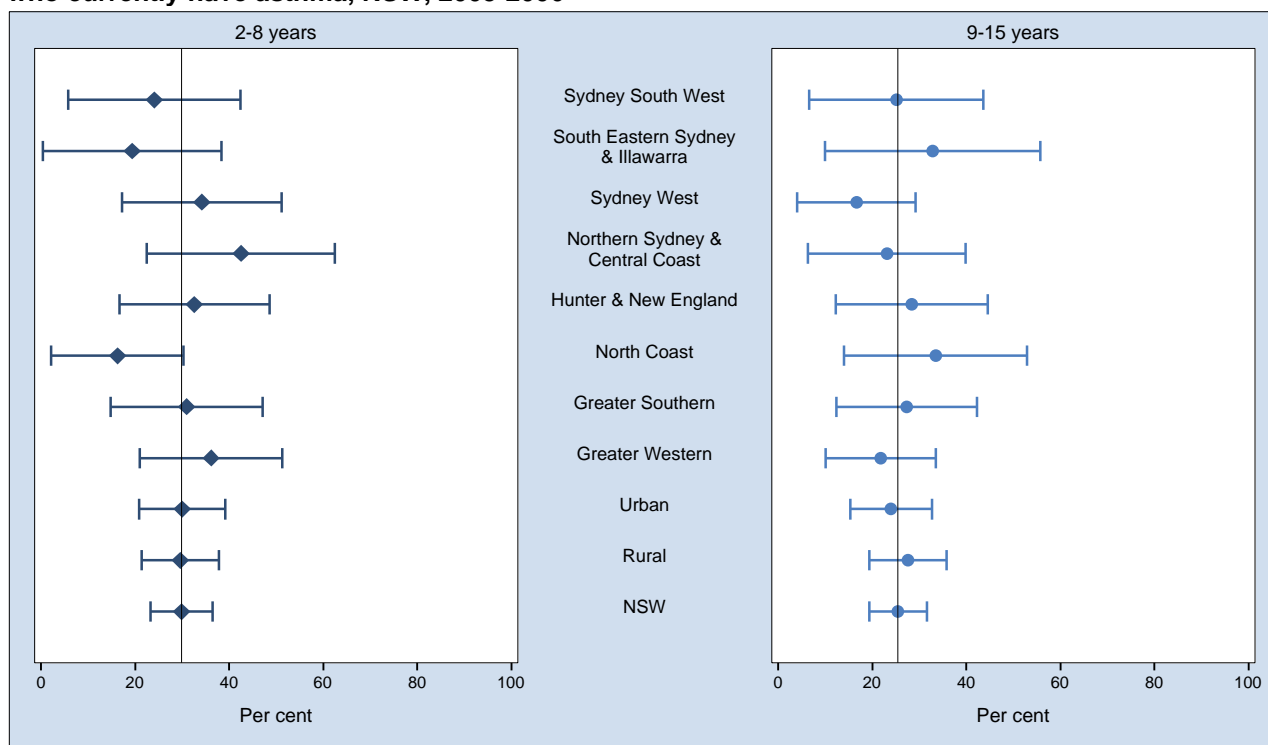
Asthma preventer medications used in the last 12 months by mothers' characteristics, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 544 respondents in NSW. For this indicator 12 (2.16%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have used preventer medication for asthma in the last 12 months. The questions used to define the indicator were: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or treatment for asthma in the last 12 months? What are the names or brands of all the medications child took for asthma in the last 12 months? Preventer medications include combined inhaled steroids and long acting beta agonists (Seretide and Symbicort), inhaled corticosteroids (Pulmicort, Flixotide, Qvar; and Alvesco), leukotriene receptor antagonists (Singulair and Accolate), oral steroids (Prednisone), and cromones (Intal, Intal Forte, and Tilade). n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Asthma preventer medications used in the last 12 months by area health service, children 2-15 years who currently have asthma, NSW, 2005-2006



Note: Estimates are based on 544 respondents in NSW. For this indicator 12 (2.16%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have used preventer medication for asthma in the last 12 months. The questions used to define the indicator were: Has child ever been told by a doctor or hospital he or she has asthma? Has child had symptoms of asthma or treatment for asthma in the last 12 months? What are the names or brands of all the medications child took for asthma in the last 12 months? Preventer medications include combined inhaled steroids and long acting beta agonists (Seretide and Symbicort), inhaled corticosteroids (Pulmicort, Flixotide, Qvar; and Alvesco), leukotriene receptor antagonists (Singulair and Accolate), oral steroids (Prednisone), and cromones (Intal, Intal Forte, and Tilade).

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Mental health

Introduction

Childhood behavioural problems add stress to any family and are a common challenge parents and carers face. The majority fall within the normal range and are appropriately dealt with by parents and carers and/or by primary health, community health, and child health professionals. By understanding the nature of these behavioural problems, and by getting appropriate help and support, parents and carers can better deal with them.

The Strengths and Difficulty Questionnaire (SDQ), created by Professor Robert Goodman in the United Kingdom, was identified as an appropriate tool following adaptation for use in telephone surveys in consultation with Professor Goodman. The SDQ is a brief behavioural screening questionnaire for children aged 4-15 years that asks about 25 attributes divided into 5 subscales: emotional symptoms, conduct problems, hyperactivity or inattention, peer relationship problems, and prosocial behaviour.^[1,2] Each subscale scores between 0 and 10. The at risk score for each subscale is: 5-10 for emotional symptoms, 4-10 for conduct problems, 7-10 for hyperactivity or inattention, 4-10 for peer relationship problems, and 0-4 for prosocial behaviour. The emotional symptoms, conduct problems, hyperactivity or inattention, and peer relationship problems scores are combined to calculate a total difficulties score between 0 and 40. A child with a total difficulties score of 17 or above is at risk of developing clinically significant behavioural problems.^[1,2]

During 2005 and 2006, the New South Wales Population Health Survey asked parents or carers of children aged 4-15 years to rate the following 25 statements as not true, somewhat true, or certainly true (some questions were specific to the 4-10 year or 11-15 year age groups): Child is considerate of other people's feelings; Child is restless, overactive or cannot stay still for long; Child often complains of headaches, stomach aches or sickness; Child shares readily with other children; Child often loses temper; Child is rather solitary or prefers to play alone or would rather be alone than with other children; Child is generally well behaved and usually does what adults request; Child has many worries or often seems worried; Child is helpful if someone is hurt, upset or feeling ill; Child is constantly fidgeting or squirming; Child has at least one good friend; Child often fights with or bullies other children; Child is often unhappy, depressed or tearful; Child is generally liked by other children; Child is easily distracted or concentration wanders; Child is nervous or clingy in new situations or easily loses confidence; Child is kind to younger children; Child often lies or cheats; Child is picked on or bullied by other children; Child often volunteers to help others such as parents, teachers or other children; Child thinks things out before acting; Child steals from home, school or elsewhere; Child gets along better with adults than with other children; Child has many fears or is easily scared; and, Child has a good attention span and sees chores or homework through to the end. If yes, parents or carers were also asked: Overall do you think that child has difficulties in any of the following areas: emotions, concentration, behaviour or being able to get along with other people? How long have these difficulties been present? How much do these difficulties upset or distress child? How much do these difficulties interfere with child's everyday home life? How much do these difficulties interfere with child's friendships? How much do these difficulties interfere with child's classroom learning? How much do these difficulties interfere with child's leisure activities? How much do these difficulties put a burden on you or your family as a whole?

Results

Using the strengths and difficulties subscales, 12.0 per cent of children were at risk of emotional symptoms, 7.0 per cent were at risk of conduct problems, 5.0 per cent were at risk of hyperactivity or inattention, 1.2 per cent were at risk of peer relationship problems, and 0.3 per cent were at risk of prosocial behaviour.

Using the total difficulties score, 7.6 per cent of children aged 4-15 years were at substantial risk of developing a clinically significant behavioural problem (that is, had a score of 17 or above). There was no significant variation by age group. A significantly lower proportion of children in the least disadvantaged quintile (5.0 per cent), and a significantly higher proportion of children in the most disadvantaged quintile (10.7 per cent), were at substantial risk of developing a clinically significant behavioural problem. There was no significant variation between urban areas and rural areas; however, a significantly lower proportion of children in the Northern Sydney & Central Coast Health Area (4.8 per cent) were at substantial risk of developing a clinically significant behavioural problem. A significantly higher proportion of children of mothers without tertiary qualifications (8.7 per cent) were at substantial risk of developing a clinically significant behavioural problem, compared with children of mothers with tertiary qualifications (5.0 per cent).

The proportion of children at substantial risk of developing a clinically significant behavioural problem has not varied significantly between 2003-2004 and 2005-2006.

References

1. Goodman R. The Strengths and Difficulties Questionnaire: A Research Note. *Journal of Child Psychology and Psychiatry* 1997; 38: 581-586. Available online at www.blackwell-synergy.com/doi/abs/10.1111/j.1469-7610.1997.tb01545.x, accessed 9 November 2007.
2. Youth in Mind. Information for researchers and professionals about the Strengths & Difficulties Questionnaires online at www.sdqinfo.com, accessed 9 November 2007.

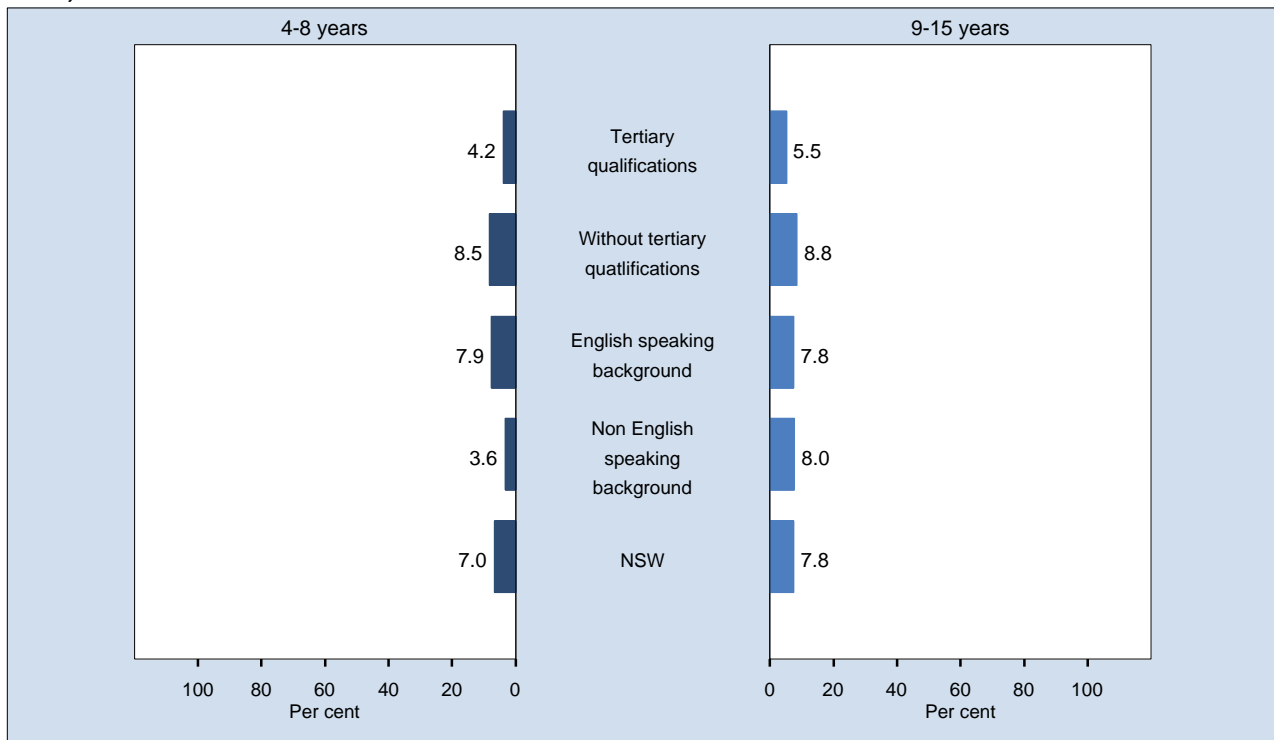
Substantial risk of clinical behavioural problems by socioeconomic disadvantage, children 4-15 years, NSW, 2005-2006



Note: Estimates are based on 3,084 respondents in NSW. For this indicator 311 (9.16%) were not stated (Don't know or Refused) in NSW. The indicator includes children considered to be at substantial risk of developing clinically significant behavioural problems using the adapted Goodman Strengths and Difficulties Questionnaire. A total difficulties score between 0 and 40 is calculated. A child with a total difficulties score of 17 or above is considered to be at substantial risk of developing clinically significant behavioural problems.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

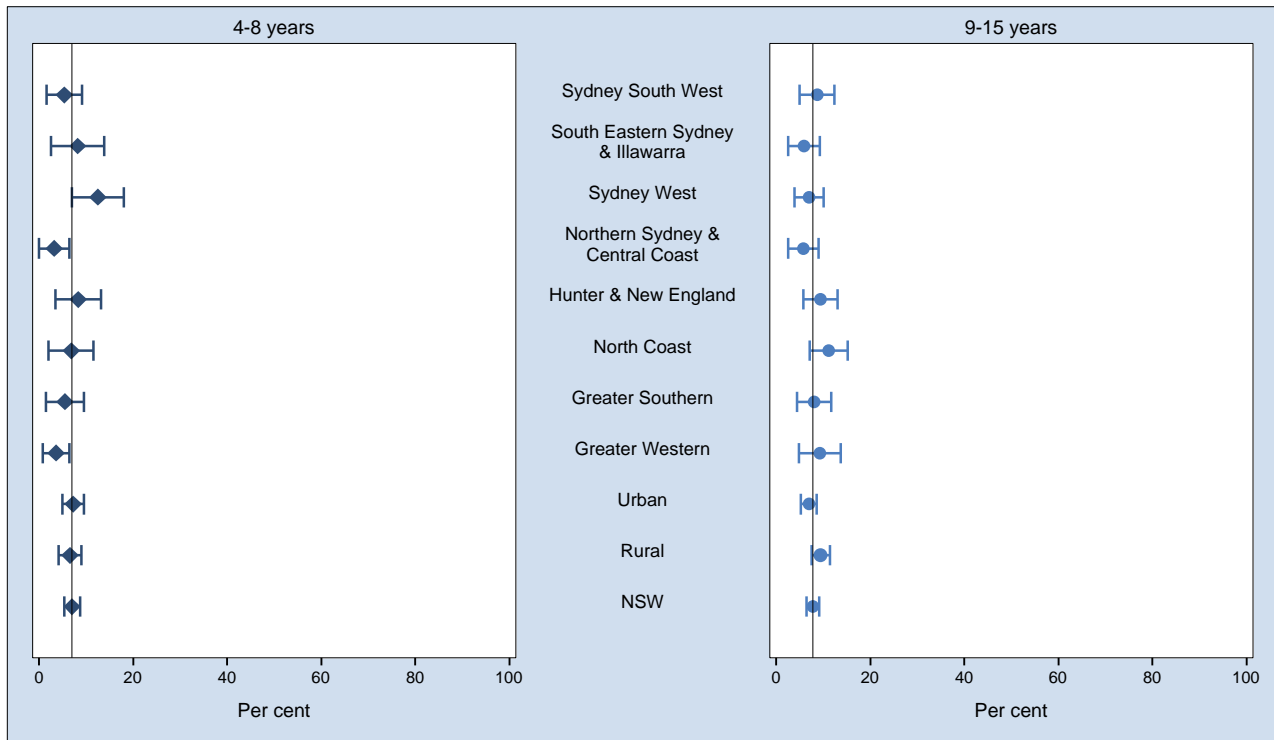
Substantial risk of clinical behavioural problems by mothers' characteristics, children 4-15 years, NSW, 2005-2006



Note: Estimates are based on 3,084 respondents in NSW. For this indicator 311 (9.16%) were not stated (Don't know or Refused) in NSW. The indicator includes children considered to be at substantial risk of developing clinically significant behavioural problems using the adapted Goodman Strengths and Difficulties Questionnaire. A total difficulties score between 0 and 40 is calculated. A child with a total difficulties score of 17 or above is considered to be at substantial risk of developing clinically significant behavioural problems.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

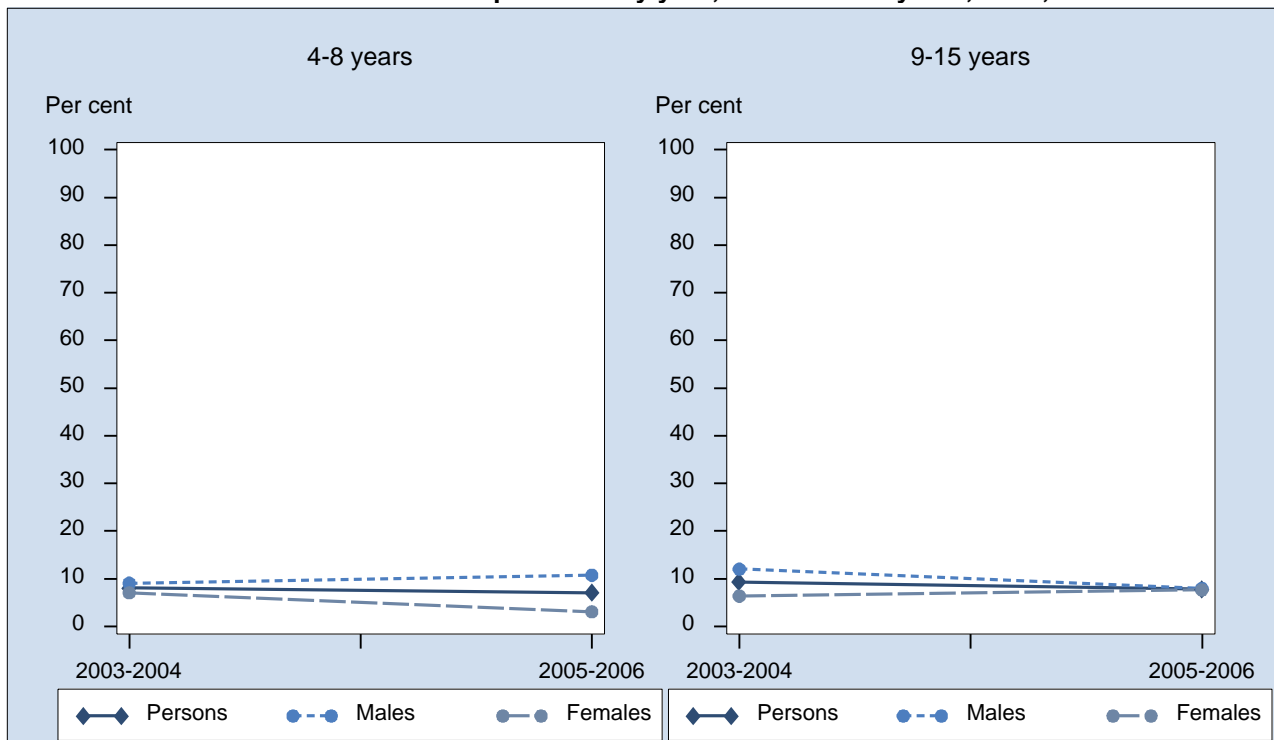
Substantial risk of clinical behavioural problems by area health service, children 4-15 years, NSW, 2005-2006



Note: Estimates are based on 3,084 respondents in NSW. For this indicator 311 (9.16%) were not stated (Don't know or Refused) in NSW. The indicator includes children considered to be at substantial risk of developing clinically significant behavioural problems using the adapted Goodman Strengths and Difficulties Questionnaire. A total difficulties score between 0 and 40 is calculated. A child with a total difficulties score of 17 or above is considered to be at substantial risk of developing clinically significant behavioural problems.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Substantial risk of clinical behavioural problems by year, children 4-15 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (3,349), 2006 (3,084). The indicator includes children considered to be at substantial risk of developing clinically significant behavioural problems using the adapted Goodman Strengths and Difficulties Questionnaire. A total difficulties score between 0 and 40 is calculated. A child with a total difficulties score of 17 or above is considered to be at substantial risk of developing clinically significant behavioural problems.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

At risk scores for strengths and difficulties subscales, children 4-15 years, NSW, 2005-2006



Note: Estimates are based on 3,084 respondents in NSW. For this indicator 311 (9.16%) were not stated (Don't know or Refused) in NSW. The 25 item Strengths and Difficulties Questionnaire (SDQ) comprises 5 scales of 5 items. Each subscale scores between 0 and 10. The at risk score for each subscale is 5-10 for emotional symptoms, 4-10 for conduct problems, 7-10 for hyperactivity or inattention, 4-10 for peer relationship problems, and 0-4 for prosocial behaviour. Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Oral health

Introduction

The oral health of Australian children has improved over recent decades. However, research indicates inequalities, with higher rates of dental caries in children from disadvantaged groups, children living in rural and remote areas, in Aboriginal children, and in children born overseas. There is also evidence of differential access to oral health services according to country of birth, Aboriginal status, language spoken at home, health insurance status, socioeconomic status, and mother's educational status. Also, for a variety of reasons, there is evidence that patients are increasingly consulting general practitioners for oral health problems instead of dental professionals.[1-12]

Regular visits to a dental professional (that is, at least once every 2 years) have a significant and positive effect on oral health. Those who regularly visit a dental professional have fewer oral health problems.[13-14] There is variation in the frequency of dental visits across the Australian population. The less often a person visits a dental professional the more likely they will do so for an oral health problem rather than a check-up.

During 2005 and 2006 the New South Wales Population Health Survey asked parents or carers of children aged 5-15 years: In the last 12 months, how often has child had a toothache or other problem with his or her mouth or dentures? What was the most recent problem child had? What treatment did child receive for problem? When did child last see a dental professional about his or her teeth, dentures or gums? Where was child's last dental visit made? What are the main reasons for child not visiting the dentist in the last 12 months?

Results

Oral health problems

Overall, 66.3 per cent of children aged 5-15 years did not have an oral health problem in the last 12 months, 18.9 per cent hardly ever had an oral health problem, 10.3 per cent sometimes had an oral health problem, 2.8 per cent often had an oral health problem, and 1.7 per cent very often had an oral health problem.

The most recent oral health problems were: toothache (47.8 per cent), problem with jaw or bite (21.8 per cent), loose or broken tooth not due to an injury (12.0 per cent), loose or broken tooth or other problem due to an injury (5.4 per cent), mouth ulcers (4.1 per cent), lost a filling (2.9 per cent), and bleeding gums (2.3 per cent).

Of those children who had an oral health problem, 23.7 per cent did not see a dentist for the problem. Of those who did see a dentist, the most common treatments were dental fillings (28.8 per cent), a check up (25.2 per cent), tooth extractions (13.6 per cent), and teeth straightening or braces (8.8 per cent).

Visits to dental professionals

Overall, 8.2 per cent of children aged 5-15 years have never visited a dental professional, 0.3 per cent visited a dental professional 10 or more years ago, 0.3 per cent 5-10 years ago, 3.4 per cent 2 to less than 5 years ago, 11.8 per cent 1 to less than 2 years ago, and 76.0 per cent less than 12 months ago.

In 2005-2006, 76.0 per cent of children aged 5-15 years visited a dental professional in the last 12 months. A significantly lower proportion of children aged 5-8 years (68.3 per cent) than children aged 9-15 years (80.0 per cent) visited a dental professional in the last 12 months. A significantly higher proportion of children in the least disadvantaged quintile (82.8 per cent), and a significantly lower proportion of children in the most disadvantaged quintile (66.3 per cent), visited a dental professional in the last 12 months.

There was no significant variation between rural residents and urban residents; however, a significantly higher proportion of children in the Northern Sydney & Central Coast Health Area (85.9 per cent) visited a dental professional in the last 12 months. A significantly higher proportion of children of mothers with tertiary qualifications (81.7 per cent) visited a dental professional in the last 12 months, compared with children of mothers without tertiary qualifications (73.6 per cent).

The proportion of children visiting a dental professional in the last 12 months increased significantly between 2001-2002 (48.9 per cent) and 2005-2006 (76.0 per cent).

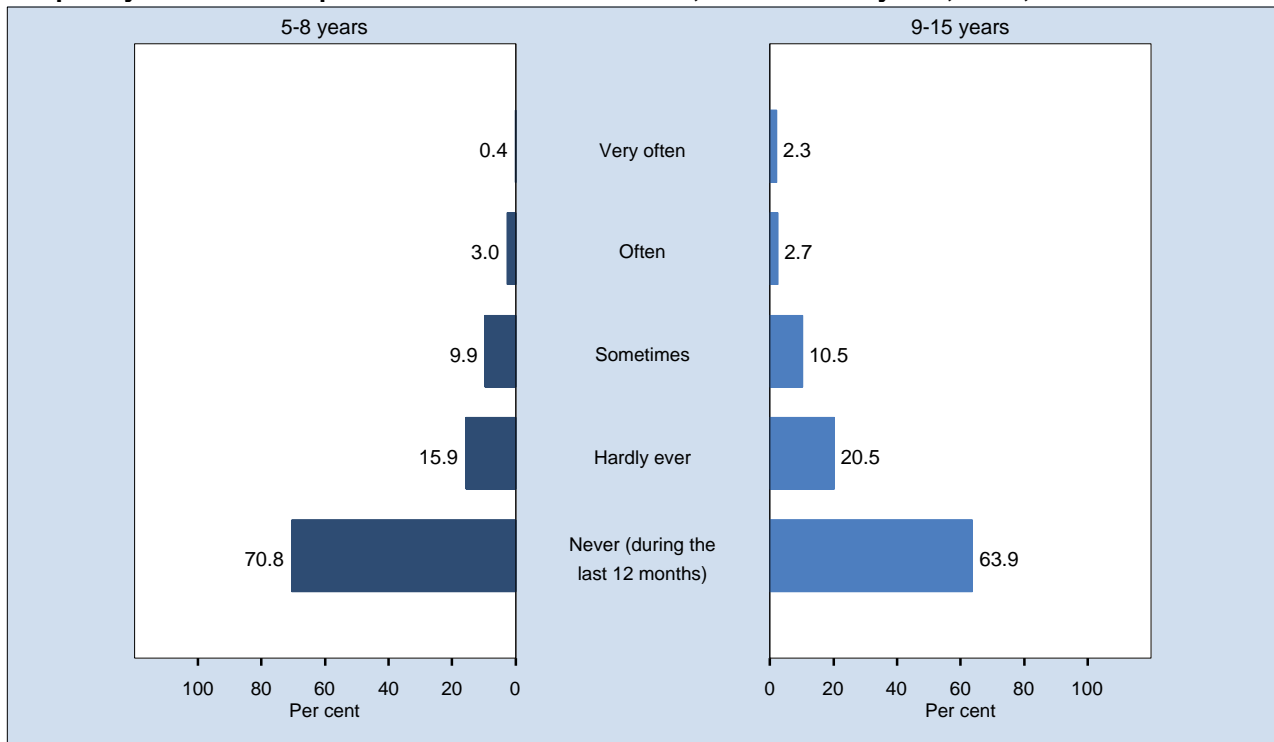
Of those children who visited a dental professional, 67.0 per cent visited a private dental practice, 15.1 per cent visited a school dental service, 16.7 per cent visited a government dental clinic or dental hospital, and 1.2 per cent visited a dental technician.

Reasons given for the child not visiting a dental professional in the last 12 months were: do not need to (73.7 per cent), hard to find time (14.1 per cent), too expensive (12.9 per cent), long waiting lists (3.6 per cent), cannot find a dentist I like (2.3 per cent), too far to go (1.7 per cent), worried or afraid of going (1.6 per cent), and dentist has moved or retired (0.2 per cent).

References

1. Slade GD, Spencer AJ and Roberts-Thomson KF. *Australia's dental generations: The National Survey of Adult Oral Health 2004/06*, available online at www.arcpoh.adelaide.edu.au/project/distribution/NSAOH.html, accessed 9 November 2007.
2. Turrell G, Sanders AE, Slade GD, Spencer AJ, and Marcenés W. The independent contribution of neighborhood disadvantage and individual-level socioeconomic position to self-reported oral health: A multilevel analysis. *Community Dent Oral Epidemiol* 2007; 35(3): 195-206. Available online at <http://www.blackwell-synergy.com/doi/abs/10.1111/j.1600-0528.2006.00311.x>, accessed 9 November 2007.
3. Pahel BT, Rozier RG, and Slade GD. Parental perceptions of children's oral health: the Early Childhood Oral Health Impact Scale (ECOHIS). *Health and Quality of Life Outcomes* 2007. Available online at <http://www.hqlo.com/content/5/1/6>, accessed 9 November 2007.
4. Jamieson, L.M. and P.I. Koopu, Association between ethnicity and child health factors in New Zealand. *Ethnicity and Disease* 2007; 17(1): 84-91. Available online at www.ishib.org/ED_journal_17_1.asp, accessed 9 November 2007.
5. Jamieson LM, Parker EJ, and Armfield JM. Indigenous child oral health at a regional and state level. *Journal of Paediatrics and Child Health* 2007; 43(3): 117-121. Available online at www.blackwell-synergy.com/doi/abs/10.1111/j.1440-1754.2007.01029.x?journalCode=jpc, accessed 9 November 2007.
6. Jamieson LM, Armfield JM, and Roberts-Thomson KF. Indigenous and non-indigenous child oral health in three Australian states and territories. *Ethnicity and Health* 2007; 12(1): 89-107. Available online at www.informaworld.com/smpp/title~content=g762367524~db=all, accessed 9 November 2007.
7. Armfield JM. Socioeconomic inequalities in child oral health: A comparison of discrete and composite area-based measures. *Journal of Public Health Dentistry* 2007; 67(2): 119-25. Available online at www.blackwell-synergy.com/toc/jphd/67/2, accessed 9 November 2007.
8. AIHW Dental Statistics and Research Unit. *Child Dental Health Survey, New South Wales 2000*. Adelaide: AIHW Dental Statistics and Research Unit, 2003. Available online at www.arcpoh.adelaide.edu.au/publications/report/statistics/html_files/cdhs_nsw00.pdf, accessed 9 November 2007.
9. Armfield JM, Stewart JF, and Spencer AJ. The vicious cycle of dental fear: The interplay between oral health, oral health care utilization and dental fear. *BMC Oral Health* 2007. Available online at www.biomedcentral.com/1472-6831/7/1, accessed 9 November 2007.
10. Australian Research Centre for Population Oral Health. Patterns of care in private general practice by main diagnoses. *Aust Dent J* 2007 52(1): 67-70. Available online at www.ada.org.au/publications/adjarchives/Issue.documentId,67945.aspx, accessed 9 November 2007.
11. Marshall RI and Spencer AJ. Editorial: Accessing oral health care in Australia. *MJA* 2006; 185(2): 59-60. Available online at www.mja.com.au/public/issues/185_02_170706/mar10458_fm.html, accessed 9 November 2007.
12. Mansour MH and Cox SC. Patients presenting to the general practitioner with pain of dental origin. *MJA* 2006; 185(2): 64-67. Available online at www.mja.com.au/public/issues/185_02_170706/man10388_fm.html, accessed 9 November 2007.
13. Kay EJ. Do regular attenders have better oral health? *Br Dent J* 2002; 193(12): 695. Available online at www.nature.com/bdj/journal/v193/n12/index.html, accessed 9 November 2007.
14. Richards W and Ameen J. The impact of dental attendance on oral health in a general dental practice. *Br Dent J* 2002; 193(12): 697-702. Available online at www.nature.com/bdj/journal/v193/n12/index.html, accessed 9 November 2007.

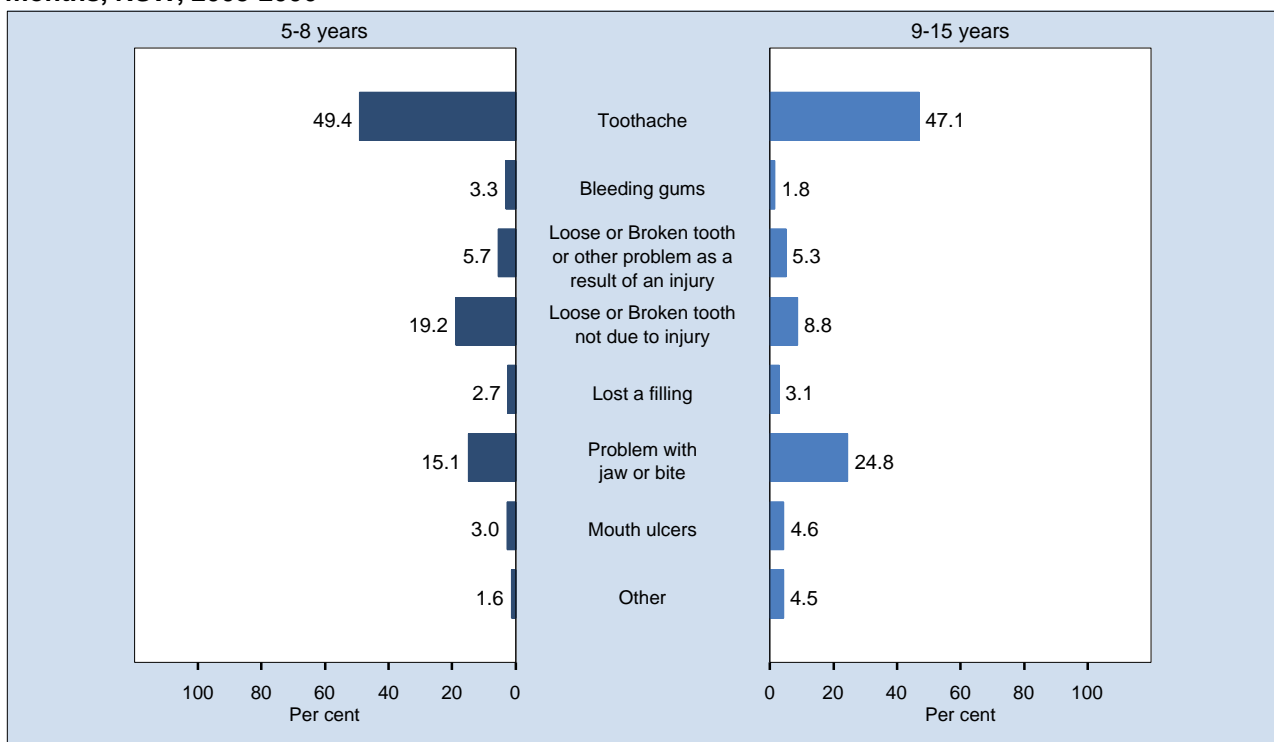
Frequency of oral health problem in the last 12 months, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,507 respondents in NSW. For this indicator 6 (0.40%) were not stated (Don't know or Refused) in NSW. The question used was: In the last 12 months, how often has child had a toothache or other problem with his or her mouth or dentures: very often, often, sometimes, hardly ever or never?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

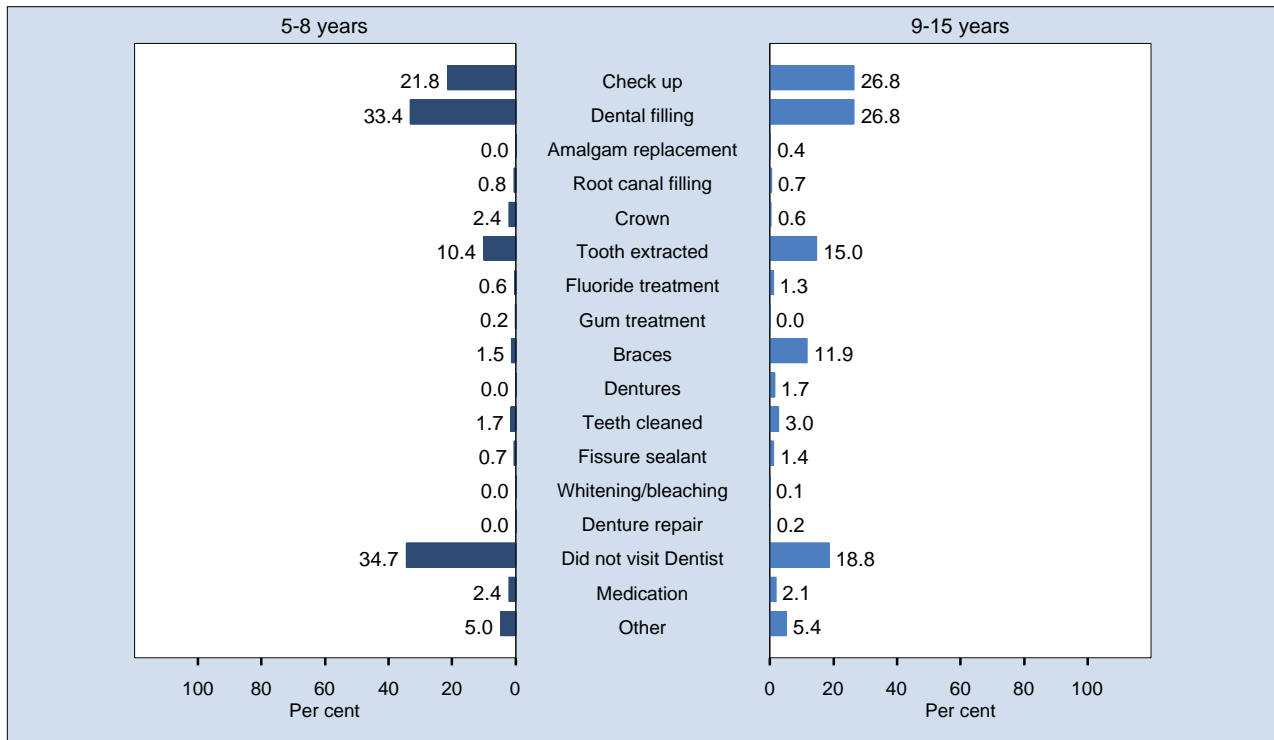
Most recent oral health problem, children 5-15 years with an oral health problem in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 522 respondents in NSW. For this indicator 20 (3.69%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, how often has child had a toothache or other problem with his or her mouth or dentures? What was the most recent problem child had?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

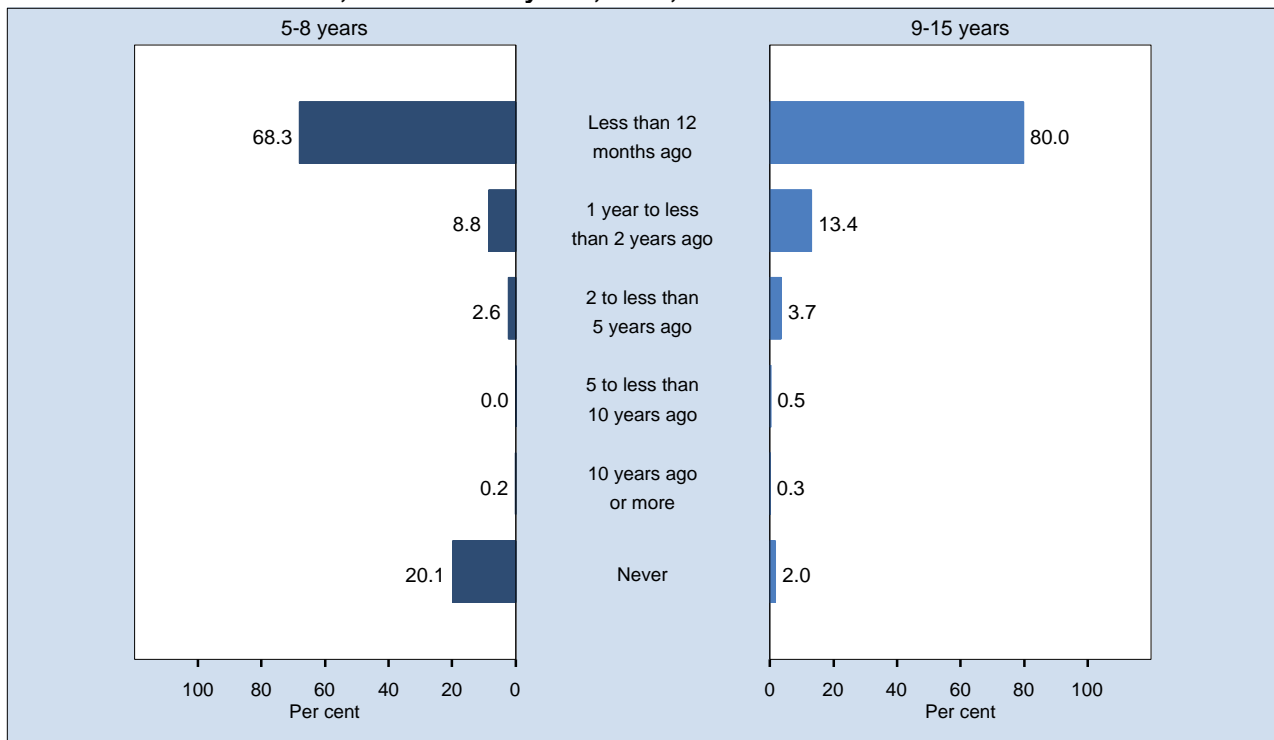
Treatment for most recent oral health problem, children 5-15 years with an oral health problem, NSW, 2005-2006



Note: Estimates are based on 516 respondents in NSW. For this indicator 6 (1.15%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, how often has child had a toothache or other problem with his or her mouth or dentures: very often, often, sometimes, hardly ever or never? What was the most recent problem child had? What treatment did child receive for the most recent oral health problem he or she had? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

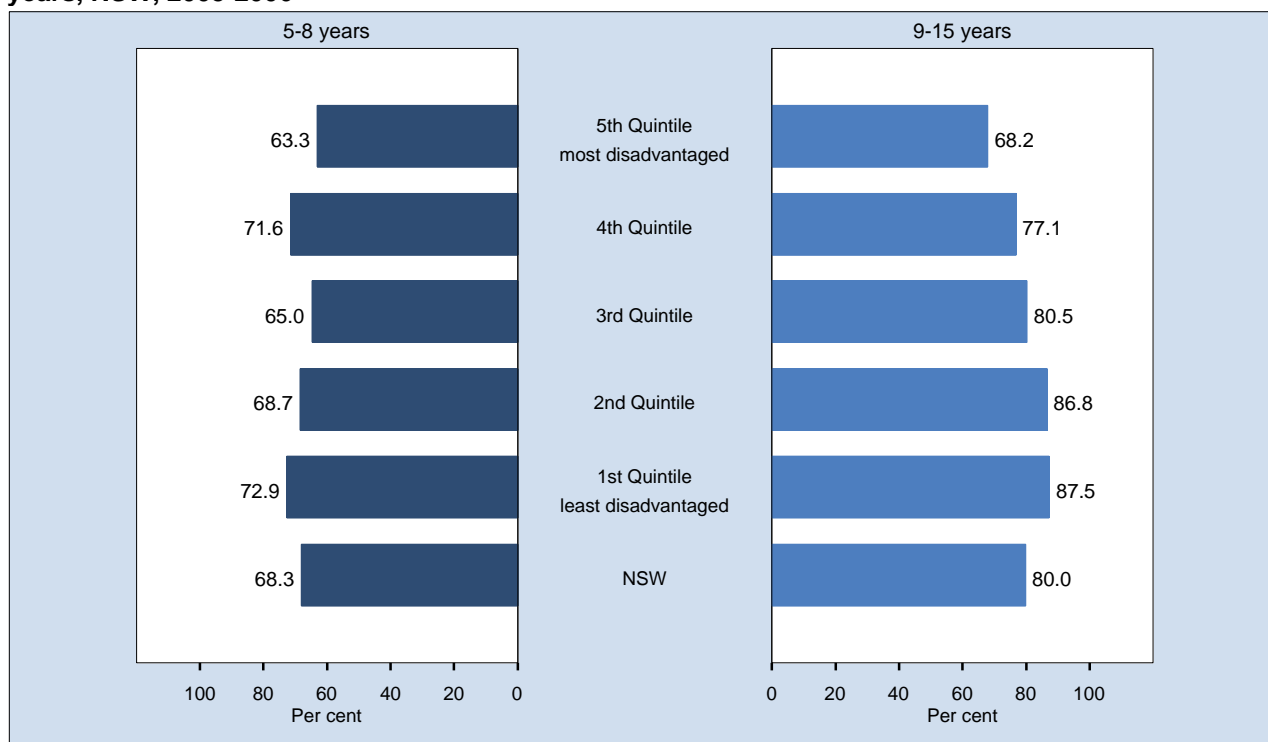
Time since last dental visit, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,480 respondents in NSW. For this indicator 24 (1.60%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, how often has child had a toothache or other problem with his or her mouth or dentures? What was the most recent problem child had? What treatment did child receive? If no problem or treatment in the last 12 months were asked: When did child last visit a dental professional about his or her teeth, dentures, or gums?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

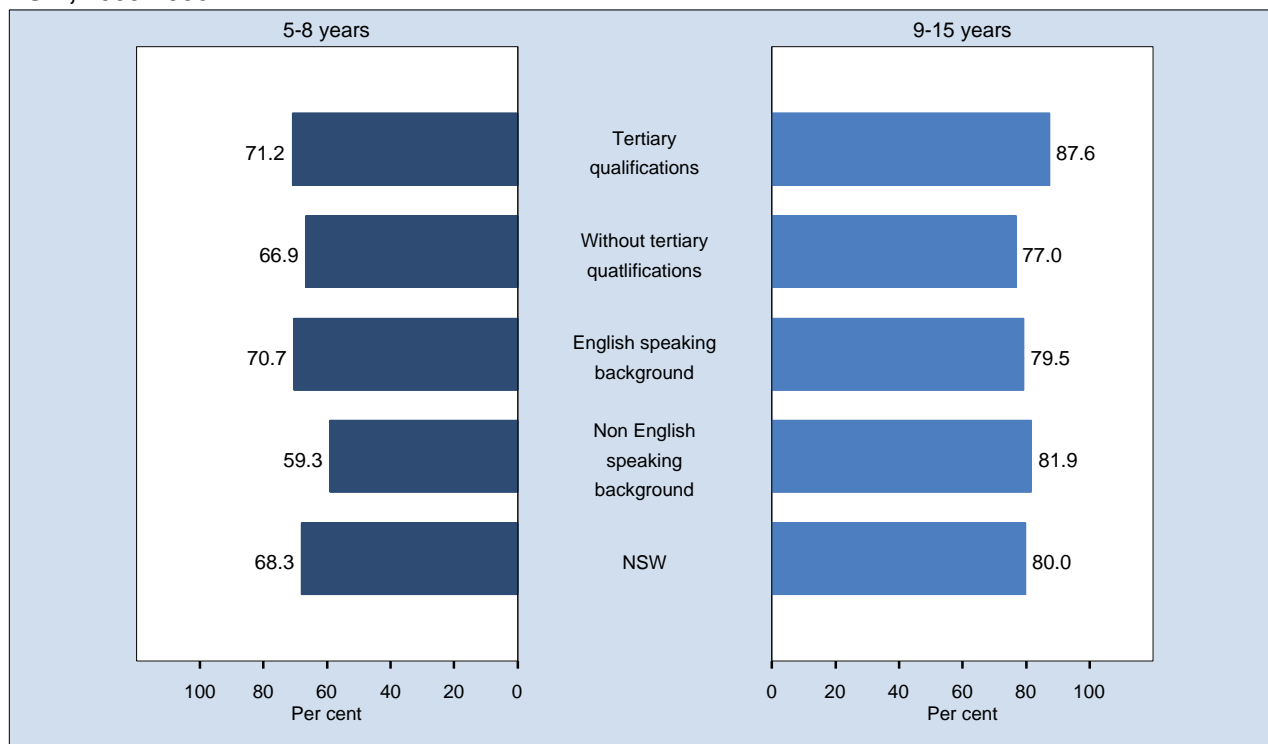
Visited a dental professional in the last 12 months by socioeconomic disadvantage, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,480 respondents in NSW. For this indicator 24 (1.60%) were not stated (Don't know or Refused) in NSW. The indicator includes children who had visited a dental professional in the last 12 months. The questions used to define the indicator were: In the last 12 months how often has child had a toothache or other problem with his or her mouth? What was the most recent problem child had? What treatment did child receive? If no problem or treatment were asked: When did child last visit a dental professional about his or her teeth, dentures or gums?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

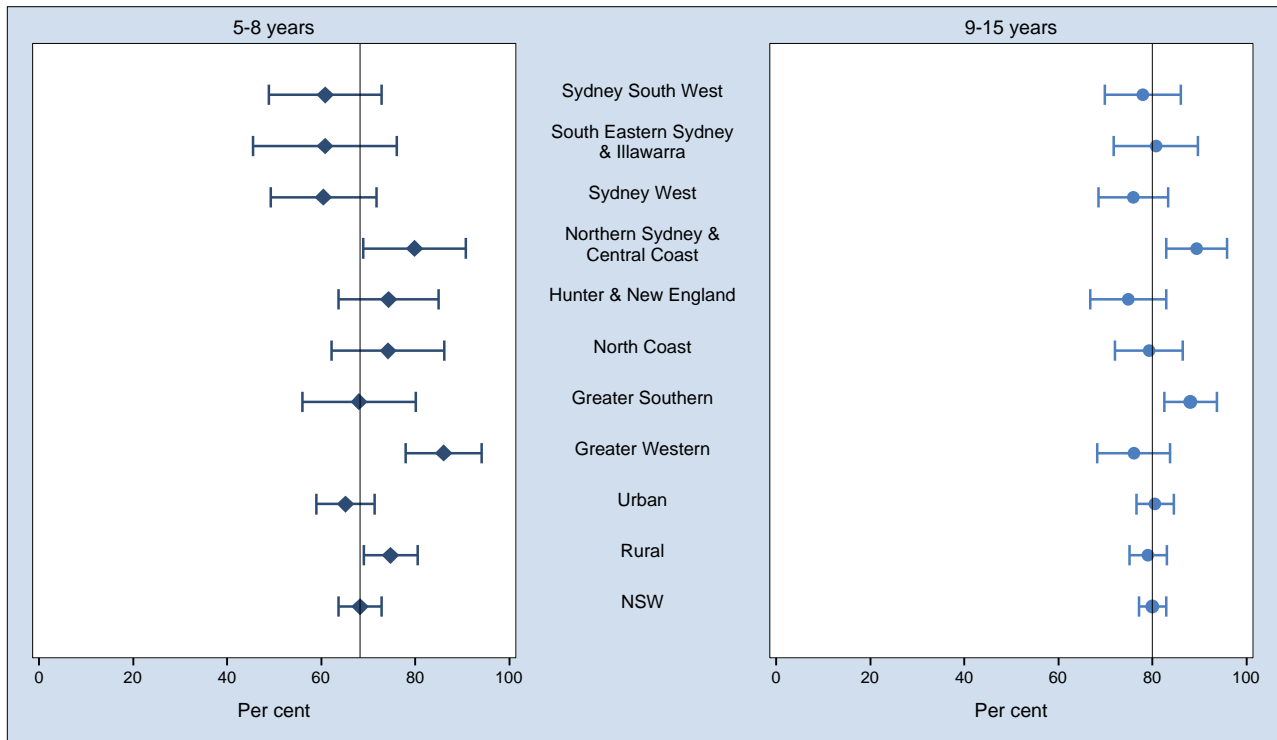
Visited a dental professional in the last 12 months by mothers' characteristics, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,480 respondents in NSW. For this indicator 24 (1.60%) were not stated (Don't know or Refused) in NSW. The indicator includes children who had visited a dental professional in the last 12 months. The questions used to define the indicator were: In the last 12 months how often has child had a toothache or other problem with his or her mouth? What was the most recent problem child had? What treatment did child receive? If no problem or treatment were asked: When did child last visit a dental professional about his or her teeth, dentures or gums?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

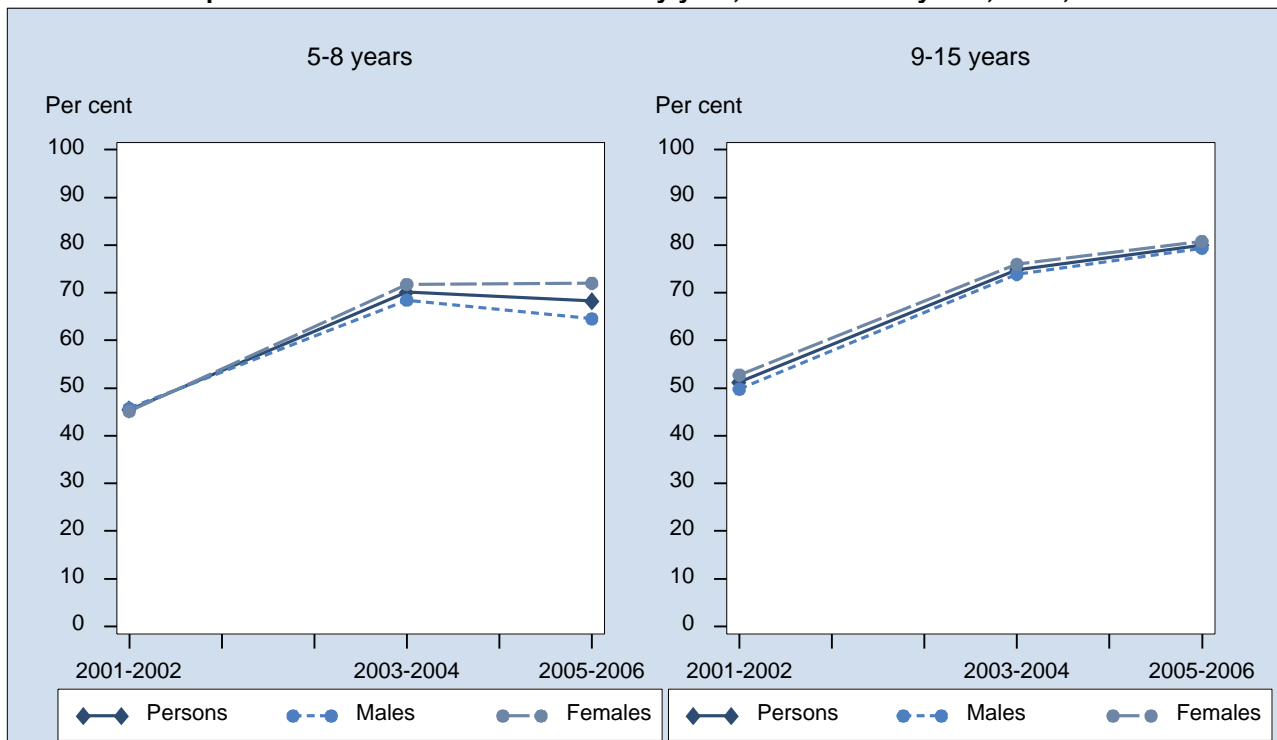
Visited a dental professional in the last 12 months by area health service, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,480 respondents in NSW. For this indicator 24 (1.60%) were not stated (Don't know or Refused) in NSW. The indicator includes children who had visited a dental professional in the last 12 months. The questions used to define the indicator were: In the last 12 months how often has child had a toothache or other problem with his or her mouth? What was the most recent problem child had? What treatment did child receive? If no problem or treatment were asked: When did child last visit a dental professional about his or her teeth, dentures or gums?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

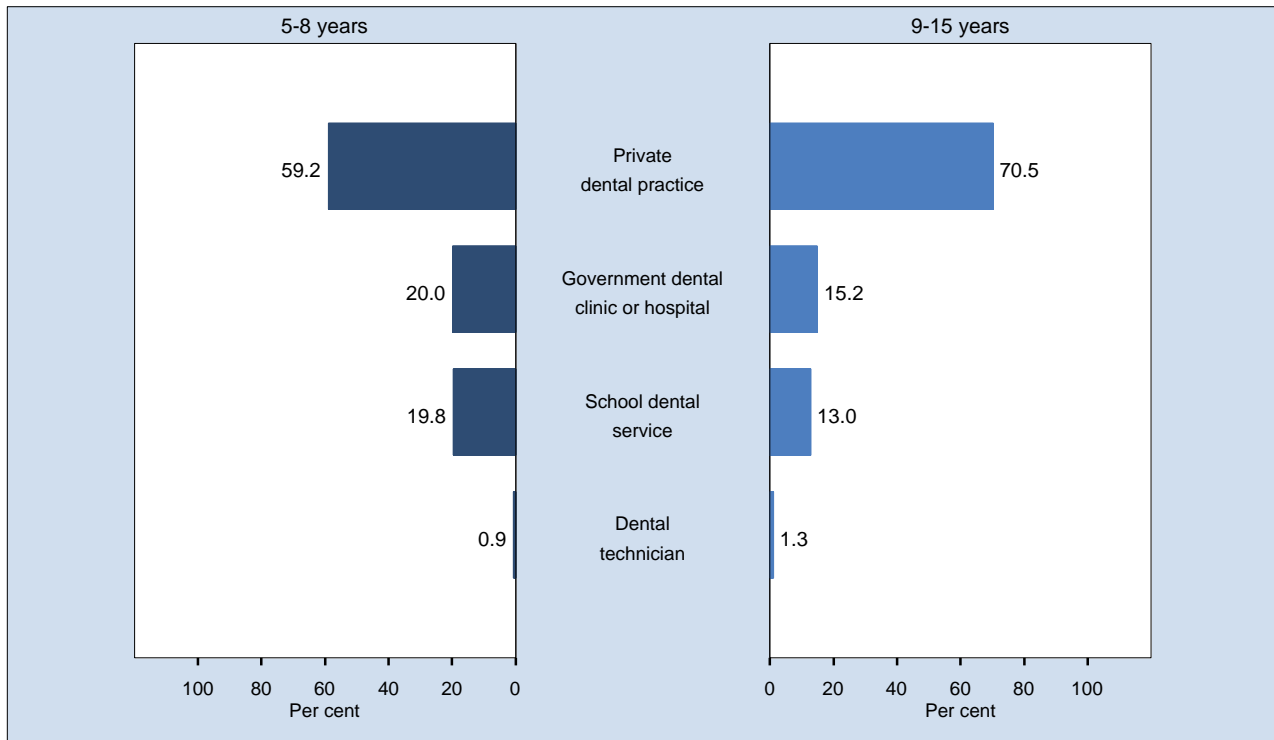
Visited a dental professional in the last 12 months by year, children 5-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (5,549), 2004 (5,147), 2006 (1,480). The indicator includes children who had visited a dental professional in the last 12 months. The questions used to define the indicator were: In the last 12 months how often has child had a toothache or other problem with his or her mouth? What was the most recent problem child had? What treatment did child receive? If no problem or treatment were asked: When did child last visit a dental professional about his or her teeth, dentures or gums?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

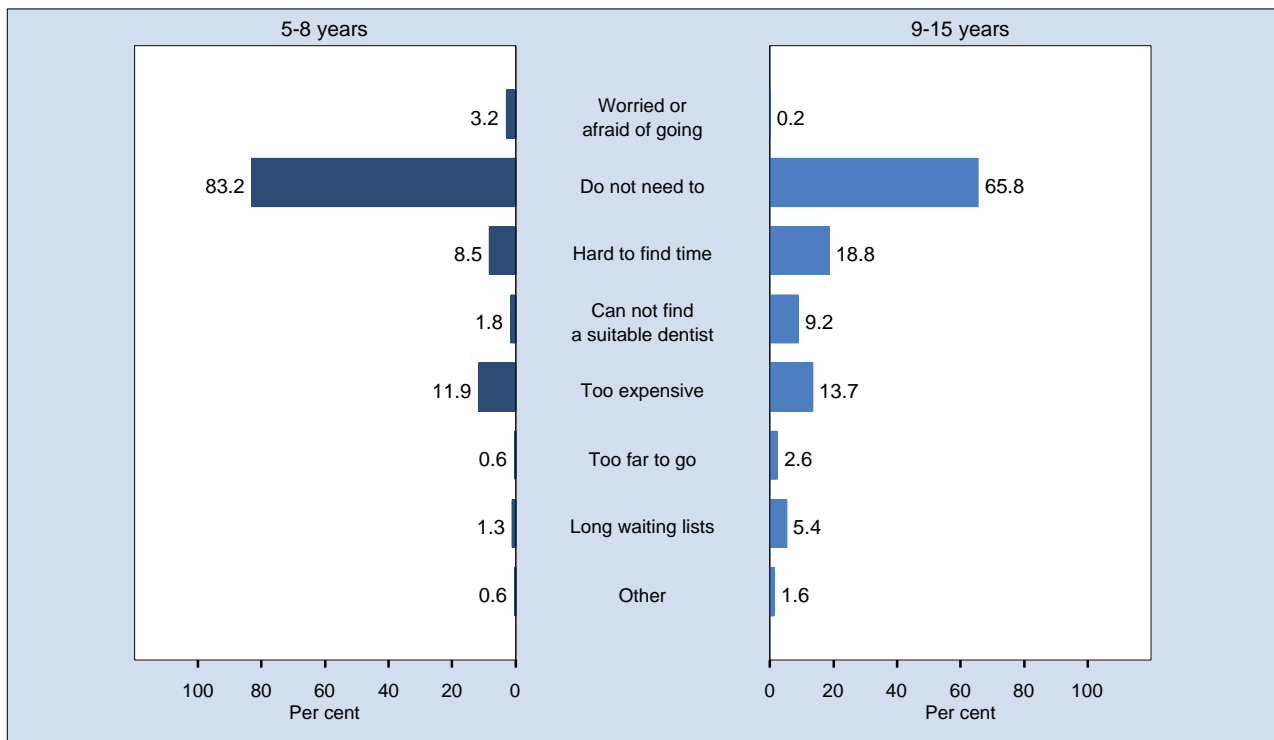
Dental provider used for last dental visit, children 5-15 years who visited a dental professional, NSW, 2005-2006



Note: Estimates are based on 1,131 respondents in NSW. For this indicator 30 (2.58%) were not stated (Don't know or Refused) in NSW. The questions used were: When did child last visit a dental professional about his or her teeth, dentures or gums? Where was child's last dental visit made?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Reason for not visiting a dental professional in the last 12 months, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 355 respondents in NSW. For this indicator 37 (9.44%) were not stated (Don't know or Refused) in NSW. The question used was: What are the main reasons for child not visiting the dentist in the last 12 months? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Self-rated health status

Introduction

Self-rated health status is a fundamental measure of health status and health outcomes, and is a strong and independent predictor of subsequent illness, premature death, and use of health services.[1-11] In this report, parents or carers answered self-rated health questions on behalf of the child.

During 2005 and 2006, the New South Wales Population Health Survey asked parents and carers of children aged 5-15 years: Overall, how would you rate child's health during the last 4 weeks: was it excellent, very good, good, fair, poor or very poor? During the last 4 weeks how much difficulty did child have doing his or her daily work or activities: no difficulty at all, a little bit of difficulty, some difficulty, much difficulty, could not do activities? During the last 4 weeks how much bodily pain has child generally had: no pain, very mild pain, mild pain, moderate pain or severe pain?

Results

Health status

Overall, 47.5 per cent of children aged 5-15 years had excellent health status, 27.3 per cent had very good health status, 16.0 per cent had good health status, 6.2 per cent had fair health status, 2.6 had poor health status, and 0.4 per cent had very poor health status.

Therefore, 90.8 cent of children aged 5-15 years had excellent, very good, or good health status. A significantly higher proportion of children aged 9-15 years (91.7 per cent) had excellent, very good, or good health status, compared with children aged 5-8 years (89.0 per cent). There was no significant variation by level of socioeconomic disadvantage, or between rural residents and urban residents, or among health areas. A significantly higher proportion of children of mothers from a non English speaking background (93.3 per cent) had excellent, very good, or good health status, compared with children of mothers from an English speaking background (90.1 per cent).

The proportion of children with excellent, very good, or good health status has not changed significantly between 2001-2002 and 2003-2004; however, there has been a significant decrease in the proportion of children aged 5-8 with excellent, very good, or good health status between 2001-2002 (92.7 per cent) and 2003-2004 (89.0 per cent).

Difficulties performing daily activities

Overall, 76.9 per cent of children aged 5-15 years had no difficulty with daily activities in the last 4 weeks, 12.6 per cent had a little bit of difficulty, 7.7 per cent had some difficulty, 1.8 per cent had much difficulty, and 1.2 could not perform their daily activities.

Therefore, 10.6 per cent of children aged 5-15 years have some difficulty, much difficulty, or could not perform their daily activities in the last 4 weeks. There was no significant variation by age group, by level of socioeconomic disadvantage, or between rural residents and urban residents, or among health areas. A significantly lower proportion of children of mothers from a non English speaking background (7.2 per cent) have some difficulty, much difficulty, or could not perform their daily activities in the last 4 weeks, compared with children of mothers from an English speaking background (11.5 per cent).

There has been no significant variation in the proportion of children who have some difficulty, much difficulty, or could not perform their daily activities in the last 4 weeks between 2003-2004 and 2005-2006.

Experience of bodily pain

Overall, 56.3 per cent of children aged 5-15 years did not experience bodily pain in the last 4 weeks, 18.0 per cent experienced very mild pain, 17.9 per cent experienced mild pain, 6.3 per cent experienced moderate pain, and 1.5 experienced severe pain.

Therefore, 7.8 per cent of children aged 5-15 years experienced moderate or severe bodily pain in the last 4 weeks. There was no significant variation by age group, by level of socioeconomic disadvantage, or between rural residents and urban residents; however, significantly lower proportion of children in the Sydney South

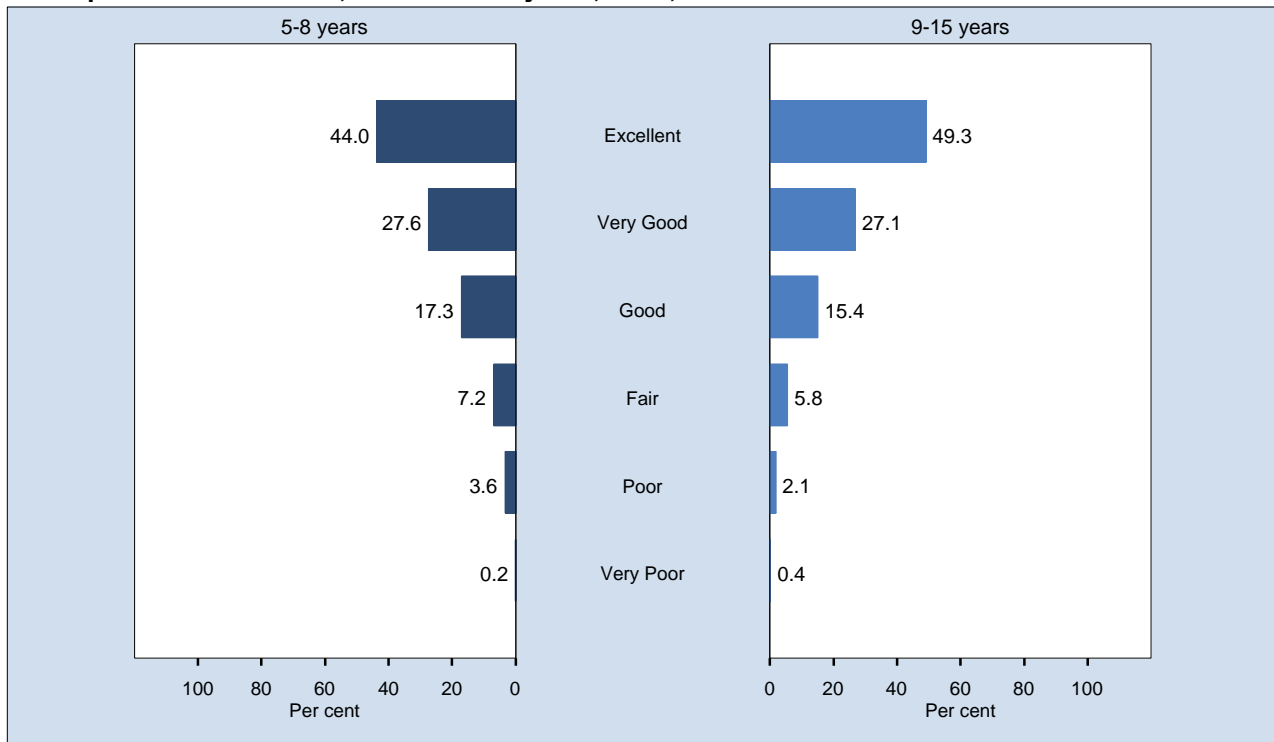
West Health Area (3.4 per cent) experienced moderate or severe bodily pain in the last 4 weeks. A significantly lower proportion of children of mothers without tertiary qualifications (6.5 per cent) compared with children of mothers with tertiary qualifications (11.1 per cent), and children of mothers from a non English speaking background (4.5 per cent) compared with mothers from an English speaking background (8.7 per cent), experienced moderate or severe bodily pain in the last 4 weeks.

The proportion of children who have experienced moderate or severe bodily pain in the last 4 weeks has increased significantly between 2001-2002 (3.1 per cent) and 2006-2006 (7.8 per cent). This increase was significant in children aged 5-8 years (from 2.6 per cent to 6.5 per cent) and 9-15 years (from 3.1 per cent to 7.8 per cent).

References

1. Krause NM and Jay GM. What do global self-rated health items measure? *J Med Care* 1994; 32: 930-942.
2. Cott CA, Gignac MA, Badley EM. Determinants of self-rated health for Canadians with chronic disease and disability. *J Epidemiol Community Health* 1999; 53: 731-736. Available online at www.jech.bmj.com/cgi/content/abstract/53/11/731?ck=nck, accessed 9 November 2007.
3. Eriksson I, Unden AL, Elofsson S. Self-rated health. Comparisons between three different measures. Results from a population study. *Int J Epidemiol* 2001; 30(2): 326-323. Available online at www.ije.oxfordjournals.org/cgi/content/abstract/30/2/326, accessed 9 November 2007.
4. Bailis DS, Segall A, Chipperfield JG. Two views of self-rated general health status. *Soc Sci Med* 2003; 56(2): 203-217.
5. Boardman JD. Self-rated health among U.S. adolescents. *J Adolesc Health* 2006; 38(4): 401-408. Available online at www.jahonline.org/article/PIIS1054139X0500056X/abstract, accessed 9 November 2007.
6. Haddock CK, Poston WSC, Pyle SA, Klesges RC, Vander Weg MW, Peterson A, and Debon M. The validity of self-rated health as a measure of health status among young military personnel: Evidence from a cross-sectional survey. *Health and Quality of Life Outcomes* 2006; 4: 57. Available online at www.hqlo.com/content/4/1/57, accessed 9 November 2007.
7. Keith J Zullig KJ, Valois RF, and Wanzer Drane J. Adolescent distinctions between quality of life and self-rated health in quality of life research. *Health and Quality of Life Outcomes* 2005; 3: 64. Available online at www.hqlo.com/content/3/1/64, accessed 9 November 2007.
8. Idler EL, Benyamini Y. Self-rated health and mortality: A review of twenty-seven community studies. *J Health Soc Behav* 1997; 38(1): 21-37.
9. Manor O, Matthews S, Power C. Self-rated health and limiting longstanding illness: Inter-relationships with morbidity in early adulthood. *Int J Epidemiol* 2001; 30(3): 600-607. Available online at www.ije.oxfordjournals.org/cgi/content/abstract/30/3/600, accessed 9 November 2007.
10. 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: 1100-1105.
11. Miilunpalo S, Vuori I, Oja P, Pasanen M, Urponen H. Self-rated health status as a health measure: The predictive value of self-reported health status on the use of physician services and on mortality in the working-age population. *J Clin Epidemiol* 1997; 50(5): 517-528.

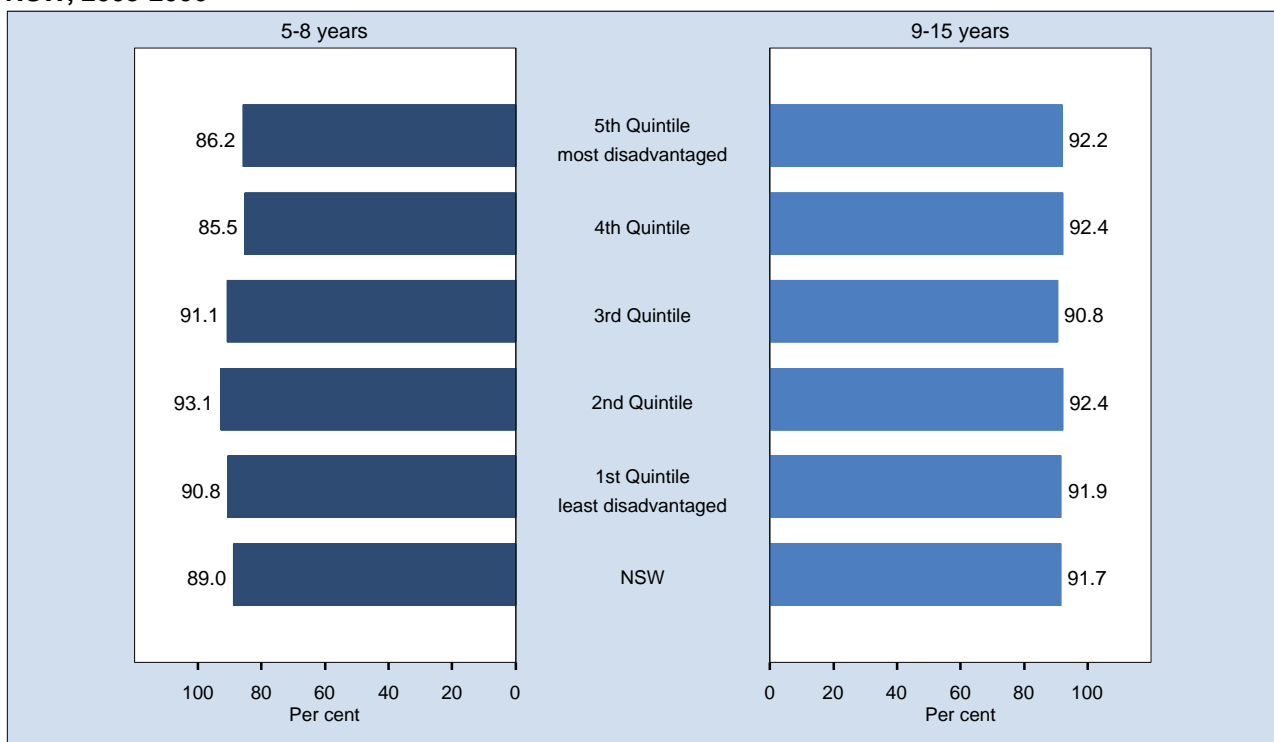
Self-reported health status, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 3,128 respondents in NSW. For this indicator 1 (0.03%) were not stated (Don't know or Refused) in NSW. The questions used were: Overall, how would you rate child's health during the last 4 weeks: excellent, very good, good, fair, poor, or very poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

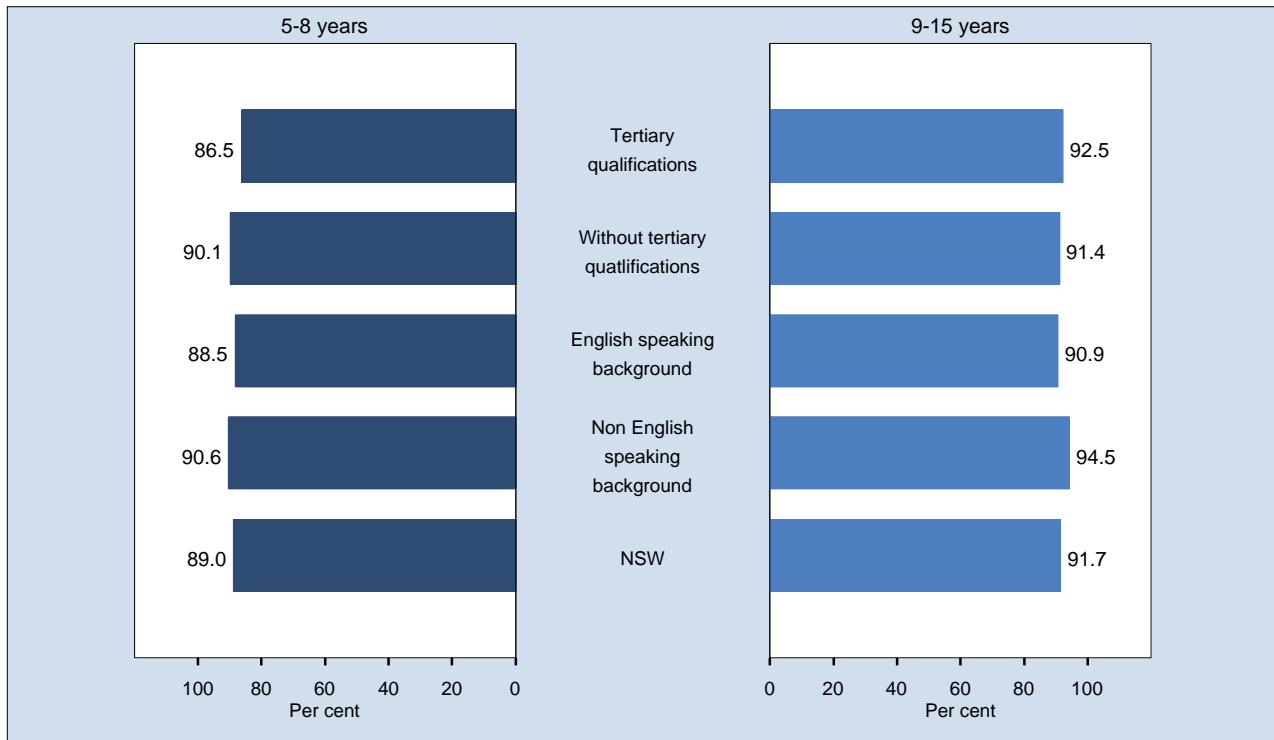
Excellent, very good, or good health status by socioeconomic disadvantage, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 3,128 respondents in NSW. For this indicator 1 (0.03%) were not stated (Don't know or Refused) in NSW. The indicator includes children reported to have excellent, very good or good health status. The question used to define the indicator was: Overall, how would you rate child's health during the last 4 weeks: excellent, very good, good, fair, poor, or very poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

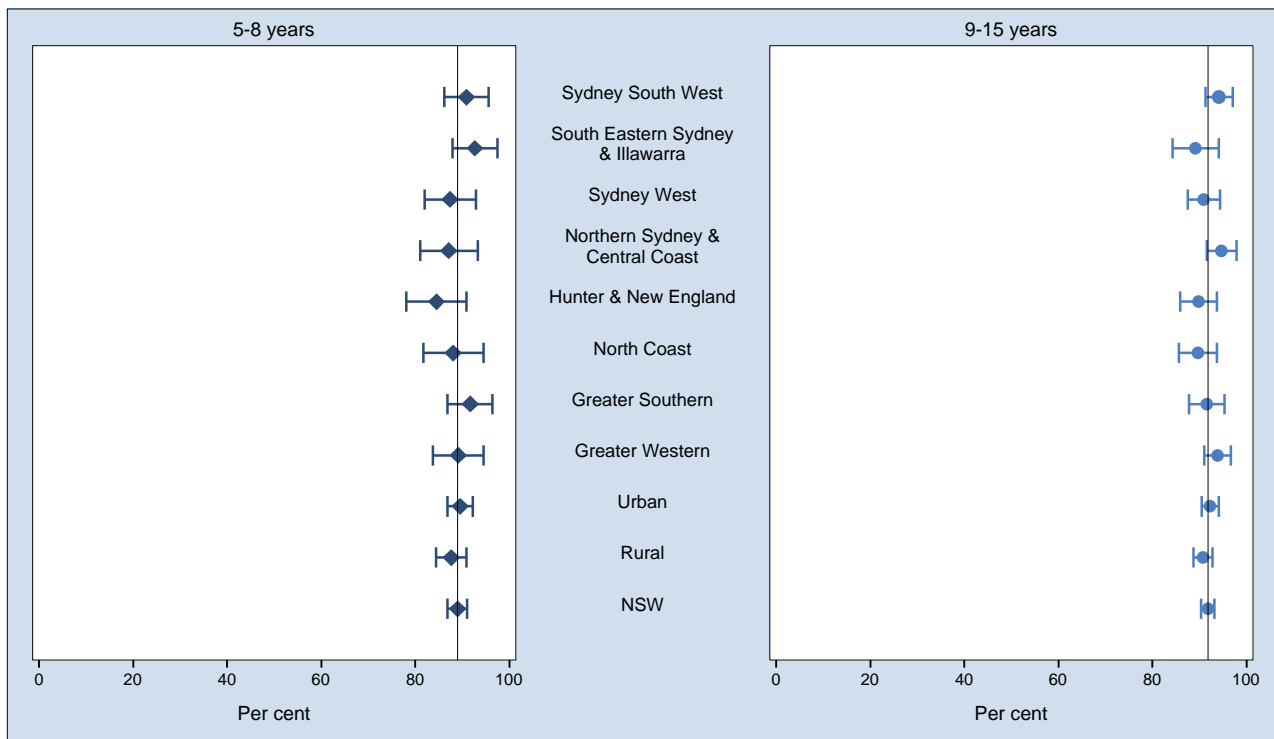
Excellent, very good, or good health status by mothers' characteristics, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 3,128 respondents in NSW. For this indicator 1 (0.03%) were not stated (Don't know or Refused) in NSW. The indicator includes children reported to have excellent, very good or good health status. The question used to define the indicator was: Overall, how would you rate child's health during the last 4 weeks: excellent, very good, good, fair, poor, or very poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

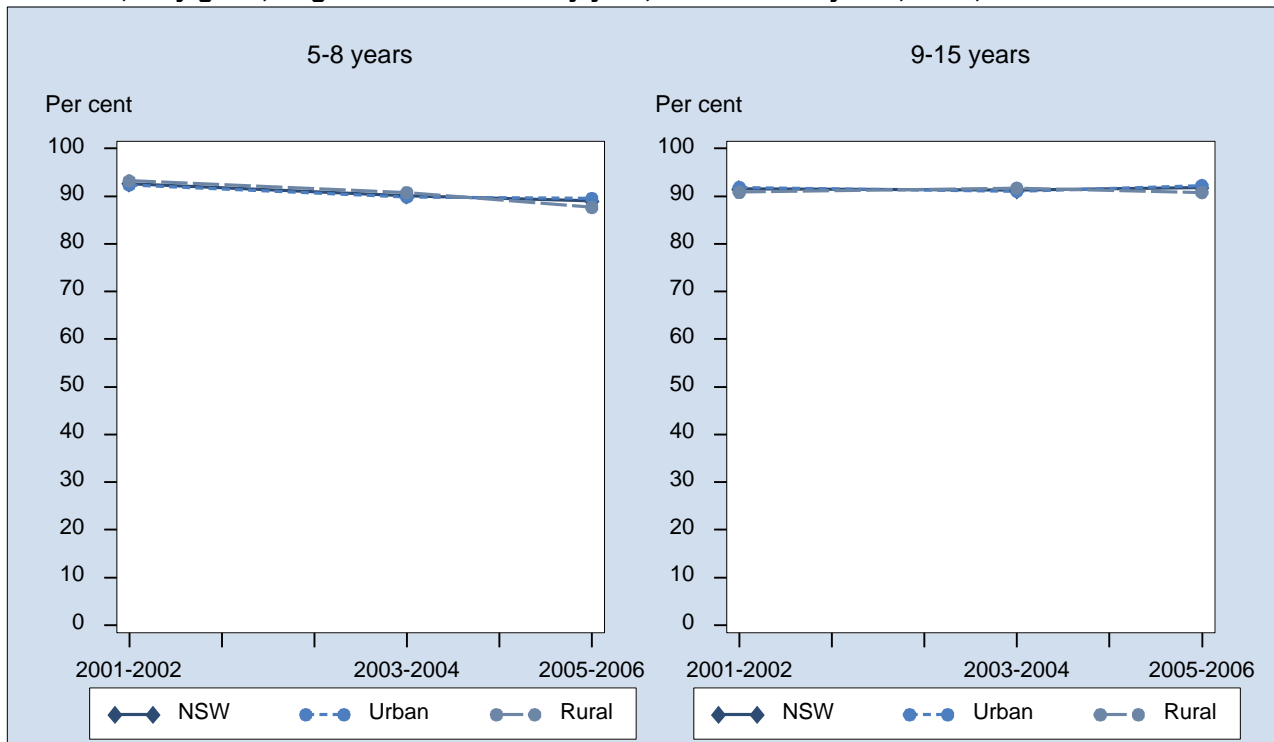
Excellent, very good, or good health status by area health service, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 3,128 respondents in NSW. For this indicator 1 (0.03%) were not stated (Don't know or Refused) in NSW. The indicator includes children reported to have excellent, very good or good health status. The question used to define the indicator was: Overall, how would you rate child's health during the last 4 weeks: excellent, very good, good, fair, poor, or very poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

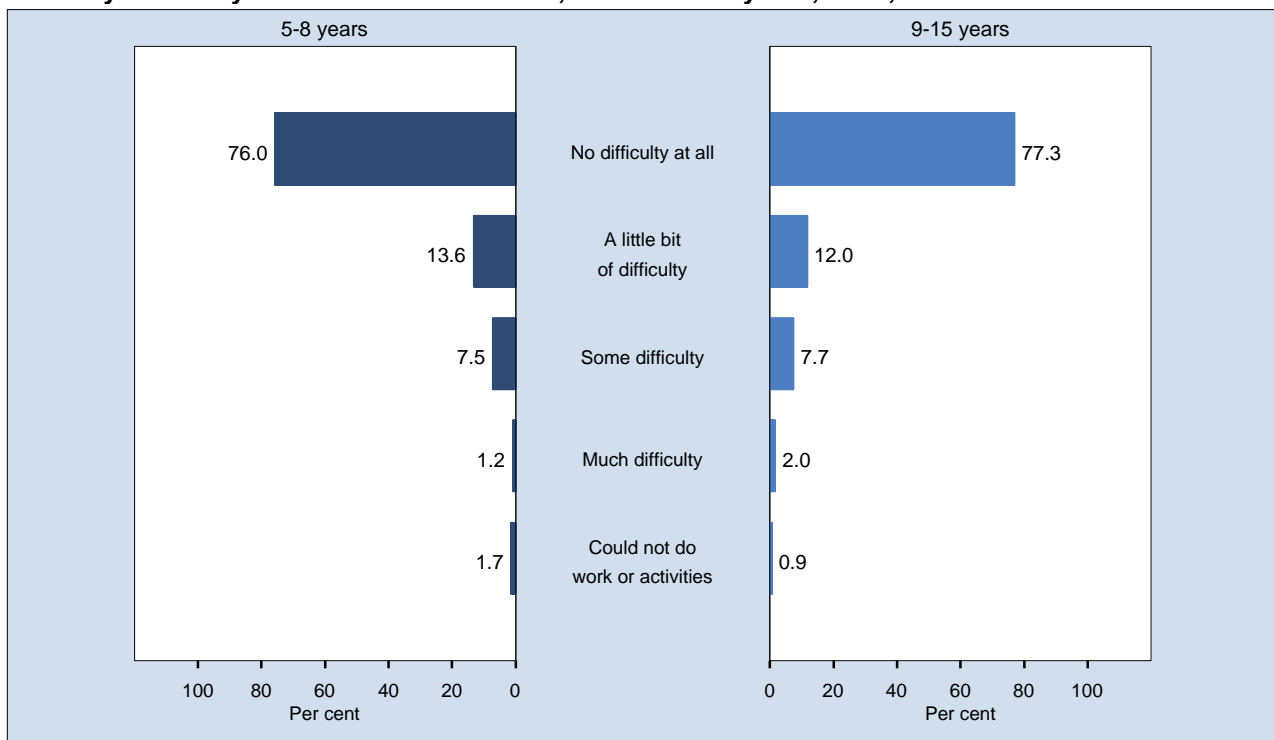
Excellent, very good, or good health status by year, children 5-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (5,879), 2004 (5,282), 2006 (3,128). The indicator includes children reported to have excellent, very good or good health status. The question used to define the indicator was: Overall, how would you rate child's health during the last 4 weeks: excellent, very good, good, fair, poor, or very poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

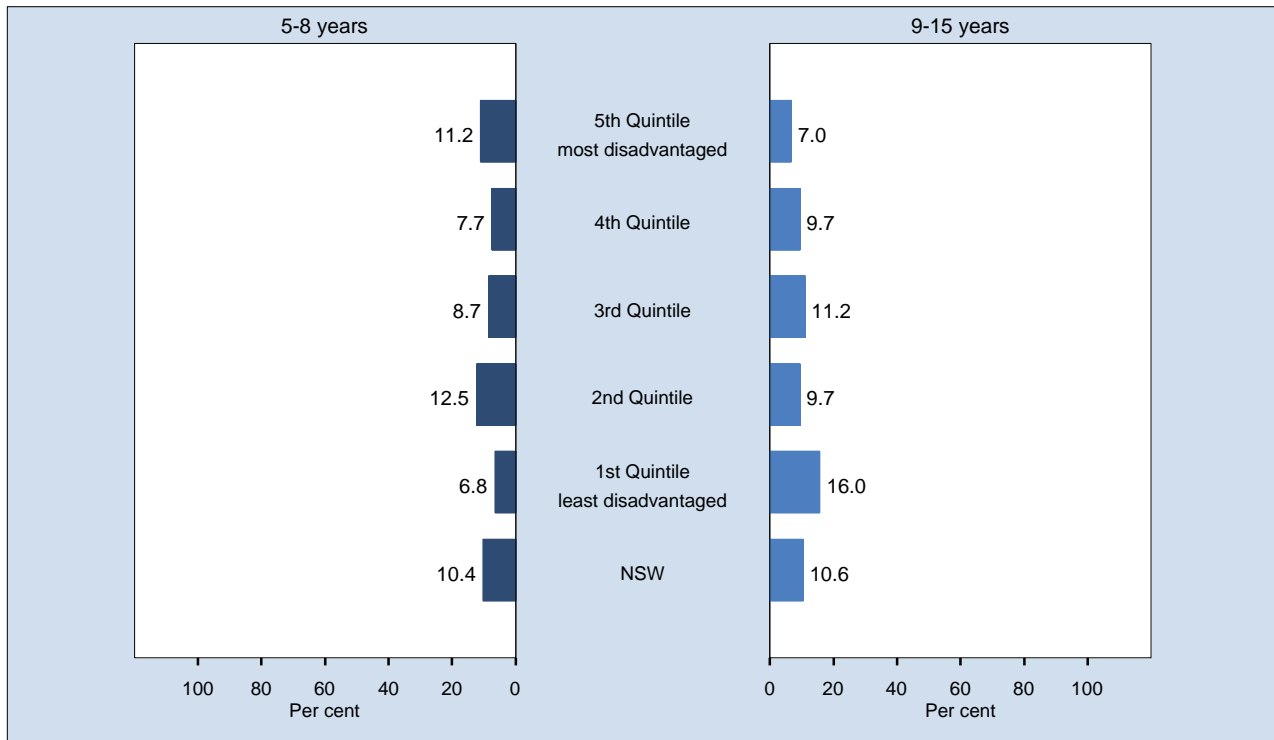
Difficulty with daily activities in last 4 weeks, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,510 respondents in NSW. For this indicator 3 (0.20%) were not stated (Don't know or Refused) in NSW. The question used was: During the last 4 weeks how much difficulty did child have doing his or her daily activities: no difficulty at all, a little bit of difficulty, some difficulty, much difficulty, could not do activities?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

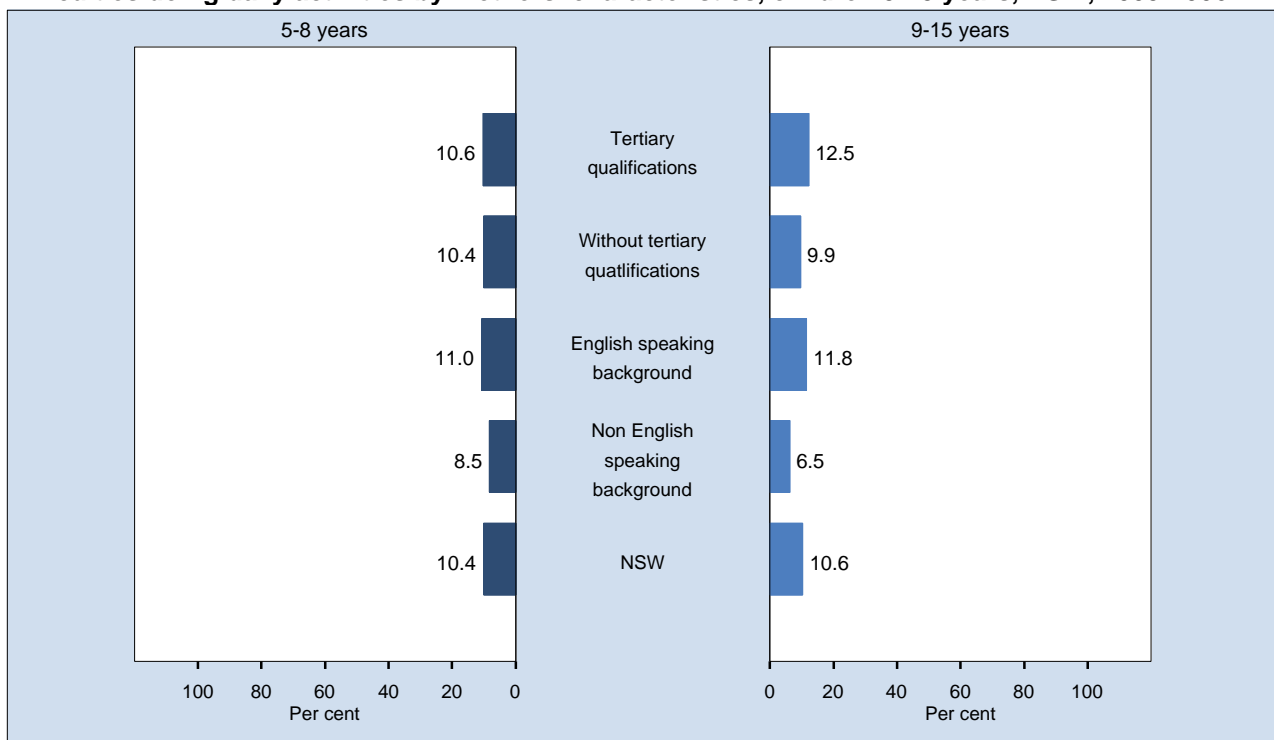
Difficulties doing daily activities by socioeconomic disadvantage, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,510 respondents in NSW. For this indicator 3 (0.20%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have some difficulty or much difficulty and could not do activities. The question used to define the indicator was: During the last 4 weeks how much difficulty did child have doing his or her daily activities: no difficulty at all, a little bit of difficulty, some difficulty, much difficulty, could not do activities?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

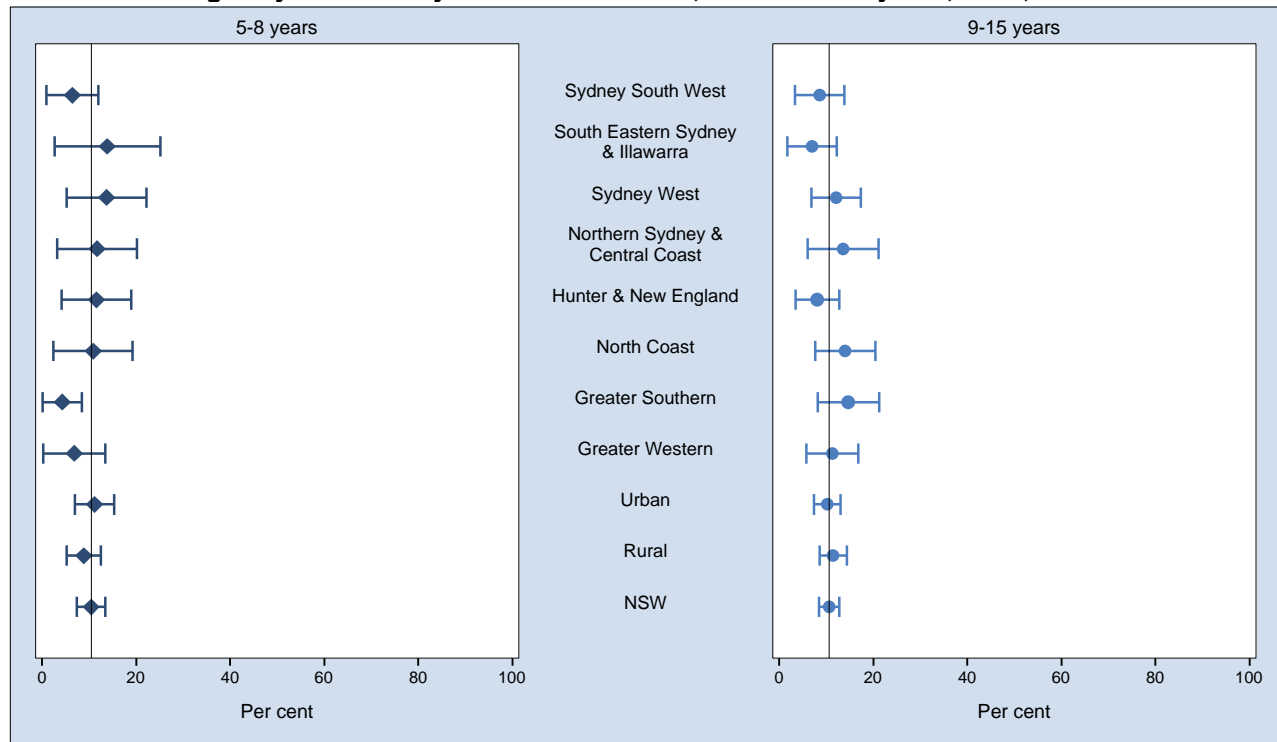
Difficulties doing daily activities by mothers' characteristics, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,510 respondents in NSW. For this indicator 3 (0.20%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have some difficulty or much difficulty and could not do activities. The question used to define the indicator was: During the last 4 weeks how much difficulty did child have doing his or her daily activities: no difficulty at all, a little bit of difficulty, some difficulty, much difficulty, could not do activities?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

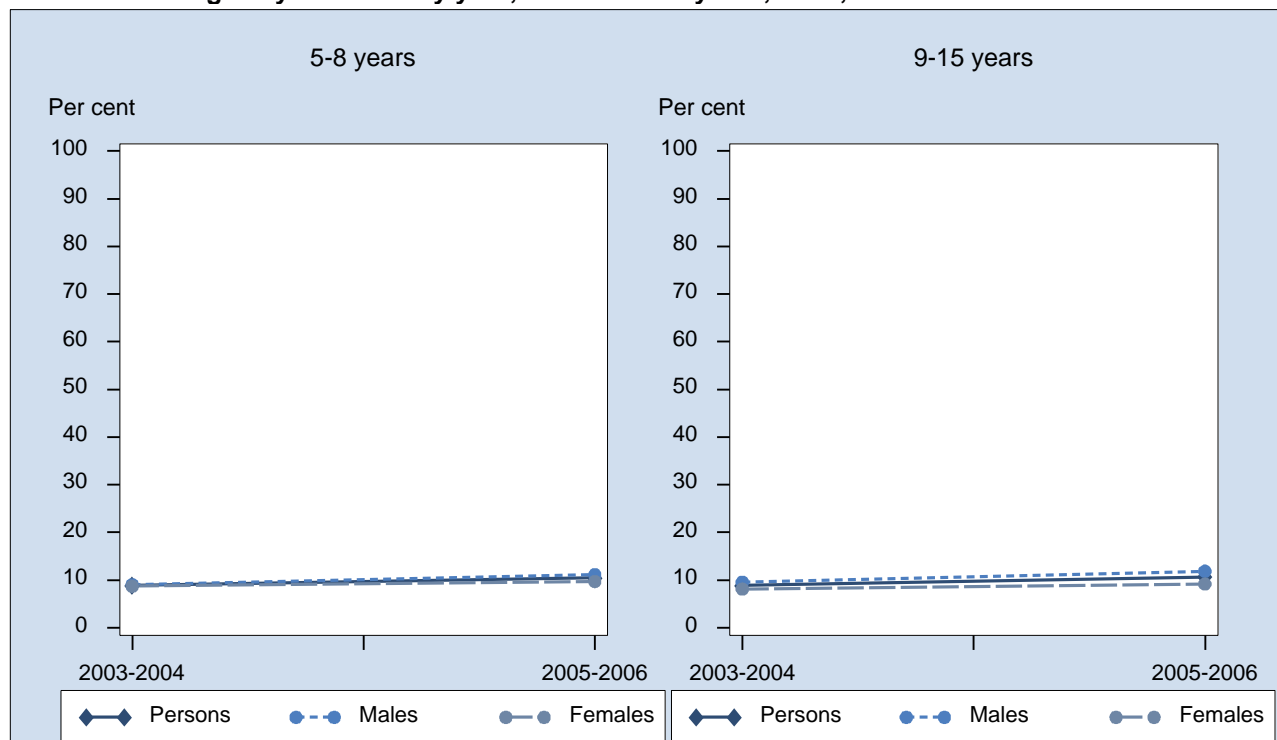
Difficulties doing daily activities by area health service, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,510 respondents in NSW. For this indicator 3 (0.20%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have some difficulty or much difficulty and could not do activities. The question used to define the indicator was: During the last 4 weeks how much difficulty did child have doing his or her daily activities: no difficulty at all, a little bit of difficulty, some difficulty, much difficulty, could not do activities?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

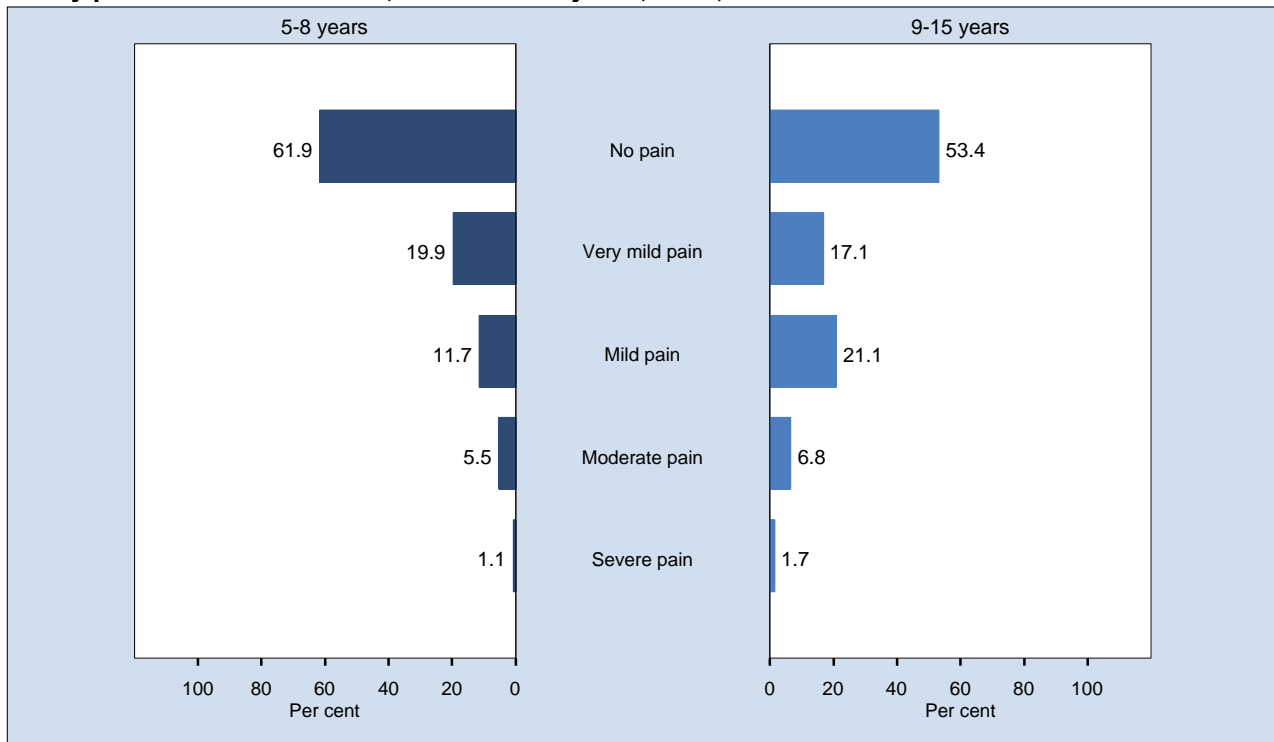
Difficulties doing daily activities by year, children 5-15 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (4,074), 2006 (1,510). The indicator includes children who have some difficulty or much difficulty and could not do activities. The question used to define the indicator was: During the last 4 weeks how much difficulty did child have doing his or her daily activities: no difficulty at all, a little bit of difficulty, some difficulty, much difficulty, could not do activities?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

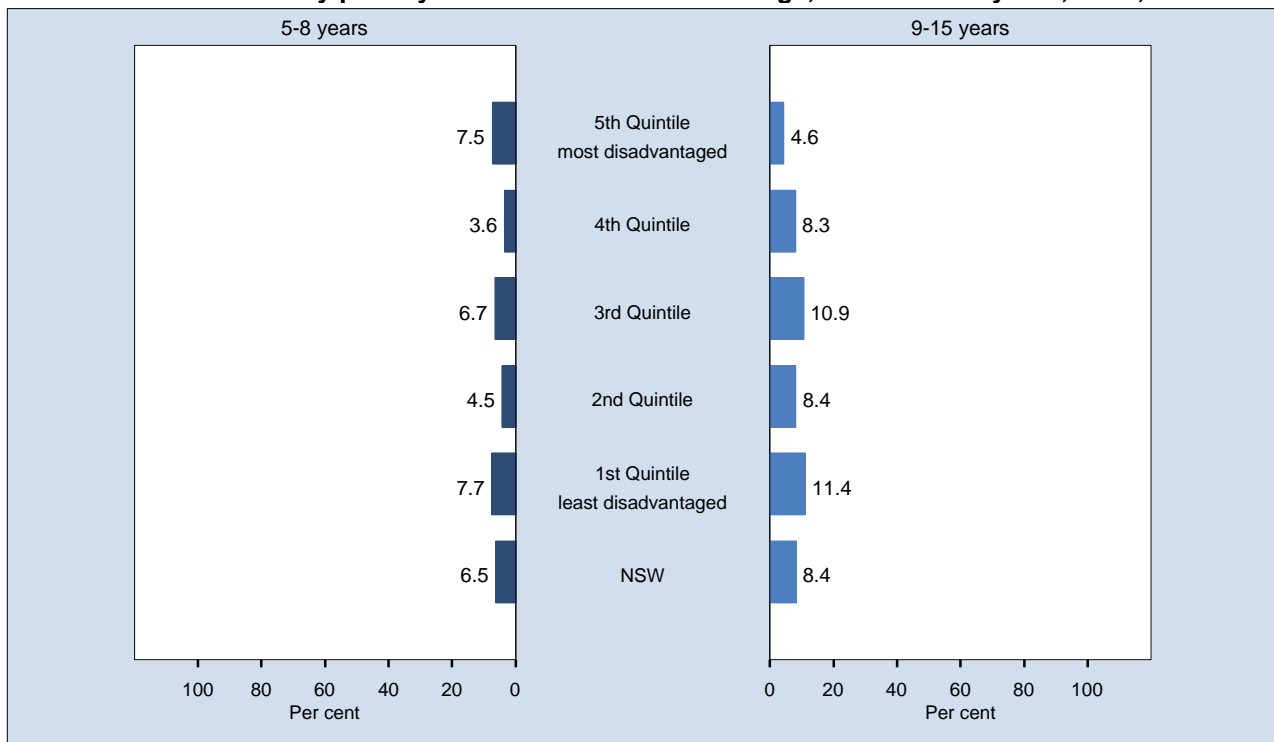
Bodily pain in the last 4 weeks, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,509 respondents in NSW. For this indicator 4 (0.26%) were not stated (Don't know or Refused) in NSW. The question used was: During the last 4 weeks how much bodily pain has child had: no pain, very mild pain, mild pain, moderate pain, or severe pain?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

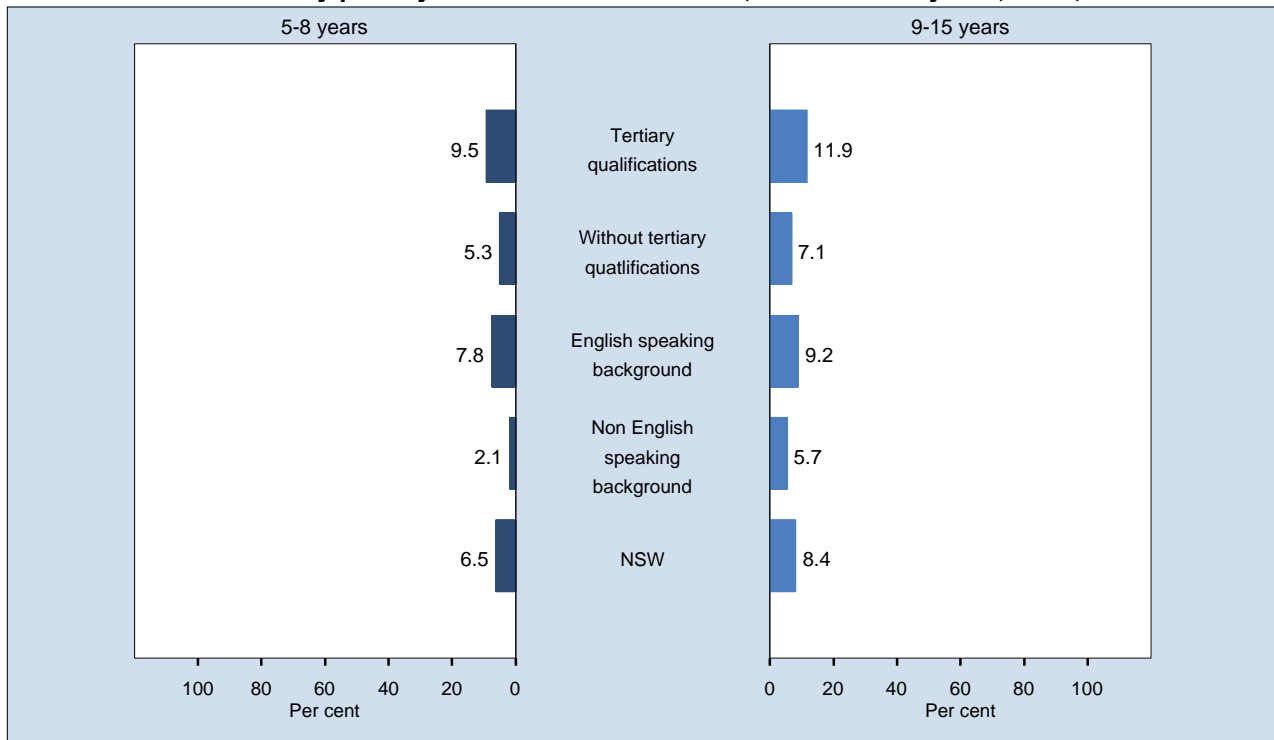
Moderate or severe bodily pain by socioeconomic disadvantage, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,509 respondents in NSW. For this indicator 4 (0.26%) were not stated (Don't know or Refused) in NSW. The indicator includes children who had experienced moderate or severe pain in the last 4 weeks. The question used to define the indicator was: During the last 4 weeks how much bodily pain has child had: no pain, very mild pain, mild pain, moderate pain, or severe pain?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

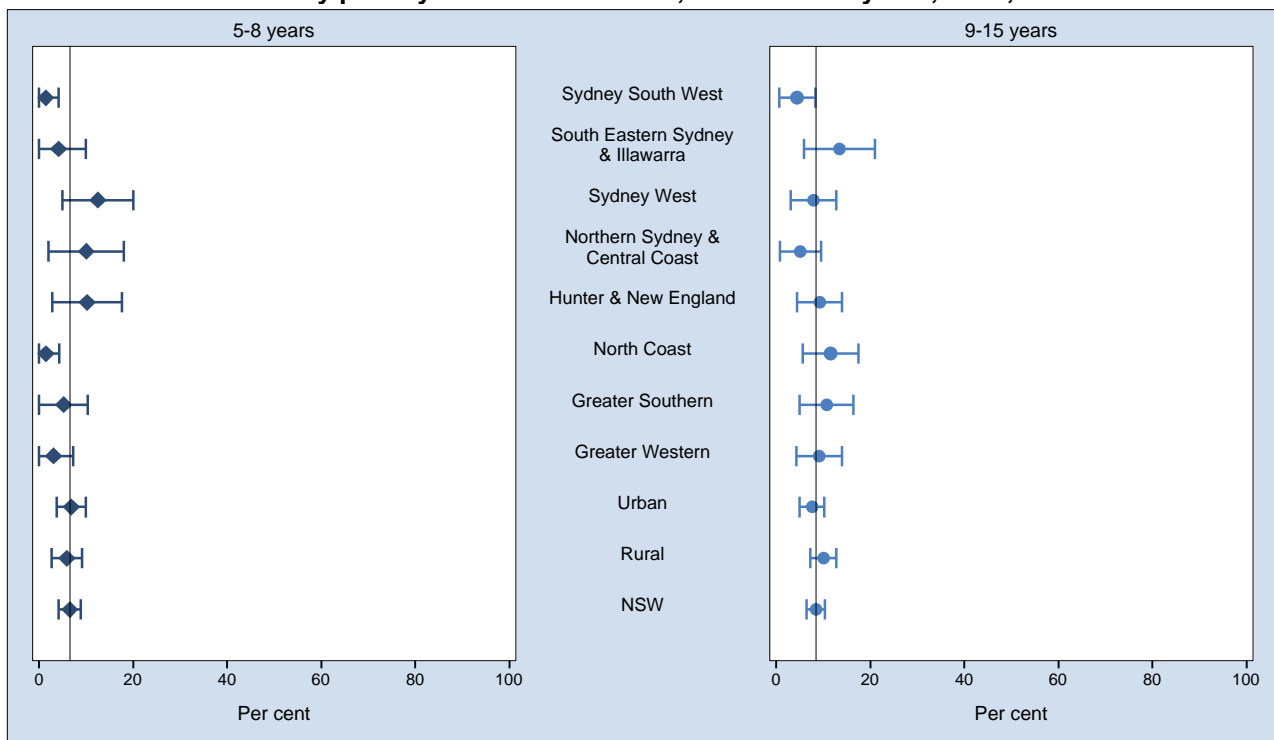
Moderate or severe bodily pain by mothers' characteristics, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,509 respondents in NSW. For this indicator 4 (0.26%) were not stated (Don't know or Refused) in NSW. The indicator includes children who had experienced moderate or severe pain in the last 4 weeks. The question used to define the indicator was: During the last 4 weeks how much bodily pain has child had: no pain, very mild pain, mild pain, moderate pain, or severe pain?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

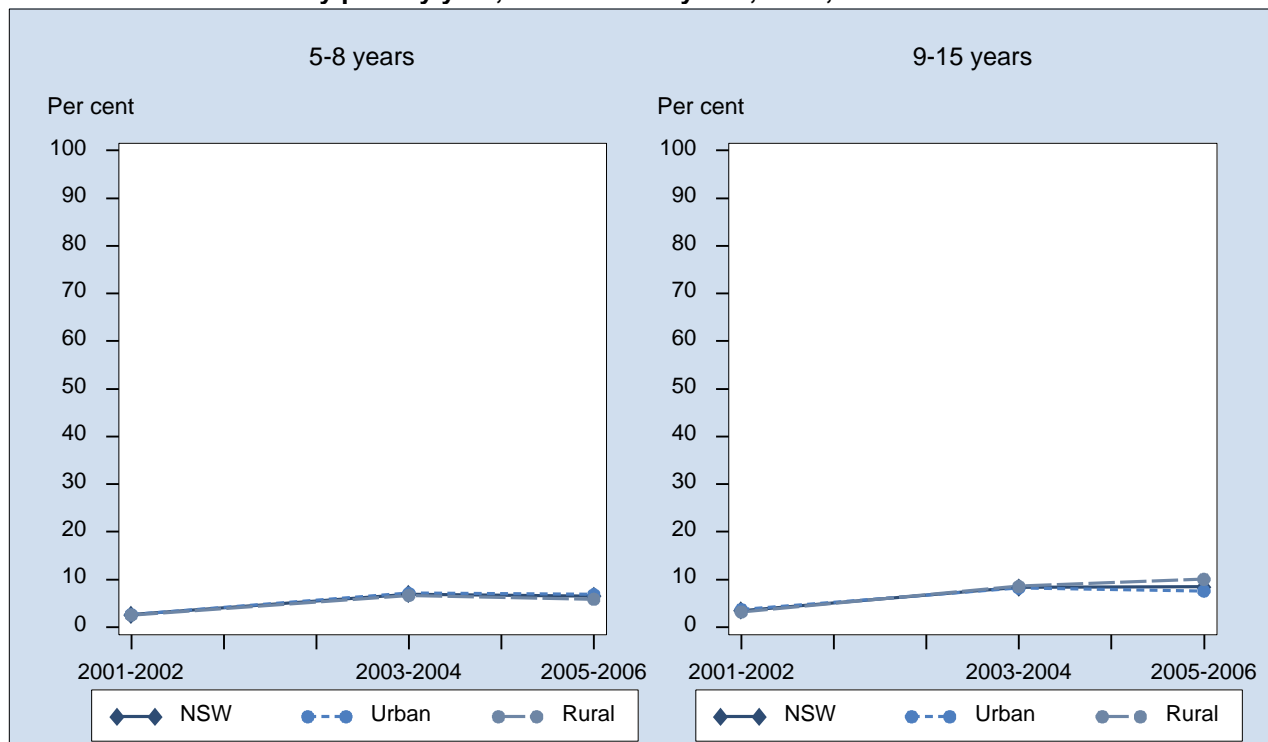
Moderate or severe bodily pain by area health service, children 5-15 years, NSW, 2005-2006



Note: Estimates are based on 1,509 respondents in NSW. For this indicator 4 (0.26%) were not stated (Don't know or Refused) in NSW. The indicator includes children who had experienced moderate or severe pain in the last 4 weeks. The question used to define the indicator was: During the last 4 weeks how much bodily pain has child had: no pain, very mild pain, mild pain, moderate pain, or severe pain?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Moderate or severe bodily pain by year, children 5-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (5,812), 2004 (4,072), 2006 (1,509). The indicator includes children who had experienced moderate or severe pain in the last 4 weeks. The question used to define the indicator was: During the last 4 weeks how much bodily pain has child had: no pain, very mild pain, mild pain, moderate pain, or severe pain?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Health services

NSW Health provides a range of health care services to children and their families across a variety of settings, and it is important to monitor the use of and satisfaction with those services. This section reports on health services attended in the last 12 months, private health insurance, difficulties getting health care, community health centres, early childhood health centres, emergency departments, home visiting, hospital admissions, and public dental services.

Health service use and access

Introduction

To monitor how health care services are used, during 2005 and 2006 the New South Wales Population Health asked parents or carers of children aged 0-15 years: In the last 12 months, has child stayed for at least 1 night in hospital, presented to a hospital emergency department for medical care, attended an early childhood centre or government-run community health centre or public dental service or dental hospital? Apart from Medicare, are you covered by private health insurance? Do you have any difficulties getting health care when child needs it? Please describe the difficulties you have.

Results

Health service use

During 2005-2006, 54.6 per cent of children did not attend any health service, 10.0 per cent were admitted to hospital for at least 1 night, 21.7 per cent presented to an emergency department, 12.1 per cent attended a community health centre, 12.1 per cent attended a public dental service or hospital. Among children aged 0-4 years, 40.4 per cent attended an early childhood health centre

Private health insurance

During 2005-2006, 54.3 per cent of children were covered by private health insurance. A significantly higher proportion of children aged 9-15 years (56.6 per cent) were covered by private health insurance, compared with children aged 0-8 years (52.2 per cent). A significantly higher proportion of children in the 2 least disadvantaged quintiles (80.5 per cent and 64.0 per cent), and a significantly lower proportion of children in the 2 most disadvantaged quintiles (40.2 per cent and 36.4 per cent), were covered by private health insurance.

A significant lower proportion of children in rural areas (44.8 per cent) than urban areas (58.8 per cent) were covered by private health insurance. A significantly higher proportion of children living the Northern Sydney & Central Coast Health Area (73.3 per cent) and a significantly higher proportion of children living in the Hunter & New England (48.1 per cent) and North Coast (32.6 per cent) and Greater Western (45.7 per cent) Health Areas, were covered by private health insurance.

A significantly higher proportion of children with mothers aged 25 years and over (54.8 per cent), compared with children of mothers aged less than 25 years (15.6 per cent), were covered by private health insurance. A significantly lower proportion of children of mothers without tertiary qualifications (45.5 per cent) compared with children of mothers with tertiary qualifications (72.5 per cent), and children of mothers from a non English speaking background (50.4 per cent) compared with children of mothers from an English speaking background (55.4 per cent), were covered by private health insurance.

Difficulties getting health care

During 2005-2006, 15.6 per cent of parents or carers had difficulties getting health care when child needed it. There was no variation by the child's age group. A significantly lower proportion of parents or carers in the 2 least disadvantaged quintiles (11.4 per cent and 12.2 per cent), and a significantly higher proportion of children in the second most disadvantaged quintiles (21.8 per cent), had difficulties getting health care when child needed it.

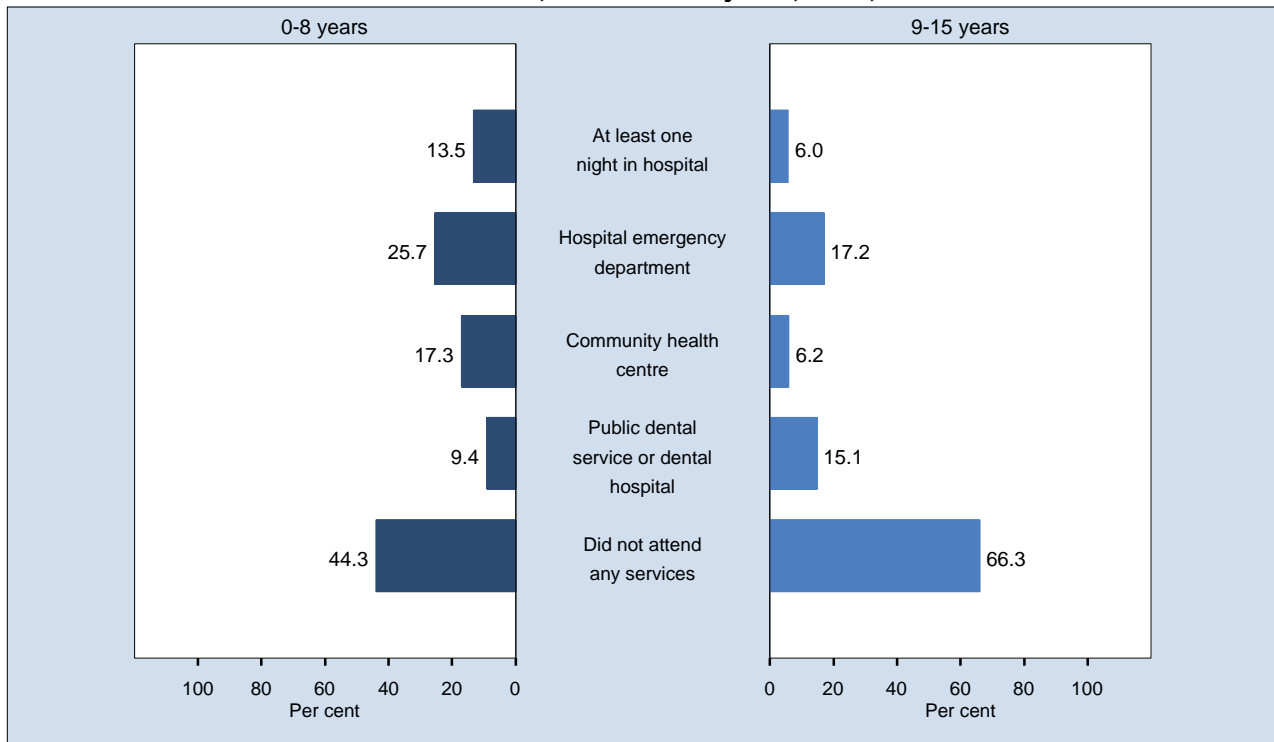
A significantly higher proportion of parents or carers in rural areas (23.5 per cent) than urban areas (11.9 per cent) had difficulties getting health care when child needed it. A significantly higher proportion of children living in the Hunter & New England (20.8 per cent) and North Coast (24.7 per cent) and Greater Southern (24.7 per cent) and Greater Western (27.1 per cent) Health Areas, and a significantly lower proportion of children living the Sydney South West (10.4 per cent) and South Eastern Sydney & Illawarra (11.6 per cent) and Northern Sydney & Central Coast (10.9 per cent) Health Areas, had difficulties getting health care when child needed it.

A significantly higher proportion of children with mothers aged 25 years and over (17.3 per cent) compared with children of mothers aged under 25 years (11.4 per cent), and a significantly lower proportion of children of mothers from a non English speaking background (12.1 per cent) compared with children of mothers from an English speaking background (16.6 per cent), had difficulties getting health care when child needed it.

The proportion of parents or carers who had difficulties getting health care when child needed it did not vary significantly between 2003-2004 and 2005-2006.

Among parents or carers who had difficulties getting health care when child needed it, the main types of difficulties were: waiting time for a general practitioner appointment (40.2 per cent), difficulty in accessing specialists (11.4 per cent), waiting time for dental services (10.7 per cent), emergency department waiting time (9.3 per cent), shortage of general practitioners (8.9 per cent), quality of treatment (8.1 per cent), and cost of health care services (8.0 per cent).

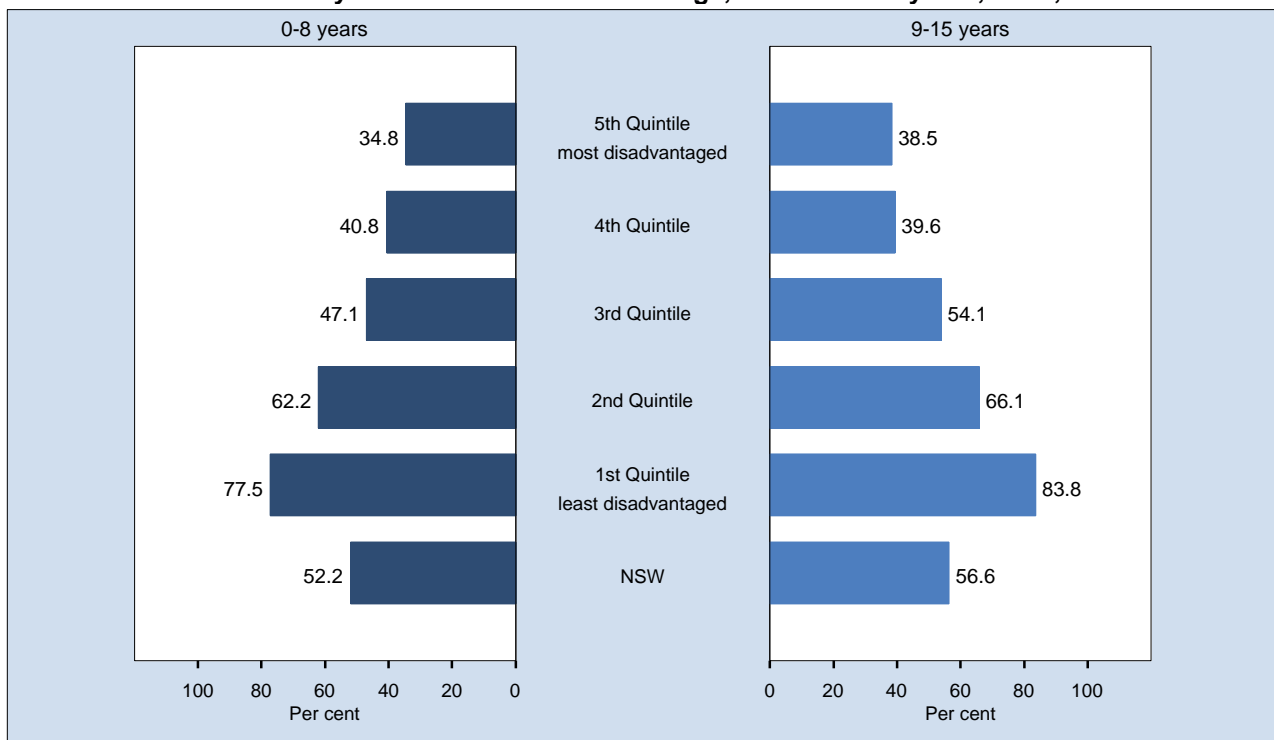
Health services attended in last 12 months, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The question used was: In the last 12 months has child: stayed for at least 1 night in hospital; presented to a hospital emergency department for medical care; attended a government-run community health centre or public dental service or dental hospital? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

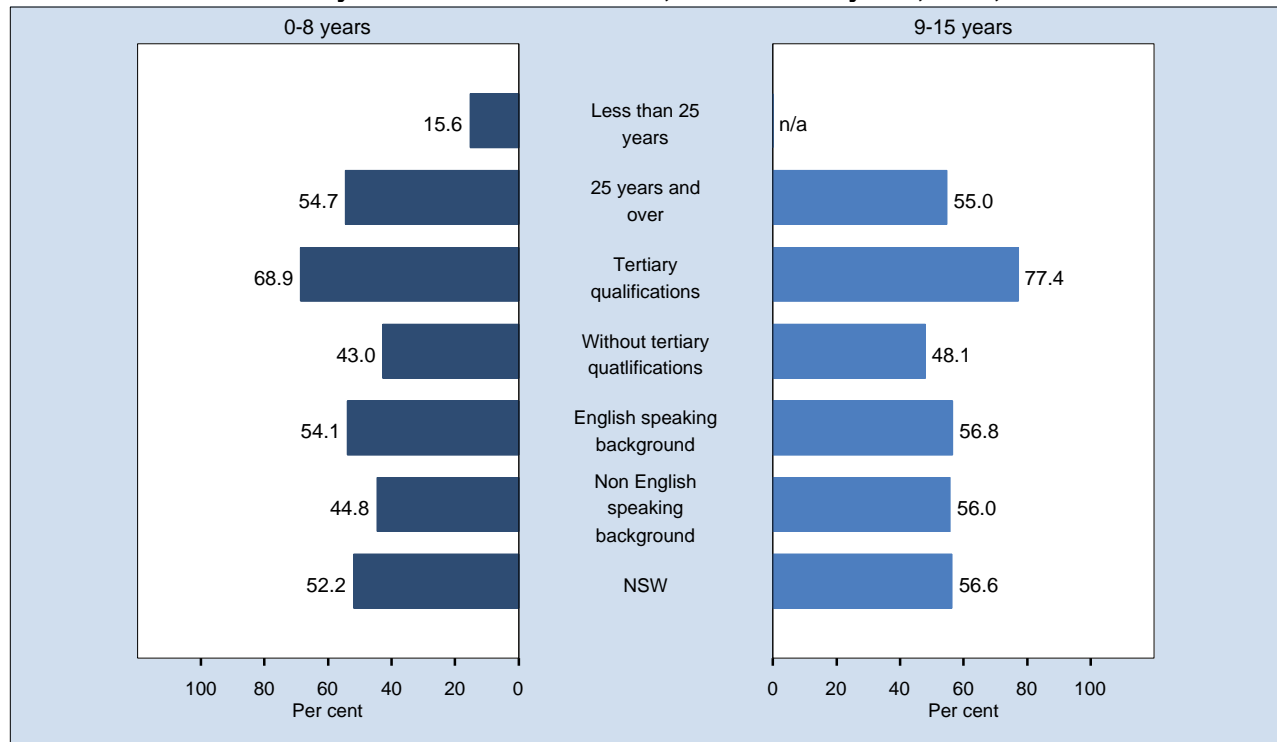
Private health insurance by socioeconomic disadvantage, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,567 respondents in NSW. For this indicator 11 (0.24%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have private health insurance. The question used to define the indicator was: Apart from Medicare, are you covered by private health insurance?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

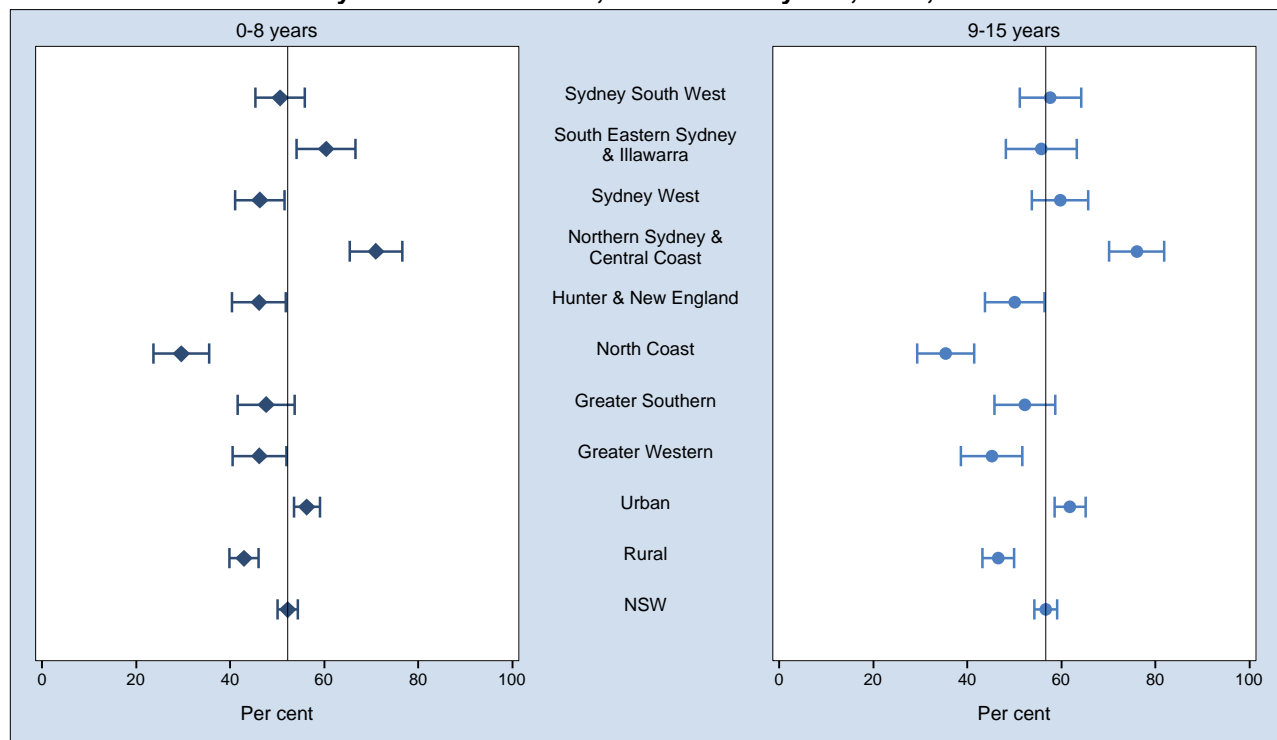
Private health insurance by mothers' characteristics, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,567 respondents in NSW. For this indicator 11 (0.24%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have private health insurance. The question used to define the indicator was: Apart from Medicare, are you covered by private health insurance? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

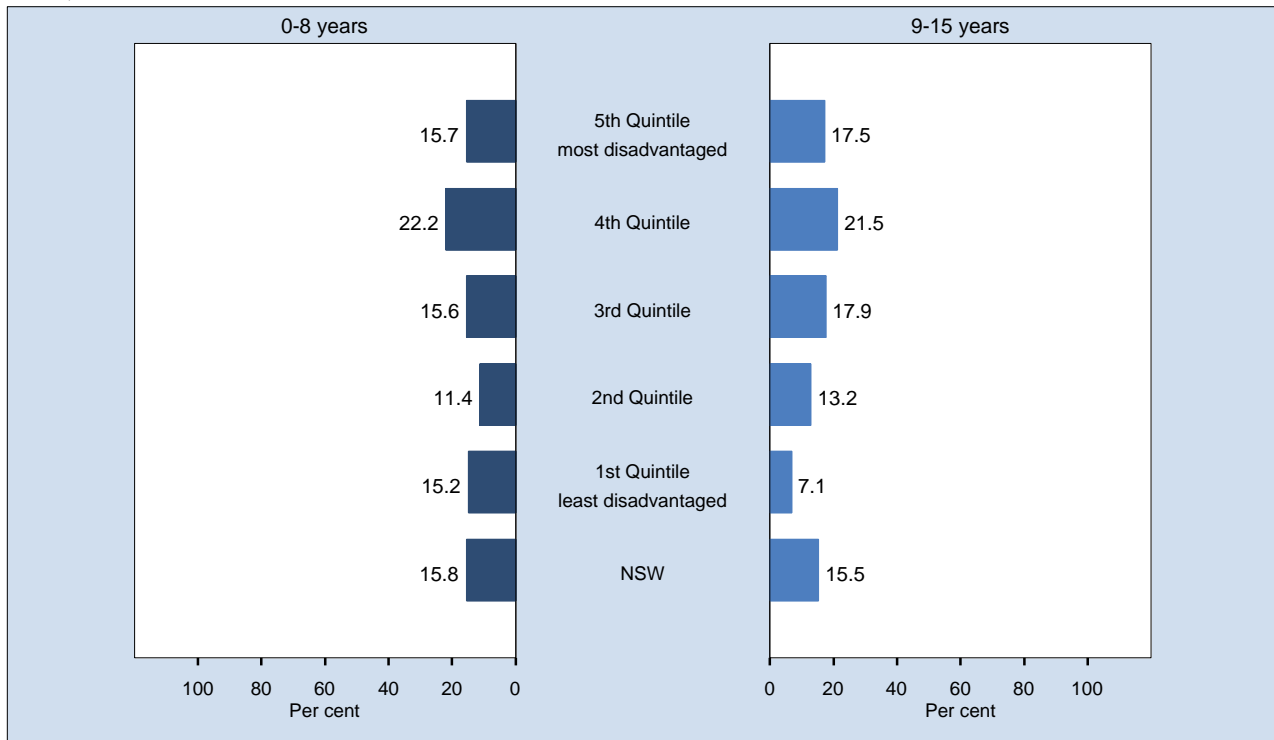
Private health insurance by area health service, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,567 respondents in NSW. For this indicator 11 (0.24%) were not stated (Don't know or Refused) in NSW. The indicator includes those who have private health insurance. The question used to define the indicator was: Apart from Medicare, are you covered by private health insurance?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

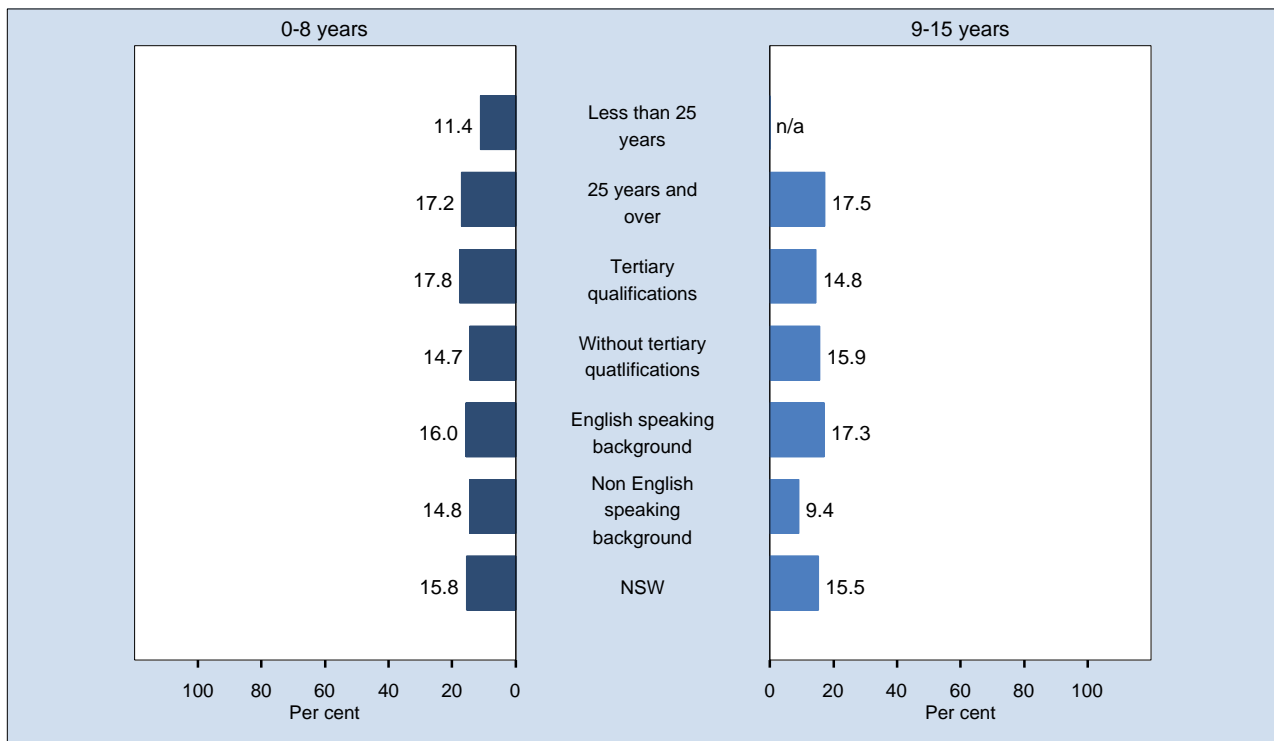
Difficulties getting health care when needing it by socioeconomic disadvantage, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,507 respondents in NSW. For this indicator 9 (0.20%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who had difficulties getting health care when child needed it. It excludes those who said child did not need health care. The question used to define the indicator was: Do you have any difficulties getting health care when child needs it?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

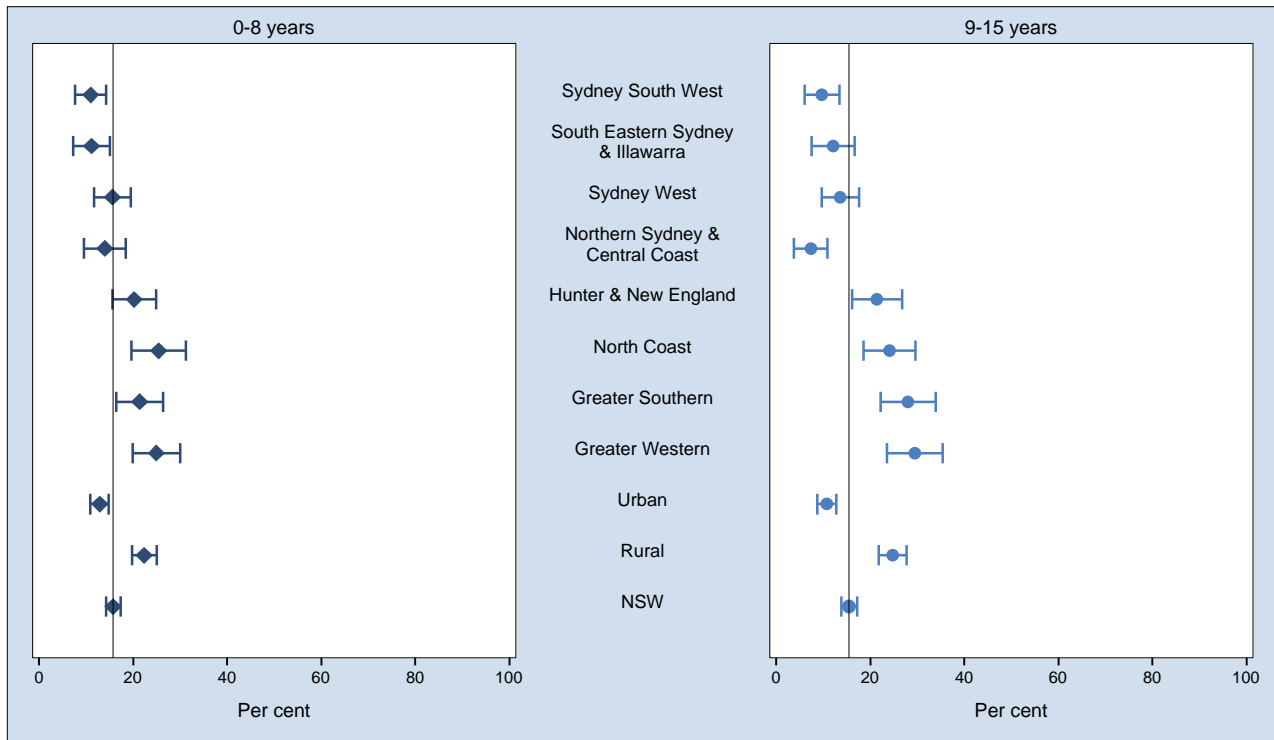
Difficulties getting health care when needing it by mothers' characteristics, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,507 respondents in NSW. For this indicator 9 (0.20%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who had difficulties getting health care when child needed it. It excludes those who said child did not need health care. The question used to define the indicator was: Do you have any difficulties getting health care when child needs it? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

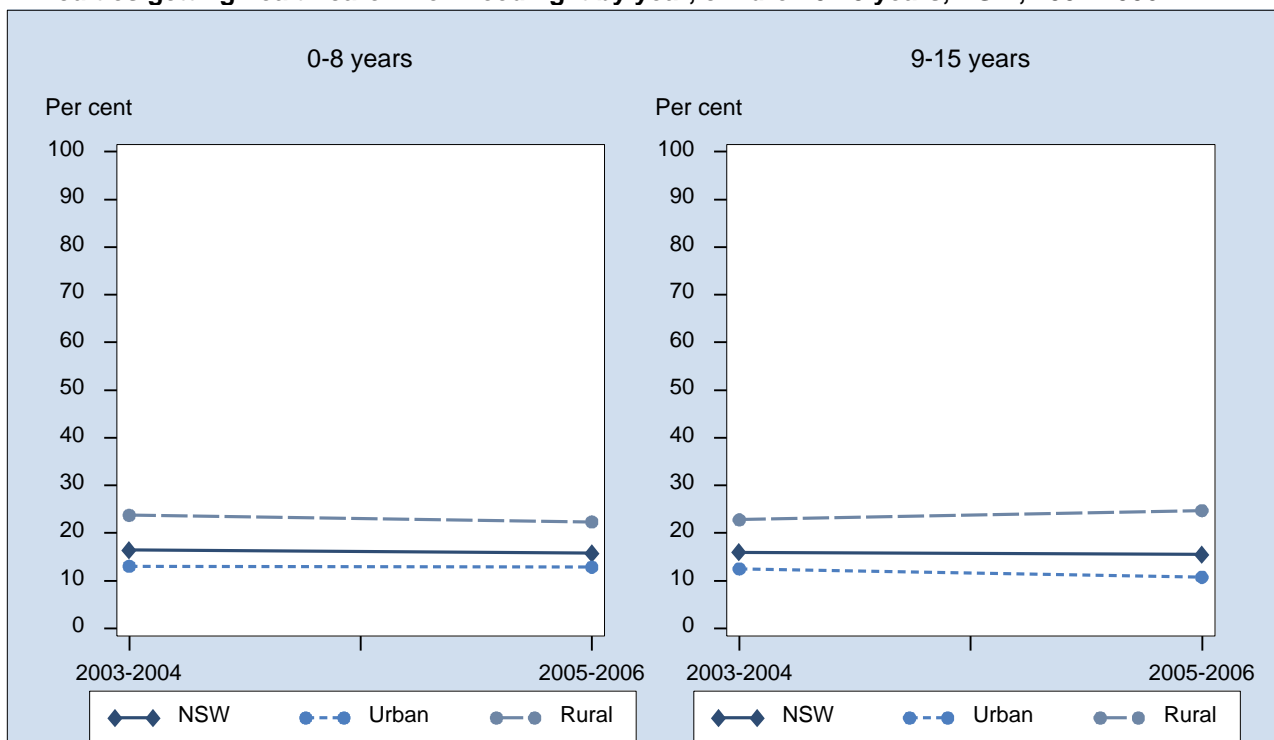
Difficulties getting health care when needing it by area health service, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,507 respondents in NSW. For this indicator 9 (0.20%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who had difficulties getting health care when child needed it. It excludes those who said child did not need health care. The question used to define the indicator was: Do you have any difficulties getting health care when child needs it?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

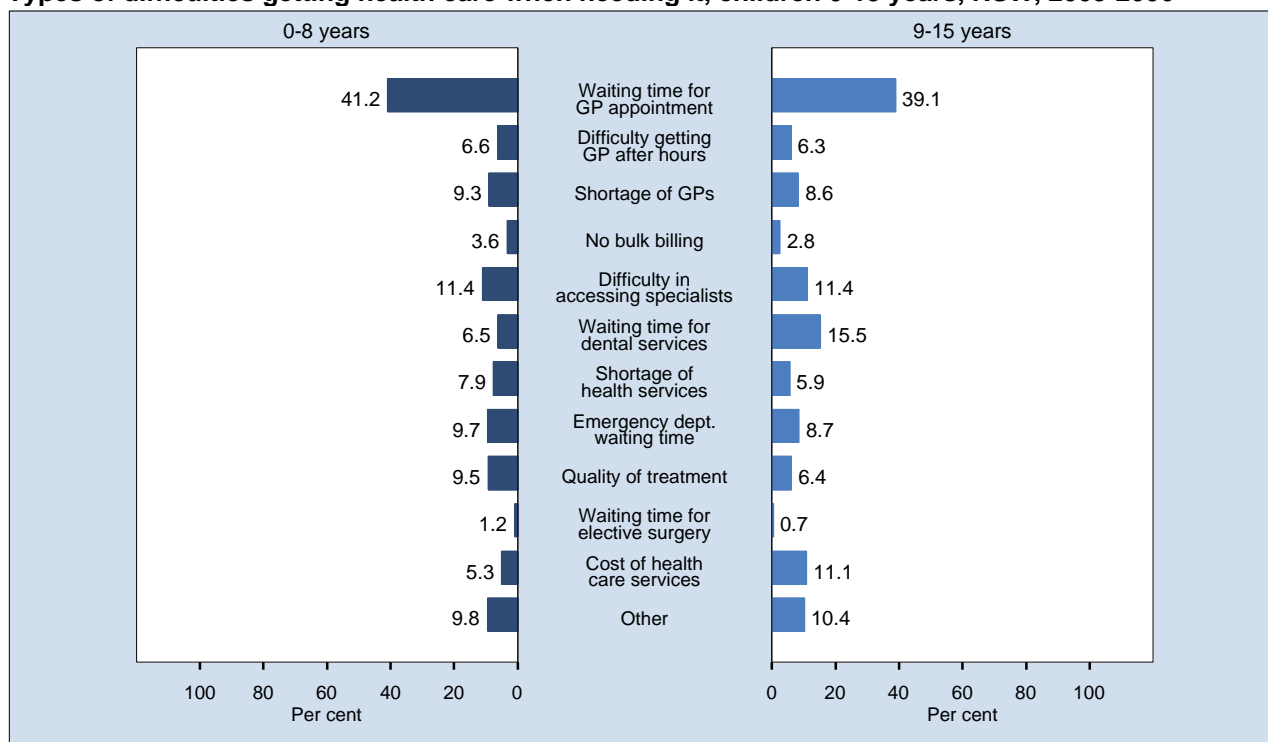
Difficulties getting health care when needing it by year, children 0-15 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (7,551), 2006 (4,507). The indicator includes parents or carers who had difficulties getting health care when child needed it. It excludes those who said child did not need health care. The question used to define the indicator was: Do you have any difficulties getting health care when child needs it?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Types of difficulties getting health care when needing it, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 821 respondents in NSW. For this indicator 9 (1.08%) were not stated (Don't know or Refused) in NSW. The questions used were: Do you have any difficulties getting health care when child needs it? Please describe the difficulties you have? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Community health centres

Introduction

Community health centres provide a broad range of health services including allied health services, primary health nursing, child and family counselling, dental services, outreach clinics, child protection services, child development services, physical disability services, day and respite care, sexual assault services, and health promotion.

During 2005 and 2006, the New South Wales Population Health Survey asked parents and carers of children aged 0-15 years: In the last 12 months, has child attended a government-run community health centre? Overall, what do you think of the care child received at that community health centre? If the care was rated as fair or poor, respondents were then asked: Could you briefly describe why you rated the care child received as fair or poor?

Results

Community health centre attendances

During 2005 and 2006, the New South Wales Population Health Survey estimated that 12.1 per cent of children aged 0-15 years attended a community health centre on 1 or more occasions in the previous 12 months. A significantly lower proportion of children aged 9-15 years (6.2 per cent) than children aged 0-8 years (17.3 per cent) attended a community health centre. A significantly higher proportion of children in the second most disadvantaged quintile (14.9 per cent) attended a community health centre.

A significantly higher proportion of children in rural areas (14.7 per cent) than urban areas (10.8 per cent) attended a community health centre on 1 or more occasions in the previous 12 months. A significantly higher proportion of children in Greater Southern Health Area (17.5 per cent), and a significantly lower proportion of children in the Sydney South West Health Area (8.5 per cent), attended a community health centre.

A significantly lower proportion of children with mothers from a non English speaking background (9.3 per cent), compared with children with mothers from an English speaking background (12.8 per cent), attended a community health centre.

Overall, the proportion of children who attended a community health centre in the last 12 months has increased significantly between 2001-2002 (9.0 per cent) and 2005-2006 (12.1 per cent). This increase was significant among children aged 0-8 years (from 10.3 per cent to 17.3 per cent).

Rating of care

Parents or carers were asked to rate the care the child received: 36.2 per cent rated the care as excellent, 32.3 per cent as very good, 22.6 per cent as good, 6.2 per cent as fair, and 2.7 per cent as poor. Responses of excellent, very good and good were combined into a positive rating of care.

Overall, 91.1 per cent of parents or carers gave a positive rating to the care the child received. There was no significant variation by age group, or socioeconomic status, or between rural areas and urban areas, or among health areas, or by mothers' characteristics.

Overall, the proportion of parents or carers who gave a positive rating to the care the child received has decreased significantly between 2003-2004 (94.9 per cent) and 2005-2006 (91.1 per cent). The decrease was significant among parents or carers of children aged 0-8 years (from 96.6 per cent to 91.4 per cent).

The main reasons for rating care received as fair or poor included insufficient services or staff shortages (31.9 per cent), poor technical skill of staff (29.1 per cent), waiting time (28.6 per cent), poor communication (22.0 per cent), and poor attitude of staff (12.5 per cent).

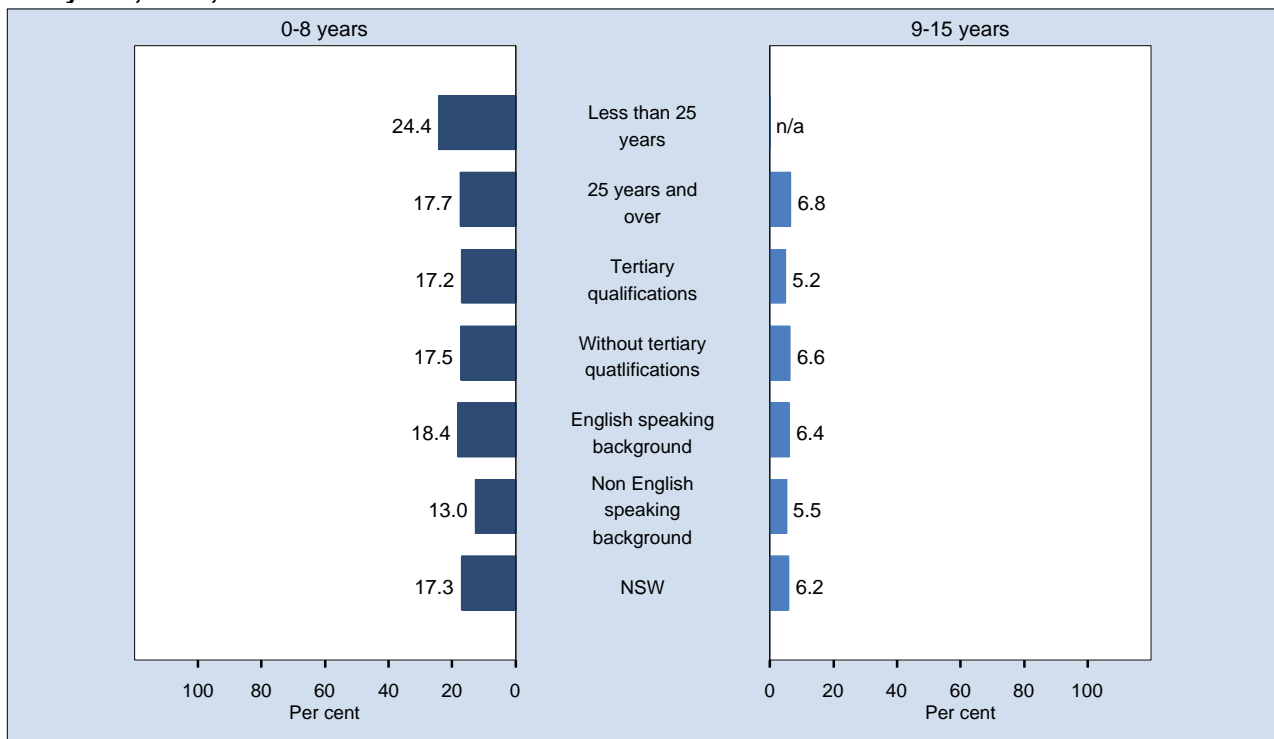
Community health centre attendance in the previous 12 months by socioeconomic disadvantage, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes those attending a community health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended a government-run community health centre?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

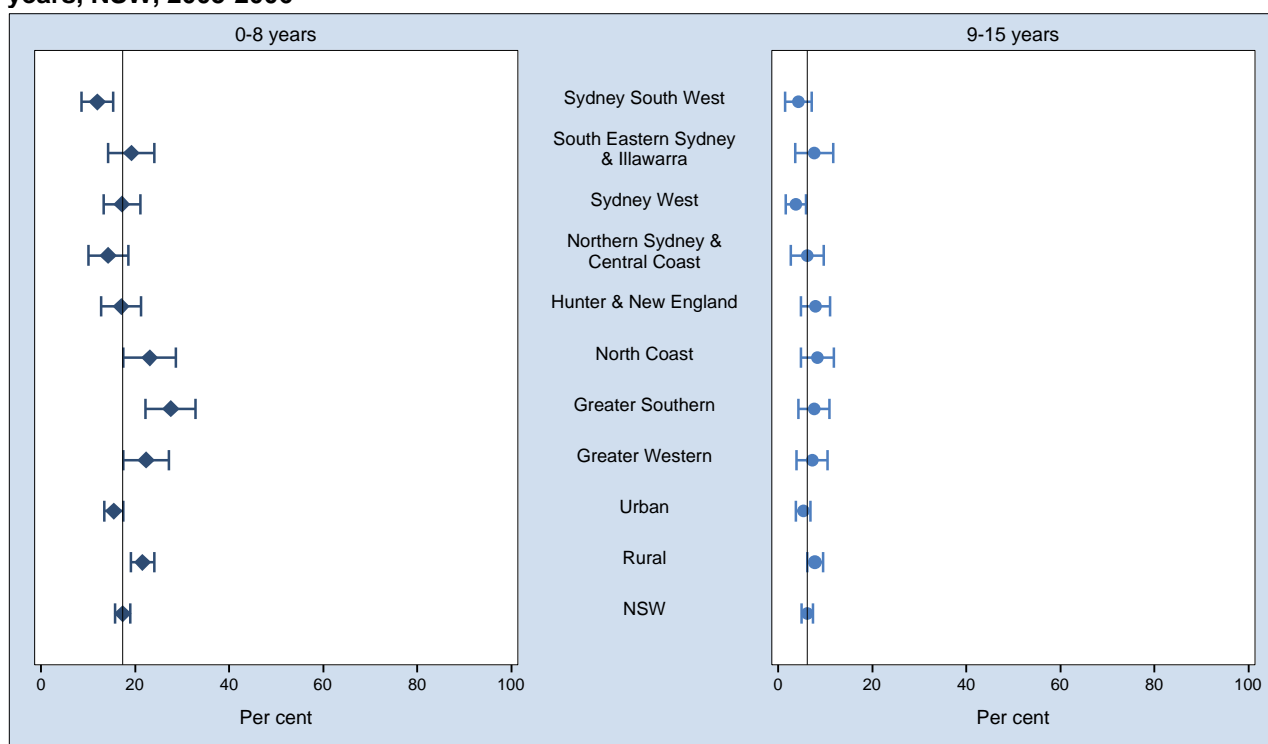
Community health centre attendance in the previous 12 months by mothers' characteristics, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes those attending a community health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended a government-run community health centre? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

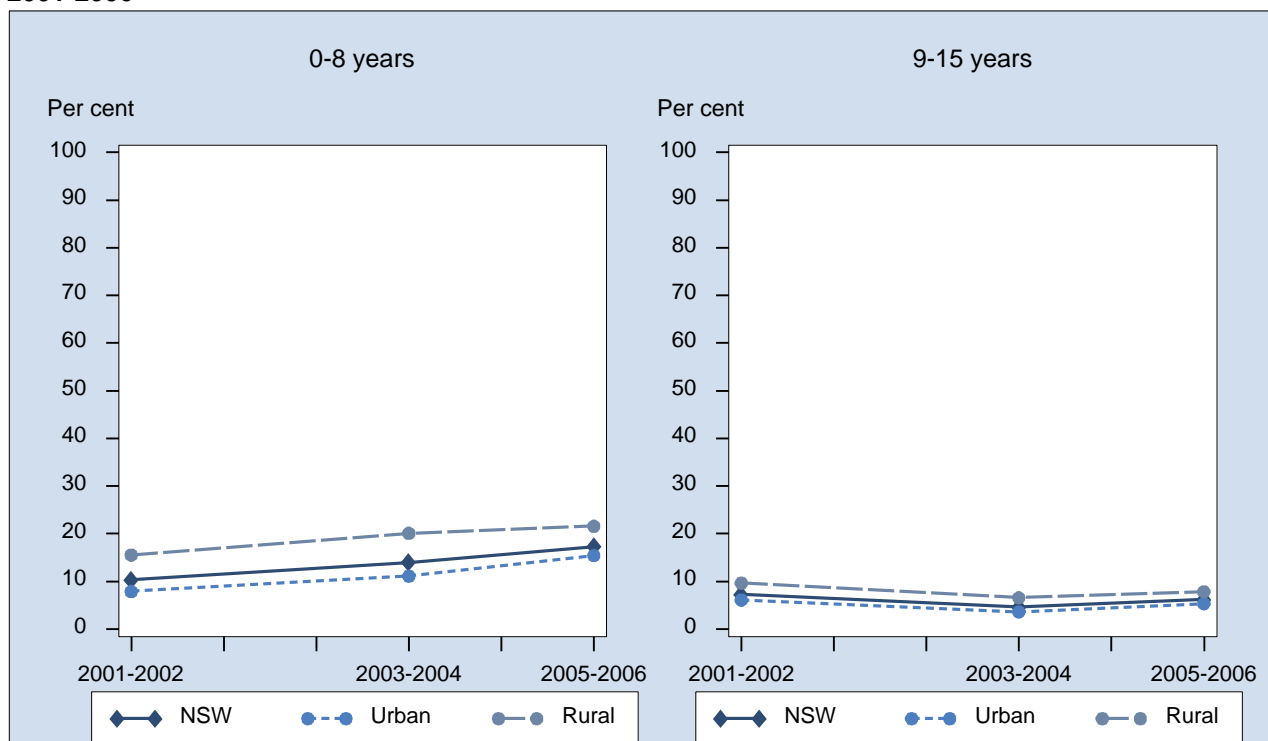
Community health centre attendance in the previous 12 months by area health service, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes those attending a community health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended a government-run community health centre?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

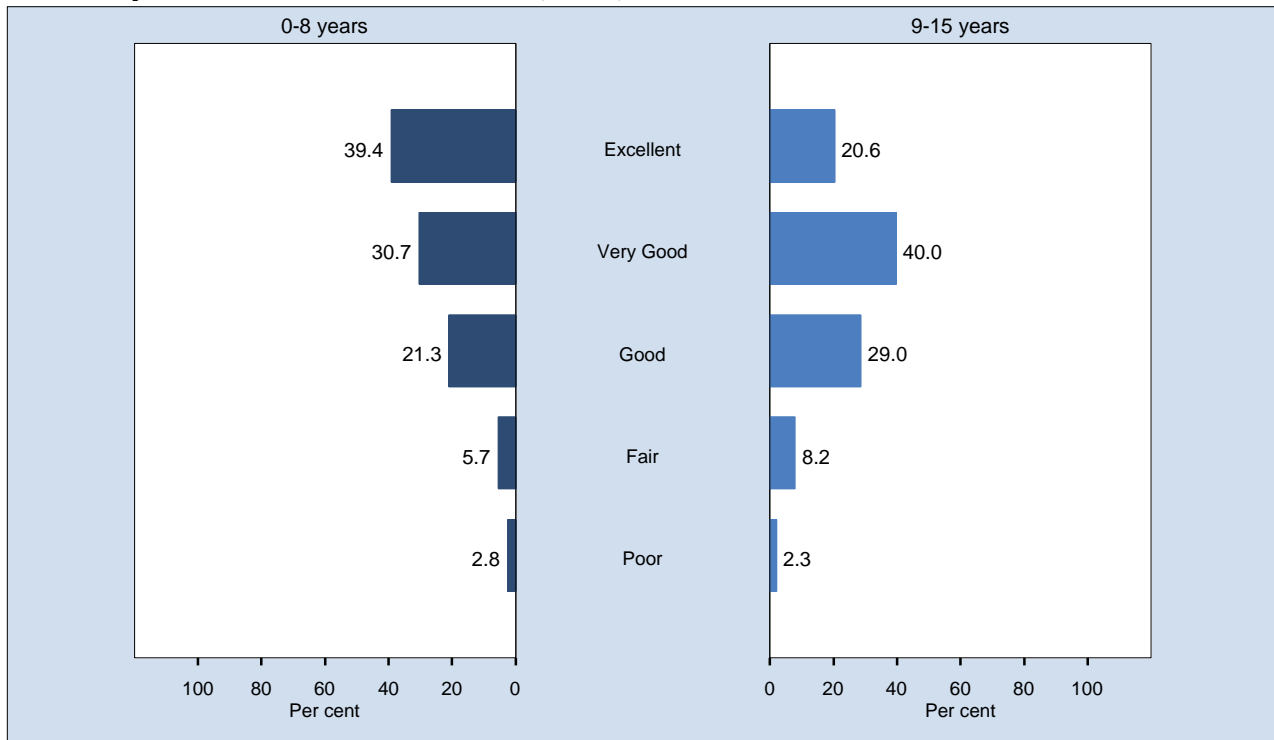
Community health centre attendance in the previous 12 months by year, children 0-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (8,632), 2004 (7,671), 2006 (4,564). The indicator includes those attending a community health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended a government-run community health centre?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

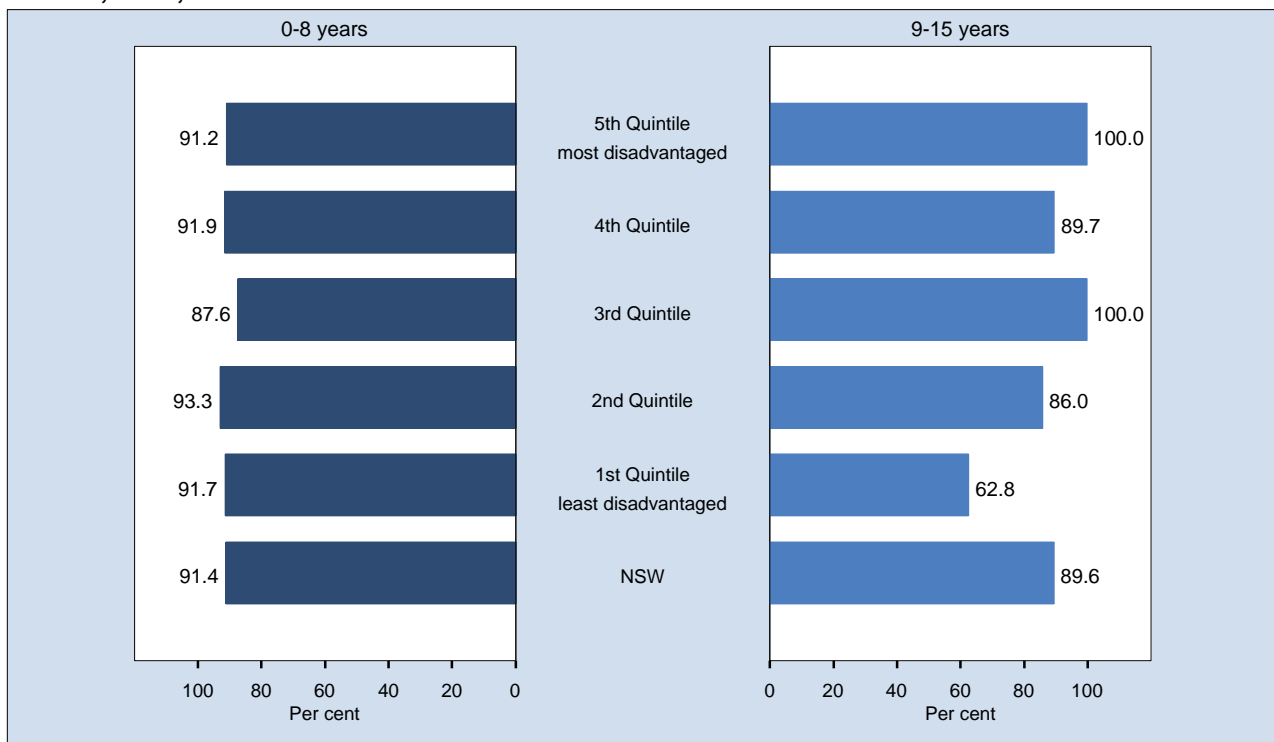
Community health centre care ratings, parents or carers of children 0-15 years who attended a community health centre in last 12 months, NSW, 2005-2006



Note: Estimates are based on 398 respondents in NSW. For this indicator 8 (1.97%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, has child attended a government run community health centre? Overall, what do you think of the care child received at this community health centre: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

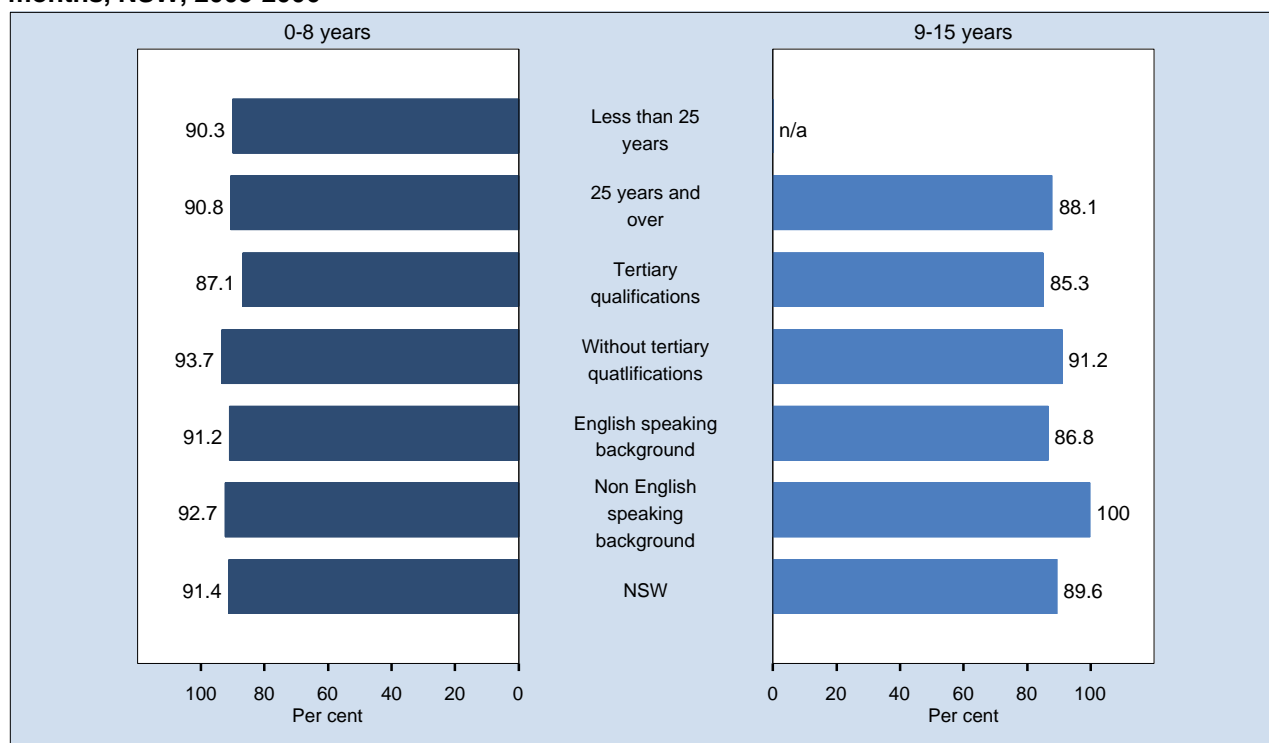
Community health centre care rated as excellent, very good or good by socioeconomic disadvantage, parents or carers of children 0-15 years who attended a community health centre in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 398 respondents in NSW. For this indicator 8 (1.97%) were not stated (Don't know or Refused) in NSW. The indicator includes those attending a community health centre in the last 12 months who rated the care as excellent, very good or good for the most recent attendance. The questions used to define the indicator were: In the last 12 months, has child attended a government-run community health centre? Overall, what do you think of the care child received at this community health centre: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

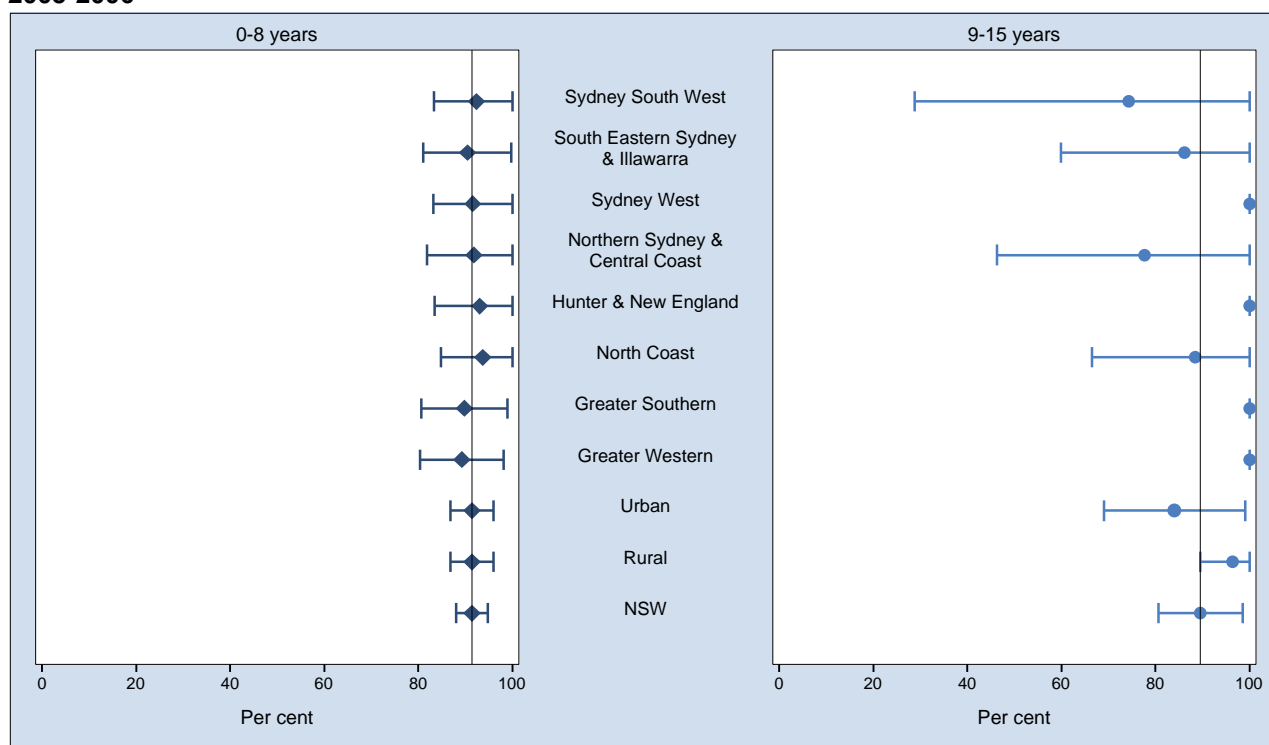
Community health centre care rated as excellent, very good or good by mothers' characteristics, parents or carers of children 0-15 years who attended a community health centre in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 398 respondents in NSW. For this indicator 8 (1.97%) were not stated (Don't know or Refused) in NSW. The indicator includes those attending a community health centre in the last 12 months who rated the care as excellent, very good or good for the most recent attendance. The questions used to define the indicator were: In the last 12 months, has child attended a government-run community health centre? Overall, what do you think of the care child received at this community health centre: excellent, very good, good, fair or poor? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

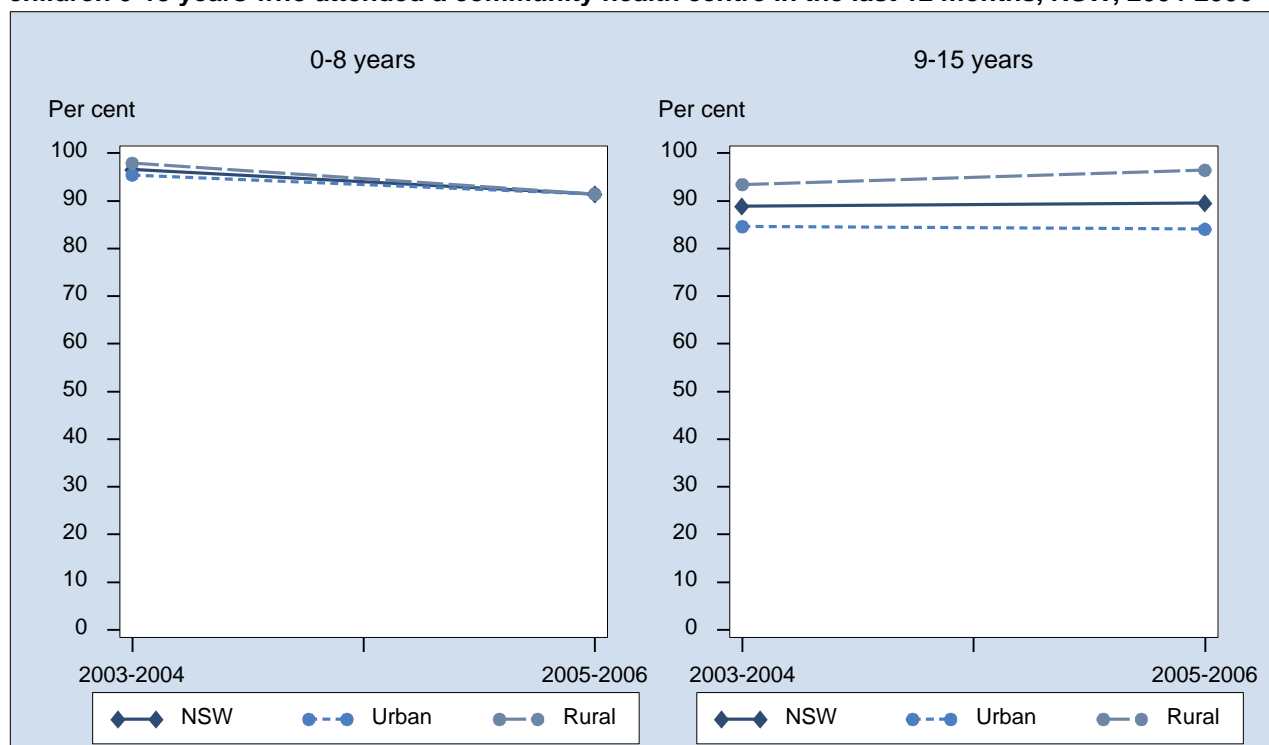
Community health centre care rated as excellent, very good or good by area health service, parents or carers of children 0-15 years who attended a community health centre in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 398 respondents in NSW. For this indicator 8 (1.97%) were not stated (Don't know or Refused) in NSW. The indicator includes those attending a community health centre in the last 12 months who rated the care as excellent, very good or good for the most recent attendance. The questions used to define the indicator were: In the last 12 months, has child attended a government-run community health centre? Overall, what do you think of the care child received at this community health centre: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

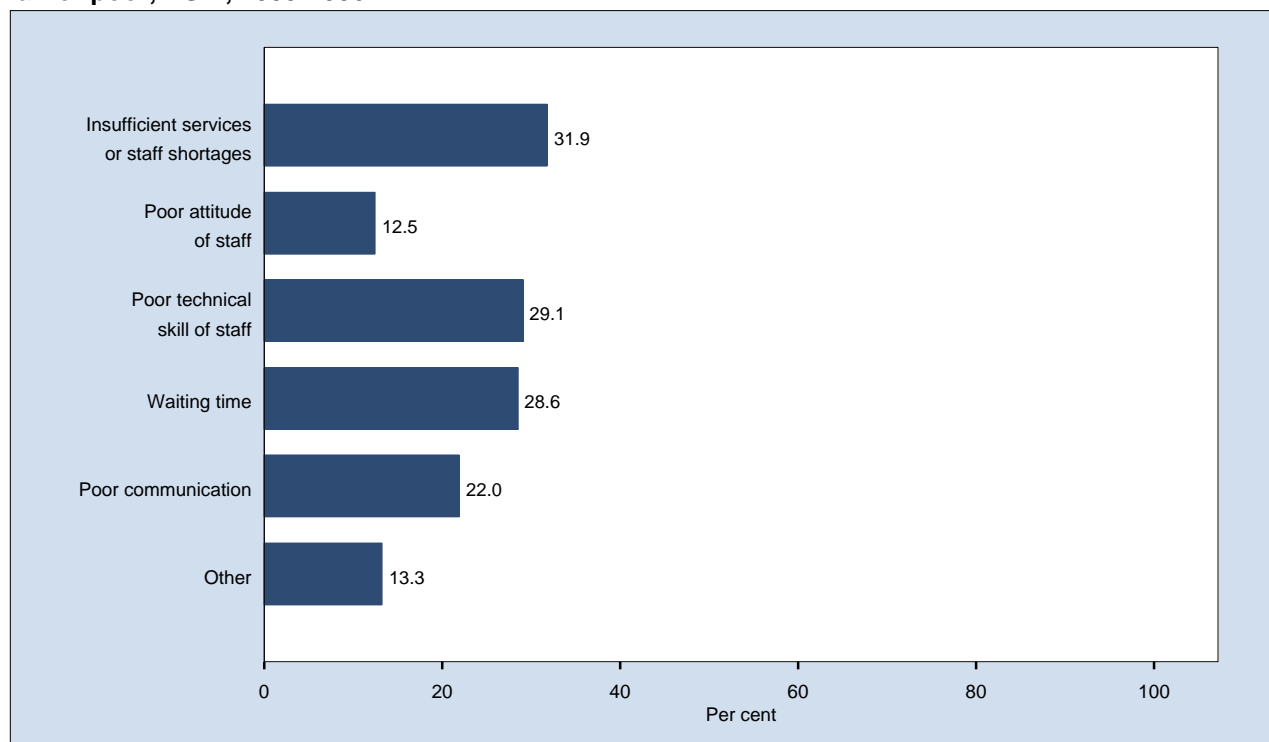
Community health centre care rated as excellent, very good or good by year, parents or carers of children 0-15 years who attended a community health centre in the last 12 months, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (906), 2006 (398). The indicator includes those attending a community health centre in the last 12 months who rated the care as excellent, very good or good for the most recent attendance. The questions used to define the indicator were: In the last 12 months, has child attended a government-run community health centre? Overall, what do you think of the care child received at this community health centre: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Reason for rating most recent community health centre visit as fair or poor, parents or carers of children 0-15 years who attended a community health centre in the last 12 months and rated care as fair or poor, NSW, 2005-2006



Note: Estimates are based on 33 respondents in NSW. For this indicator 8 (19.51%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, has child attended a government-run community health centre? Overall what do you think of the care child received at this community health centre: excellent, very good, good, fair, or poor? Could you briefly describe why you rated the care you received as fair or poor? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Early childhood health centres

Introduction

Early childhood health centres are staffed by child and family health nurses who provide information on, and support for, caring for babies and young children, including: advice on breastfeeding, coping with sleeping and crying, growth and development, immunisation, safety, good ways of playing with a baby or toddler, and the health and wellbeing of parents and carers. There are other health professionals available through early childhood health centres, including: social workers, psychologists, speech therapists, and physiotherapists specialising in children's problems.

During 2005 and 2006 the New South Wales Population Health Survey asked parents and carers of children aged 0-4 years: In the last 12 months, has child attended an early childhood health centre? Is child seeing a baby or early childhood health nurse on a regular basis? Can you tell me the main reason child is not seeing a baby or early childhood health nurse on regular basis?

Results

Early childhood health centre attendances

During 2005 and 2006, the New South Wales Population Health Survey estimated that 40.4 per cent of children aged 0-4 years attended an early childhood health centre on 1 or more occasions in the previous 12 months. A significantly lower proportion of children aged 1-4 years (36.8 per cent) attended an early childhood health centre in the previous 12 months. There was no significant variation by socioeconomic status or between rural areas and urban areas; however, a significantly higher proportion of children in the Northern Sydney & Central Coast Health Area (50.3 per cent) attended an early childhood health centre in the previous 12 months.

A significantly lower proportion of children of mothers without tertiary qualifications (36.8 per cent) attended an early childhood health centre in the previous 12 months.

The proportion of children who attended an early child health centre in the last 12 months did not vary significantly between 2003-2004 and 2005-2006.

Currently seeing baby or early childhood health nurse

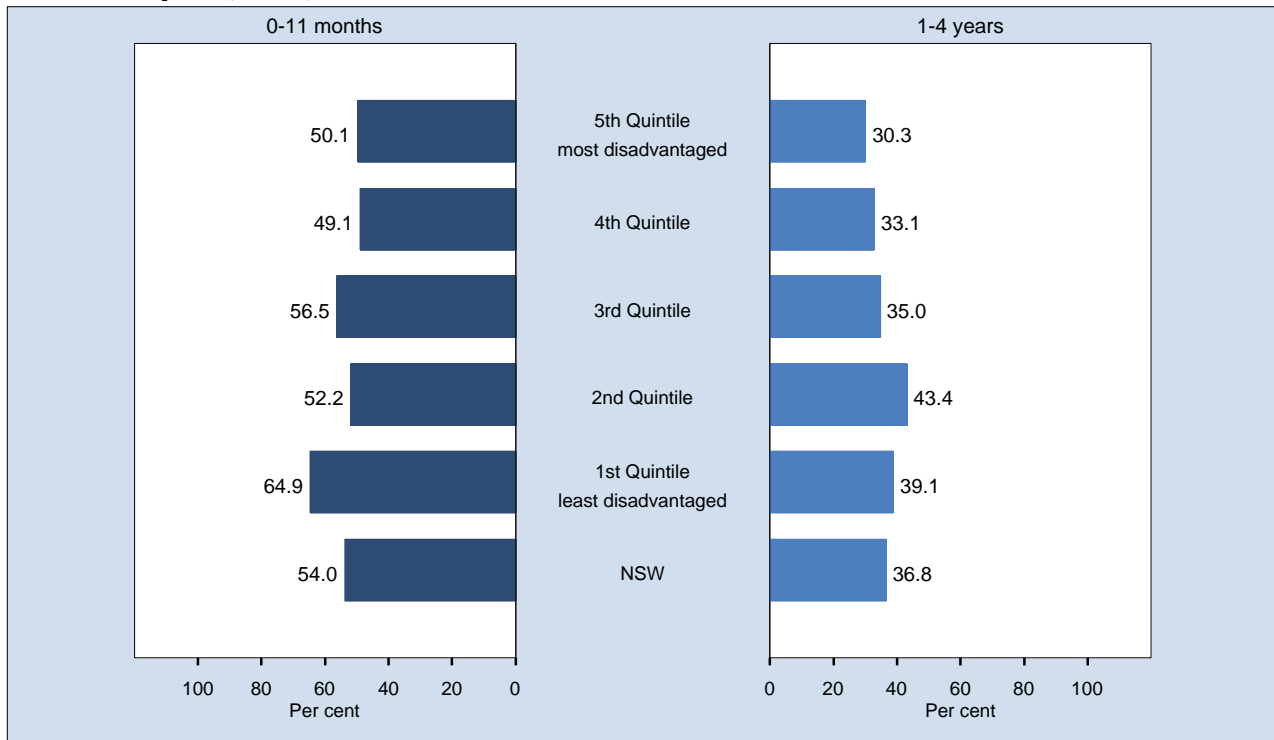
During 2005 and 2006, the New South Wales Population Health Survey estimated that 23.7 per cent of children aged 0-4 years were currently seeing a baby or early childhood nurse on a regular basis. A significantly higher proportion of children aged 0-11 months (50.8 per cent) were currently seeing a baby or early childhood health nurse on a regular basis. There was no significant variation by socioeconomic status, or between rural areas and urban areas, or among health areas.

A significantly lower proportion of children of mothers under 25 years of age (17.4 per cent) and children of mothers without tertiary qualifications (20.2 per cent) were currently seeing a baby or early childhood health nurse on a regular basis.

The proportion of children who were currently seeing a baby or early childhood health nurse on a regular basis has decreased significantly between 2001-2002 (29.1 per cent) and 2005-2006 (23.7 per cent).

The main reasons given for not seeing a baby or early childhood health nurse on a regular basis were: no need to attend anymore (69.3 per cent), use other services instead (11.7 per cent), and not useful any more (8.4 per cent).

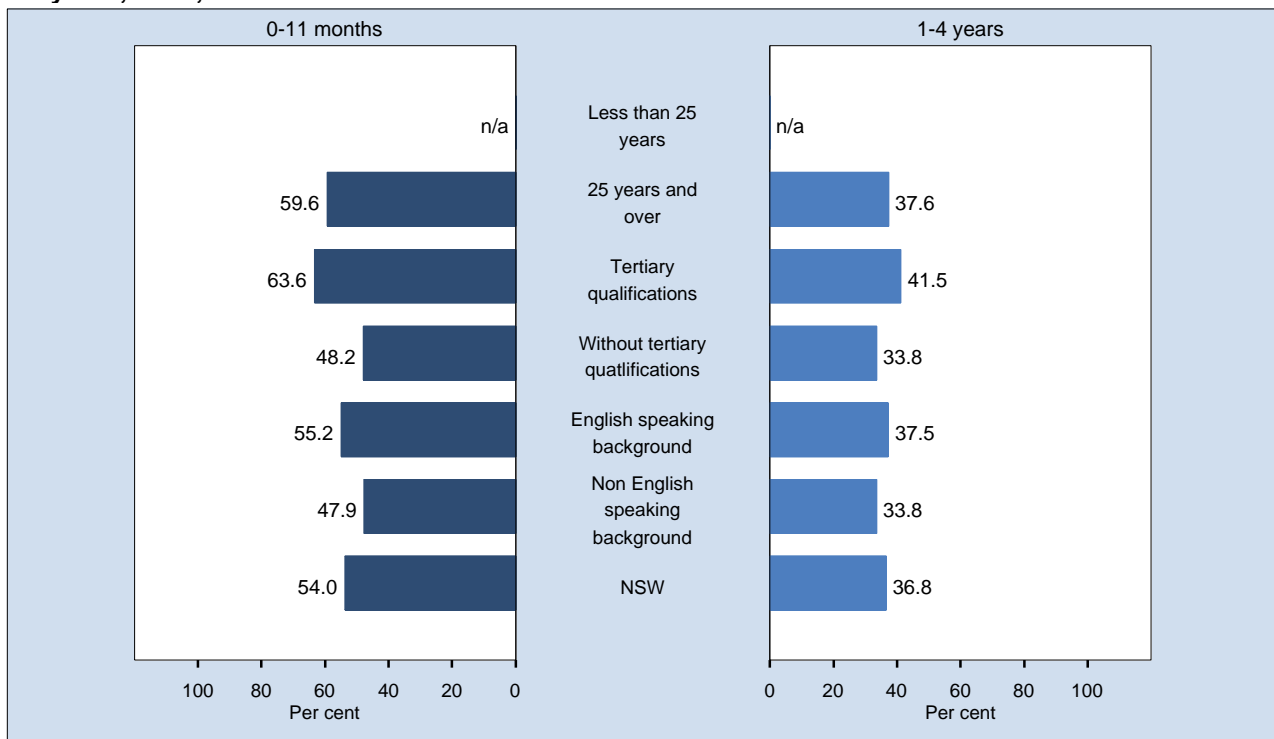
Attended early childhood health centre in previous 12 months by socioeconomic disadvantage, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 1,447 respondents in NSW. For this indicator 2 (0.14%) were not stated (Don't know or Refused) in NSW. The indicator includes children who attended an early childhood health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended an early childhood health centre?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

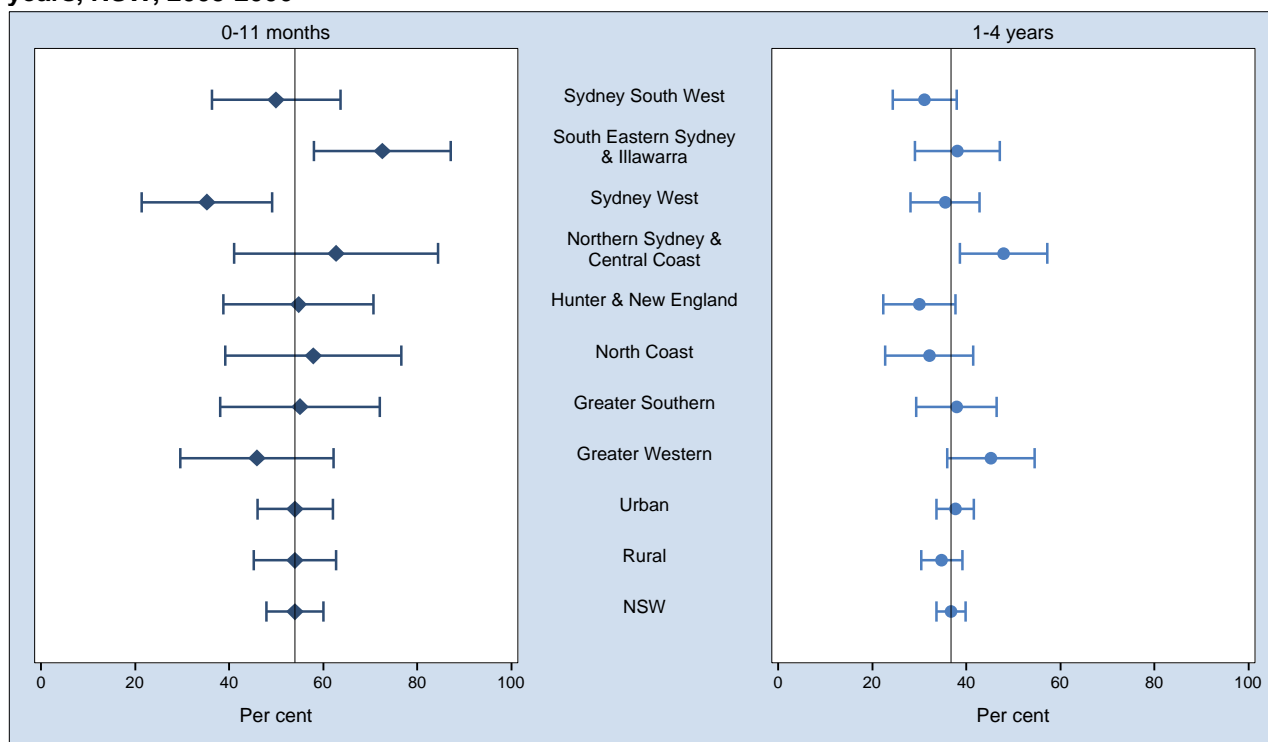
Attended early childhood health centre in previous 12 months by mothers' characteristics, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 1,447 respondents in NSW. For this indicator 2 (0.14%) were not stated (Don't know or Refused) in NSW. The indicator includes children who attended an early childhood health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended an early childhood health centre? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

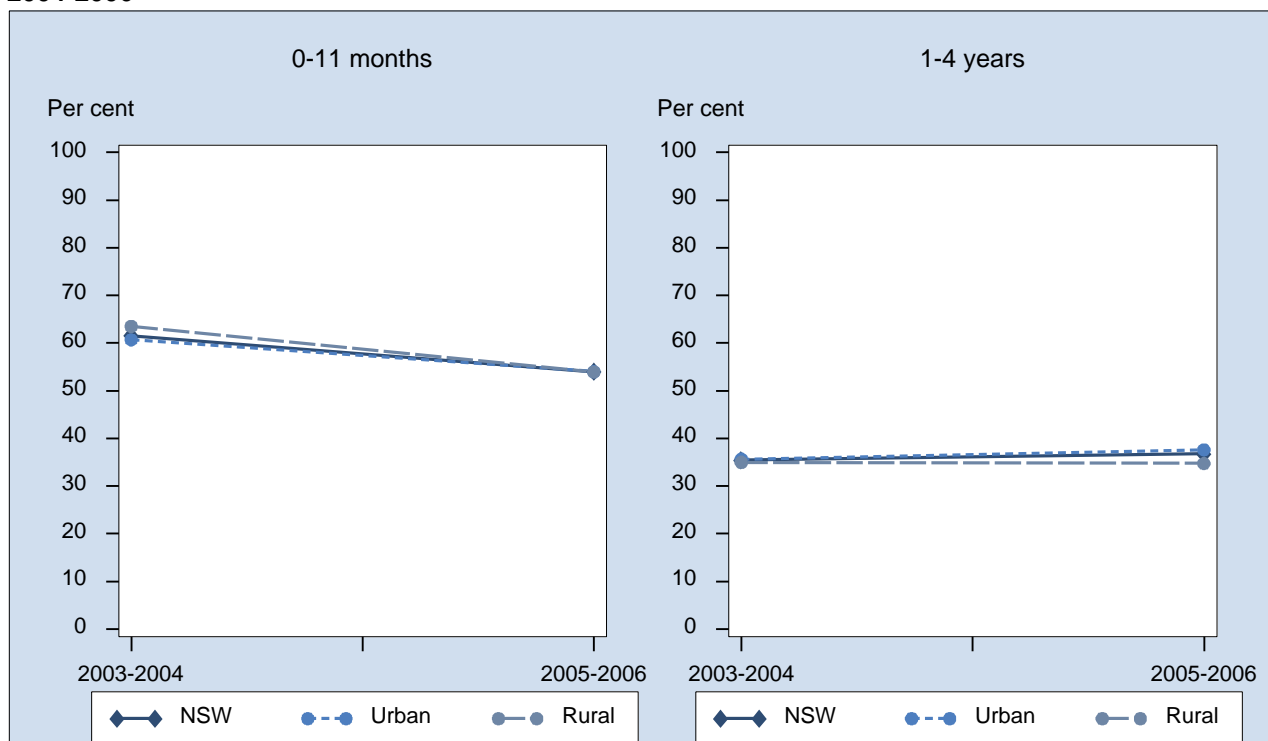
Attended early childhood health centre in previous 12 months by area health service, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 1,447 respondents in NSW. For this indicator 2 (0.14%) were not stated (Don't know or Refused) in NSW. The indicator includes children who attended an early childhood health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended an early childhood health centre?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

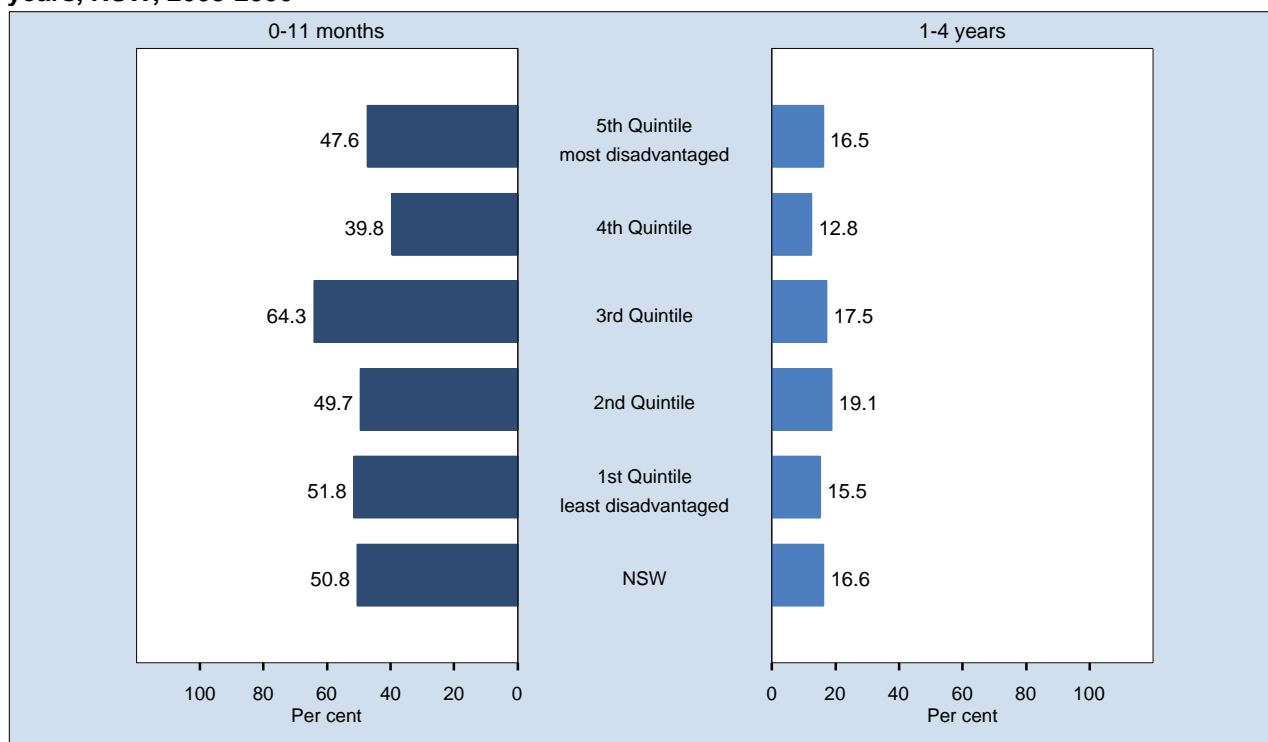
Attended early childhood health centre in previous 12 months by year, children 0-4 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (2,391), 2006 (1,447). The indicator includes children who attended an early childhood health centre in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended an early childhood health centre?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

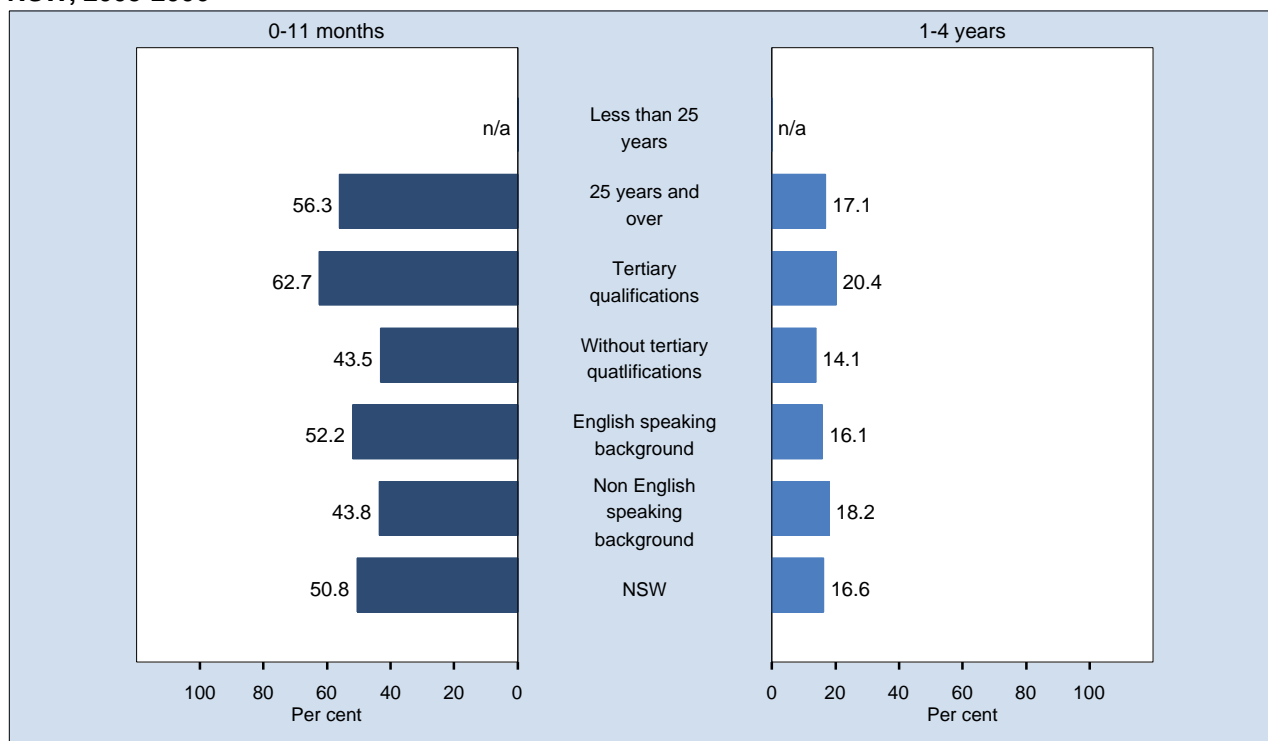
Currently seeing baby or early childhood health nurse by socioeconomic disadvantage, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 1,449 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were seeing baby or early childhood health nurse on a regular basis. The question used to define the indicator was: Is child seeing a baby or early childhood health nurse on a regular basis?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

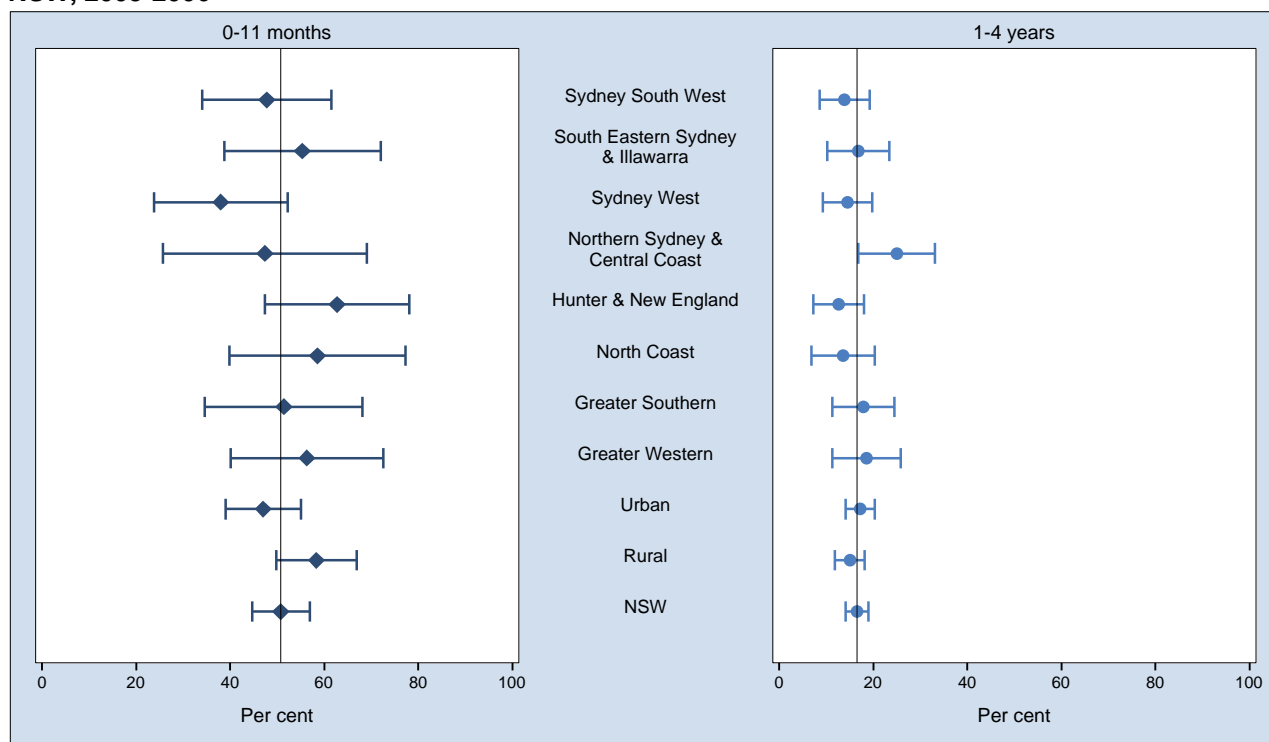
Currently seeing baby or early childhood health nurse by mothers' characteristics, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 1,449 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were seeing baby or early childhood health nurse on a regular basis. The question used to define the indicator was: Is child seeing a baby or early childhood health nurse on a regular basis? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

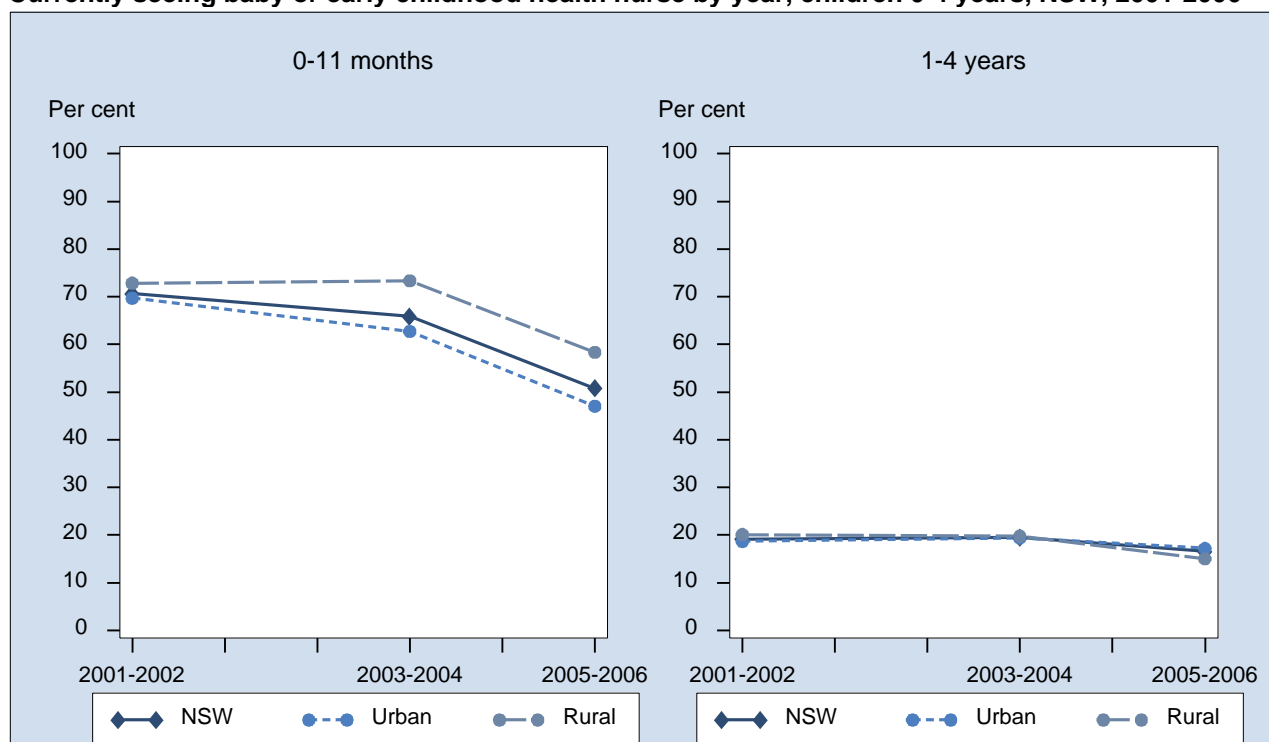
Currently seeing baby or early childhood health nurse by area health service, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 1,449 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who were seeing baby or early childhood health nurse on a regular basis. The question used to define the indicator was: Is child seeing a baby or early childhood health nurse on a regular basis?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

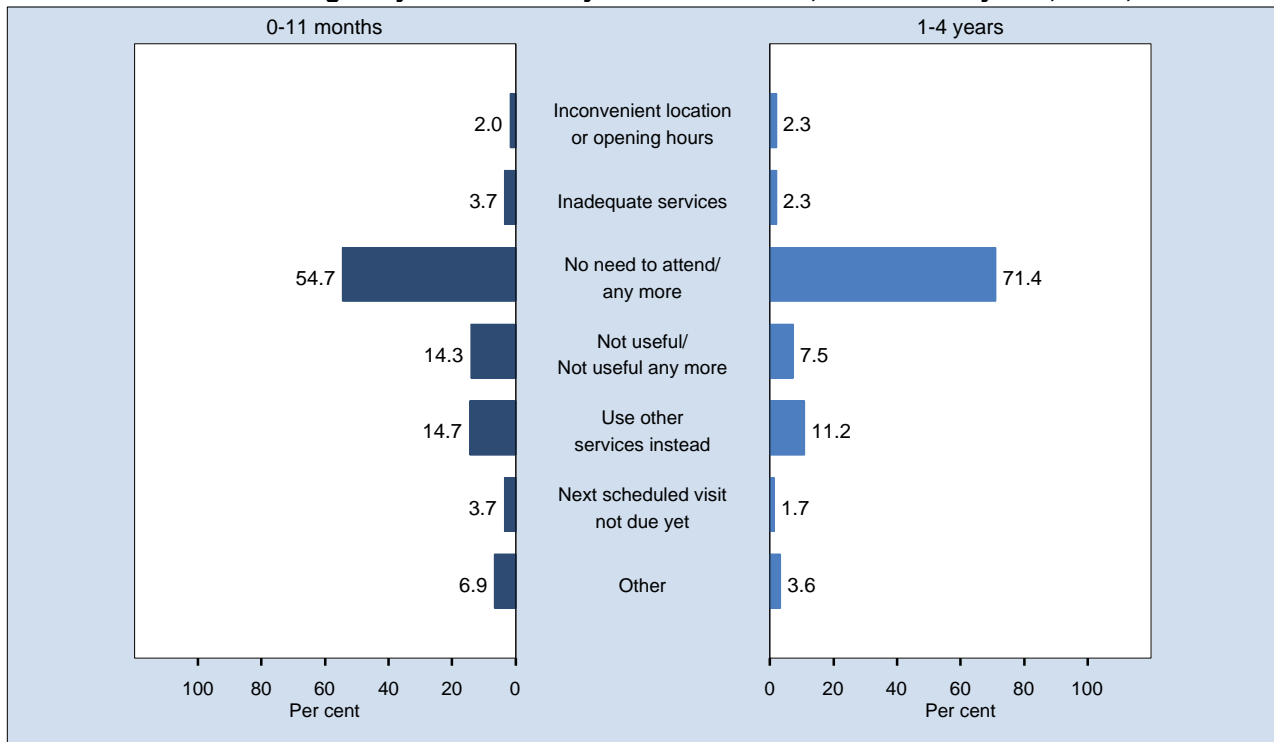
Currently seeing baby or early childhood health nurse by year, children 0-4 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (3,290), 2004 (2,378), 2006 (1,449). The indicator includes those children who were seeing baby or early childhood health nurse on a regular basis. The question used to define the indicator was: Is child seeing a baby or early childhood health nurse on a regular basis?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Main reason for not seeing baby health or early childhood nurse, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 656 respondents in NSW. For this indicator 7 (1.06%) were not stated (Don't know or Refused) in NSW. The questions used were: Is child seeing a baby health or early childhood health nurse, and if answered no was asked Can you tell me the main reason child is not seeing a baby health or early childhood health nurse?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Emergency departments

Introduction

During 2005 and 2006 the New South Wales Population Health Survey asked parents and carers of children aged 0-15 years: In the last 12 months, have you attended a hospital emergency department or casualty for child's medical care? Overall, what do you think of the care child received at this emergency department? If care was rated as fair or poor then respondents were also asked: Could you briefly describe why you rated the care child received as fair or poor?

Results

Emergency department presentations

During 2005 and 2006, the New South Wales Population Health Survey estimated that 21.7 per cent of children aged 0-15 years presented to an emergency department on 1 or more occasions in the previous 12 months. A significantly lower proportion of children aged 9-15 (17.2 per cent) presented to an emergency department, compared with children aged 0-8 years (25.7 per cent). A significantly lower proportion of children in the least disadvantaged quintile (17.0 per cent), and a significantly higher proportion of children in the second most disadvantaged quintile (26.1 per cent), presented to an emergency department. A significantly higher proportion of children in rural areas (25.4 per cent) than urban areas (19.9 per cent) presented to an emergency department. A significantly higher proportion of children in the North Coast Health Area (29.8 per cent), and a significantly lower proportion of children in the Sydney West Health Area (17.7 per cent), presented to an emergency department.

A significantly lower proportion of children with mothers from a non English speaking background (16.5 per cent), compared with children of mothers from an English speaking background (23.1 per cent), presented to an emergency department.

There has been a significant increase in the proportion of children who presented to an emergency department between 2001-2002 (18.4 per cent) and 2005-2006 (21.7 per cent). The increase was significant in children aged 0-8 years (from 22.1 per cent to 25.7 per cent) and children aged 9-15 years (13.2 per cent to 17.2 per cent).

Rating of care

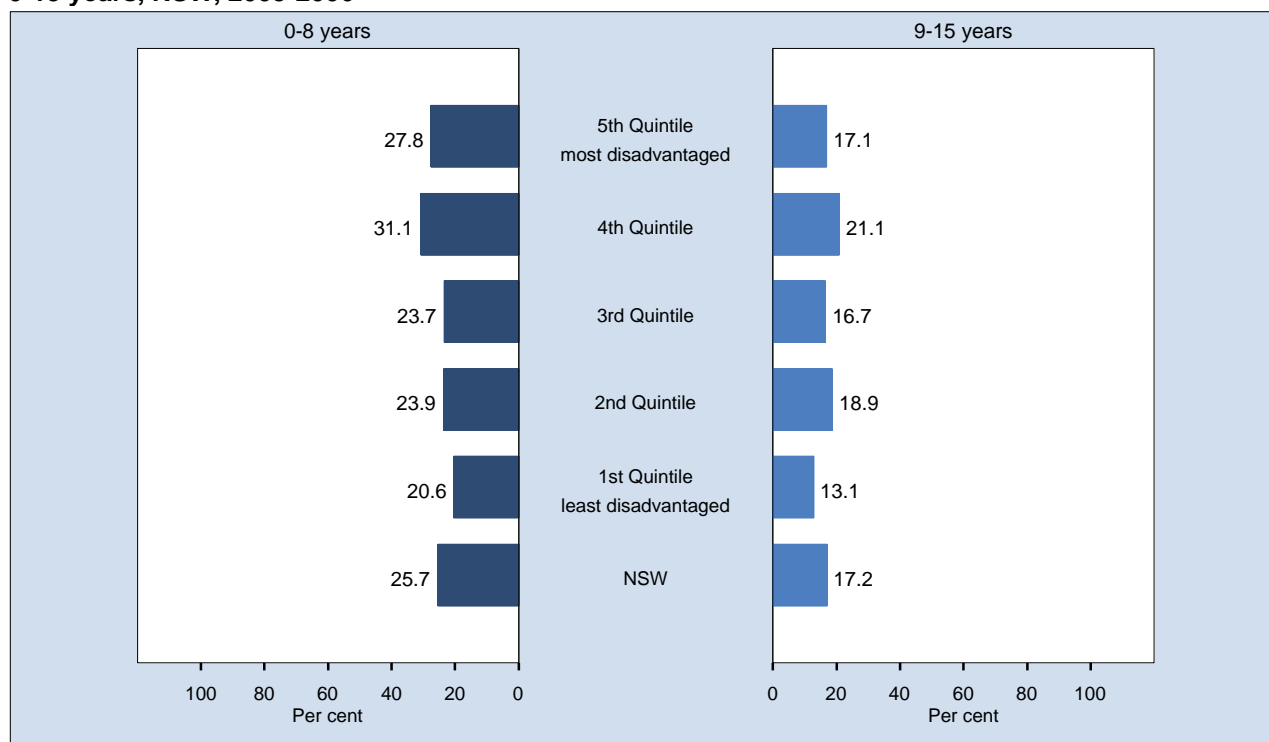
Parents or carers were asked to rate the care the child received: 33.8 per cent rated the care as excellent, 28.9 per cent as very good, 22.2 per cent as good, 8.6 per cent as fair, and 6.4 per cent as poor.

Responses of excellent, very good and good were combined into a positive rating of care. Overall, 85.0 per cent of parents or carers gave a positive rating to the care the child received. There was no significant variation by age group, or between rural areas and urban areas, or by mothers' characteristics; however, a significantly higher proportion of parents or carers in the second least disadvantaged quintile (90.0 per cent) and in the Sydney South West Health Area (91.5 per cent) gave a positive rating to the care the child received.

The proportion of parents or carers who rated emergency department care positively has not varied significantly between 2003-2004 and 2005-2006.

Major reasons for a fair or poor rating include: waiting time (70.0 per cent), poor service (28.7 per cent), misdiagnosis or contradictory diagnosis (9.5 per cent), communication problems (9.1 per cent), poor attitude of clinical staff (8.4 per cent), poor technical skills of clinical staff (8.1 per cent), sent home without treatment or follow-up (7.2 per cent), not enough staff (4.2 per cent), inadequate or wrong medication or management (3.3 per cent), and poor quality accommodation (0.8 per cent).

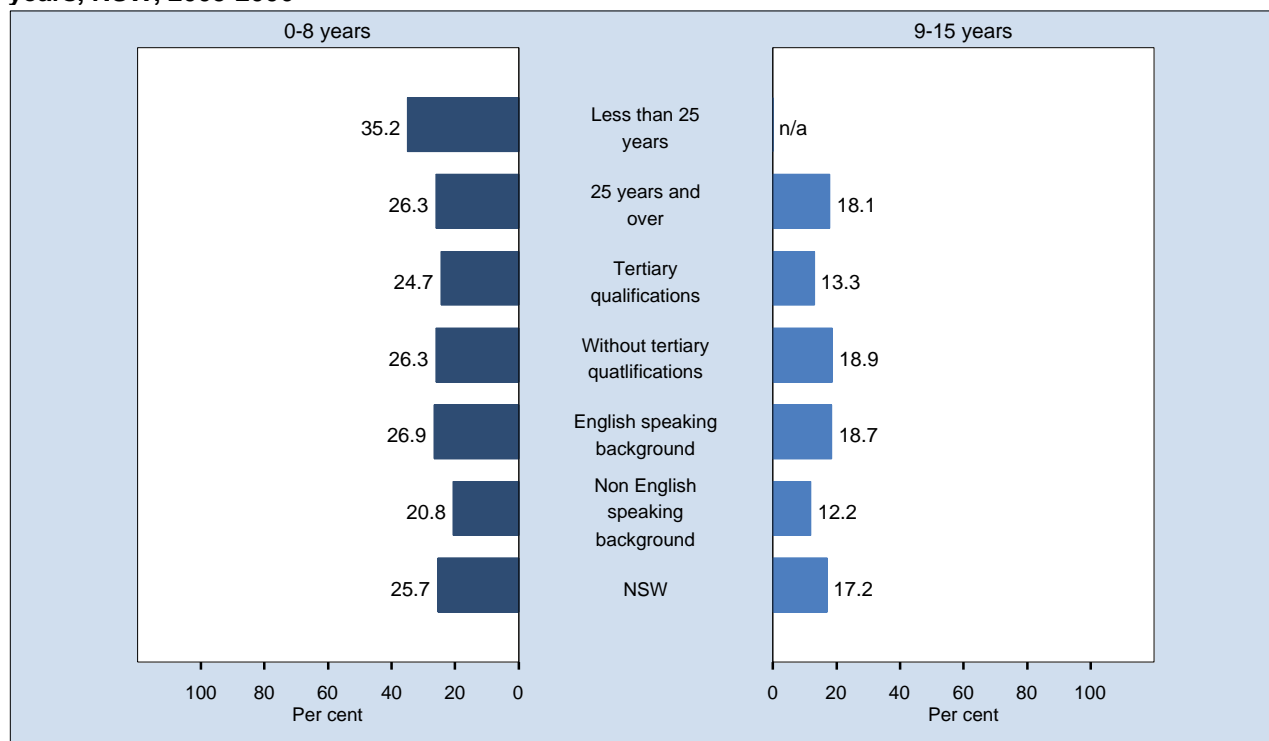
Emergency department presentations in the last 12 months by socioeconomic disadvantage, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children who presented to an emergency department in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a hospital emergency department or casualty for child's medical care?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

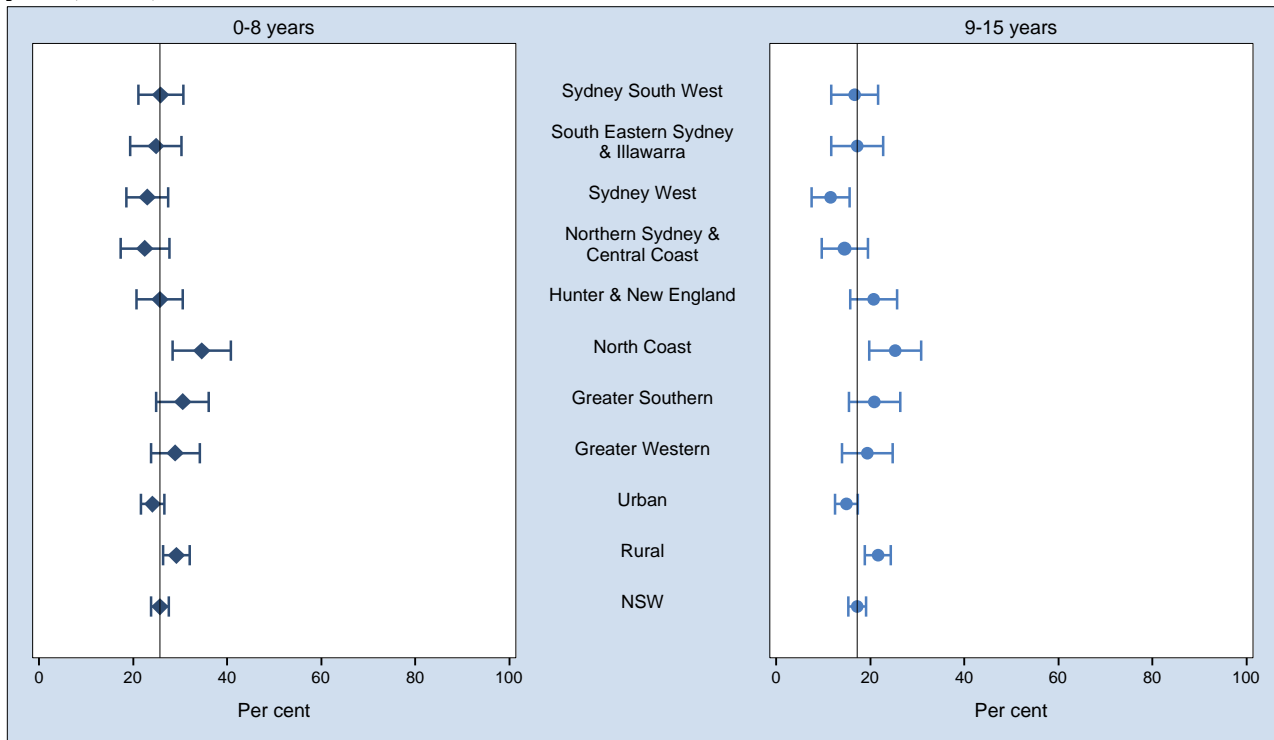
Emergency department presentations in the last 12 months by mothers' characteristics, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children who presented to an emergency department in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a hospital emergency department or casualty for child's medical care? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

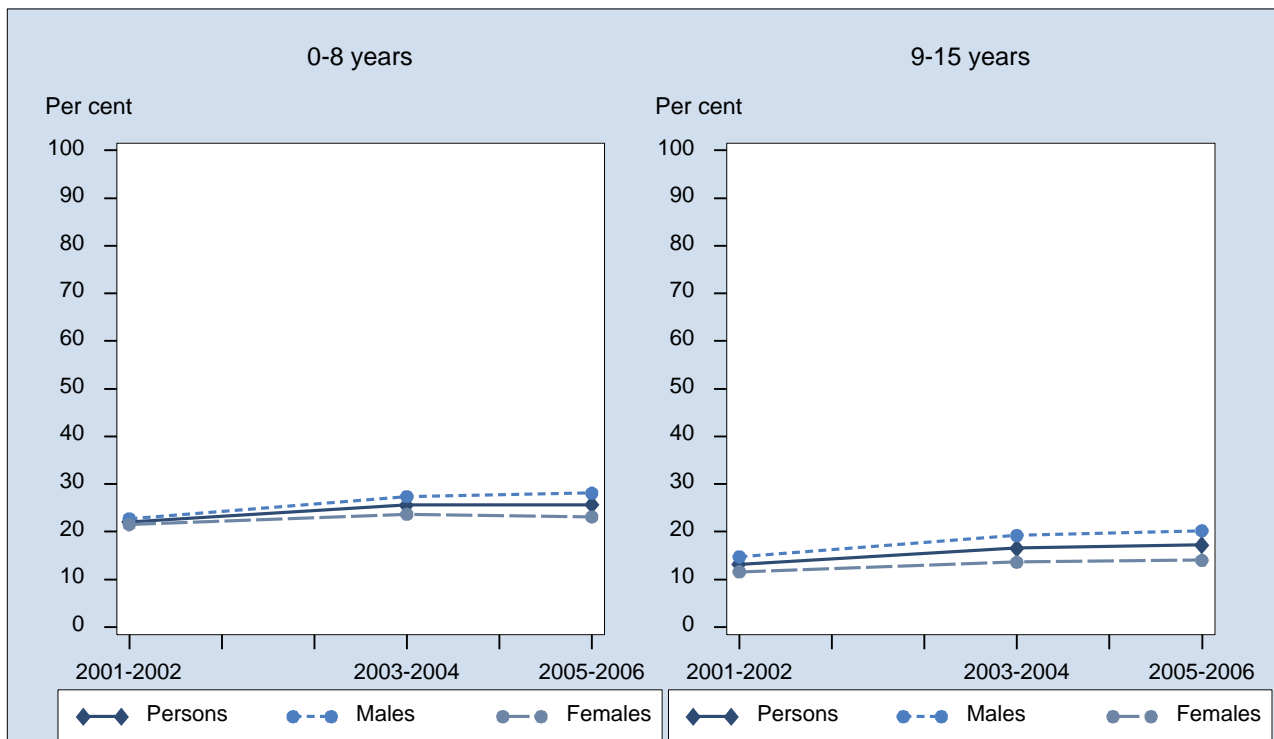
Emergency department presentations in the last 12 months by area health service, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children who presented to an emergency department in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a hospital emergency department or casualty for child's medical care?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

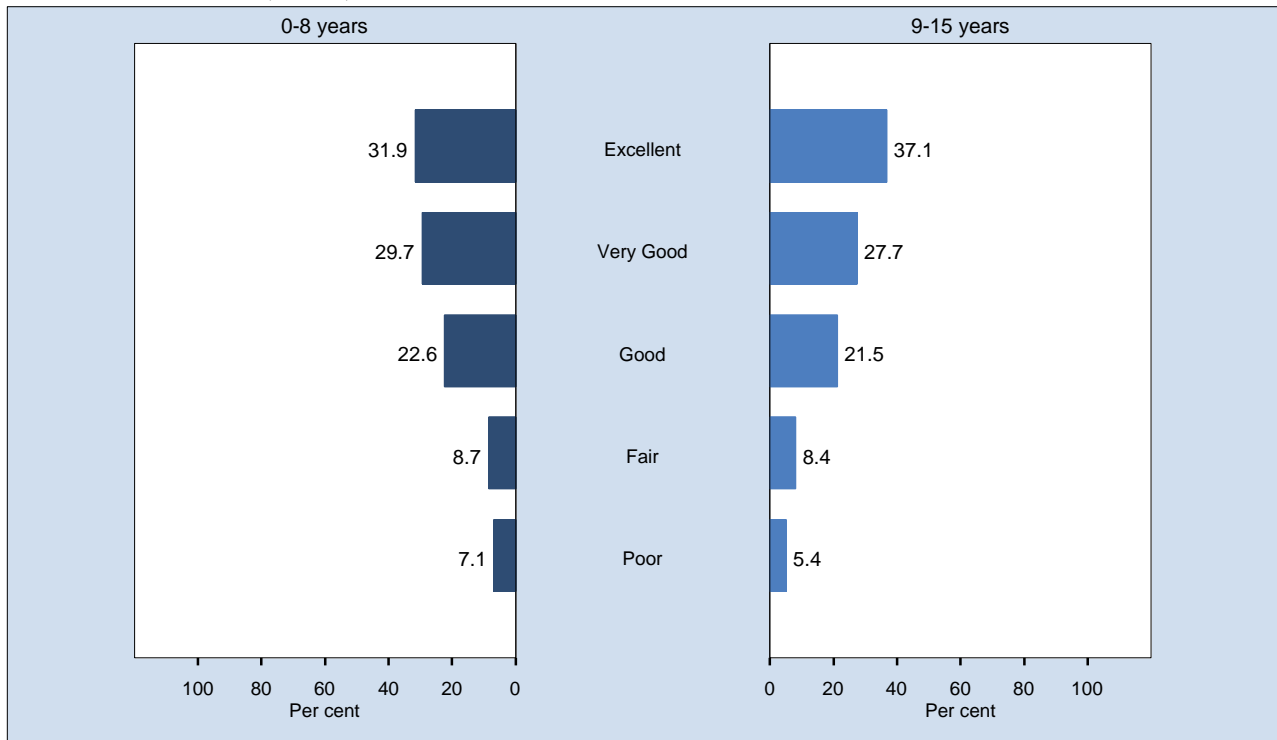
Emergency department presentations in the last 12 months by year, children 0-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (7,329), 2004 (7,671), 2006 (4,564). The indicator includes children who presented to an emergency department in the last 12 months. The question used to define the indicator was: In the last 12 months, have you attended a hospital emergency department or casualty for child's medical care?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

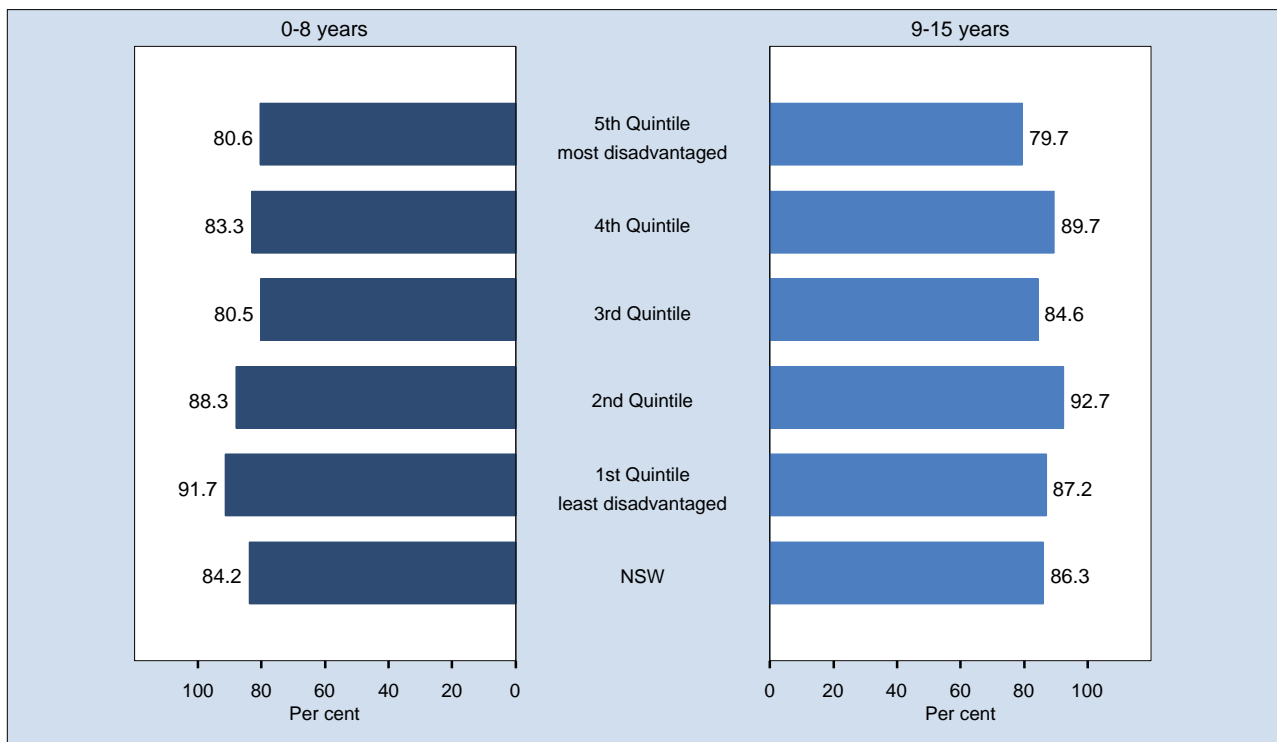
Emergency department care rating, children 0-15 years who presented to an emergency department in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 1,048 respondents in NSW. For this indicator 12 (1.13%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, have you attended a hospital emergency department or casualty for child's medical care? Overall, what do you think of the care child received at this emergency department: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

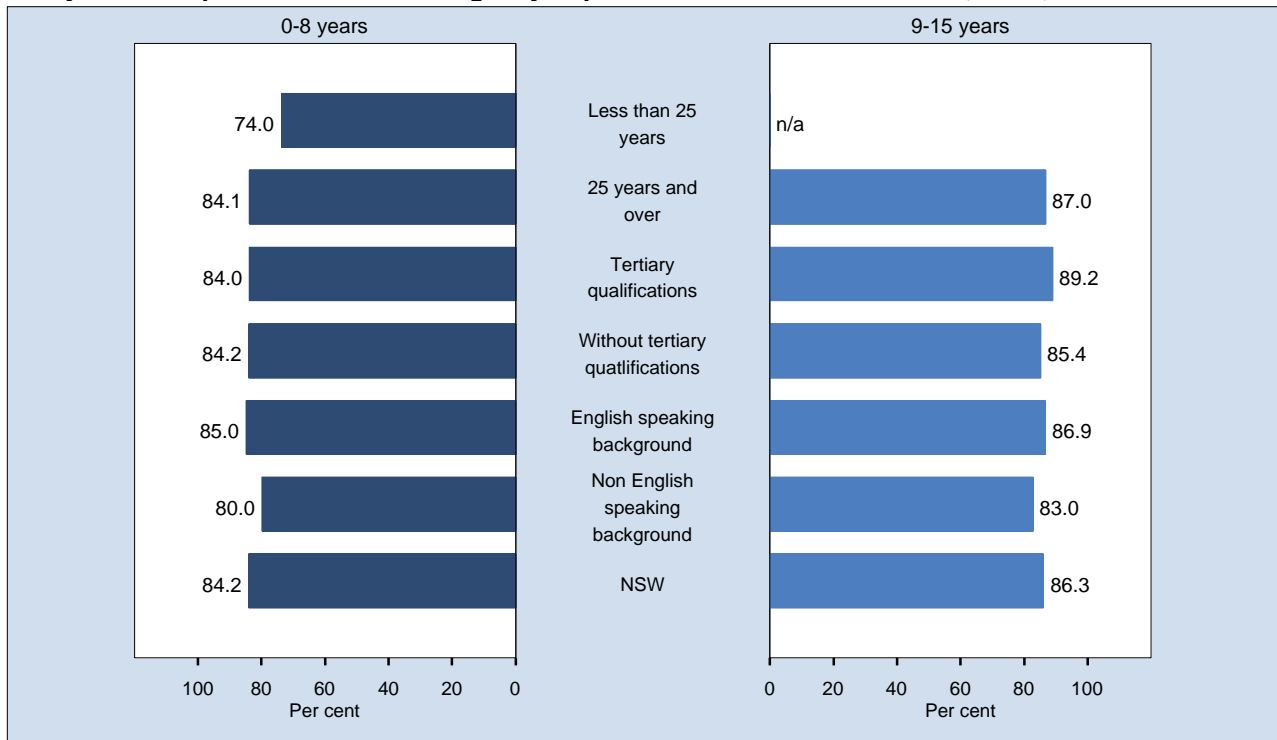
Emergency department rated as excellent, very good or good by socioeconomic disadvantage, children 0-15 years who presented to an emergency department in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 1,048 respondents in NSW. For this indicator 12 (1.13%) were not stated (Don't know or Refused) in NSW. The indicator includes children who presented to an emergency department in the last 12 months whose parents rated their care as excellent, very good or good for their most recent visit. The question used to define the indicator was: In the last 12 months, have you attended a hospital emergency department or casualty for child's medical care? Overall what do you think of the care child received at this emergency department: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

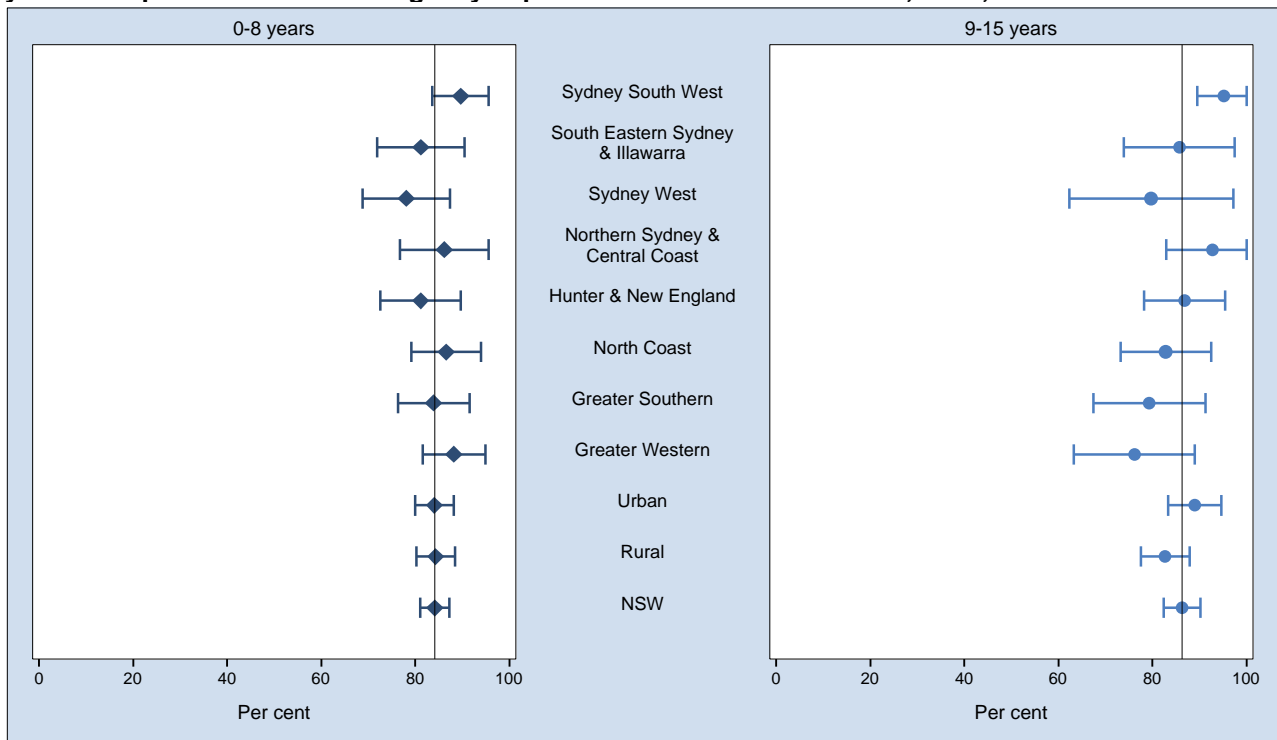
Emergency department rated as excellent, very good or good by mothers' characteristics, children 0-15 years who presented to an emergency department in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 1,048 respondents in NSW. For this indicator 12 (1.13%) were not stated (Don't know or Refused) in NSW. The indicator includes children who presented to an emergency department in the last 12 months whose parents rated their care as excellent, very good or good for their most recent visit. The question used to define the indicator was: In the last 12 months, have you attended a hospital emergency department or casualty for child's medical care? Overall what do you think of the care child received at this emergency department: excellent, very good, good, fair or poor? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

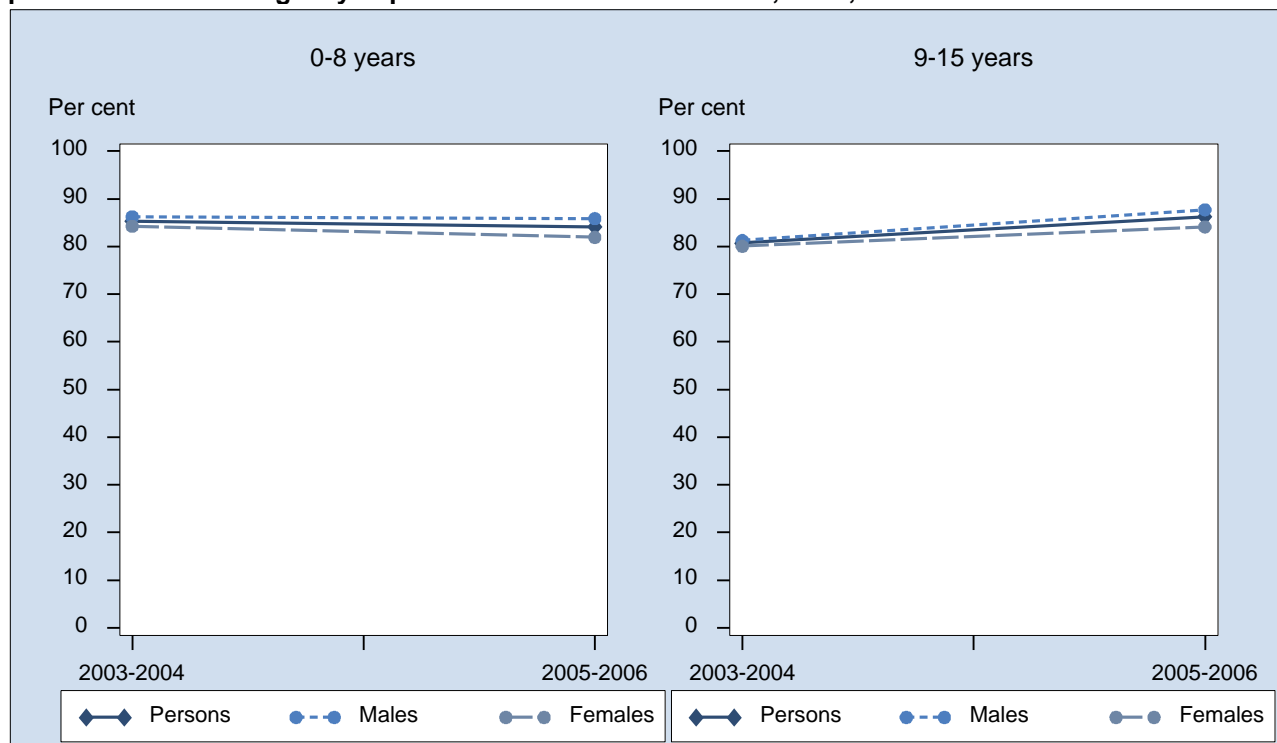
Emergency department rated as excellent, very good or good by area health service, children 0-15 years who presented to an emergency department in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 1,048 respondents in NSW. For this indicator 12 (1.13%) were not stated (Don't know or Refused) in NSW. The indicator includes children who presented to an emergency department in the last 12 months whose parents rated their care as excellent, very good or good for their most recent visit. The question used to define the indicator was: In the last 12 months, have you attended a hospital emergency department or casualty for child's medical care? Overall what do you think of the care child received at this emergency department: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

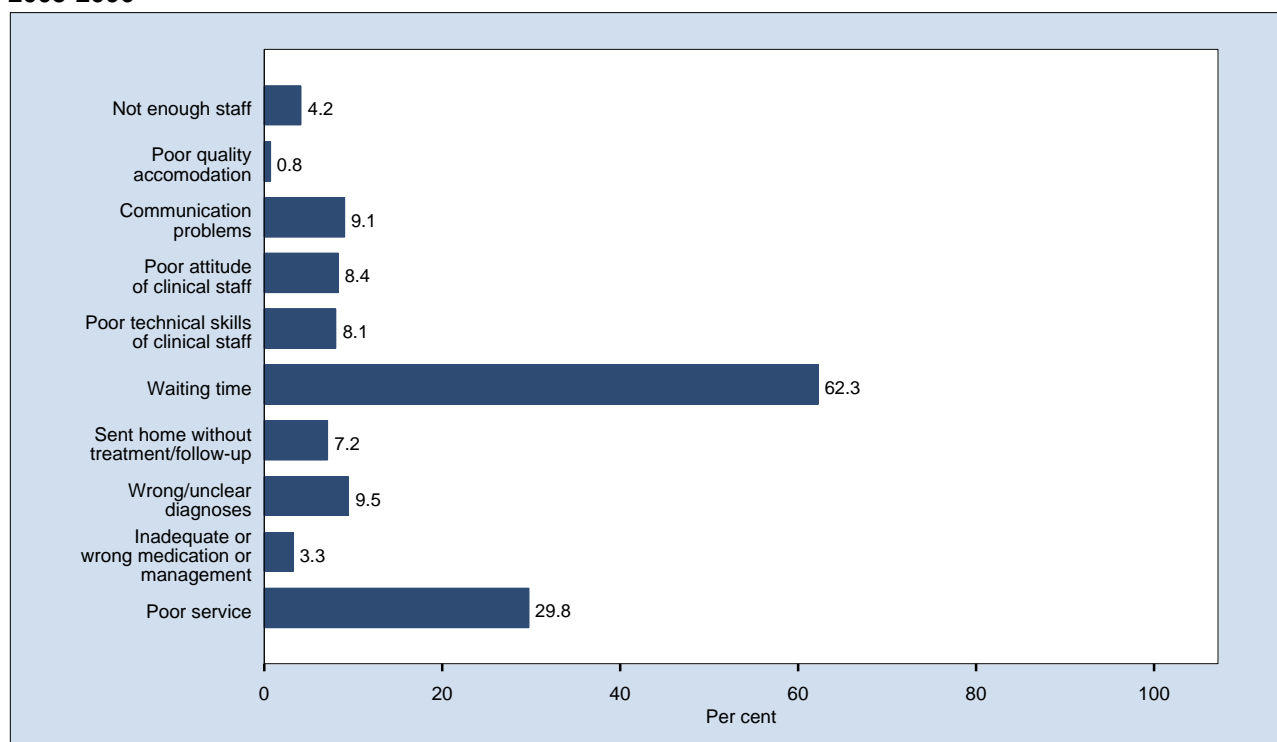
Emergency department rated as excellent, very good or good by year, children 0-15 years who presented to an emergency department in the last 12 months, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (1,854), 2006 (1,048). The indicator includes children who presented to an emergency department in the last 12 months whose parents rated their care as excellent, very good or good for their most recent visit. The question used to define the indicator was: In the last 12 months, have you attended a hospital emergency department or casualty for child's medical care? Overall what do you think of the care child received at this emergency department: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Reason for rating most recent emergency department presentation as fair or poor, parents or carers of children 0-15 years who presented to an emergency department in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 169 respondents in NSW. For this indicator 12 (6.63%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, have you attended a hospital emergency department or casualty for child's medical care? Overall, what do you think of the care child received at this emergency department: excellent, very good, good, fair or poor? Could you briefly describe why you rated the care you received as fair or poor? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Home visiting

Introduction

Research suggests providing support for new parents through home visiting improves the outcomes for families and children, particularly where vulnerabilities may be evident.[1] The *Families First* Universal Health Home Visiting Scheme, through which the offer of a home visit is made to every family with a new baby, is gradually being expanded throughout New South Wales. The scheme aims to: provide health services in the most convenient location for new parents, engage families with the network of services available to support them, and introduce the services offered by child and family health nurses.

The home visiting nurse will: give the baby a health and development check including measuring weight, height and head circumference; talk to the mother about how she is coping (for example, with feeding, settling and sleeping); and discuss any other issues the parents may have. The nurse will also link the mother to any additional support the family may require and assist with any parenting difficulties (for example, postnatal depression). Some families may need ongoing visits, or referral to other services, and these needs can be discussed with the nurse at the first home visit.

In order to monitor the quality of care received from health professionals who provide home visiting services, during 2005 and 2006 the New South Wales Population Health Survey asked parents or carers of children aged 0-4 years: In the last 12 months, have you had any health professionals visit child in your home? In the last 12 months, which health professionals visited child in your home?

Results

Among children aged 0-11 months, 42.8 were not visited by anyone, 38.1 per cent were visited by a community nurse, 21.2 per cent were visited by a midwife, and 1.5 per cent were visited by a general practitioner.

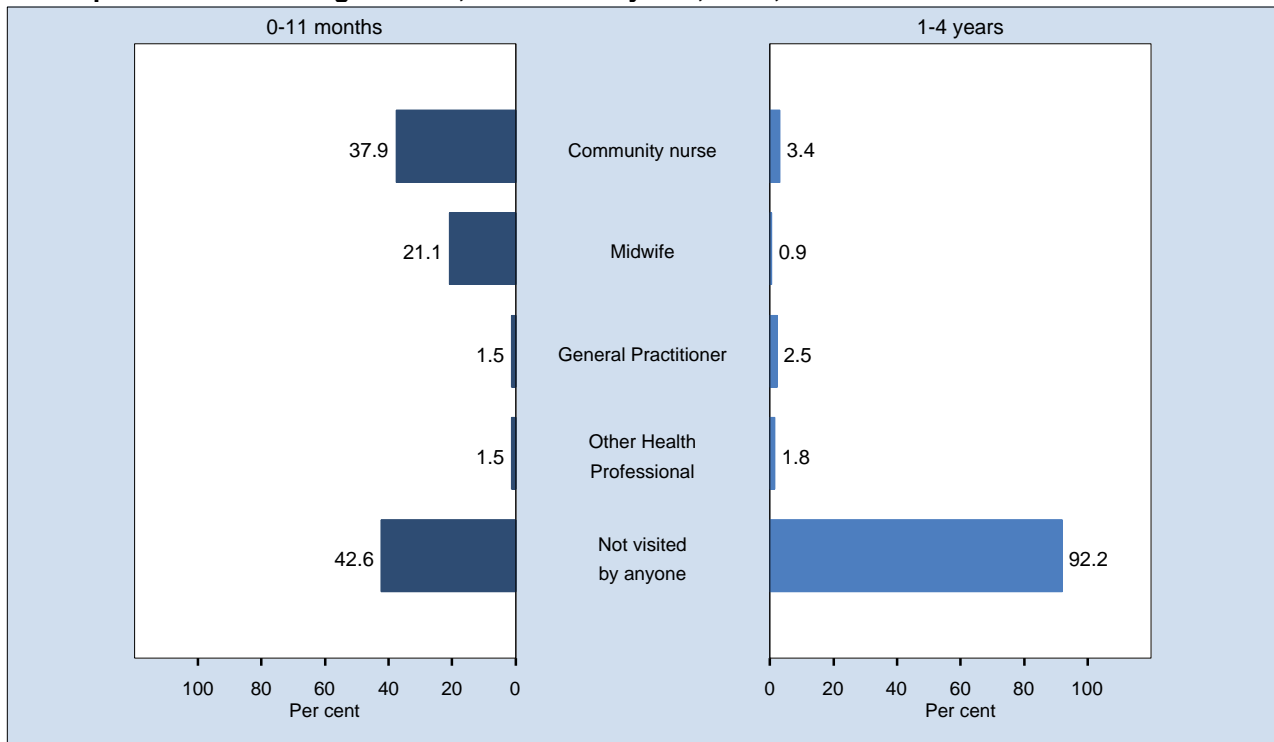
Among children aged 1-4 years, 92.2 were not visited by anyone, 3.4 per cent were visited by a community nurse, 0.9 per cent were visited by a midwife, and 2.5 per cent were visited by a general practitioner.

Overall, 18.4 per cent of children aged 0-4 years received a home visit from a health professional. A significantly lower proportion of children aged 1-4 years (7.8 per cent) received a home visit from a health professional, compared with children aged 0-11 months (57.4 per cent). There was no significant variation by socioeconomic status, or between rural areas and urban areas, or by health areas. A significantly lower proportion of children with mothers from a non English speaking background (12.8 per cent), compared with mothers from an English speaking background (19.4 per cent), received a home visit from a health professional. The proportion of children aged 0-4 years who received a home visit from a health professional has not varied significantly between 2003-2004 and 2005-2006, although it has increased significantly in rural areas (from 14.6 per cent to 18.9 per cent).

References

1. The *Families First* Universal Health Home Visiting Fact Sheet. Sydney: NSW Cabinet Office, 2005. Available online at www.familiesfirst.nsw.gov.au, accessed 21 November 2007.

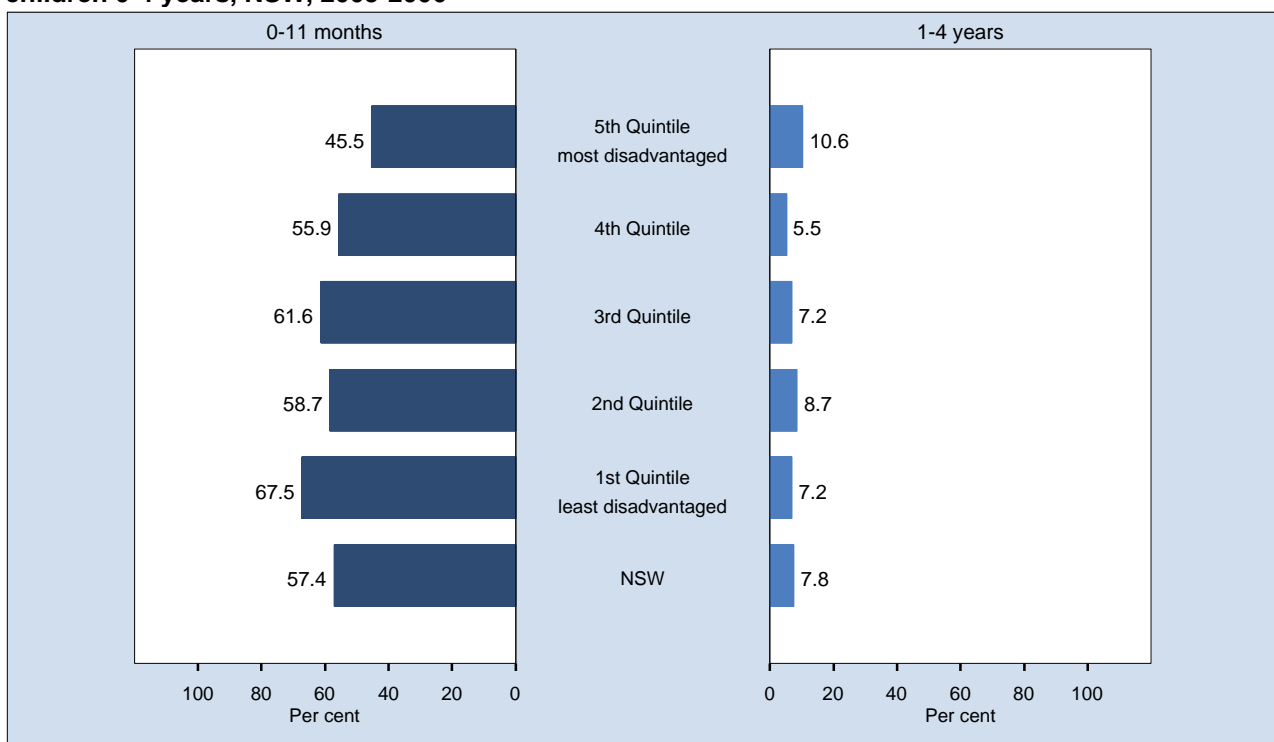
Health professional visiting in home, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 1,446 respondents in NSW. For this indicator 3 (0.21%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months have any health professionals visited child in your home? In the last 12 months which health professionals visited child in your home? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

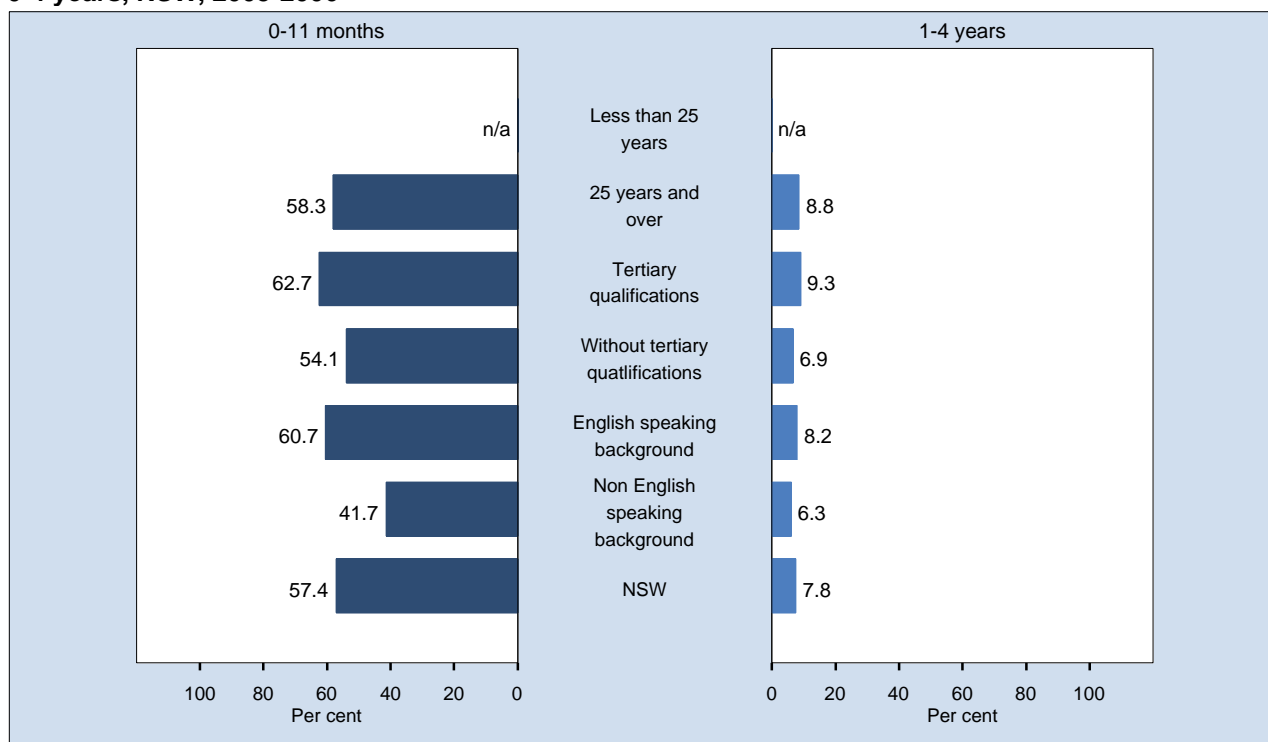
Visit by a health professional in the home in the last 12 months by socioeconomic disadvantage, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 1,446 respondents in NSW. For this indicator 3 (0.21%) were not stated (Don't know or Refused) in NSW. The indicator includes children who were visited by a health professional in their home in the last 12 months. The questionst used to define the indicator was: In the last 12 months have any health professionals visited child in your home?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

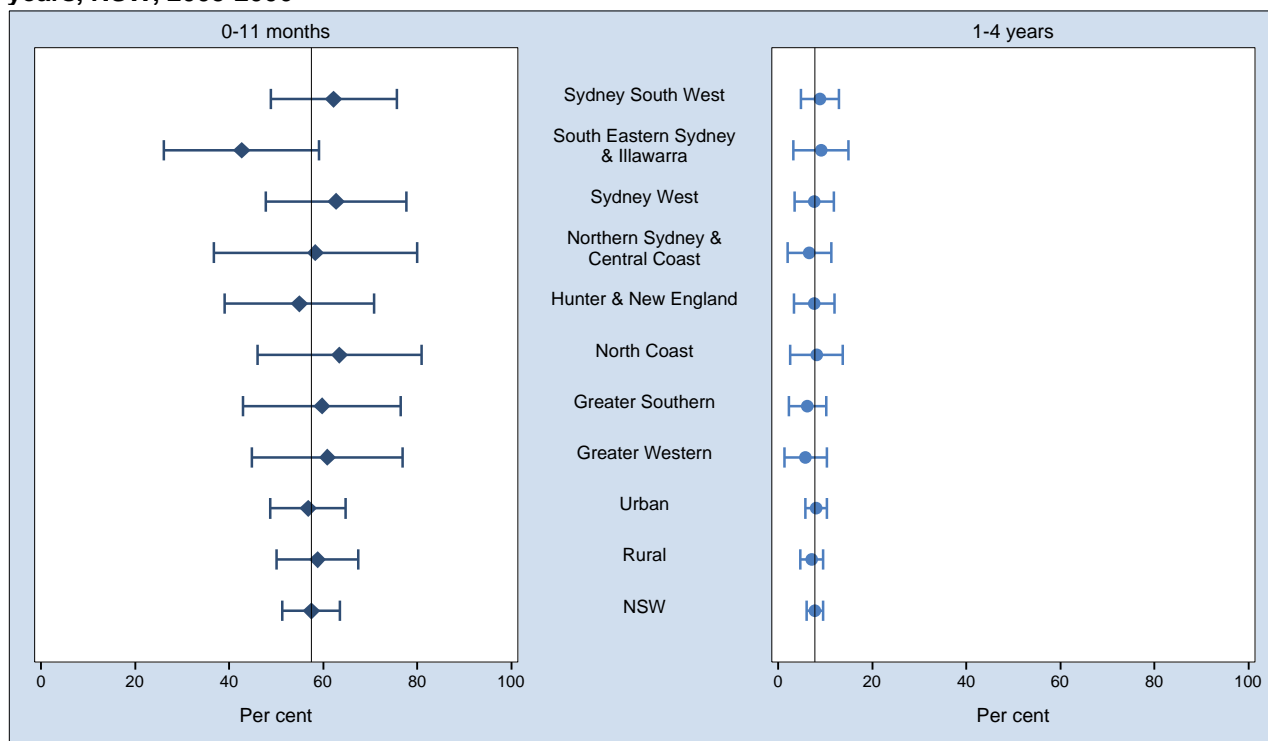
Visit by a health professional in the home in the last 12 months by mothers' characteristics, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 1,446 respondents in NSW. For this indicator 3 (0.21%) were not stated (Don't know or Refused) in NSW. The indicator includes children who were visited by a health professional in their home in the last 12 months. The questionst used to define the indicator was: In the last 12 months have any health professionals visited child in your home? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

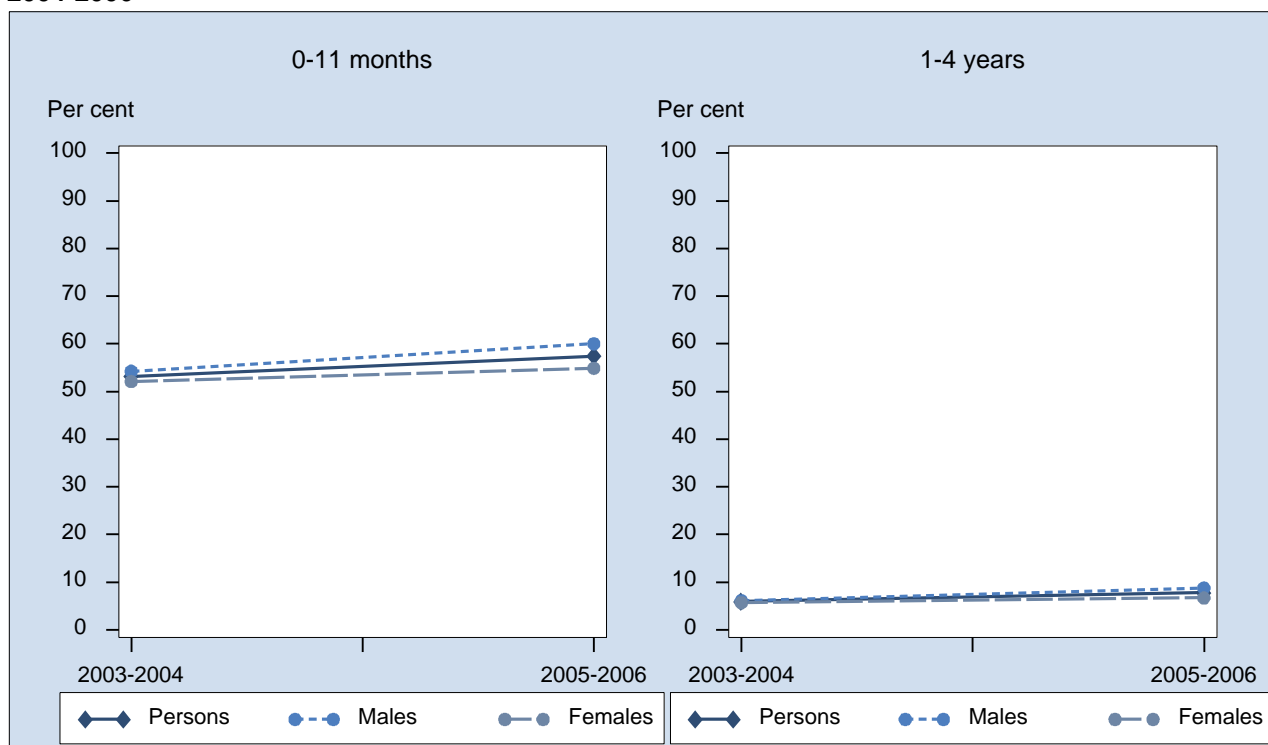
Visit by a health professional in the home in the last 12 months by area health service, children 0-4 years, NSW, 2005-2006



Note: Estimates are based on 1,446 respondents in NSW. For this indicator 3 (0.21%) were not stated (Don't know or Refused) in NSW. The indicator includes children who were visited by a health professional in their home in the last 12 months. The questionst used to define the indicator was: In the last 12 months have any health professionals visited child in your home?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Visit by a health professional in the home in the last 12 months by year, children 0-4 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (2,392), 2006 (1,446). The indicator includes children who were visited by a health professional in their home in the last 12 months. The questionst used to define the indicator was: In the last 12 months have any health professionals visited child in your home?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Hospital admissions

Introduction

During 2005 and 2006 the New South Wales Population Health Survey asked parents and carers of children aged 0-15 years: In the last 12 months, has child stayed for at least 1 night in hospital? Overall, what do you think of the care child received at this hospital? If the care was rated as fair or poor, respondents were then asked: Could you briefly describe why you rated the care child received as fair or poor?

Results

Hospital admissions

During 2005 and 2006, the New South Wales Population Health Survey estimated that 10.0 per cent of children aged 0-15 years were admitted to hospital on 1 or more occasions in the previous 12 months. A significantly lower proportion of children aged 9-15 years (6.0 per cent) compared with children aged 0-8 years (13.5 per cent) were admitted to hospital in the previous 12 months. There was no significant variation between rural areas and urban areas; however, a significantly lower proportion of children in the Greater Southern Health Area (7.4 per cent) were admitted to hospital in the previous 12 months.

A significantly higher proportion of children with mothers less than 25 years (22.1 per cent), compared with children of mothers aged 25 years and over (10.1 per cent), were admitted to hospital in the previous 12 months.

The proportion of children admitted to hospital on 1 or more occasions in the previous 12 months did not vary significantly between 2001-2002 and 2005-2006.

Rating of care

Parents or carers were asked to rate the care child received: 47.1 per cent rated the care as excellent, 30.6 per cent as very good, 14.2 per cent as good, 5.1 per cent as fair, and 3.0 per cent as poor.

Responses of excellent, very good and good were combined into a positive rating of care. Overall, 91.9 per cent of parents or carers gave a positive rating to the care child received. There was no significant variation by age group, or between rural areas and urban areas; however, a significantly higher proportion of parents or carers in the Greater Southern Health Area (98.0 per cent), and parents or carers in the third most disadvantaged quintile (96.8 per cent), gave a positive rating to the care child received.

A significantly higher proportion of mothers under 25 years of age (97.9 per cent), compared with mothers aged 25 years and over (91.5 per cent), gave a positive rating to the care child received.

The proportion of parents or carers who gave a positive rating to the hospital care child received did not vary significantly between 2003-2004 and 2005-2006.

Reasons for a fair or poor rating include: poor patient care (25.4 per cent), hospital could not offer required care (24.7 per cent), poor technical skills of clinical staff (21.4 per cent), excessive waiting time for care (18.0 per cent), poor attitude of clinical staff (16.0 per cent), not enough staff (14.9 per cent), inadequate or wrong medication or management (14.1 per cent), surgery cancelled or sent home without treatment (12.9 per cent), and communication problems (12.2 per cent).

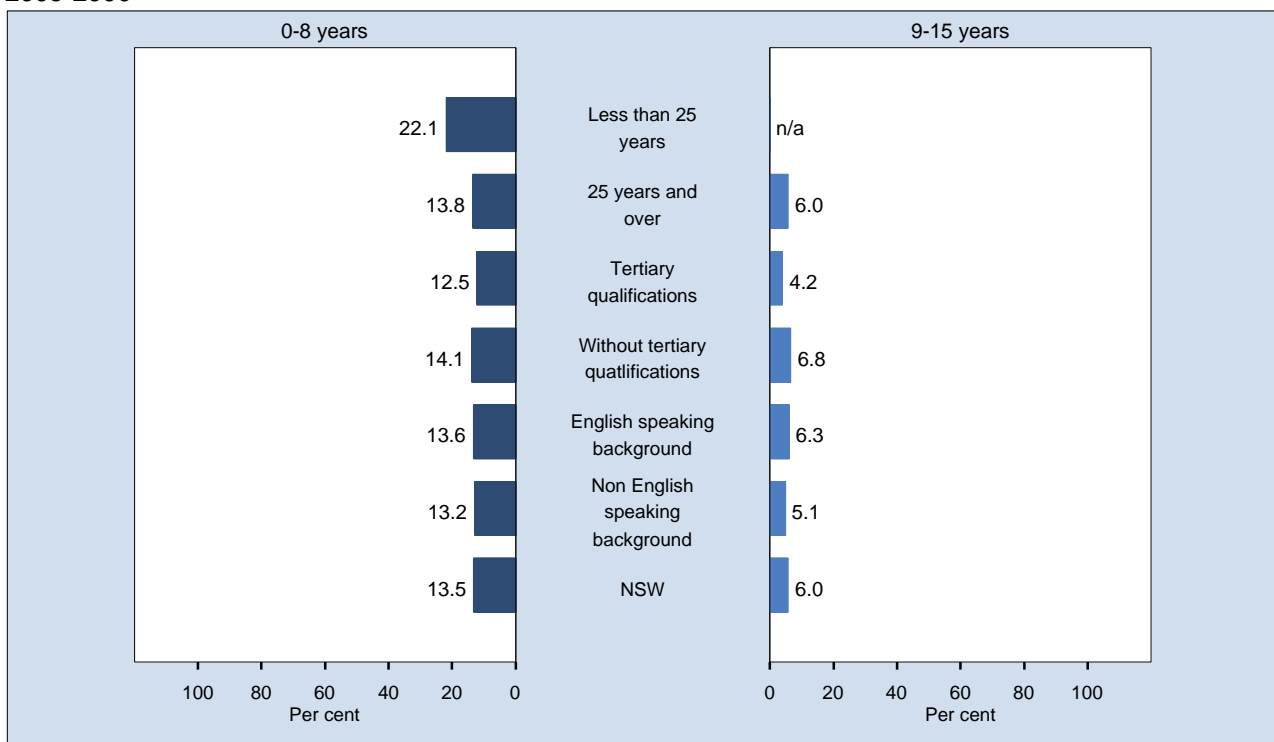
Hospital admissions in previous 12 months by socioeconomic disadvantage, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children admitted to hospital in the last 12 months. The question used to define the indicator was: In the last 12 months has child stayed for at least 1 night in hospital?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

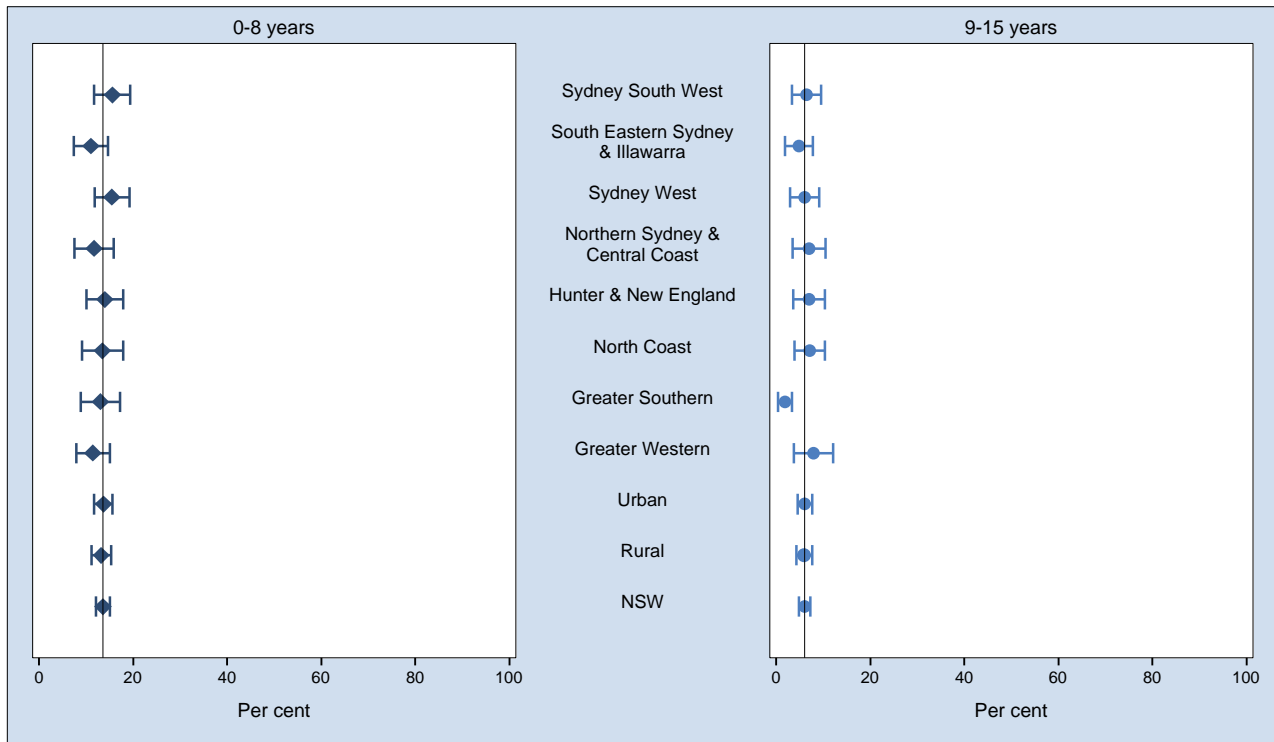
Hospital admissions in previous 12 months by mothers' characteristics, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children admitted to hospital in the last 12 months. The question used to define the indicator was: In the last 12 months has child stayed for at least 1 night in hospital? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

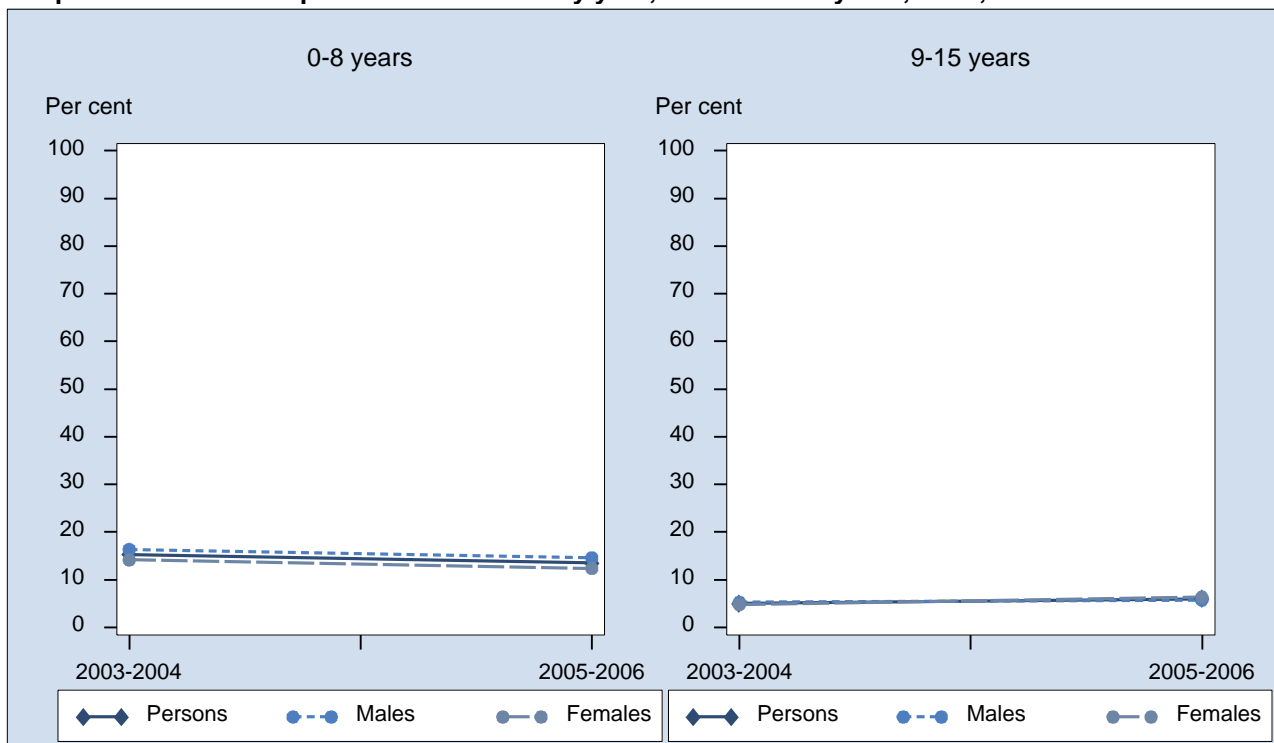
Hospital admissions in previous 12 months by area health service, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children admitted to hospital in the last 12 months. The question used to define the indicator was: In the last 12 months has child stayed for at least 1 night in hospital?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

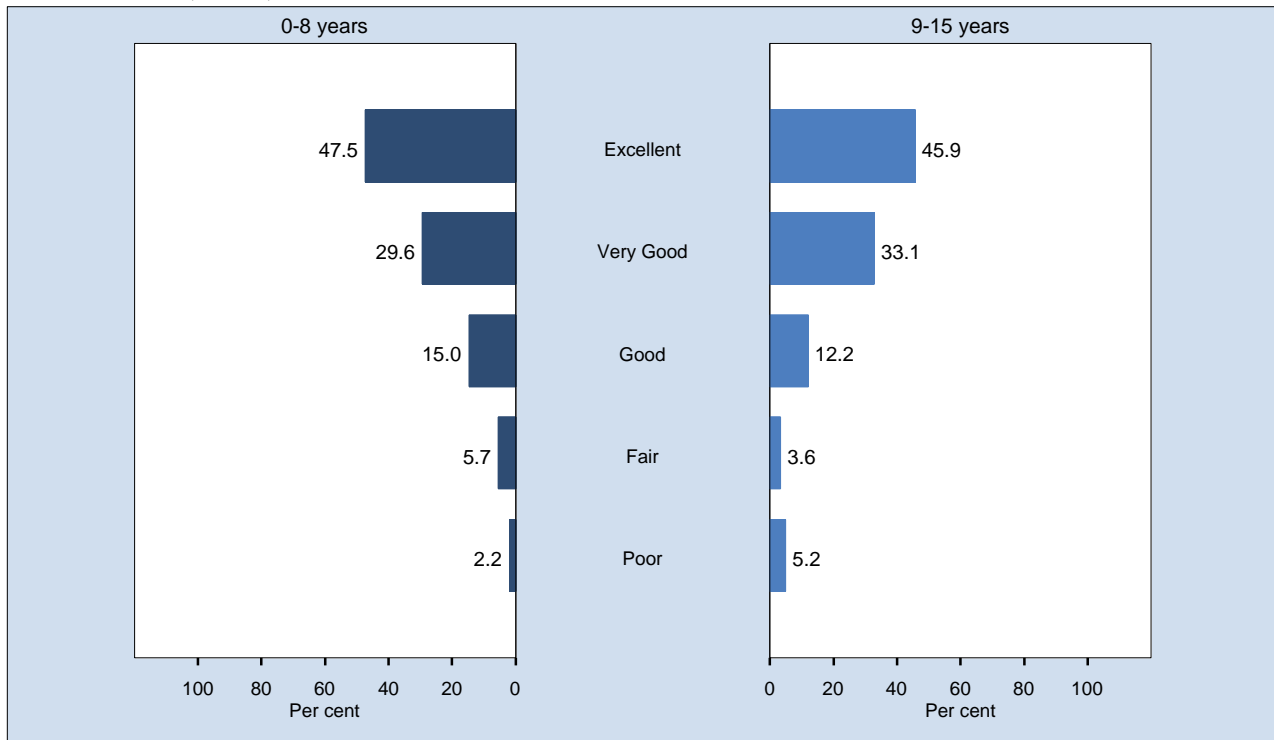
Hospital admissions in previous 12 months by year, children 0-15 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (7,671), 2006 (4,564). The indicator includes children admitted to hospital in the last 12 months. The question used to define the indicator was: In the last 12 months has child stayed for at least 1 night in hospital?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

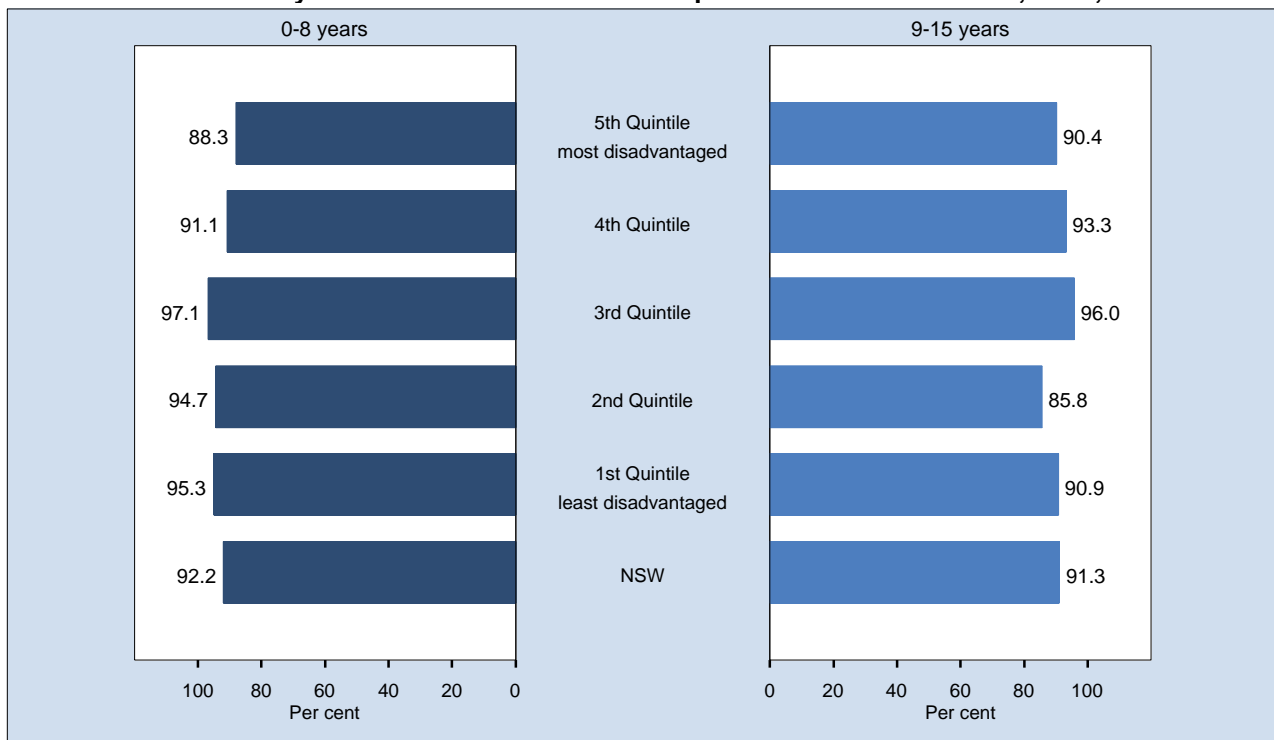
Hospital care ratings, parents or carers of children 0-15 years who were admitted to hospital in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 470 respondents in NSW. For this indicator 4 (0.84%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, has child stayed for at least 1 night in hospital? Overall, what do you think of the care child received at this hospital: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

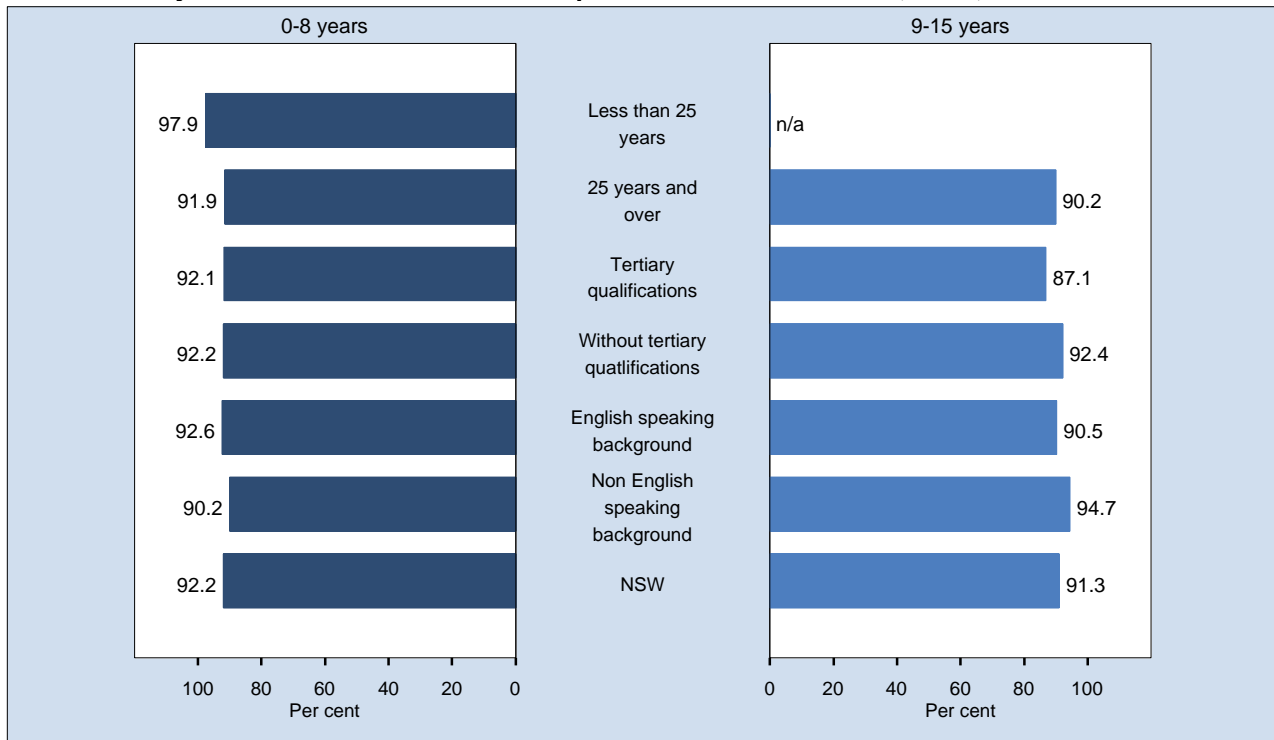
Hospital care rated as excellent, very good or good by socioeconomic disadvantage, parents or carers of children 0-15 years who were admitted to hospital in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 470 respondents in NSW. For this indicator 4 (0.84%) were not stated (Don't know or Refused) in NSW. The indicator includes children admitted to hospital in the last 12 months whose parents rated their 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 has child stayed for at least 1 night in hospital? Overall, what do you think of the care child received at this hospital: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

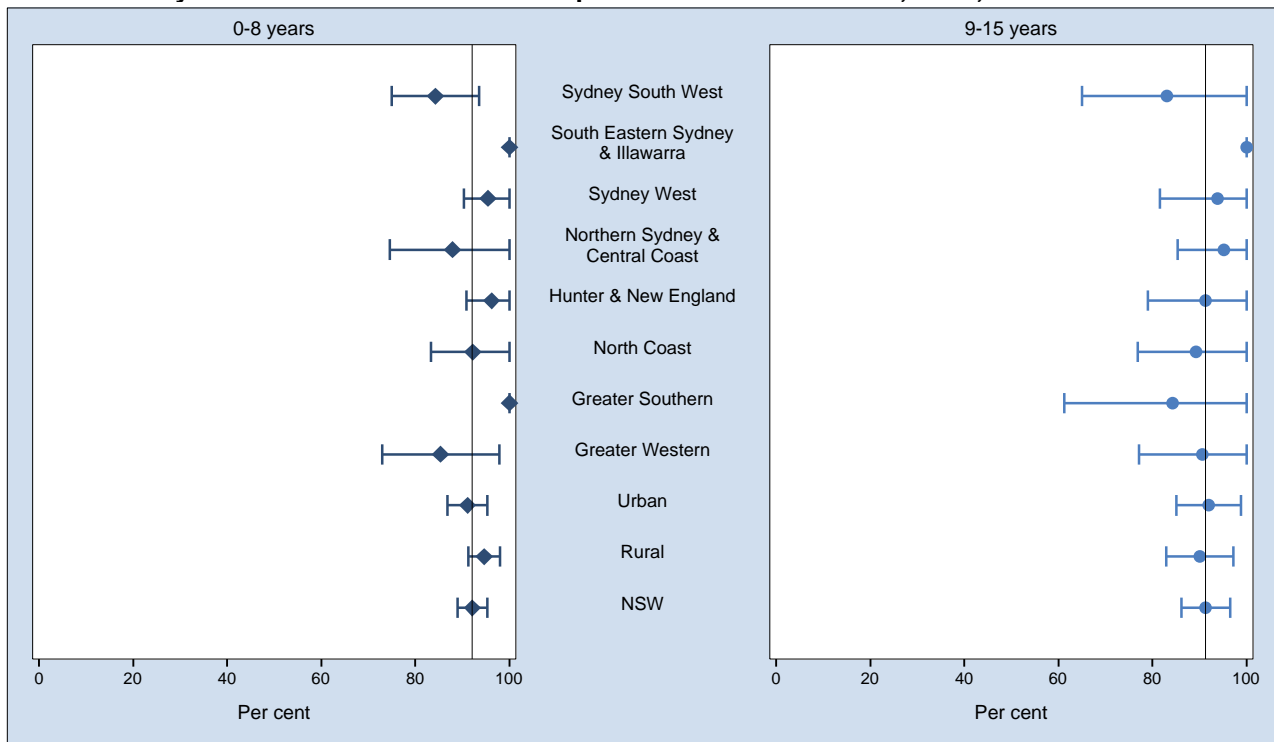
Hospital care rated as excellent, very good or good by mothers' characteristics, parents or carers of children 0-15 years who were admitted to hospital in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 470 respondents in NSW. For this indicator 4 (0.84%) were not stated (Don't know or Refused) in NSW. The indicator includes children admitted to hospital in the last 12 months whose parents rated their 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 has child stayed for at least 1 night in hospital? Overall, what do you think of the care child received at this hospital: excellent, very good, good, fair or poor? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

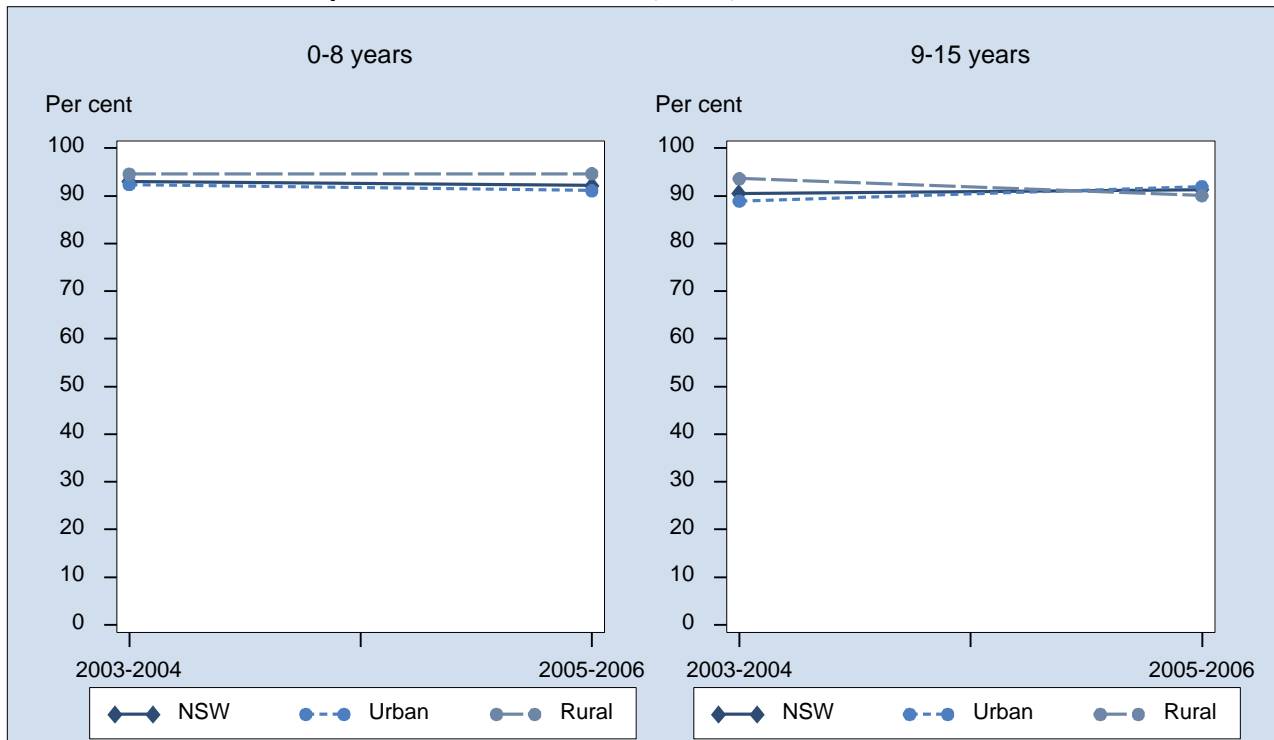
Hospital care rated as excellent, very good or good by area health service, parents or carers of children 0-15 years who were admitted to hospital in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 470 respondents in NSW. For this indicator 4 (0.84%) were not stated (Don't know or Refused) in NSW. The indicator includes children admitted to hospital in the last 12 months whose parents rated their 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 has child stayed for at least 1 night in hospital? Overall, what do you think of the care child received at this hospital: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

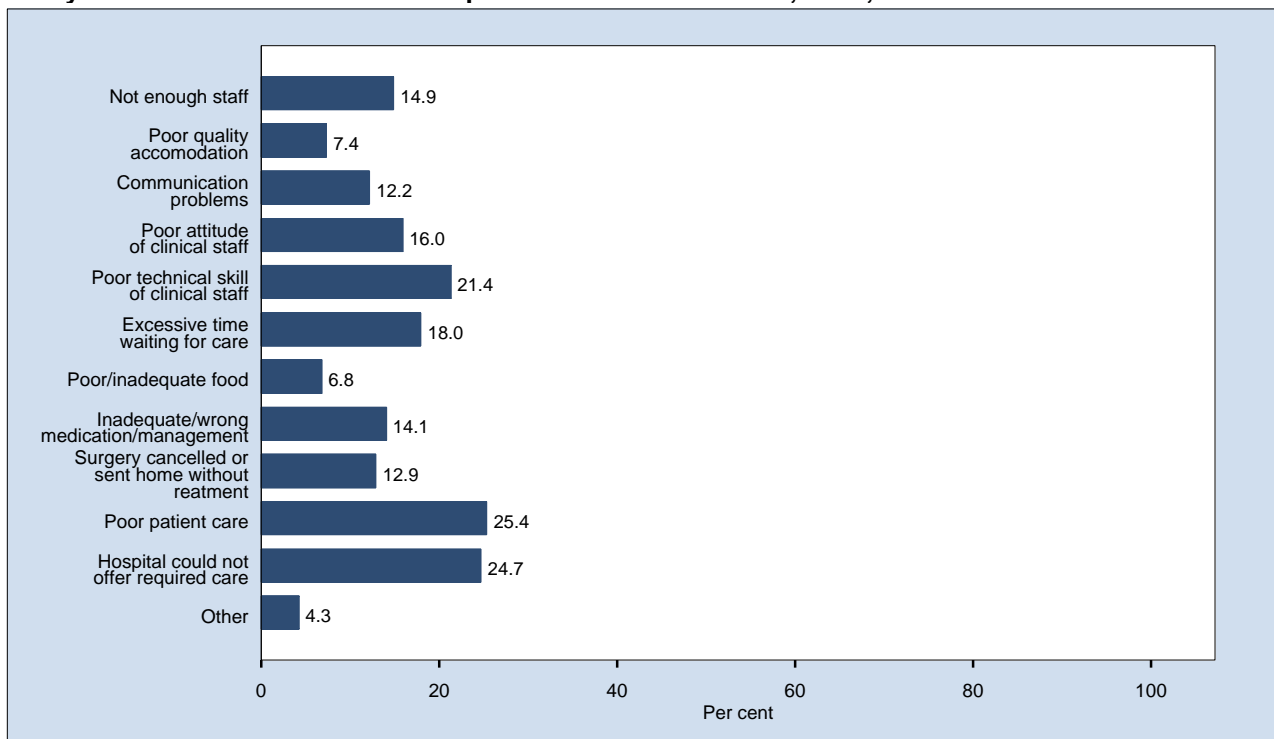
Hospital care rated as excellent, very good or good by year, parents or carers of children 0-15 years who were admitted to hospital in the last 12 months, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (850), 2006 (470). The indicator includes children admitted to hospital in the last 12 months whose parents rated their 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 has child stayed for at least 1 night in hospital? Overall, what do you think of the care child received at this hospital: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Reason for rating most recent overnight hospital stay as fair or poor, parents or carers of children 0-15 years who were admitted to hospital in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 40 respondents in NSW. For this indicator 4 (9.09%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, has child stayed for at least 1 night in hospital? Overall, what do you think of the care child received at this hospital: excellent, very good, good, fair or poor? Could you briefly describe why you rated the care child received as fair or poor? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Public dental services

Introduction

Children of parents or carers with a Health Care Concession Card or a Pensioner Concession Card are eligible for public dental care.

During 2005 and 2006 the New South Wales Population Health Survey asked parents or carers of children aged 0-15 years: In the last 12 months, has child been to a government-run public dental service or dental hospital? Overall, what do you think of the care child received at that public dental service or dental hospital? If the care was rated as fair or poor, respondents were then asked: Could you briefly describe why you rated the care child received as fair or poor?

Results

Public dental service attendances

During 2005 and 2006, the New South Wales Population Health Survey estimated that 12.1 per cent of children aged 0-15 years attended a public dental service on 1 or more occasions in the previous 12 months. A significantly higher proportion of children aged 9-15 years (15.1 per cent) attended a public dental service, compared with children aged 0-8 years (9.4 per cent). A significantly lower proportion of children in the 2 least disadvantaged quintiles (4.6 per cent and 9.5 per cent), and a significantly higher proportion of children in the second and third most disadvantaged quintiles (17.6 per cent and 15.5 per cent), attended a public dental service. A significantly higher proportion of children in rural areas (18.5 per cent) attended a public dental service, compared with urban areas (9.0 per cent). A significantly higher proportion of children in the Greater Western (20.5 per cent), Greater Southern (18.3 per cent), Hunter & New England (18.8 per cent), and North Coast (16.8 per cent) Health Areas, and a significantly lower proportion of children in the South Eastern Sydney & Illawarra (8.5 per cent) and Sydney South West (7.3 per cent) Health Areas, attended a public dental service.

A significantly higher proportion of children with mothers without tertiary qualifications (14.1 per cent) compared with children of mothers with tertiary qualifications (8.0 per cent), and a significantly lower proportion of children with mothers from a non English speaking background (9.2 per cent) compared with children of mothers from an English speaking background (12.8 per cent), attended a public dental service.

The proportion of children aged 0-15 years attended a public dental service on 1 or more occasions in the previous 12 months did not change significantly between 2003-2004 and 2005-2006.

Rating of care

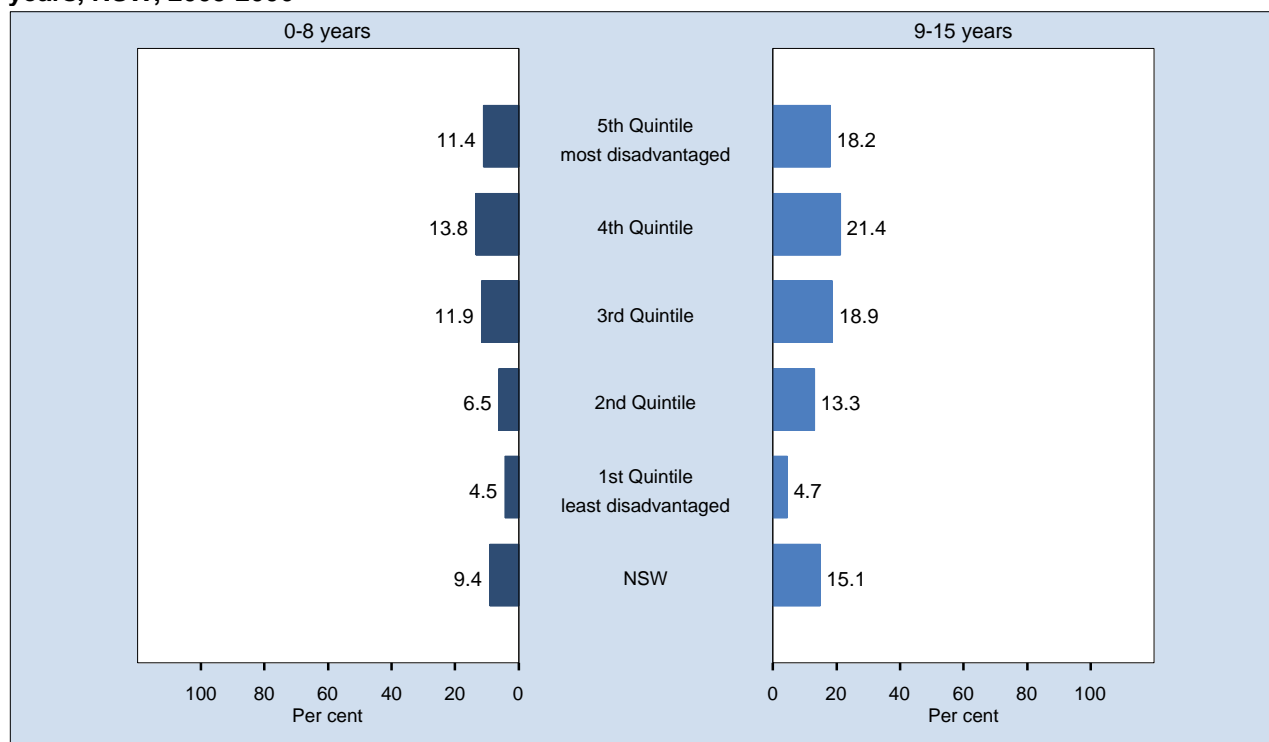
Parents or carers were asked to rate the care the child received: 43.0 per cent rated the care as excellent, 32.3 per cent as very good, 19.0 per cent as good, 3.0 per cent as fair, and 2.8 per cent as poor.

Responses of excellent, very good and good were combined into a positive rating of care. Overall, 94.3 per cent of parents or carers gave a positive rating to the care the child received. There was no significant difference by age group, level of socioeconomic disadvantage, or between rural areas and urban areas, or among health areas, or by mothers' characteristics.

The proportion of parents or carers of children aged 0-15 years who gave a positive rating to the public dental care the child received did not change significantly between 2003-2004 and 2005-2006.

Reasons for a fair or poor rating include: waiting time for an appointment (39.4 per cent), poor technical skill of clinical staff (35.7 per cent), poor attitude of clinical staff (27.0 per cent), and insufficient services (17.2 per cent).

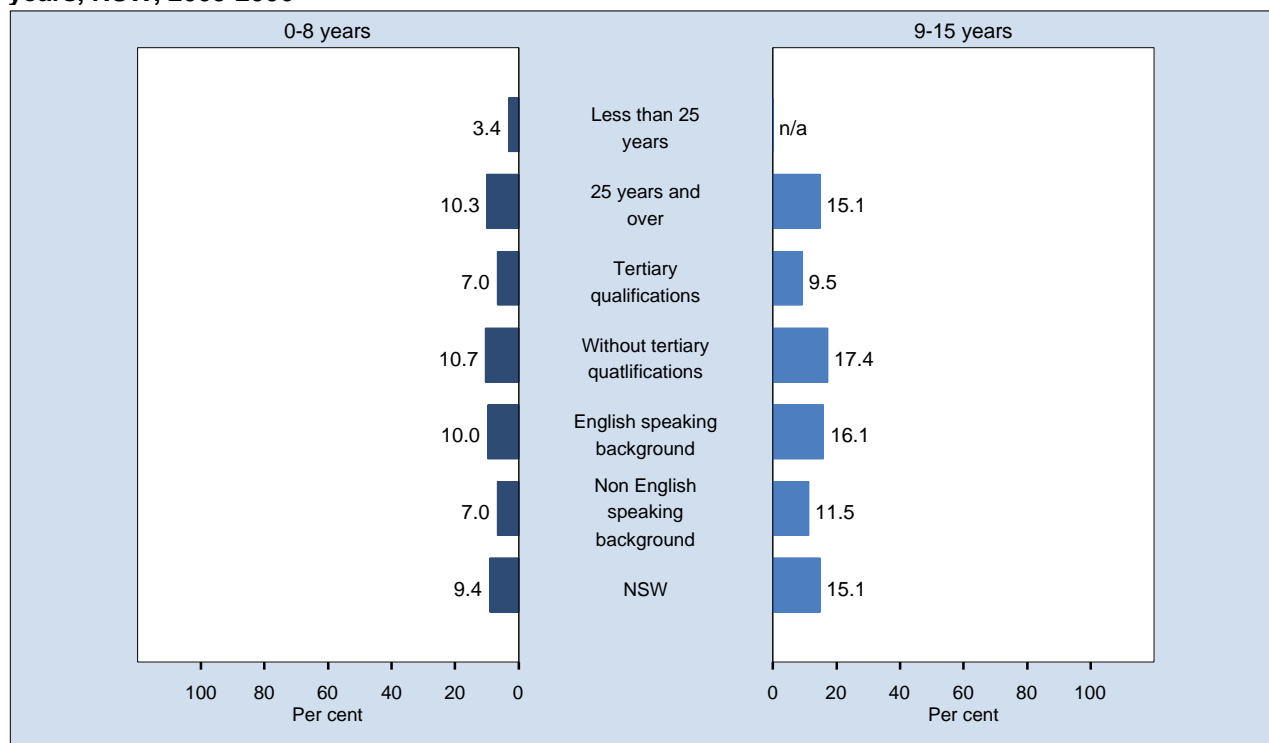
Public dental service attendance in the last 12 months by socioeconomic disadvantage, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children who attended a public dental service or dental hospital in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended a public or government-run dental service or dental hospital?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

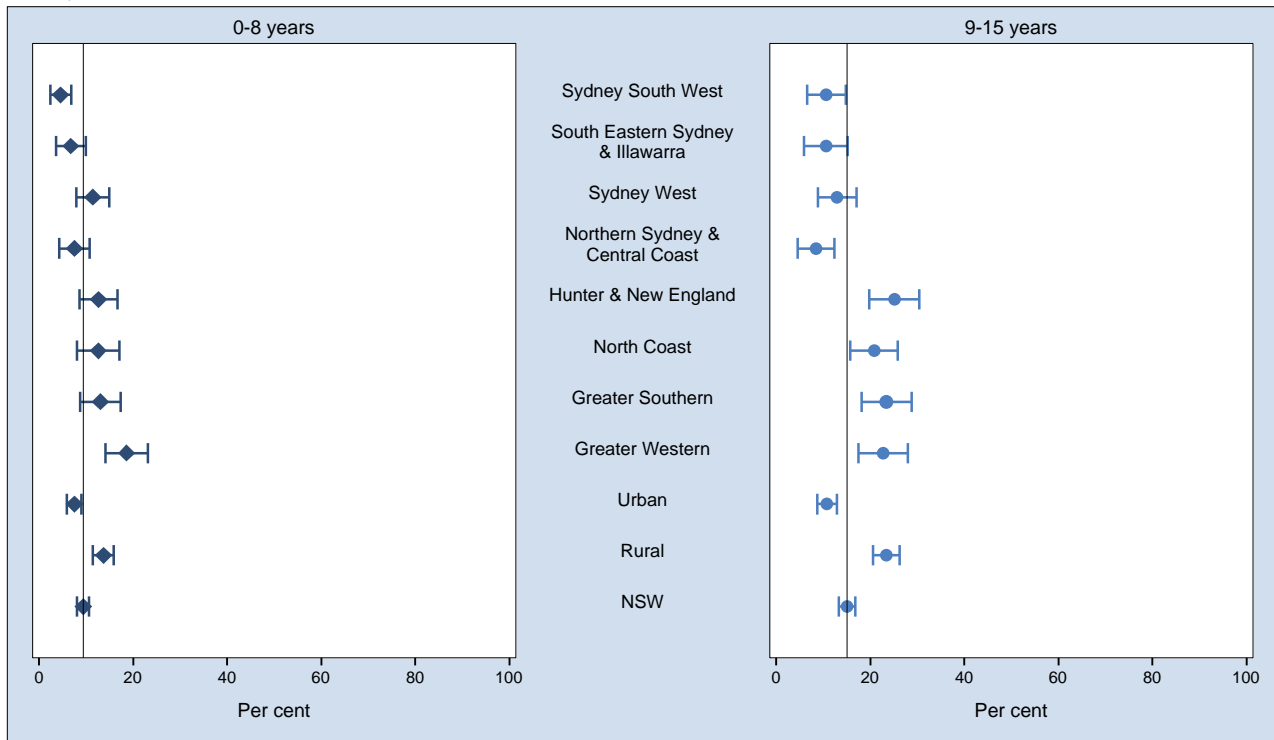
Public dental service attendance in the last 12 months by mothers' characteristics, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children who attended a public dental service or dental hospital in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended a public or government-run dental service or dental hospital? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

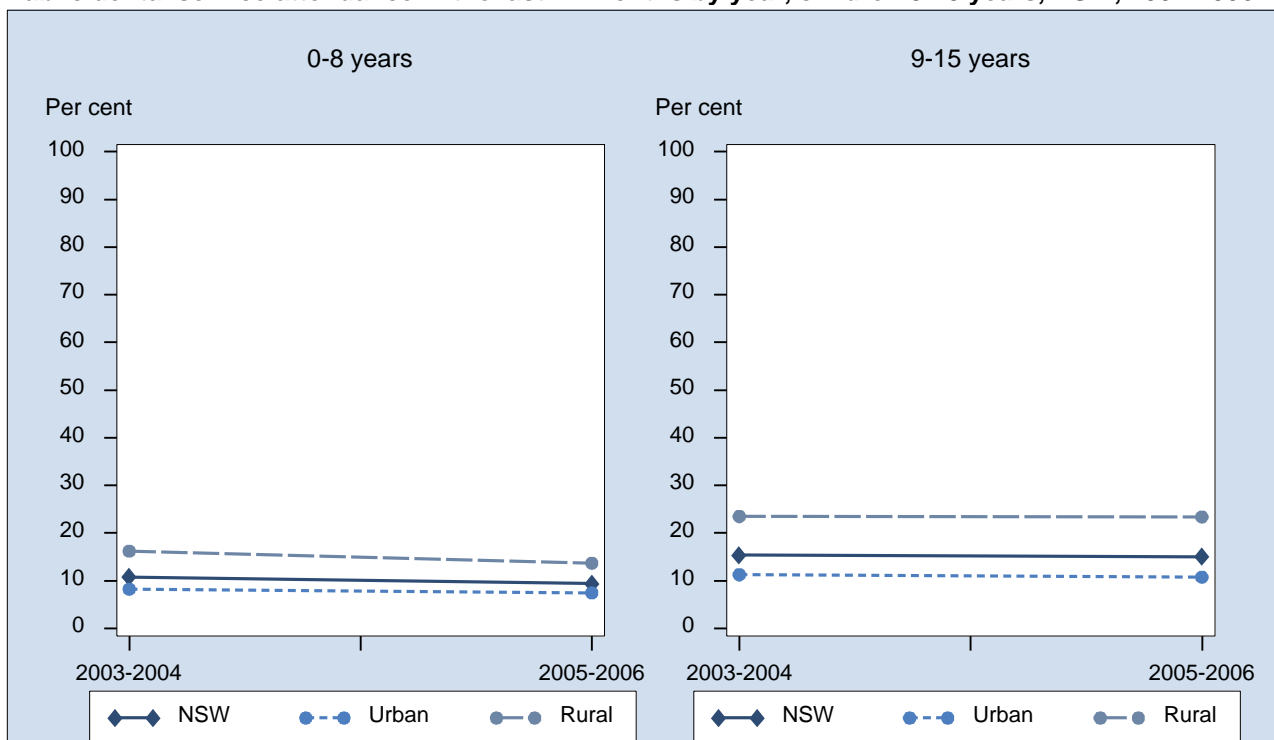
Public dental service attendance in the last 12 months by area health service, children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 4,564 respondents in NSW. For this indicator 14 (0.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children who attended a public dental service or dental hospital in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended a public or government-run dental service or dental hospital?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

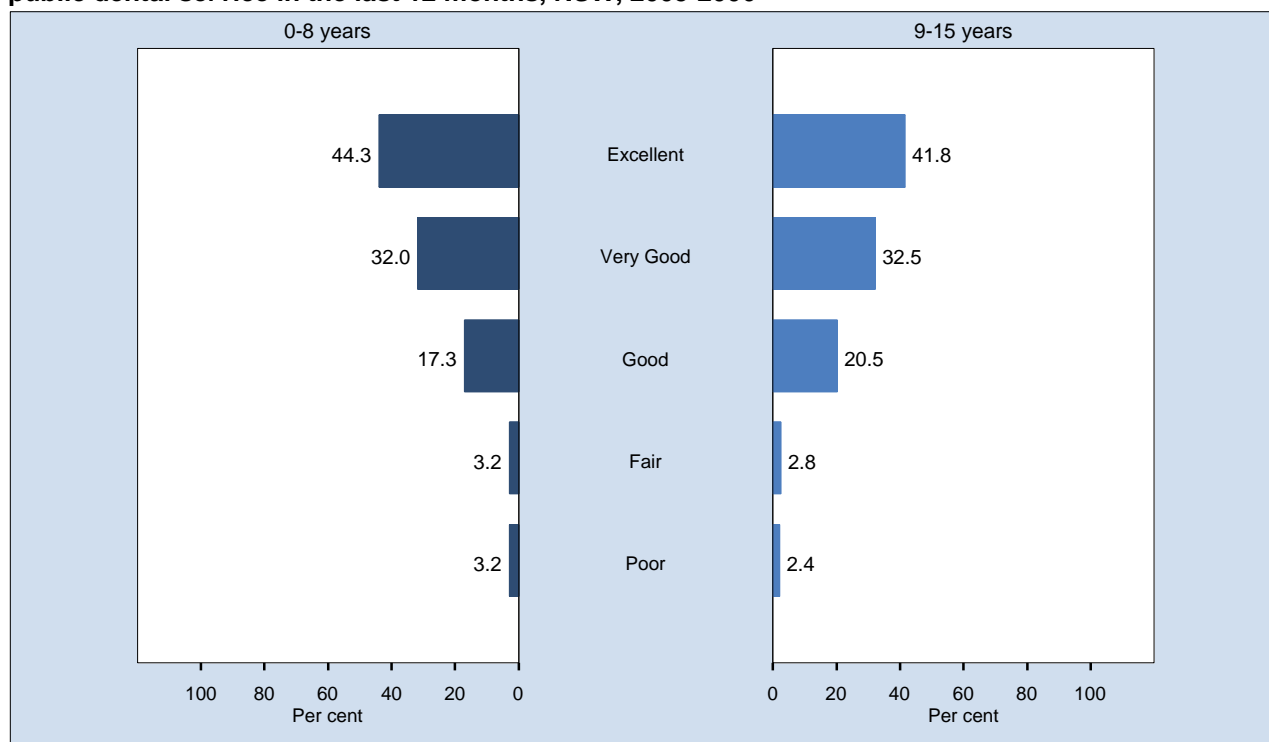
Public dental service attendance in the last 12 months by year, children 0-15 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (7,671), 2006 (4,564). The indicator includes children who attended a public dental service or dental hospital in the last 12 months. The question used to define the indicator was: In the last 12 months, has child attended a public or government-run dental service or dental hospital?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

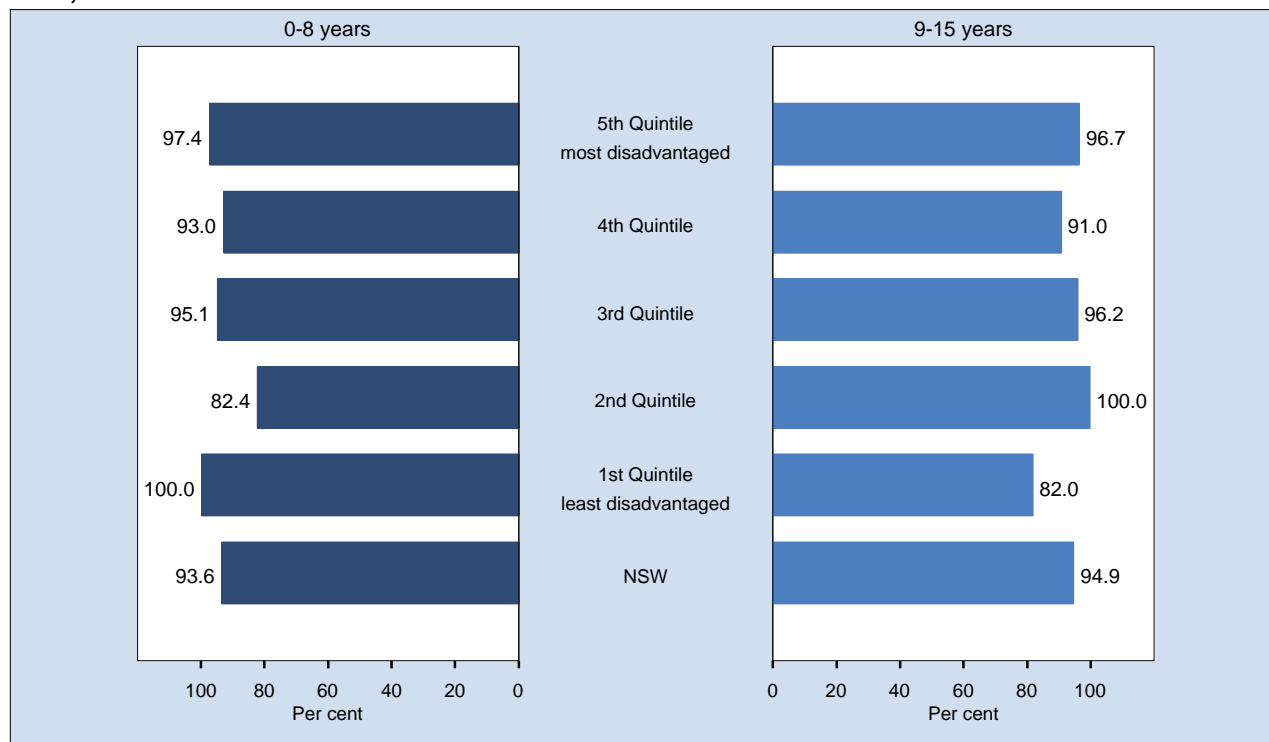
Public dental service attendance ratings, parents or carers of children 0-15 years who attended a public dental service in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 311 respondents in NSW. For this indicator 14 (4.31%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, has child attended a public or government-run dental service or dental hospital? Overall, what do you think of the care child received at the public dental service: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

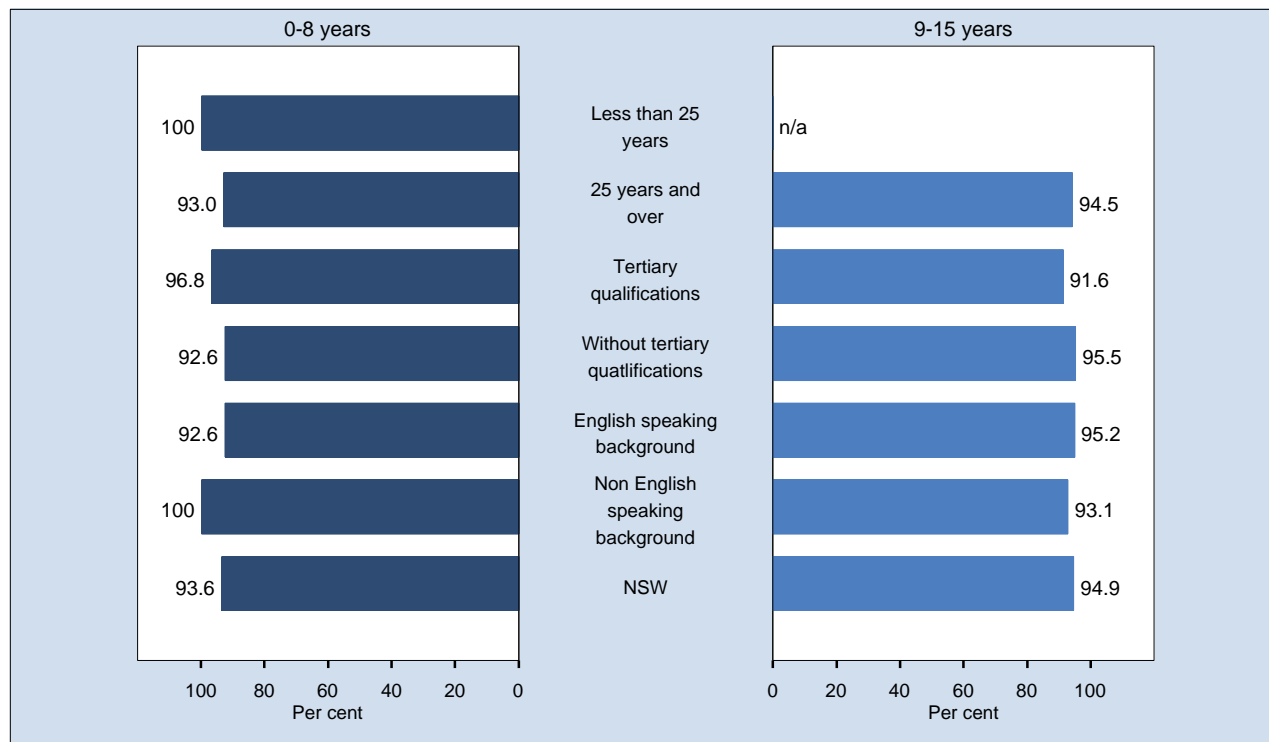
Public dental service care rated as excellent, very good or good by socioeconomic disadvantage, parents or carers of children 0-15 years who attended a public dental service in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 311 respondents in NSW. For this indicator 14 (4.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children who attended a public dental service or dental hospital in the last 12 months whose care was rated as excellent, very good or good for their most recent attendance. The questions used to define the indicator were: In the last 12 months, has child attended a public or government-run dental service or dental hospital? Overall what do you think of the care child received at the public dental service: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

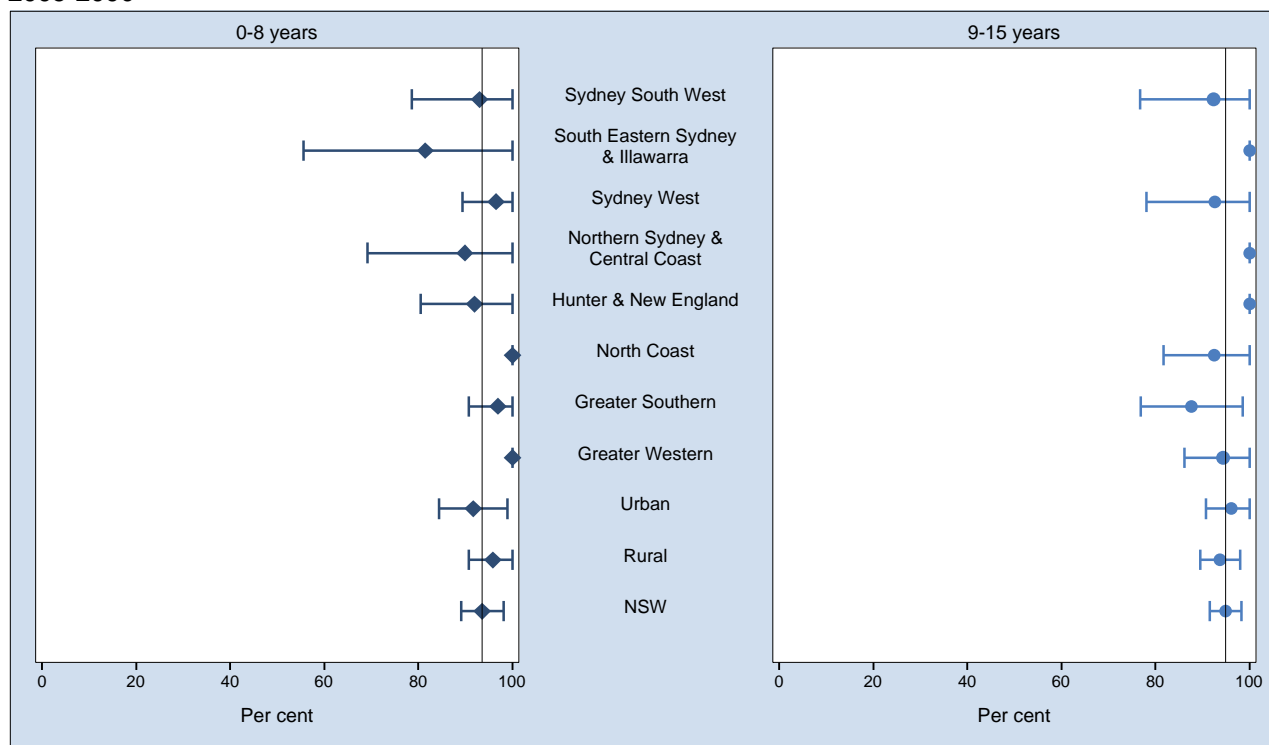
Public dental service care rated as excellent, very good or good by mothers' characteristics, parents or carers of children 0-15 years who attended a public dental service in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 311 respondents in NSW. For this indicator 14 (4.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children who attended a public dental service or dental hospital in the last 12 months whose care was rated as excellent, very good or good for their most recent attendance. The questions used to define the indicator were: In the last 12 months, has child attended a public or government-run dental service or dental hospital? Overall what do you think of the care child received at the public dental service: excellent, very good, good, fair or poor? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

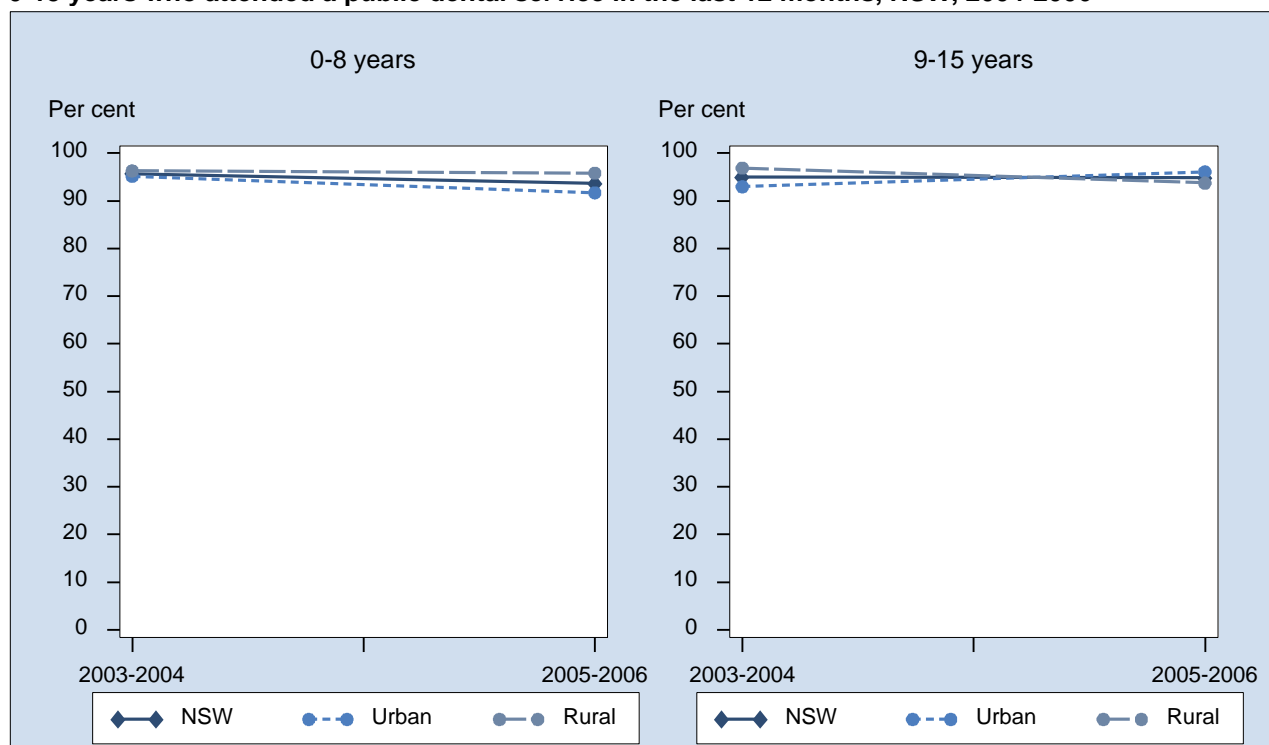
Public dental service care rated as excellent, very good or good by area health service, parents or carers of children 0-15 years who attended a public dental service in the last 12 months, NSW, 2005-2006



Note: Estimates are based on 311 respondents in NSW. For this indicator 14 (4.31%) were not stated (Don't know or Refused) in NSW. The indicator includes children who attended a public dental service or dental hospital in the last 12 months whose care was rated as excellent, very good or good for their most recent attendance. The questions used to define the indicator were: In the last 12 months, has child attended a public or government-run dental service or dental hospital? Overall what do you think of the care child received at the public dental service: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

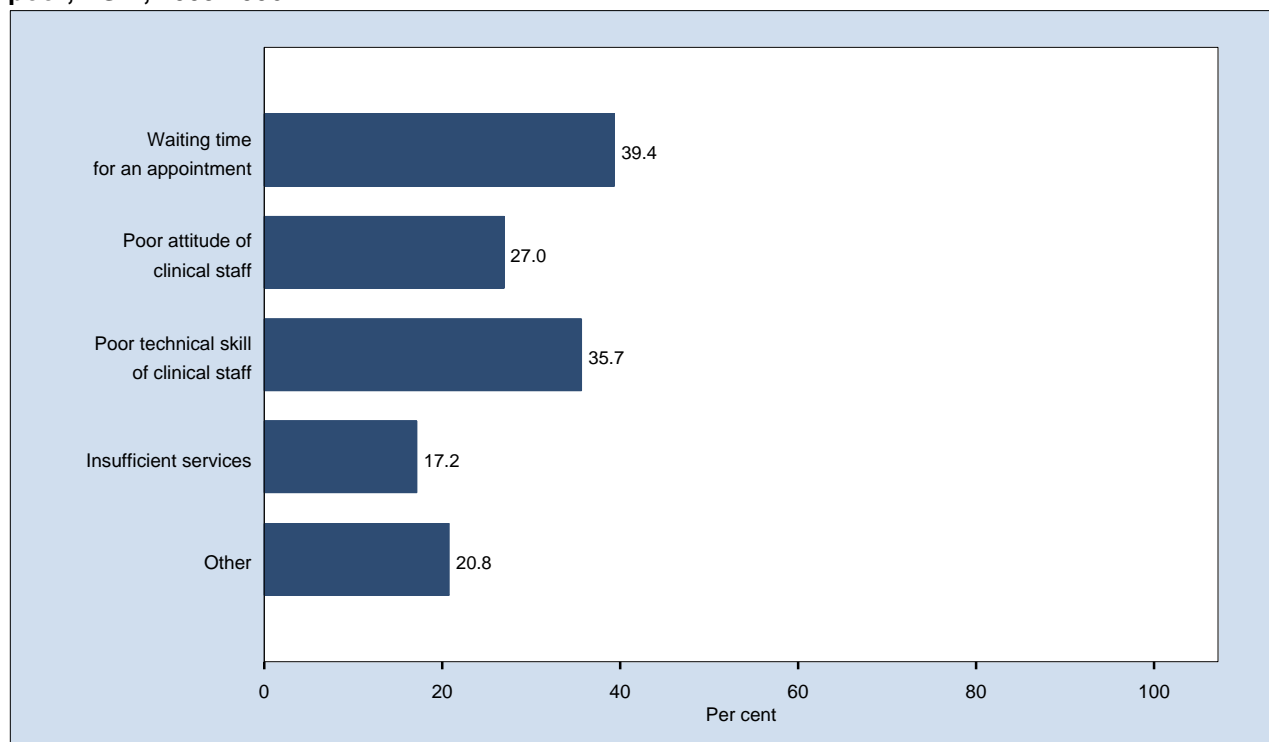
Public dental service care rated as excellent, very good or good by year, parents or carers of children 0-15 years who attended a public dental service in the last 12 months, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (1,127), 2006 (311). The indicator includes children who attended a public dental service or dental hospital in the last 12 months whose care was rated as excellent, very good or good for their most recent attendance. The questions used to define the indicator were: In the last 12 months, has child attended a public or government-run dental service or dental hospital? Overall what do you think of the care child received at the public dental service: excellent, very good, good, fair or poor?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Reason for rating most recent public dental service visit as fair or poor, parents or carers of children 0-15 years who attended a public dental service in the last 12 months and rated the care as fair or poor, NSW, 2005-2006



Note: Estimates are based on 19 respondents in NSW. For this indicator 0 (0.00%) were not stated (Don't know or Refused) in NSW. The questions used were: In the last 12 months, has child attended a public or government-run dental service or dental hospital? Overall, what do you think of the care child received at the public dental service: excellent, very good, good, fair, or poor? Could you briefly describe why you rated the care child received as fair or poor? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Social determinants of health

The health and wellbeing of children is strongly influenced by social and family circumstances. The context in which children live their lives, including family, school, and community environments, and how these settings interact, is crucial to their health and wellbeing. This section reports on early childhood educational development, and family functioning and parental support.

Early childhood educational development

Introduction

Educational development in early childhood influences educational outcomes in primary school, secondary school and beyond.[1,2] Four aspects of early childhood educational development are presented in this report: early childhood activities, childcare, pre-school, and reading.

During 2005 and 2006 the New South Wales Population Health Survey asked parents and carers of children aged 0-5 years: Has child ever attended any play group or other early childhood program or activity (apart from childcare or preschool)? Does child currently attend any play group or other early childhood program or activity (apart from childcare or preschool)? Have you ever used any childcare for child on a regular basis? How old was child when he or she first started childcare for half a day or longer? Is child currently having any type of childcare on a regular basis? What type of childcare does child have? Do you or other members of your family read or look at books with child? In a typical week, how often do you or other members of your family read or look at books with child? and, How old was child when you or another member of your family started reading to him or her? Parents and carers of children aged 3-4 years were asked: Does child go to pre-school?

Results

Early childhood activities

Overall, 61.1 per cent of children aged 0-5 years have ever participated in early childhood activities. Having ever participated in early childhood activities decreased significantly with socioeconomic disadvantage, from 69.6 per cent in the least disadvantaged quintile to 50.6 per cent in the most disadvantaged quintile. A significantly higher proportion of children in rural areas (66.5 per cent) than urban areas (58.8 per cent) have ever participated in early childhood activities. A significantly higher proportion of children in the Northern Sydney & Central Coast (72.7 per cent) and Hunter & New England (68.5 per cent) and North Coast (69.1 per cent), and a significantly lower proportion of children in the South Eastern Sydney and Illawarra Health Area (51.8 per cent), have ever participated in early childhood activities. A significantly lower proportion of children with mothers under the age of 25 years (43.1 per cent) compared with mothers 25 years and over (62.8 per cent), with mothers without tertiary qualifications (56.9 per cent) compared with mothers with tertiary qualifications (68.2 per cent), or mother from a non English speaking background (48.7 per cent) compared with mothers from an English speaking background (64.3 per cent), have ever participated in early childhood activities. The proportion of children aged 0-5 years who have ever participated in early childhood activities has increased significantly between 2001-2002 (36.8 per cent) and 2005-2006 (61.1 per cent).

Overall, 38.4 per cent of children aged 0-5 years currently participate in early childhood activities. Current participation in early childhood activities decreased significantly with socioeconomic disadvantage, from 48.7 per cent in the least disadvantaged quintile to 27.0 per cent in the most disadvantaged quintile. There was no significant difference between urban areas and rural areas; however, a significantly higher proportion of children in the Northern Sydney & Central Coast Health Area (47.6 per cent) currently participate in early childhood activities. A significantly lower proportion of children with mothers under the age of 25 years (27.5 per cent) compared with mothers 25 years and over (39.2 per cent), or with mothers without tertiary qualifications (33.2 per cent) compared with mothers with tertiary qualifications (46.7 per cent), or children of mothers from a non English speaking background (27.5 per cent) compared with children of mothers from an English speaking background (41.2 per cent), currently participate in early childhood activities. The proportion of children aged 0-5 years who currently participate in early childhood activities has not varied significantly between 2001-2002 and 2005-2006, although it has increased significantly in rural areas (from 36.3 per cent to 41.4 per cent).

Childcare

Overall, 46.9 per cent of children aged 0-5 years have ever been to childcare. A significantly lower proportion of children in the most disadvantaged quintile (39.7 per cent) have ever been to childcare. There was no significant difference between urban areas and rural areas; however, a significantly lower proportion of children in the Hunter & New England Health Area (37.9 per cent) have ever been to childcare. A significantly higher proportion of children with mothers under the age of 25 years (33.3 per cent) compared with children of mothers aged 25 years and over (48.0 per cent), and a significantly lower proportion of children with mothers without tertiary qualifications (41.7 per cent) compared with mothers with tertiary

qualifications (55.5 per cent), have ever been to childcare. The proportion of children who have ever been to childcare has decreased significantly between 2001-2002 (53.6 per cent) and 2005-2006 (46.9 per cent).

Overall, 34.7 per cent of children aged 0-5 years currently go to childcare. A significantly higher proportion of children in the second least disadvantaged quintile (41.4 per cent), and a significantly lower proportion of children in the most disadvantaged quintile (27.3 per cent), currently go to childcare. There was no significant difference between urban areas and rural areas, or among health areas. A significantly higher proportion of children with mothers aged 25 years and over (35.6 per cent), compared with children of mothers aged under 25 years (25.0 per cent), currently go to childcare. A significantly lower proportion of children of mothers without tertiary qualifications (28.7 per cent) compared with children of mothers with tertiary qualifications (44.6 per cent), and mothers from a non English speaking background (27.0 per cent) compared with mothers from an English speaking background (36.7 per cent), currently go to childcare. The proportion of children aged 0-5 years currently going to childcare has decreased significantly between 2001-2002 (43.5 per cent) and 2005-2006 (34.7 per cent). The types of childcare are: long daycare centre (65.8 per cent), family daycare (13.2 per cent), occasional care (6.5 per cent), grandparent (6.4 per cent), nanny (2.7 per cent), relative or family other than grandparent (1.4 per cent), friend (1.0 per cent), and babysitter (1.4 per cent).

Pre-school

Overall, 74.5 per cent of children aged 3-4 years currently attend pre-school. There was no significant difference by level of socioeconomic disadvantage, or between urban areas and rural areas; however, a significantly higher proportion of children in the South Eastern Sydney & Illawarra Health Area (85.3 per cent) currently attend pre-school. A significantly lower proportion of children with mothers from a non English speaking background (55.5 per cent), compared with children of mothers from an English speaking background (79.9 per cent), currently go to pre-school. The proportion of children currently attending pre-school has increased significantly between 2001-2002 (69.1 per cent) and 2005-2006 (74.5 per cent).

Reading

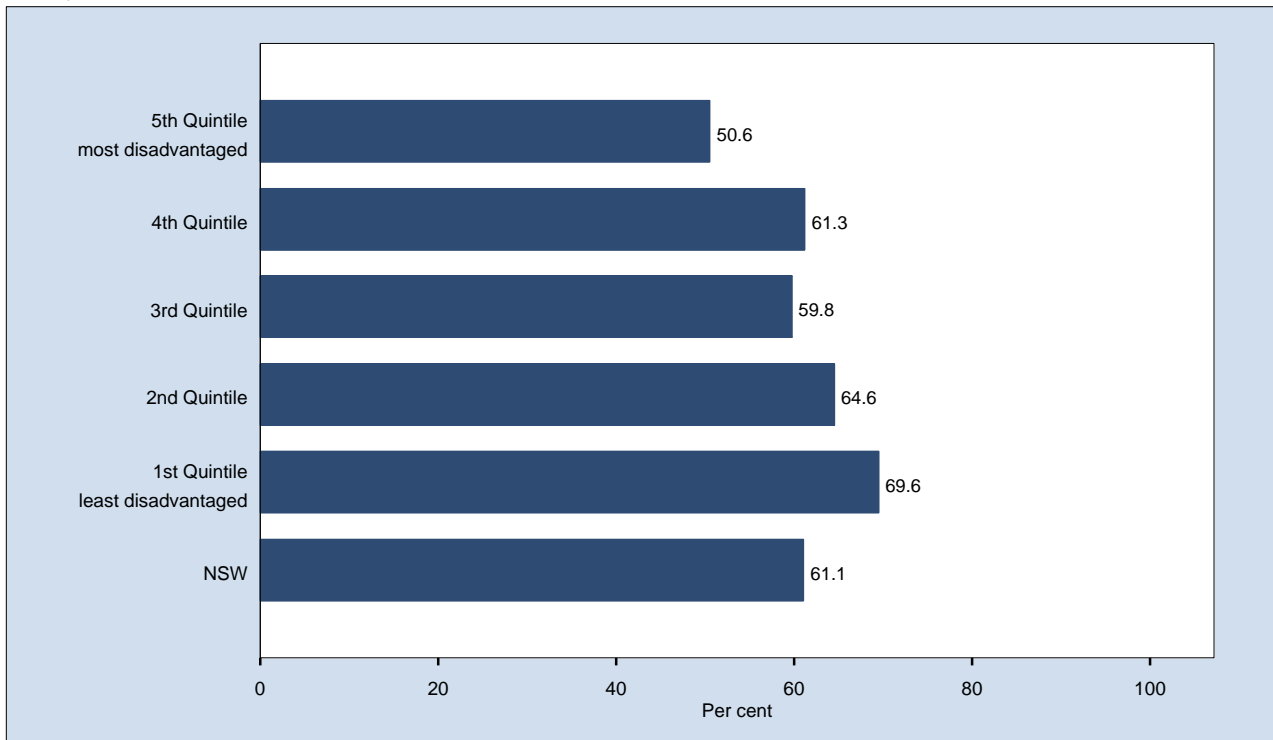
Overall, 73.3 per cent of parents or carers of children aged 0-5 years read to or looked at books with their child daily, 19.5 per cent at least once a week, 0.9 per cent at least once a month, 0.3 per cent rarely, and 5.9 have never read or looked at books with their child. There was no significant variation by socioeconomic status. A significantly higher proportion of parents or carers in rural areas (76.6 per cent) than urban areas (71.9 per cent) read to or looked at books with their child daily. There was no significant variation by health areas. A significantly lower proportion of mothers without tertiary qualifications (70.0 per cent) compared with mothers with tertiary qualifications (78.5 per cent), or mothers from a non English speaking background (66.7 per cent) compared with mothers from an English speaking background (74.8 per cent), read to or looked at books with their child daily.

The age of child when parents or carers first started reading to or looking at books with them was: less than 6 months (50.9 per cent), 6 months to 1 year (29.6 per cent), 1 to 2 years (13.3 per cent), 2 to 3 years (4.4 per cent), and 3 years and over (1.8 per cent). The proportion of parents or carers who read to or looked at books with their child daily increased significantly between 2003-2004 (68.0 per cent) and 2005-2006 (73.3 per cent). health areas.

References

1. Office for Children and Young People, New South Wales Cabinet Office. *Families First Outcomes Framework New South Wales Data Report*. Sydney: Communities Division, NSW Department of Community Services, 2005.
2. NSW Government. *Families First and Parenting* website at www.familiesfirst.nsw.gov.au, accessed 22 November 2007.

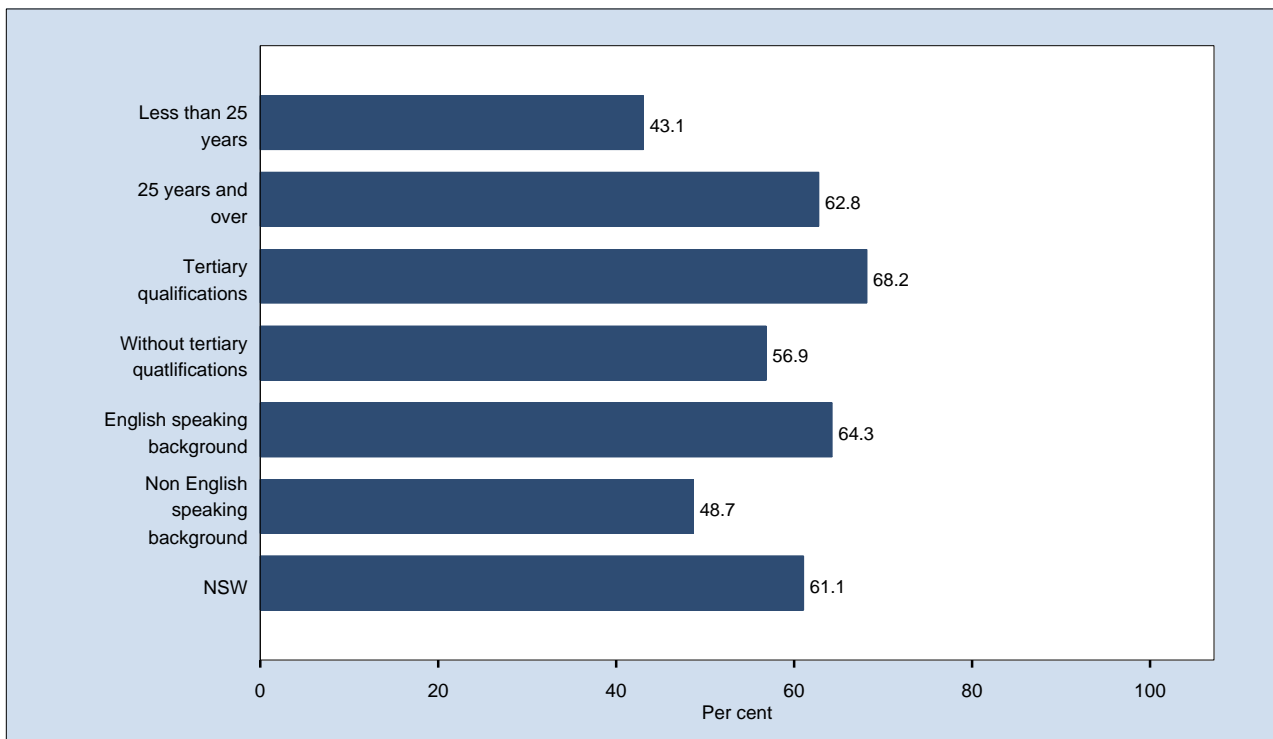
Ever participated in early childhood activities by socioeconomic disadvantage, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,683 respondents in NSW. For this indicator 5 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who have ever attended a play group or early childhood program or activity. The question used to define the indicator was: Has child ever attended any play group or other early childhood program or activity? Please do not include child care programs or time spent in preschool.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

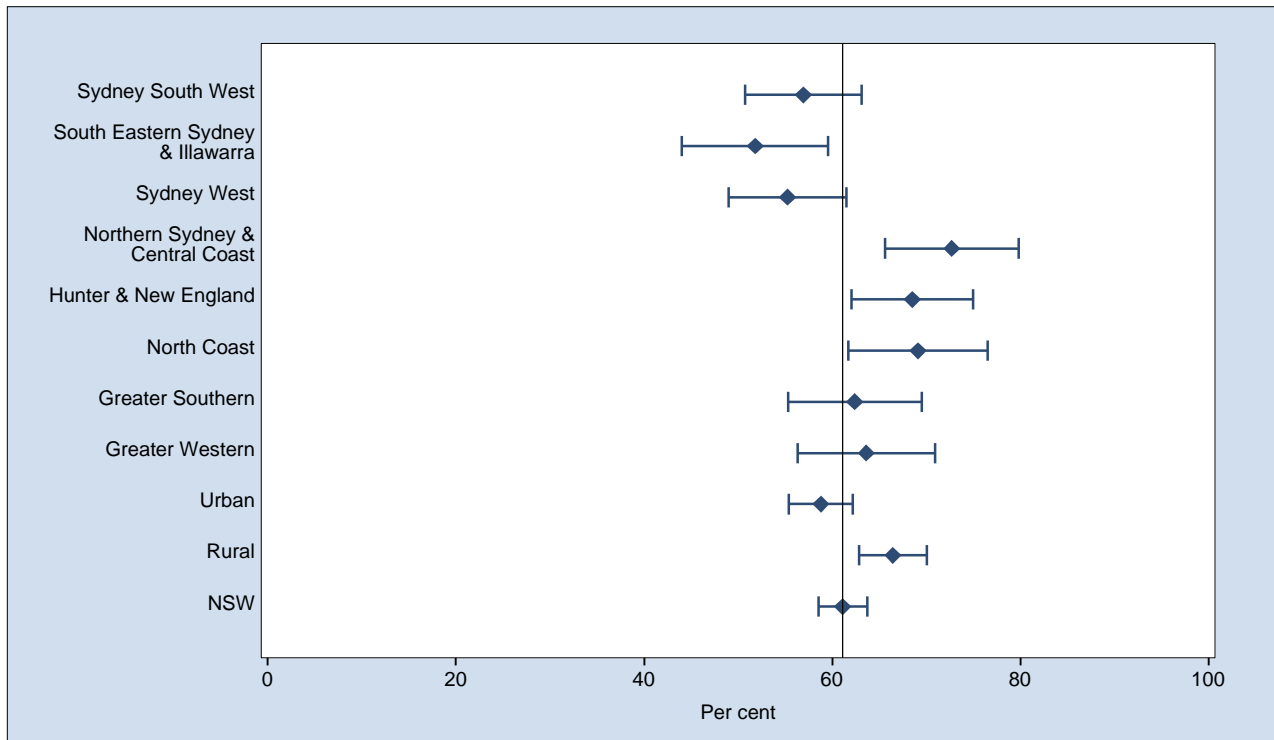
Ever participated in early childhood activities by mothers' characteristics, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,683 respondents in NSW. For this indicator 5 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who have ever attended a play group or early childhood program or activity. The question used to define the indicator was: Has child ever attended any play group or other early childhood program or activity? Please do not include child care programs or time spent in preschool.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

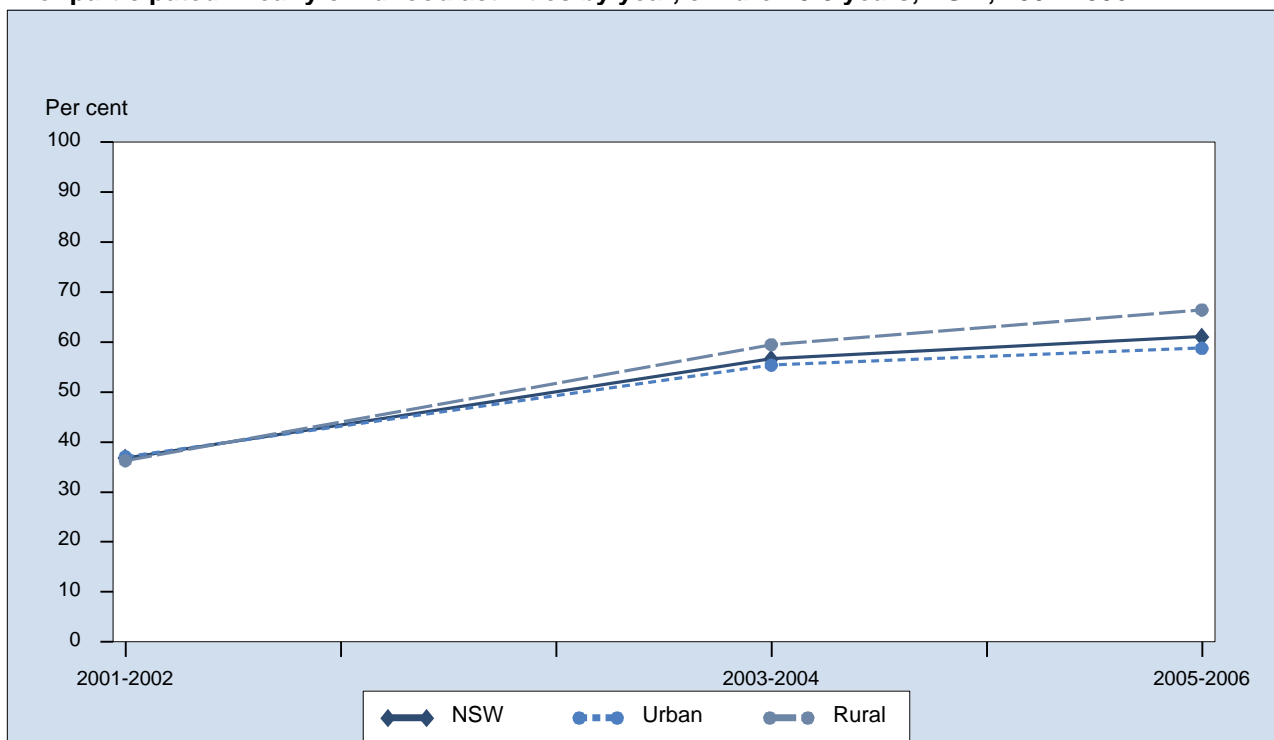
Ever participated in early childhood activities by area health service, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,683 respondents in NSW. For this indicator 5 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who have ever attended a play group or early childhood program or activity. The question used to define the indicator was: Has child ever attended any play group or other early childhood program or activity? Please do not include child care programs or time spent in preschool.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

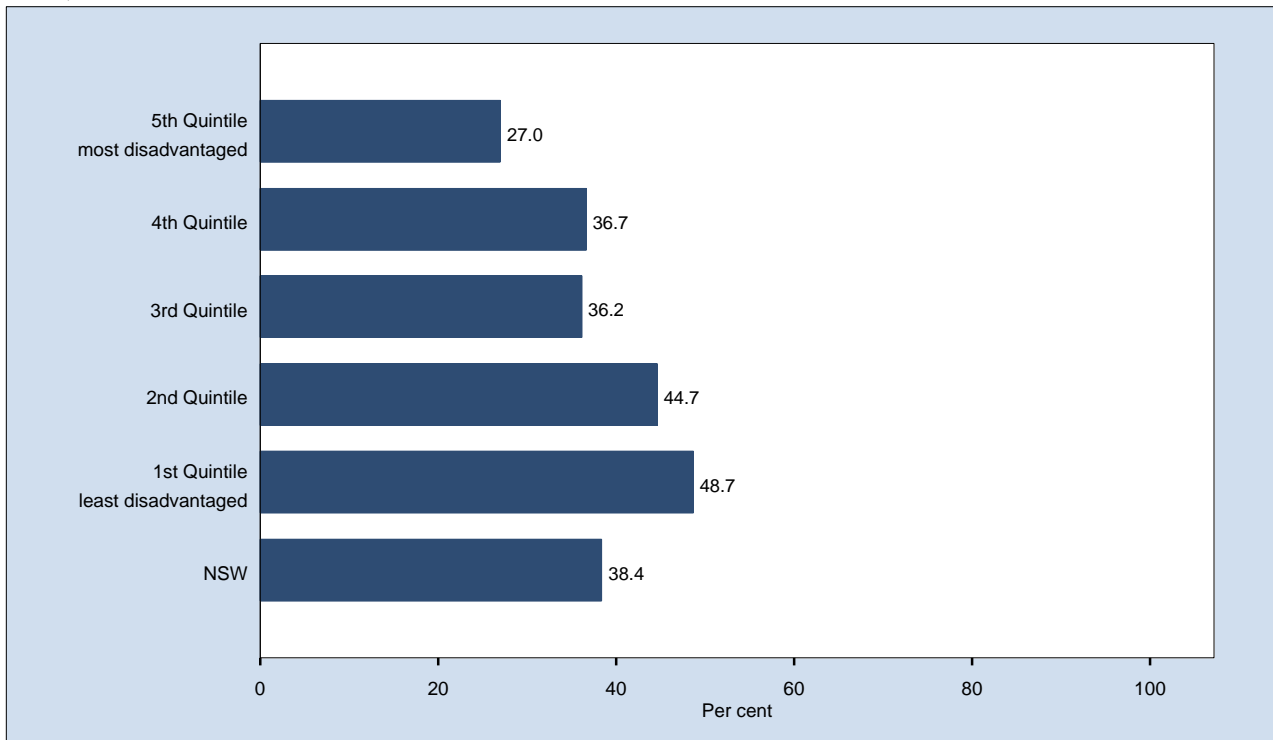
Ever participated in early childhood activities by year, children 0-5 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (2,921), 2004 (2,813), 2006 (1,683). The indicator includes those children who have ever attended a play group or early childhood program or activity. The question used to define the indicator was: Has child ever attended any play group or other early childhood program or activity? Please do not include child care programs or time spent in preschool.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

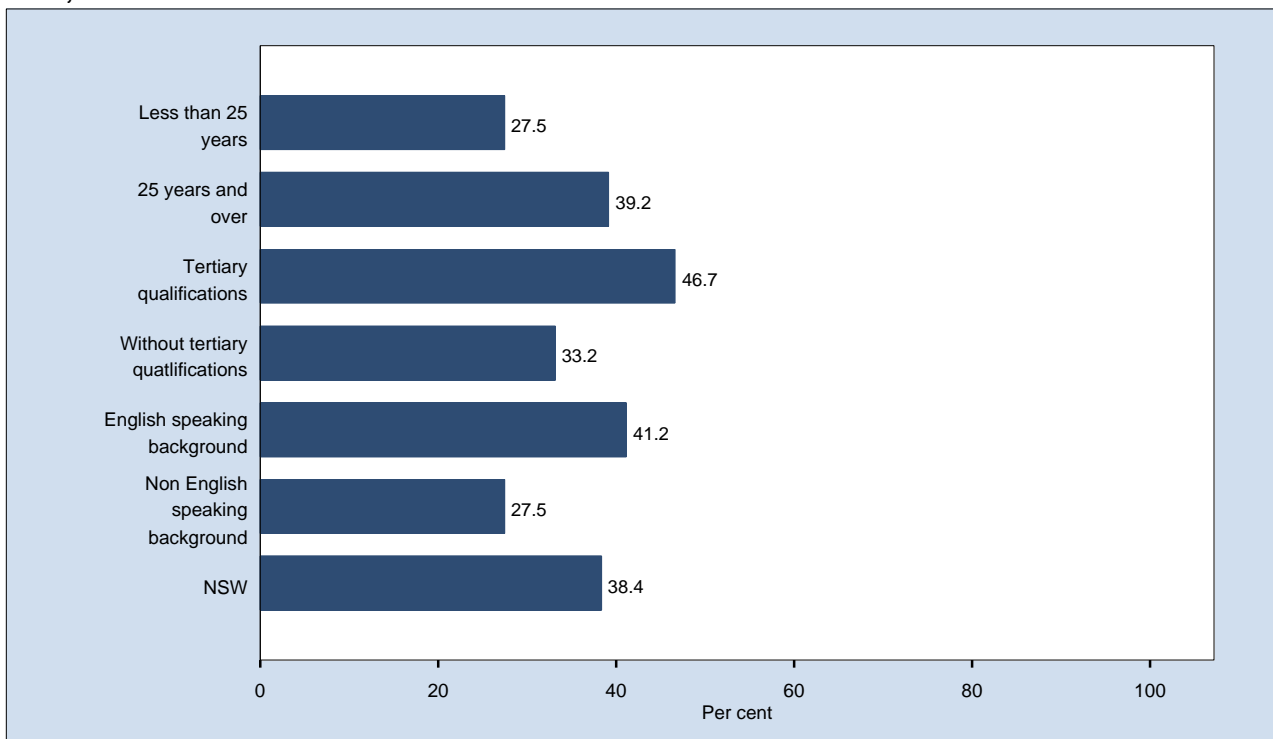
Currently participate in early childhood activities by socioeconomic disadvantage, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,681 respondents in NSW. For this indicator 7 (0.41%) were not stated (Don't know or Refused) in NSW. The indicator includes children who are currently attending any play group or other early childhood program or activity. The question used to define the indicator was: Does child currently attend any play group or other early childhood program or activity? Please do not include child care programs or time spent in preschool.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

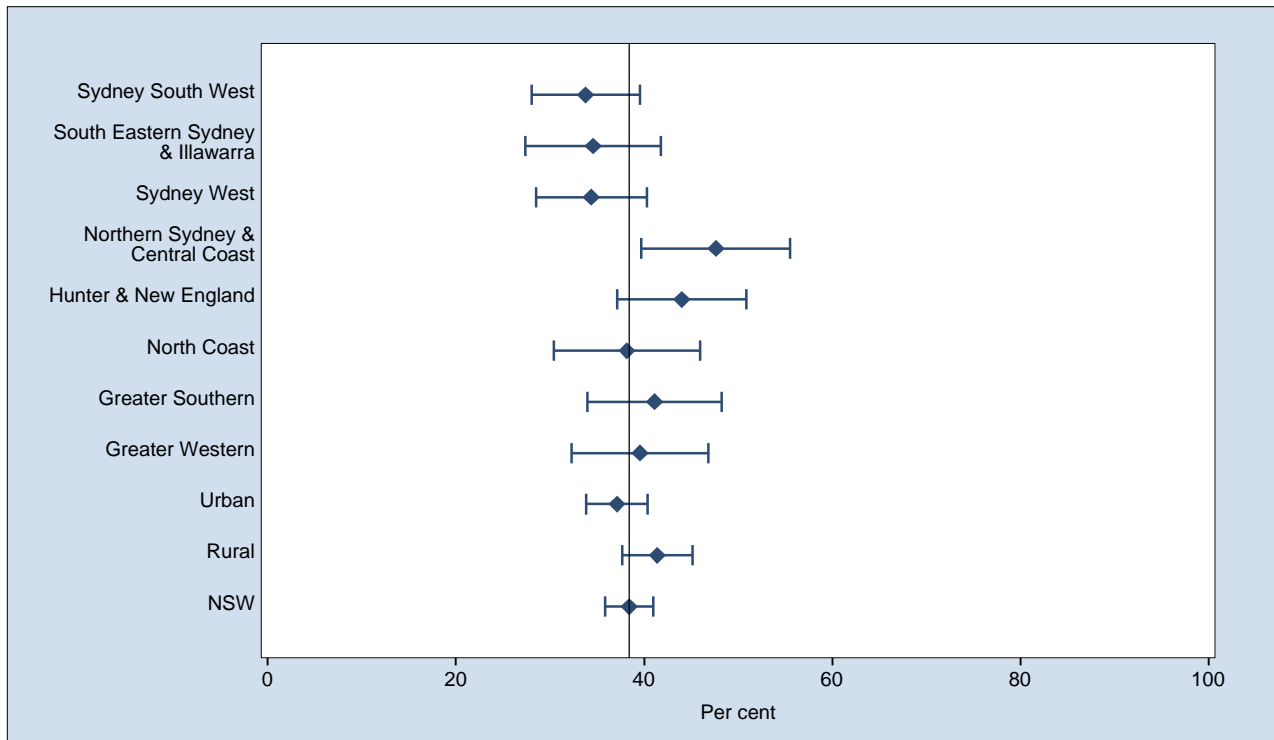
Currently participate in early childhood activities by mothers' characteristics, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,681 respondents in NSW. For this indicator 7 (0.41%) were not stated (Don't know or Refused) in NSW. The indicator includes children who are currently attending any play group or other early childhood program or activity. The question used to define the indicator was: Does child currently attend any play group or other early childhood program or activity? Please do not include child care programs or time spent in preschool.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

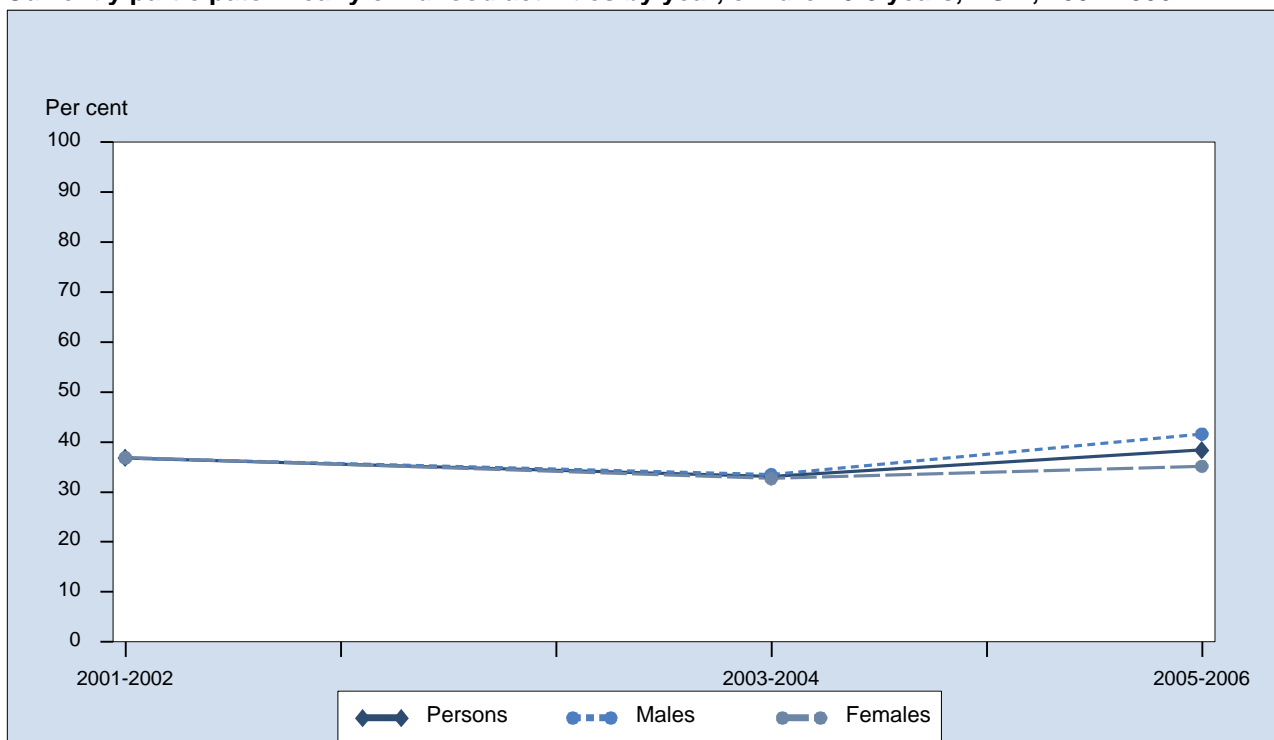
Currently participate in early childhood activities by area health service, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,681 respondents in NSW. For this indicator 7 (0.41%) were not stated (Don't know or Refused) in NSW. The indicator includes children who are currently attending any play group or other early childhood program or activity. The question used to define the indicator was: Does child currently attend any play group or other early childhood program or activity? Please do not include child care programs or time spent in preschool.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

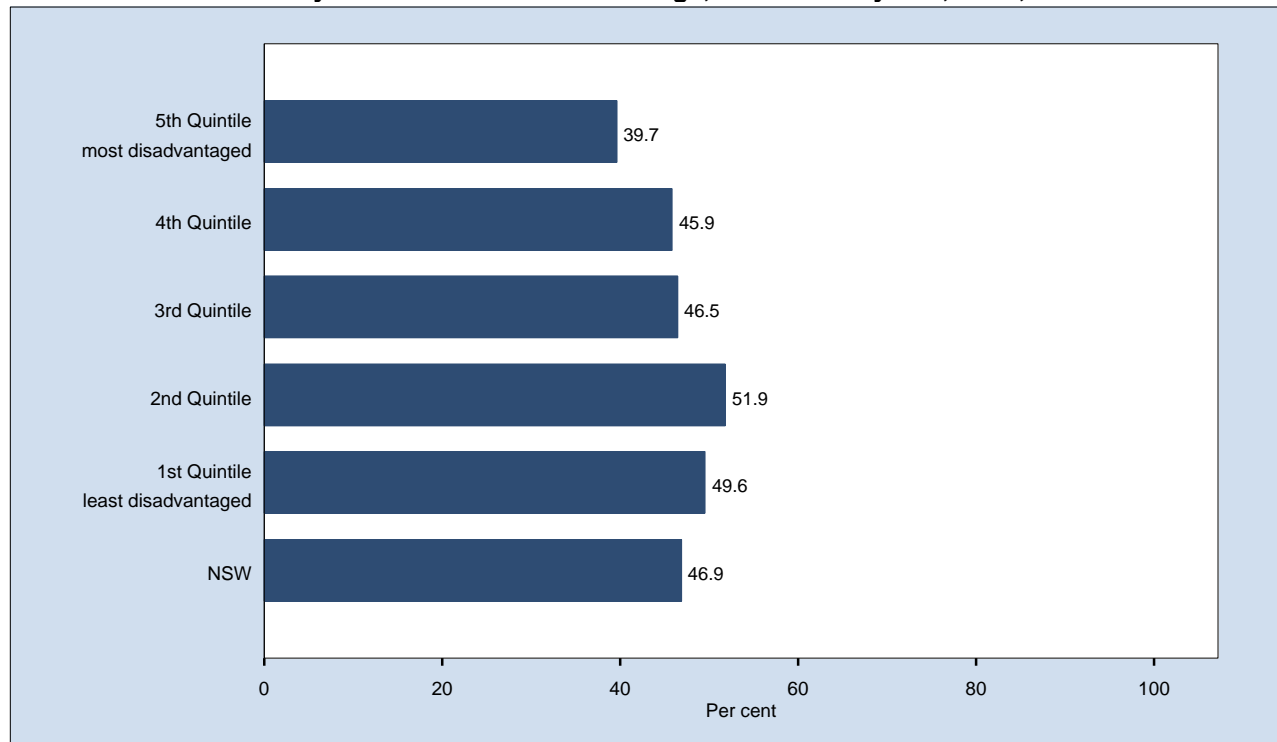
Currently participate in early childhood activities by year, children 0-5 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (2,921), 2004 (2,813), 2006 (1,681). The indicator includes children who are currently attending any play group or other early childhood program or activity. The question used to define the indicator was: Does child currently attend any play group or other early childhood program or activity? Please do not include child care programs or time spent in preschool.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

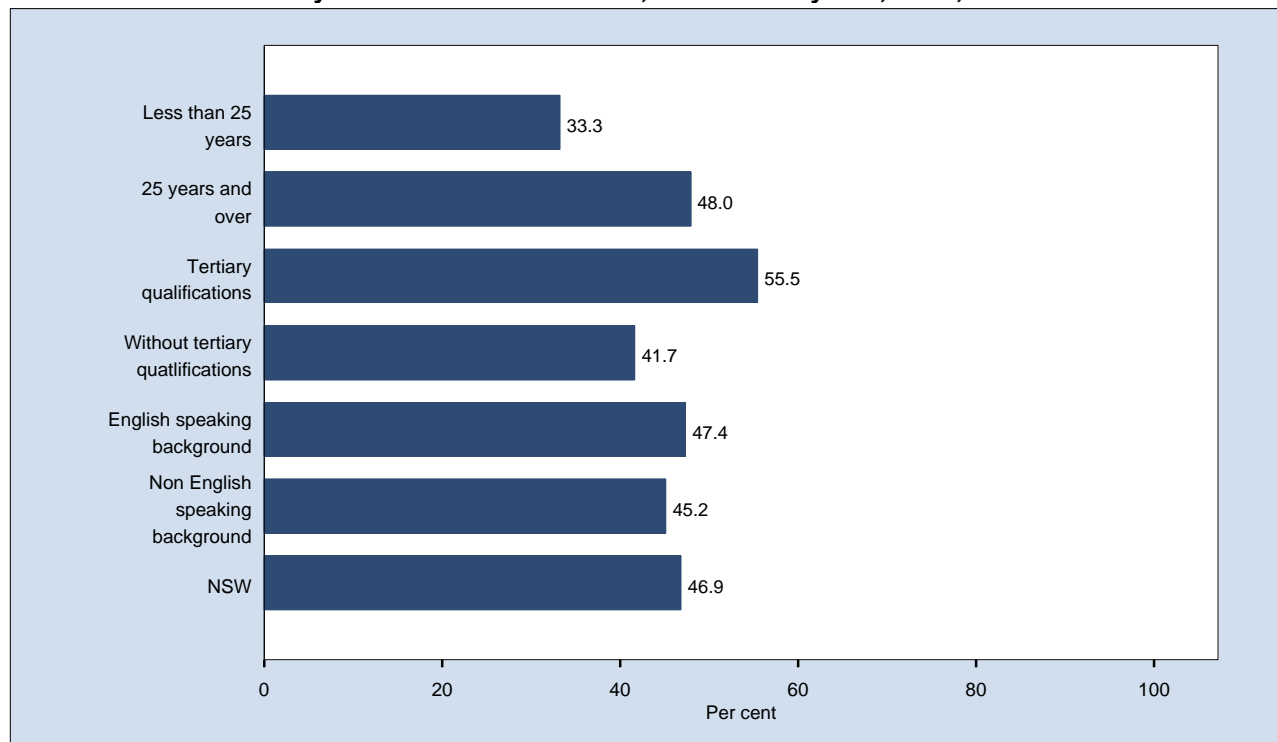
Ever been to childcare by socioeconomic disadvantage, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,683 respondents in NSW. For this indicator 5 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have ever been to childcare on a regular basis. The question used to define the indicator was: Have you ever used any child care for child on a regular basis?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

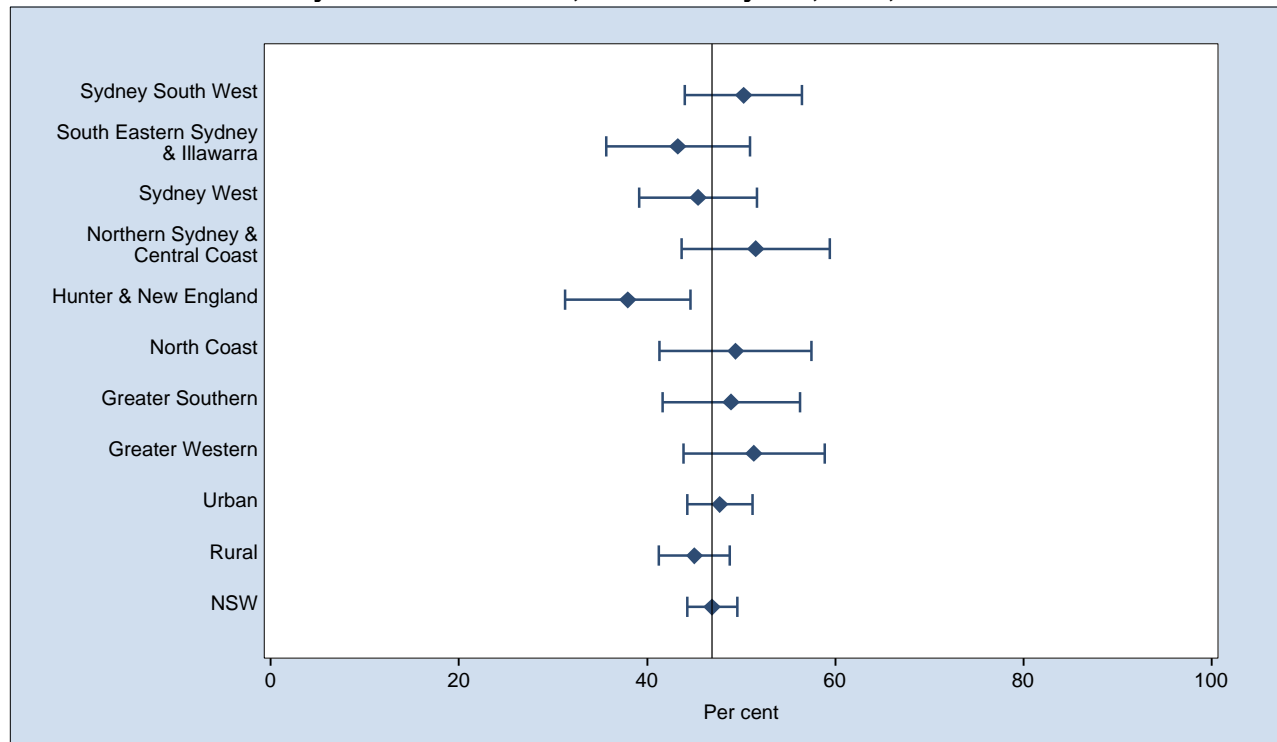
Ever been to childcare by mothers' characteristics, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,683 respondents in NSW. For this indicator 5 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have ever been to childcare on a regular basis. The question used to define the indicator was: Have you ever used any child care for child on a regular basis?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

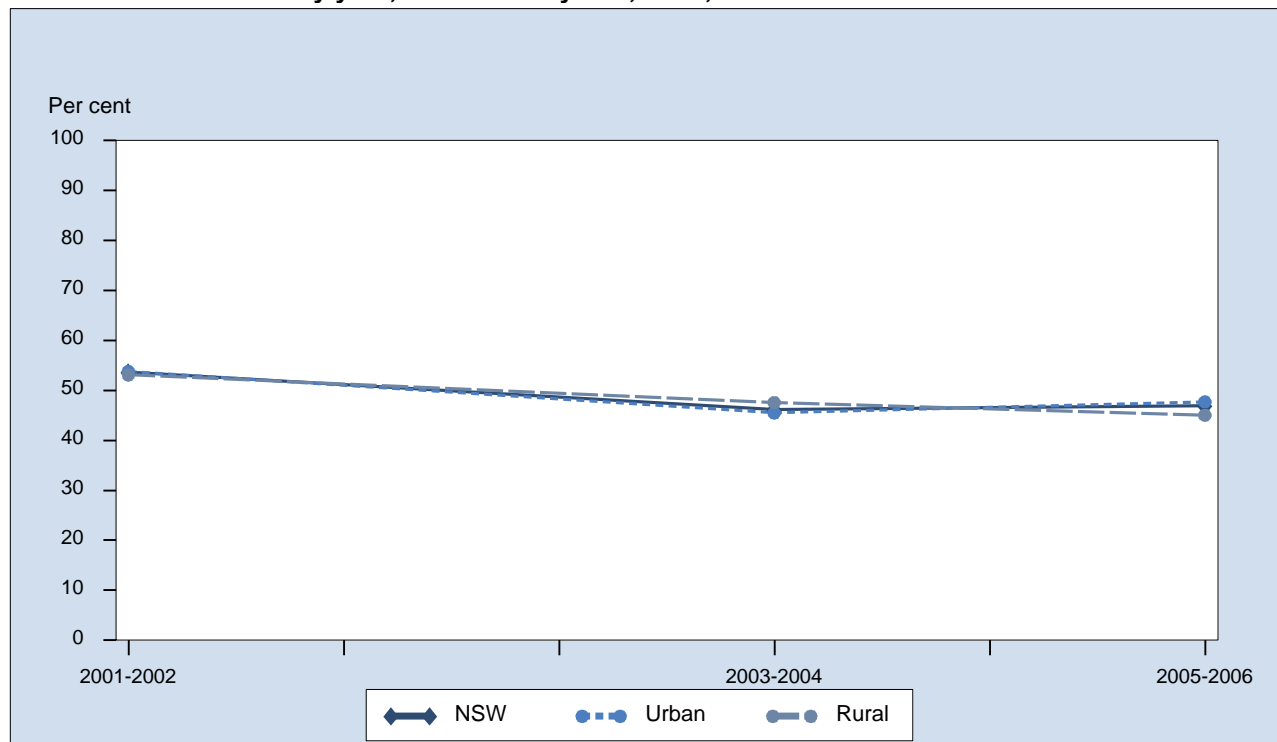
Ever been to childcare by area health service, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,683 respondents in NSW. For this indicator 5 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes children who have ever been to childcare on a regular basis. The question used to define the indicator was: Have you ever used any child care for child on a regular basis?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

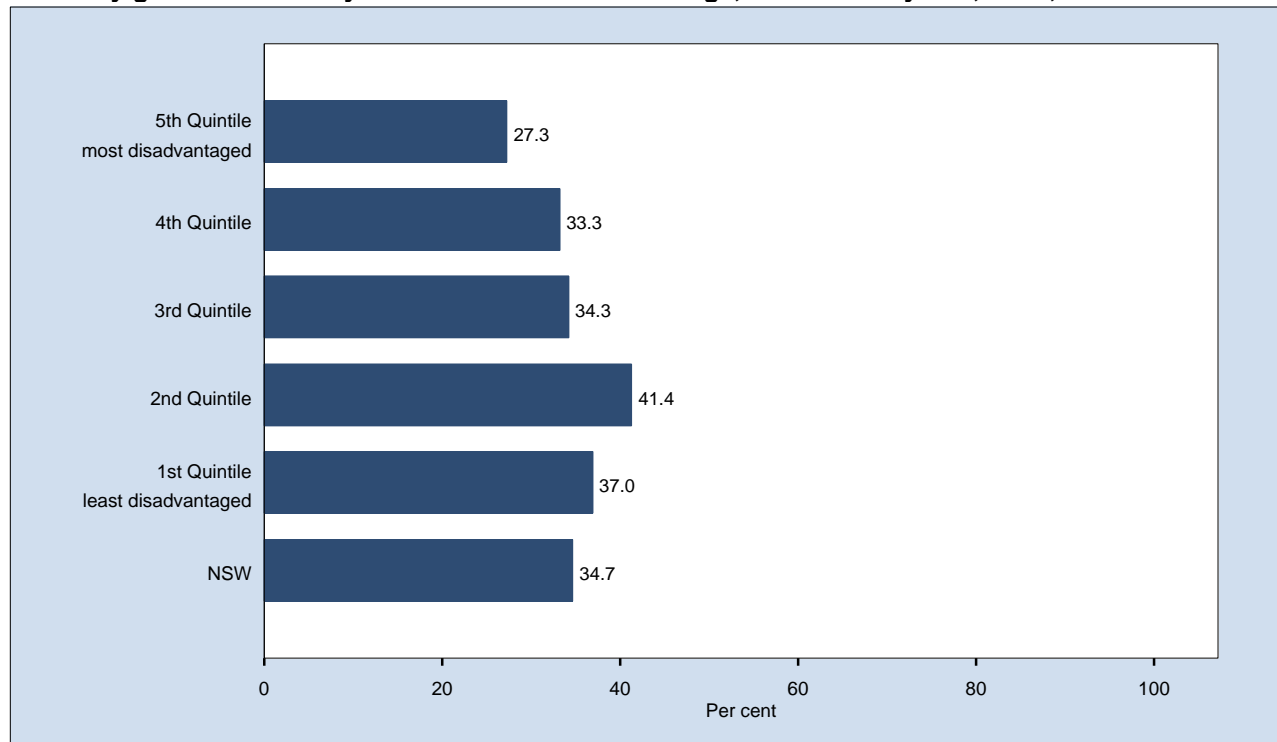
Ever been to childcare by year, children 0-5 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (3,610), 2004 (2,813), 2006 (1,683). The indicator includes children who have ever been to childcare on a regular basis. The question used to define the indicator was: Have you ever used any child care for child on a regular basis?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

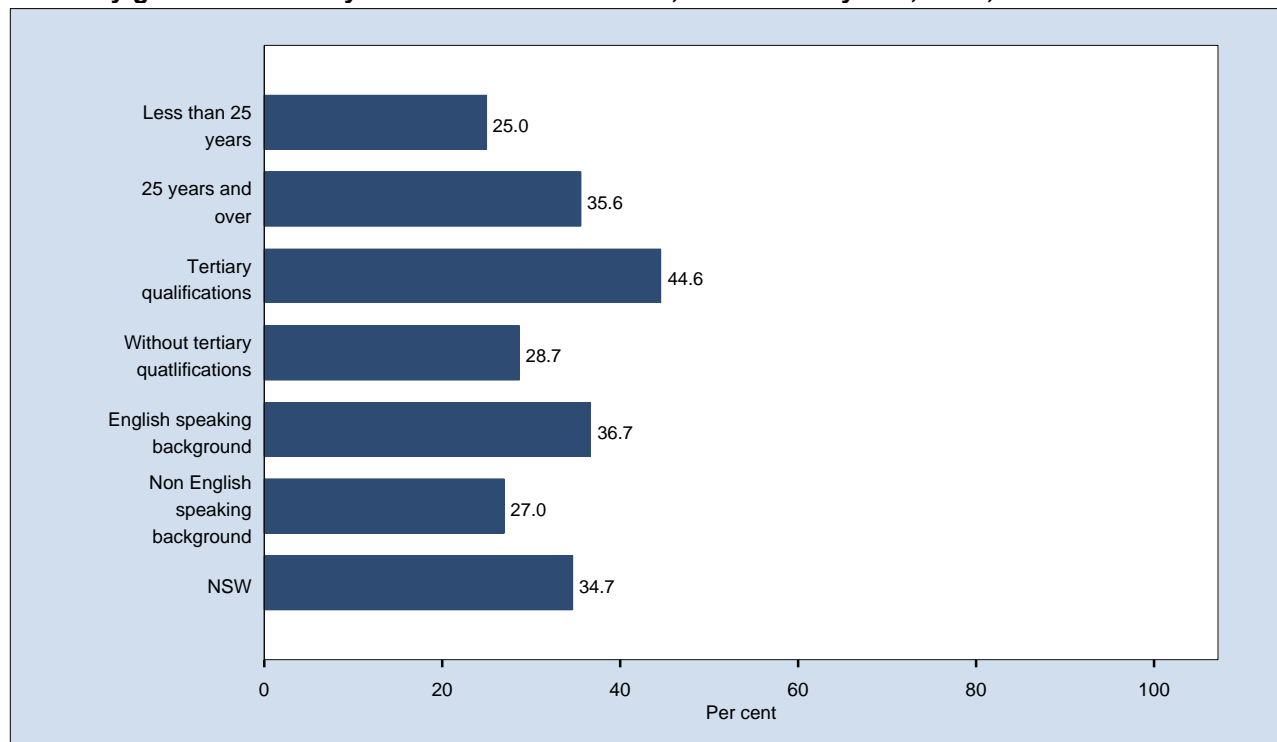
Currently go to childcare by socioeconomic disadvantage, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,683 respondents in NSW. For this indicator 5 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who currently go to childcare on a regular basis. The question used to define the indicator was: Is child currently having any type of childcare on a regular basis?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

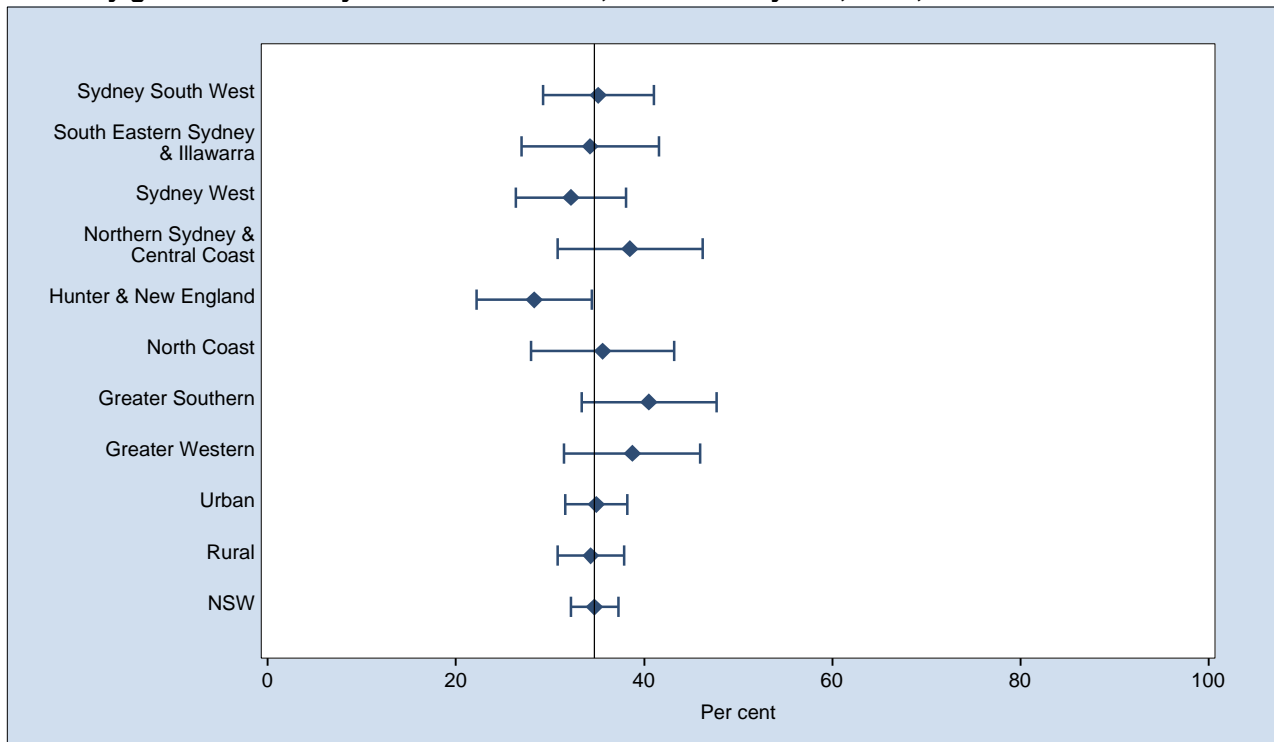
Currently go to childcare by mothers' characteristics, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,683 respondents in NSW. For this indicator 5 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who currently go to childcare on a regular basis. The question used to define the indicator was: Is child currently having any type of childcare on a regular basis?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

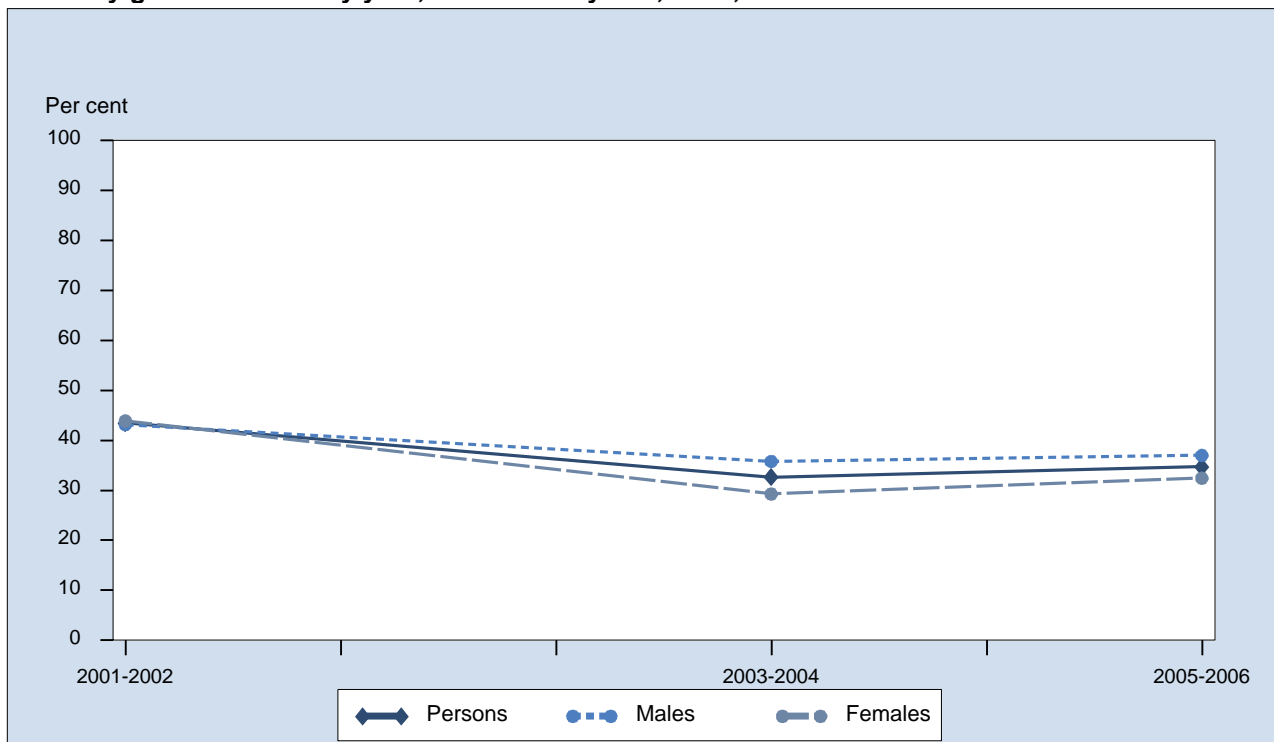
Currently go to childcare by area health service, children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,683 respondents in NSW. For this indicator 5 (0.30%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who currently go to childcare on a regular basis. The question used to define the indicator was: Is child currently having any type of childcare on a regular basis?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

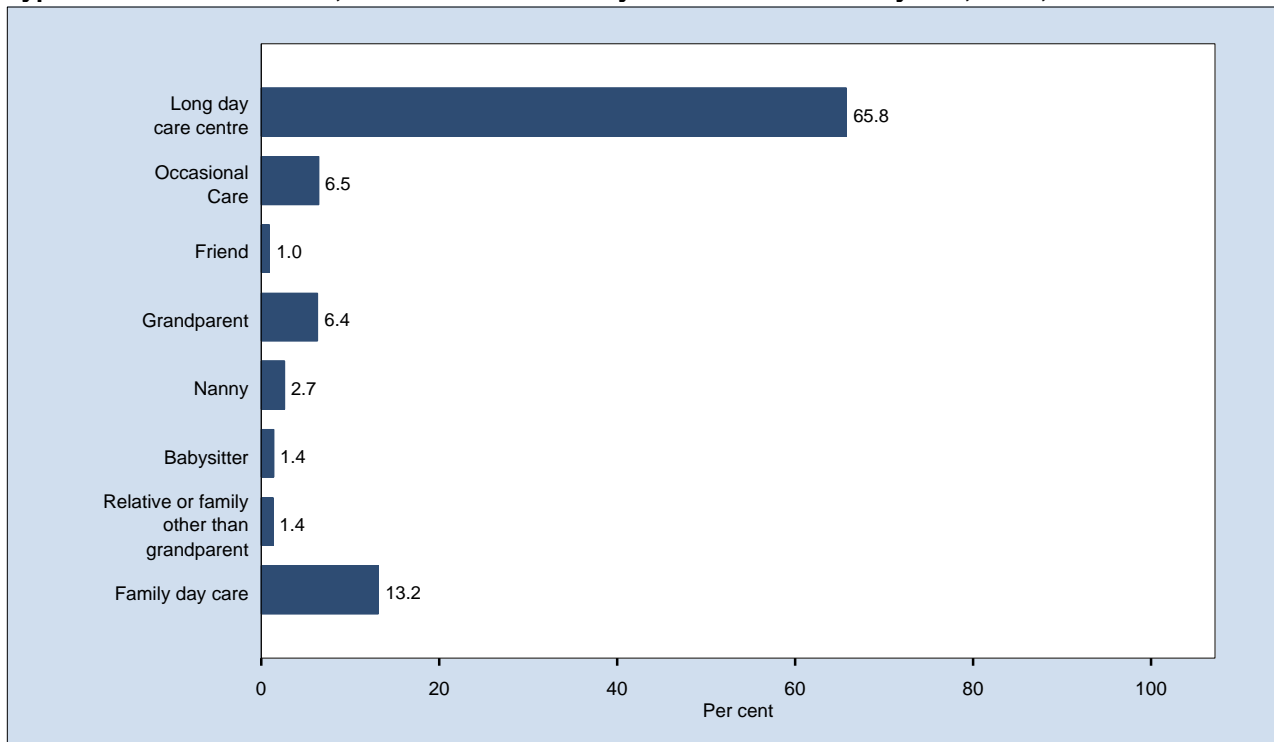
Currently go to childcare by year, children 0-5 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (3,610), 2004 (2,811), 2006 (1,683). The indicator includes those children who currently go to childcare on a regular basis. The question used to define the indicator was: Is child currently having any type of childcare on a regular basis?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

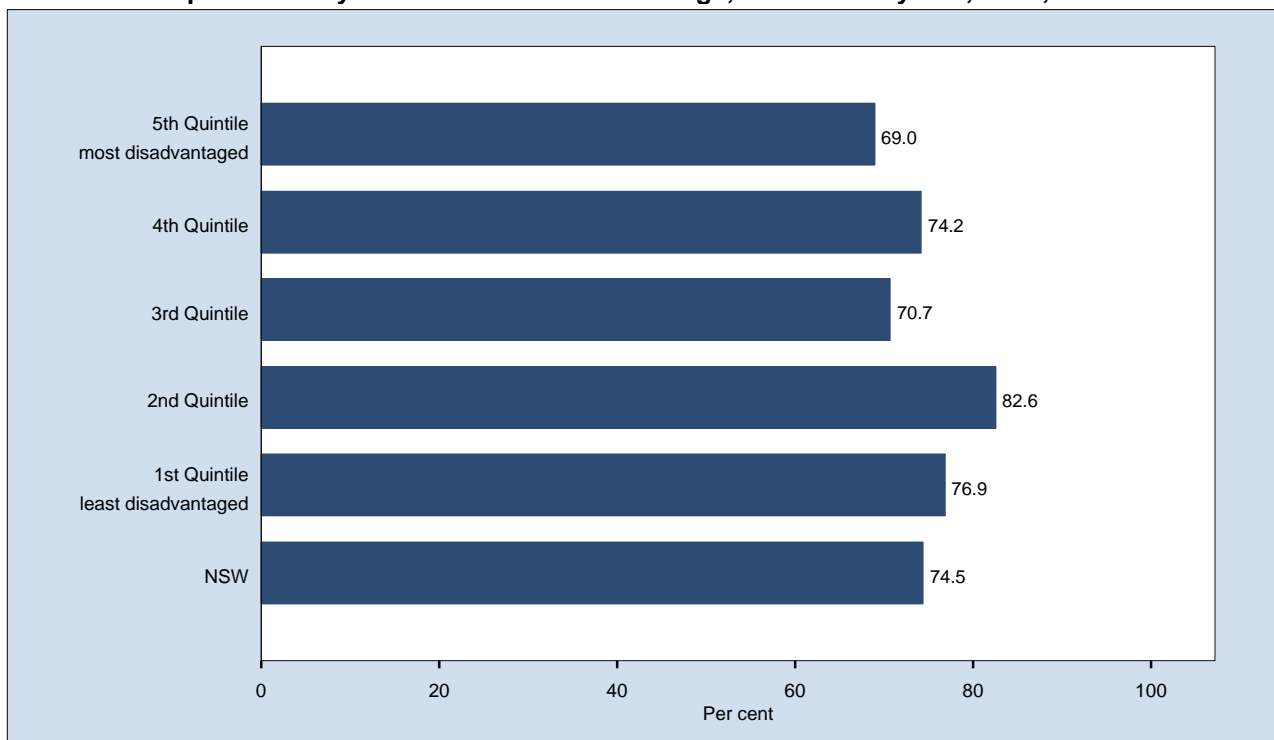
Types of current childcare, children who currently attend childcare 0-5 years, NSW, 2005-2006



Note: Estimates are based on 605 respondents in NSW. For this indicator 3 (0.49%) were not stated (Don't know or Refused) in NSW. The questions used were: Have you ever used any child care for child on a regular basis? Is child currently having any type of childcare on a regular basis? What type of childcare does child have? Respondents could mention more than 1 response. Percentages may total more than 100%.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

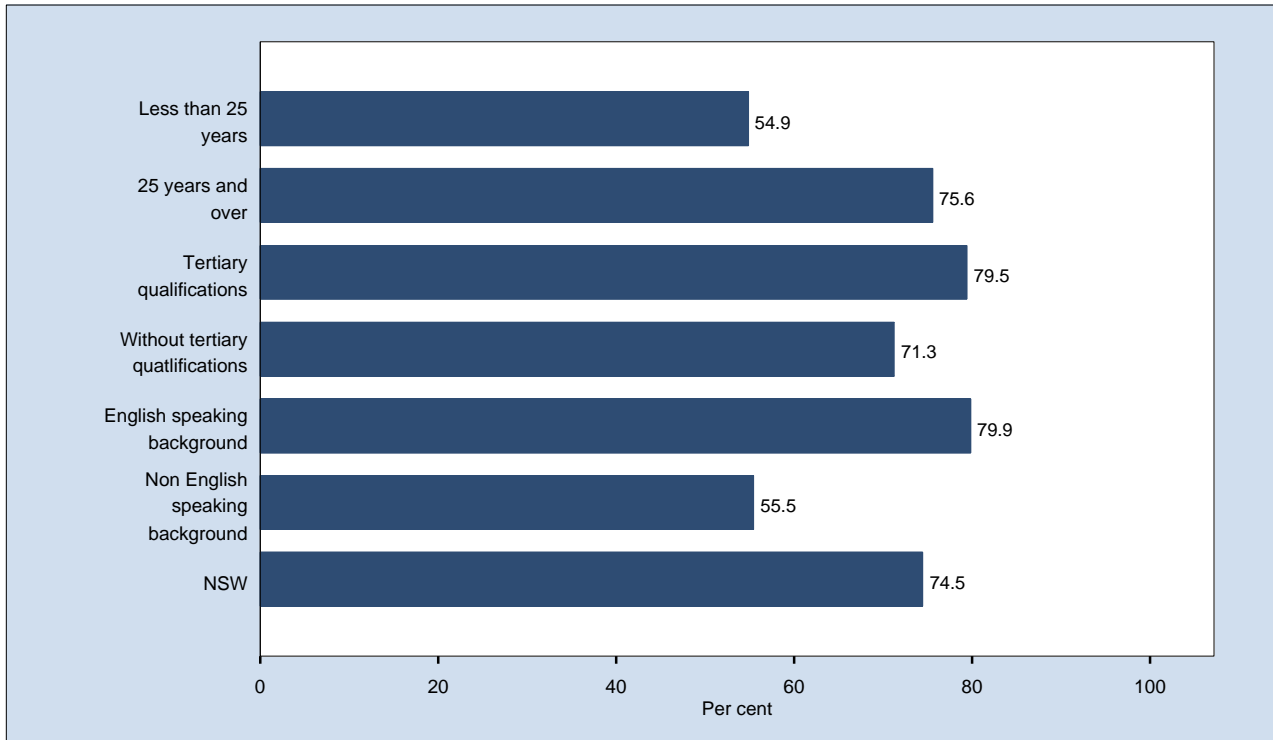
Attendance at preschool by socioeconomic disadvantage, children 3-4 years, NSW, 2005-2006



Note: Estimates are based on 537 respondents in NSW. For this indicator 8 (1.47%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who are currently attending preschool. The question used to define the indicator was: Does child go to pre-school?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

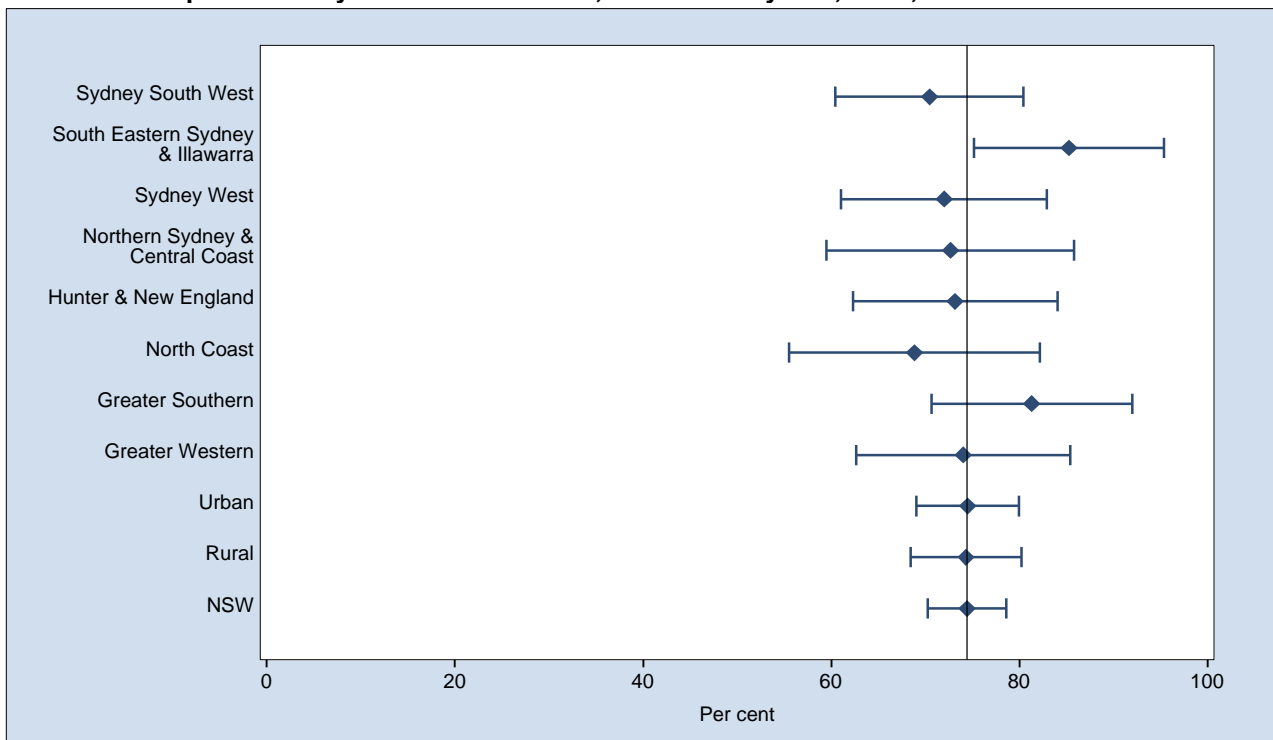
Attendance at preschool by mothers' characteristics, children 3-4 years, NSW, 2005-2006



Note: Estimates are based on 537 respondents in NSW. For this indicator 8 (1.47%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who are currently attending preschool. The question used to define the indicator was: Does child go to pre-school?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

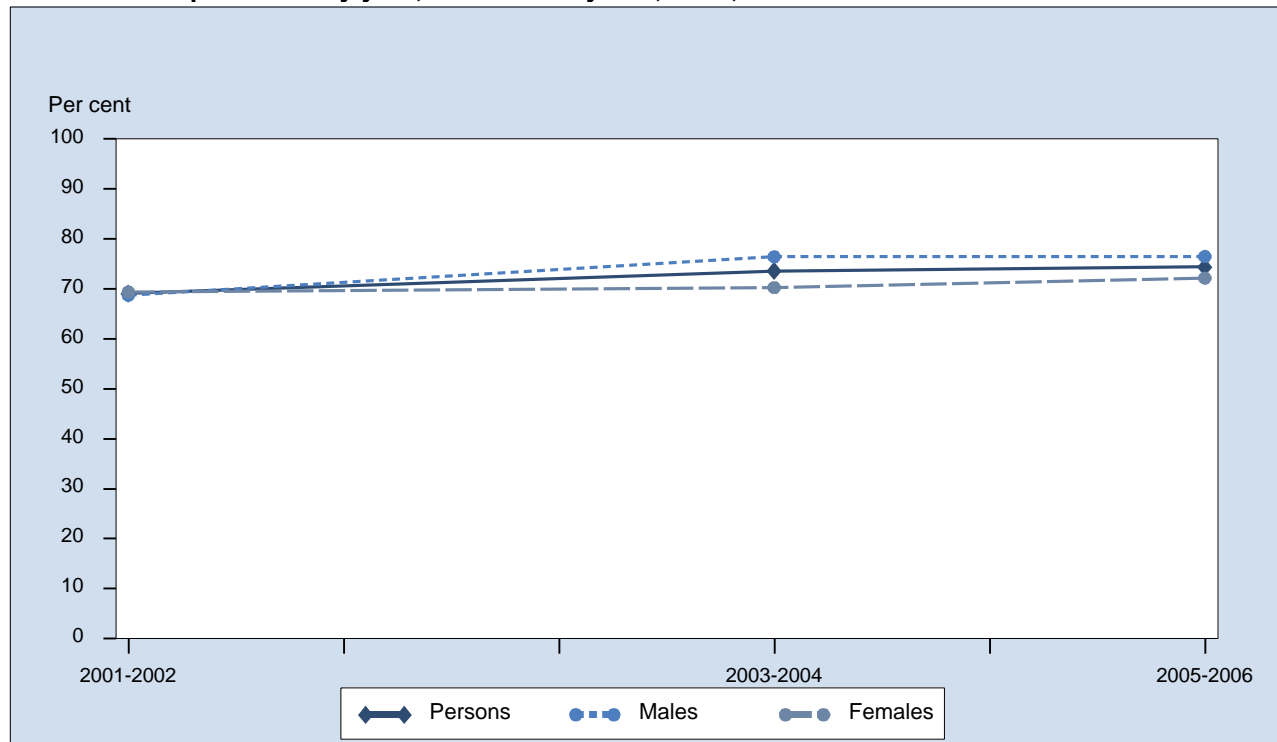
Attendance at preschool by area health service, children 3-4 years, NSW, 2005-2006



Note: Estimates are based on 537 respondents in NSW. For this indicator 8 (1.47%) were not stated (Don't know or Refused) in NSW. The indicator includes those children who are currently attending preschool. The question used to define the indicator was: Does child go to pre-school?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

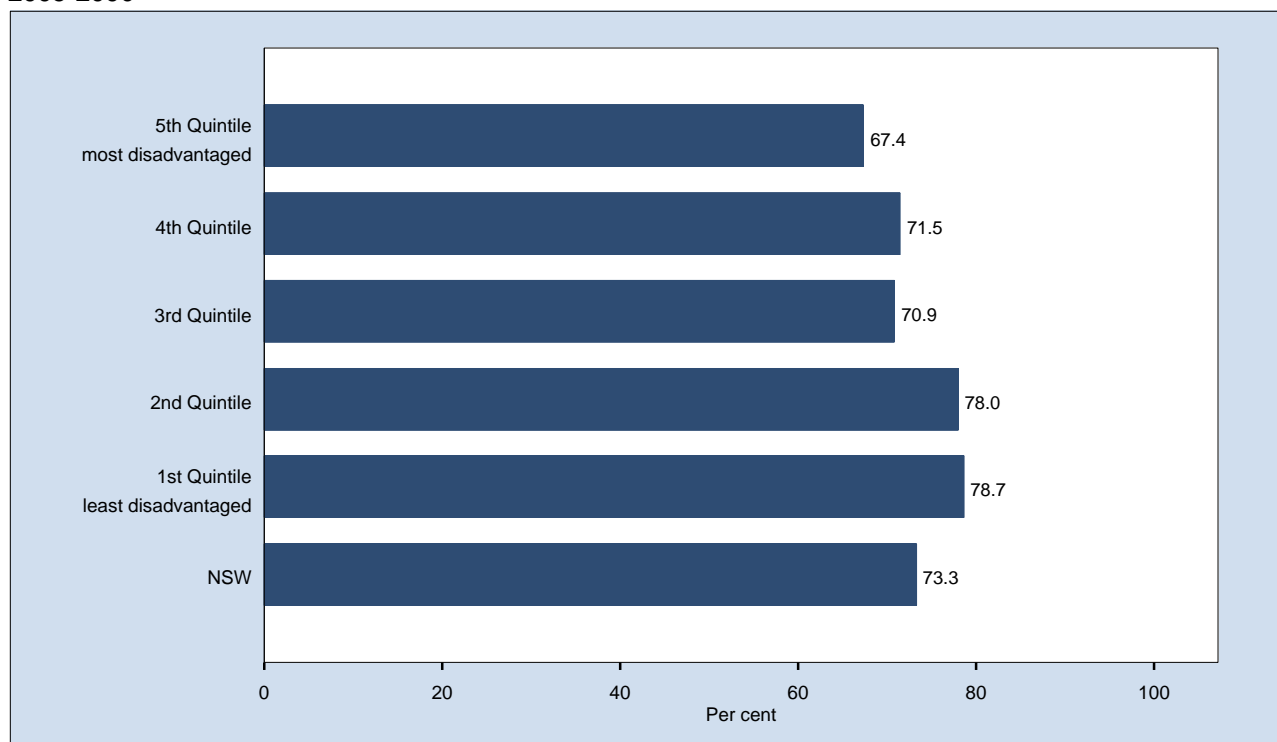
Attendance at preschool by year, children 3-4 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (1,264), 2004 (955), 2006 (537). The indicator includes those children who are currently attending preschool. The question used to define the indicator was: Does child go to pre-school?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

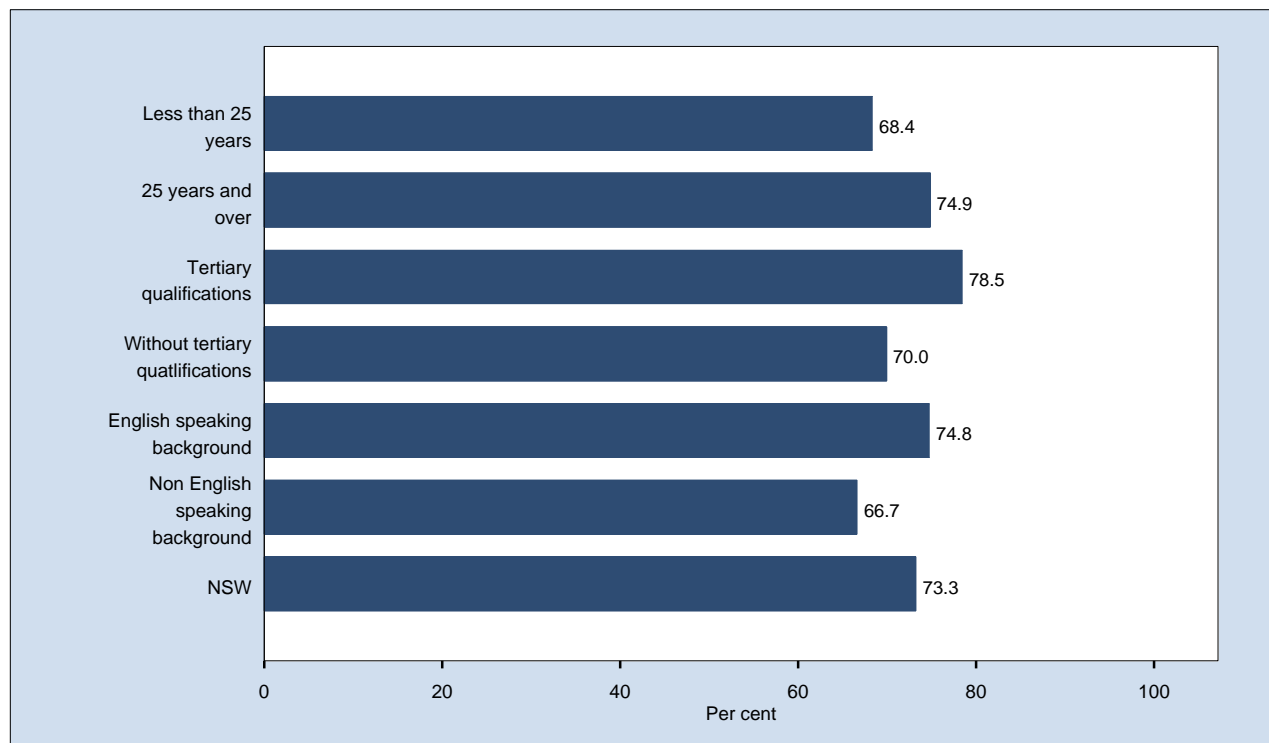
Read to child daily by socioeconomic disadvantage, parents or carers of children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,653 respondents in NSW. For this indicator 3 (0.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those parents or carers who read or looks at books with child daily. The questions used to define the indicator were: Do you or other members of your family read or look at books with child? In a typical week how often do you or other members of your family read or look at books with child?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

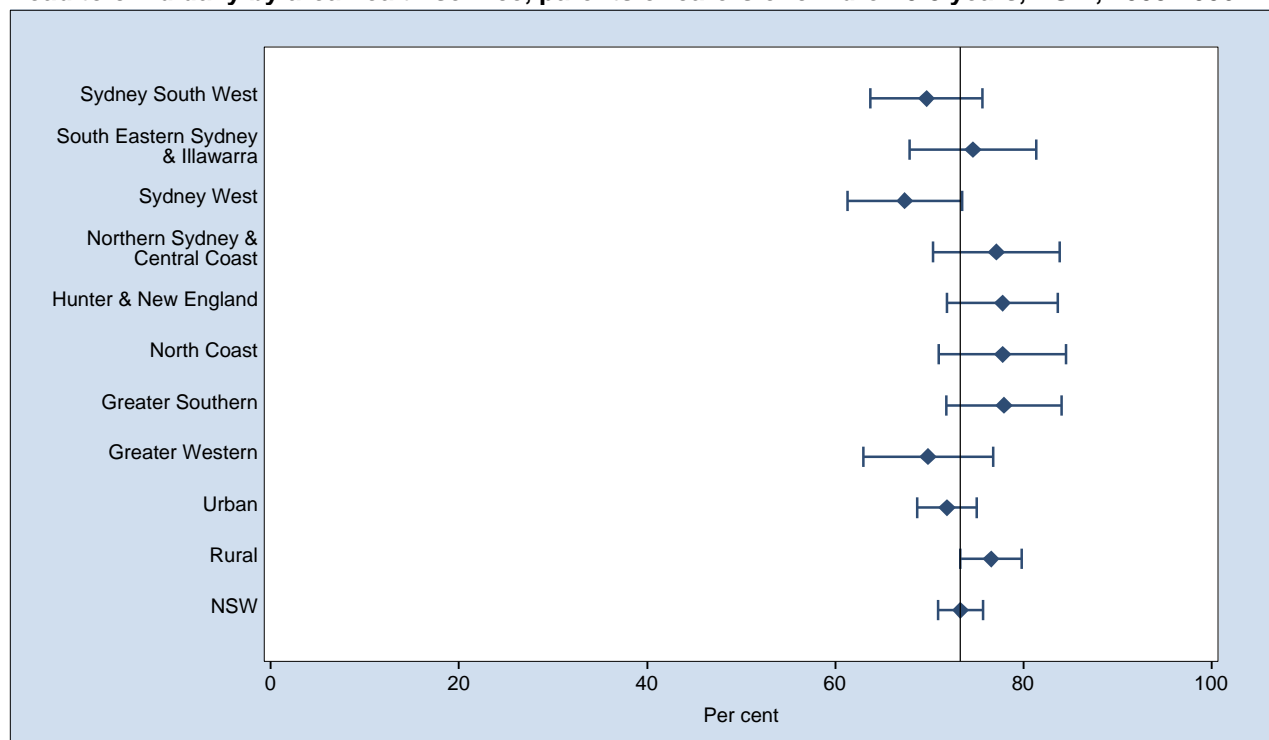
Read to child daily by mothers' characteristics, parents or carers of children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,653 respondents in NSW. For this indicator 3 (0.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those parents or carers who read or look at books with child daily. The questions used to define the indicator were: Do you or other members of your family read or look at books with child? In a typical week how often do you or other members of your family read or look at books with child?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

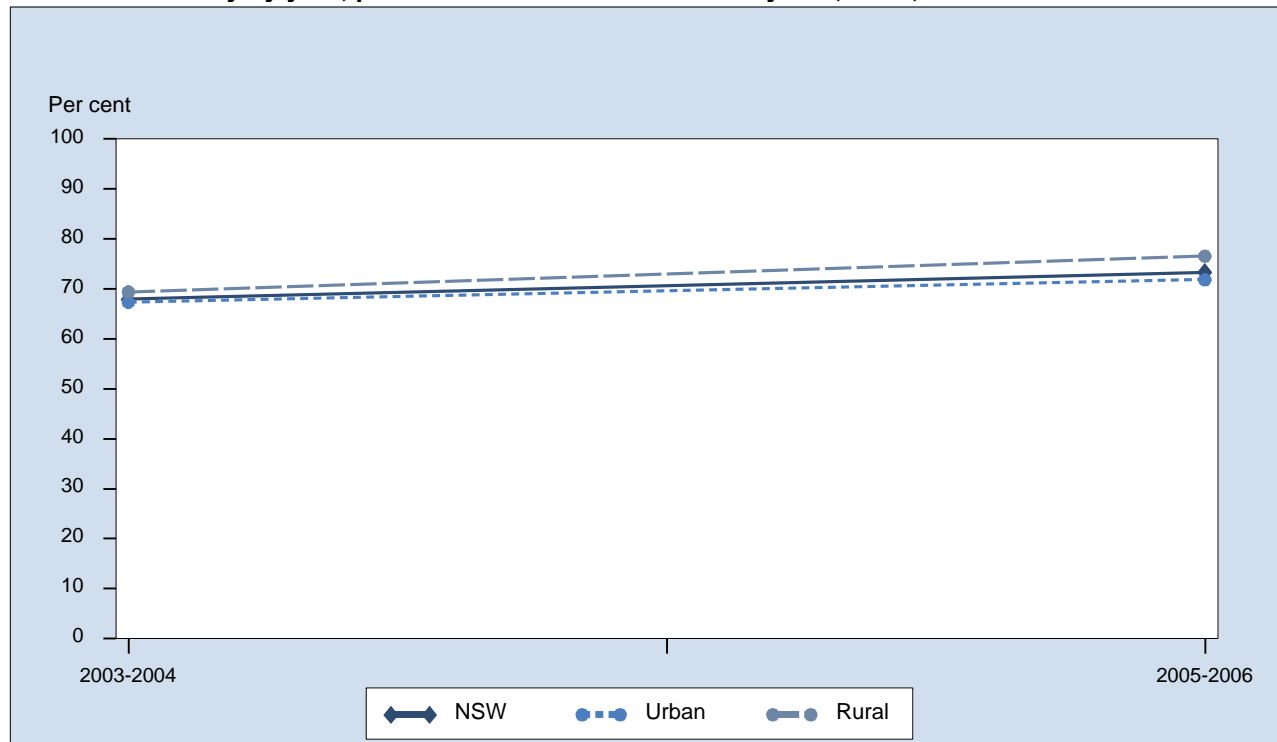
Read to child daily by area health service, parents or carers of children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,653 respondents in NSW. For this indicator 3 (0.18%) were not stated (Don't know or Refused) in NSW. The indicator includes those parents or carers who read or look at books with child daily. The questions used to define the indicator were: Do you or other members of your family read or look at books with child? In a typical week how often do you or other members of your family read or look at books with child?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

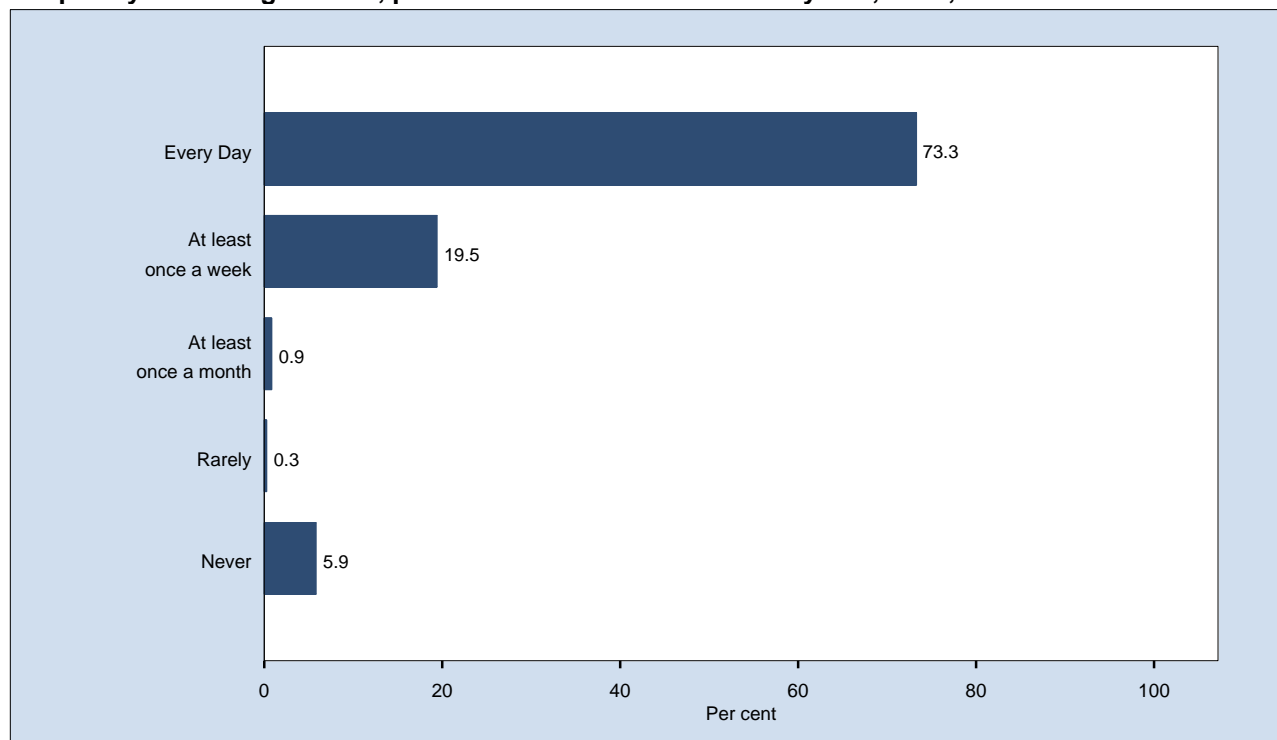
Read to child daily by year, parents or carers of children 0-5 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (1,202), 2006 (1,653). The indicator includes those parents or carers who read or looks at books with child daily. The questions used to define the indicator were: Do you or other members of your family read or look at books with child? In a typical week how often do you or other members of your family read or look at books with child?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

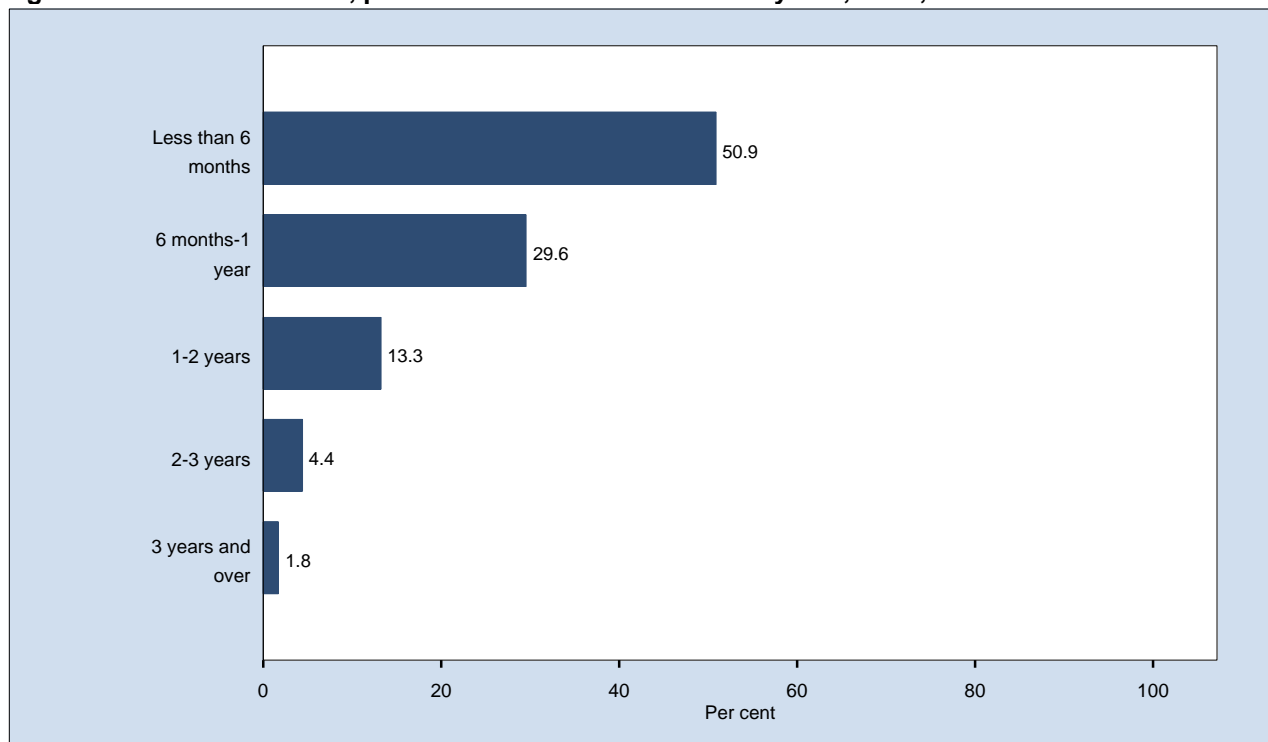
Frequency of reading to child, parents or carers of children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,653 respondents in NSW. For this indicator 3 (0.18%) were not stated (Don't know or Refused) in NSW. The questions used were: Do you or other members of your family read or look at books with child? In a typical week how often do you or other members of your family read or look at books with child?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Age started to read to child, parents or carers of children 0-5 years, NSW, 2005-2006



Note: Estimates are based on 1,557 respondents in NSW. For this indicator 8 (0.51%) were not stated (Don't know or Refused) in NSW. The questions used were: Do you or other members of your family read or look at books with child? In a typical week how often do you or other members of your family read or look at books with child? How old was child when you or another member of your family started reading to him or her?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Family functioning and parental support

Introduction

The ability of a family to function well affects the health and wellbeing of children, and many aspects of family life including: acceptance of individuals, consensus on decisions, communication, and the ability to solve day-to-day problems. How a family functions is influenced by many factors, including quality of relationships, the health of family members, and the presence of employment, financial constraints, and life stresses. The enhancement of family functioning is a national and state priority.

The McMaster Family Assessment Device is a 53-item tool with 7 scales: problem solving, communication, roles, affective responsiveness, affective involvement, behaviour control, and general functioning. The general functioning scale is a 12-question measure that describes the "structural and organizational properties of the family group" and "patterns of transactions among family members". It has good reliability and validity and is recommended for assessing overall family functioning rather than specific dimensions of family functioning. The scale generates a score between 1 and 4, with 1 reflecting healthy and 4 reflecting unhealthy family functioning. Unhealthy family function relates to avoiding discussing concerns or fears, having lots of bad feelings within the family, not being able to turn to each other for support or to confide in each other, not being able to talk about sadness or express feelings to each other, difficulty in making decisions, not accepting family members as they are, and difficulty planning family activities.[1,2]

Parental support services are known to affect family functioning and influence a range of health and social outcomes for children. In the New South Wales Child Health Survey 2001, parents and carers identified a wide range of parental support services accessed, including: Early childhood nurses, early childhood centres, general practitioners, play groups, counselling services, hospital services, telephone help lines, formal parenting groups, family support services, church organisations, daycare centres, pre-schools and schools, speech therapists, community health services, family and friends, paediatricians, early intervention services, and support groups.[3]

During 2005 and 2006, the New South Wales Population Health Survey asked parents or carers of children aged 0-15 years whether they strongly agreed, agreed, disagreed, or strongly disagreed with the following 12 statements from the general functioning scale of the McMaster Family Assessment Device: planning family activities is difficult because we misunderstand each other, in times of crisis we can turn to each other for support, we cannot talk to each other about sadness we feel, individuals in the family are accepted for who they are, we avoid discussing our fears and concerns, we express feelings to each other, there are lots of bad feelings in our family, we feel accepted for who we are, making decisions is a problem in our family, we are able to make decisions about how to solve problems, we don't get on well together, we confide in each other. Also, parents or carers of children aged 1-15 years were asked: Have you ever felt the need for any type of support service to assist with caring for child or dealing with problems you may have experienced with child? Have you ever used any support services?

Results

Family functioning

Overall, 94.8 per cent of children aged 0-15 years lived in households with healthy family functioning. There was no significant variation by age group, or socioeconomic status, or between rural areas and urban areas, or among health areas. A significantly lower proportion of children of mothers from a non English speaking background (91.2 per cent), compared with children of mothers from an English speaking background (95.6 per cent), lived in households with healthy family functioning.

The proportion of children living in households with healthy family functioning did not vary significantly between 2003-2004 and 2005-2006.

Need of parental support services

Overall, 24.9 per cent of parents or carers of children aged 1-15 years had ever felt the need for parental support services. There was no significant variation by age group, or socioeconomic status, or between rural areas and urban areas, or among health areas. A significantly lower proportion of mothers from a non English speaking background (15.6 per cent), compared with mothers from an English speaking background (27.6 per cent), had ever felt the need for parental support services.

The proportion of parents or carers who had ever felt the need for parental support services decreased significantly between 2001-2002 (30.9 per cent) and 2005-2006 (24.9 per cent).

Use of parental support services

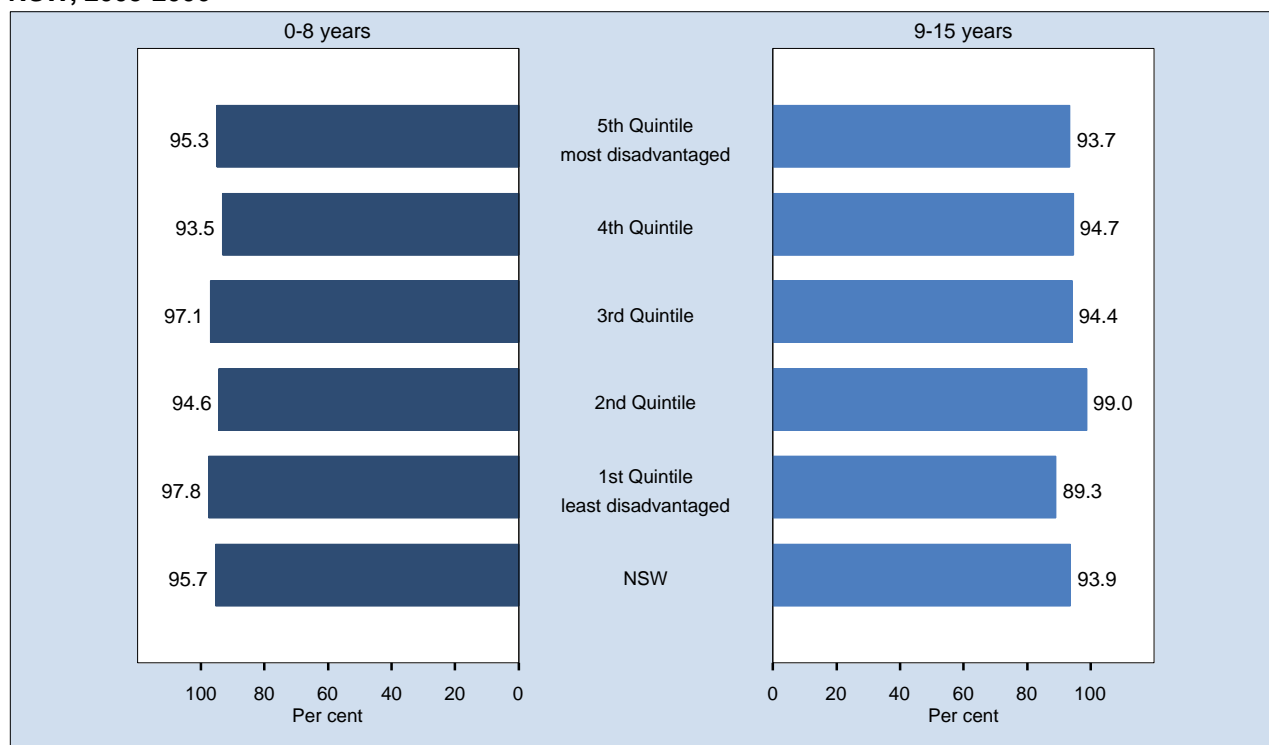
Overall, 77.6 per cent of parents or carers of children aged 1-15 years who needed parental support services had ever used those services. There was no significant variation by age group, or socioeconomic status, or between rural areas and urban areas, or among health areas. A significantly lower proportion of mothers without tertiary qualifications (74.7 per cent) compared with mothers with tertiary qualifications (82.8 per cent), and mothers from a non English speaking background (57.9 per cent) compared with mothers from an English speaking background (80.8 per cent), had ever needed and used parental support services.

The proportion of parents or carers who needed and used parental support services did not vary significantly between 2001-2002 and 2005-2006.

References

1. Epstein N, Baldwin L, Bishop D. The McMaster Family Assessment Device. *Journal of Marital and Family Therapy* 1983; 9: 171-180.
2. Byles J, Byrne C, Boyle M, Offord D. Ontario Child Health Study: Reliability and Validity of the General Functioning Subscale of the McMaster Family Assessment Device. *Family Process*, 1988, 27: 97-104.
3. Centre for Epidemiology and Research, NSW Department of Health. New South Wales Child Health Survey 2001. *N S W Public Health Bull* 2002; 13 (S-4).

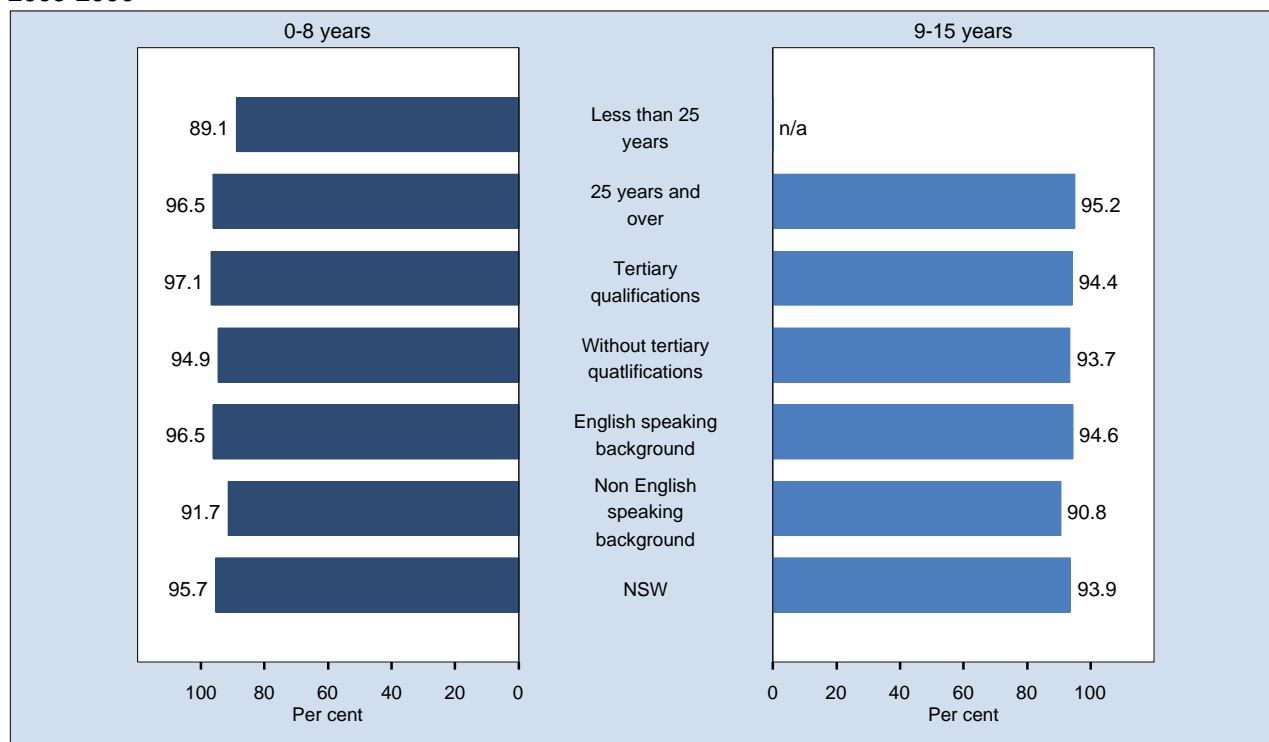
Healthy family functioning by socioeconomic disadvantage, parents or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 2,040 respondents in NSW. For this indicator 120 (5.56%) were not stated (Don't know or Refused) in NSW. The indicator includes families that scored 2.17 or above on the McMasters 12-item general functioning scale and are thus assessed as having healthy family functioning.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

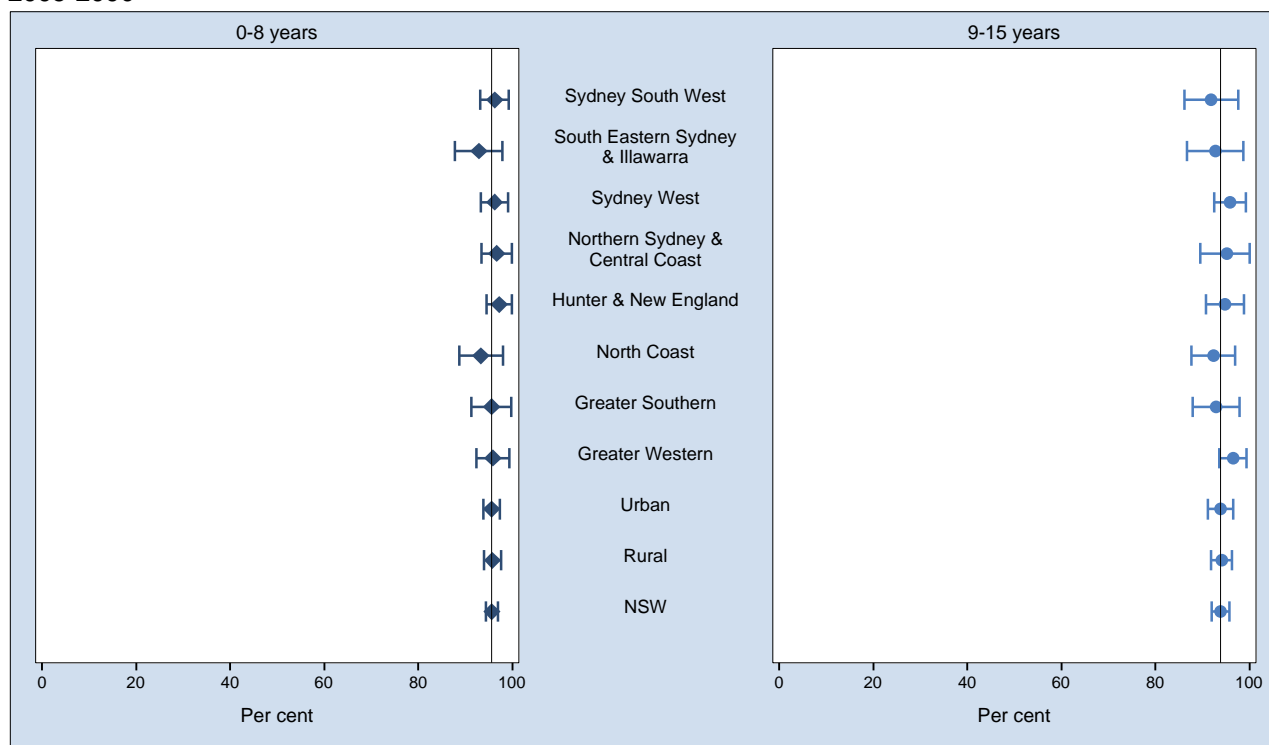
Healthy family functioning by mothers' characteristics, parents or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 2,040 respondents in NSW. For this indicator 120 (5.56%) were not stated (Don't know or Refused) in NSW. The indicator includes families that scored 2.17 or above on the McMasters 12-item general functioning scale and are thus assessed as having healthy family functioning. n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

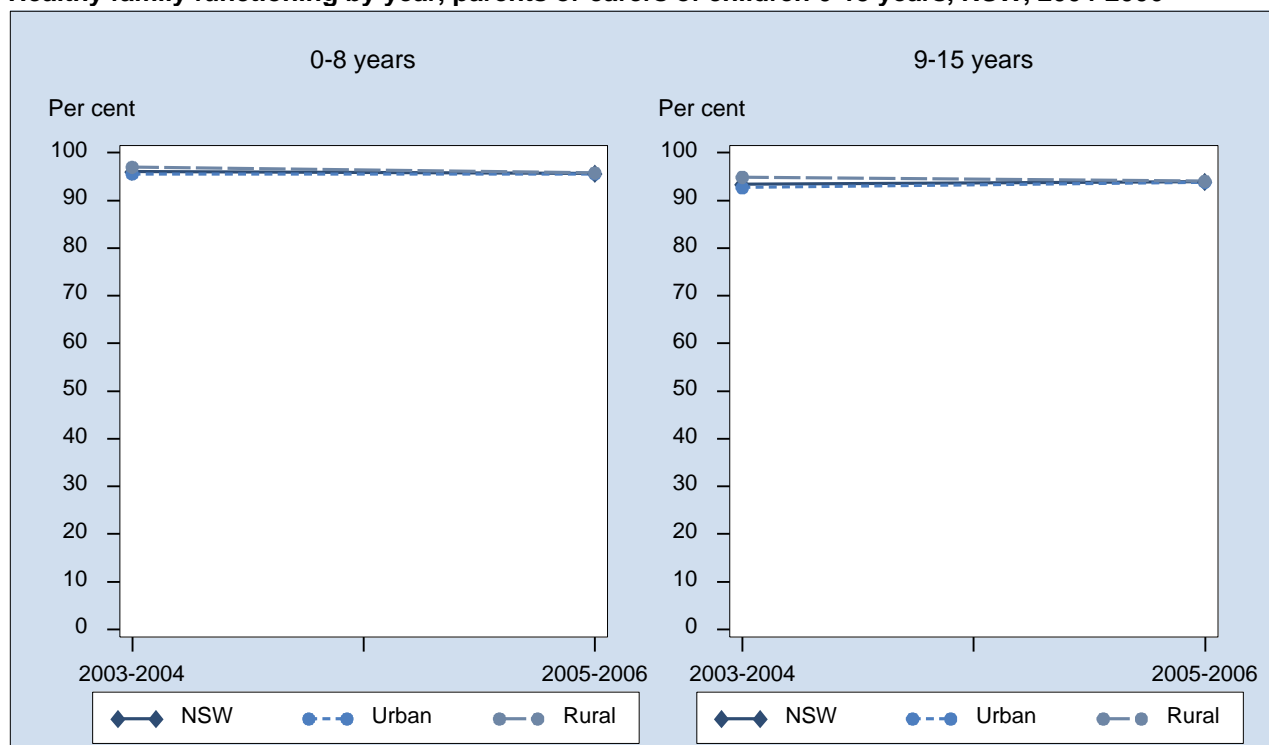
Healthy family functioning by area health service, parents or carers of children 0-15 years, NSW, 2005-2006



Note: Estimates are based on 2,040 respondents in NSW. For this indicator 120 (5.56%) were not stated (Don't know or Refused) in NSW. The indicator includes families that scored 2.17 or above on the McMasters 12-item general functioning scale and are thus assessed as having healthy family functioning.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Healthy family functioning by year, parents or carers of children 0-15 years, NSW, 2004-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2004 (1,910), 2006 (2,040). The indicator includes families that scored 2.17 or above on the McMasters 12-item general functioning scale and are thus assessed as having healthy family functioning.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Need for support services by socioeconomic disadvantage, parents or carers of children 1-15 years, NSW, 2005-2006



Note: Estimates are based on 2,203 respondents in NSW. For this indicator 2 (0.09%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who needed support services to assist in caring for their child. The question used to define the indicator was: Have you ever felt the need for any type of support services to assist in caring for child or dealing with problems you may have experienced with child?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

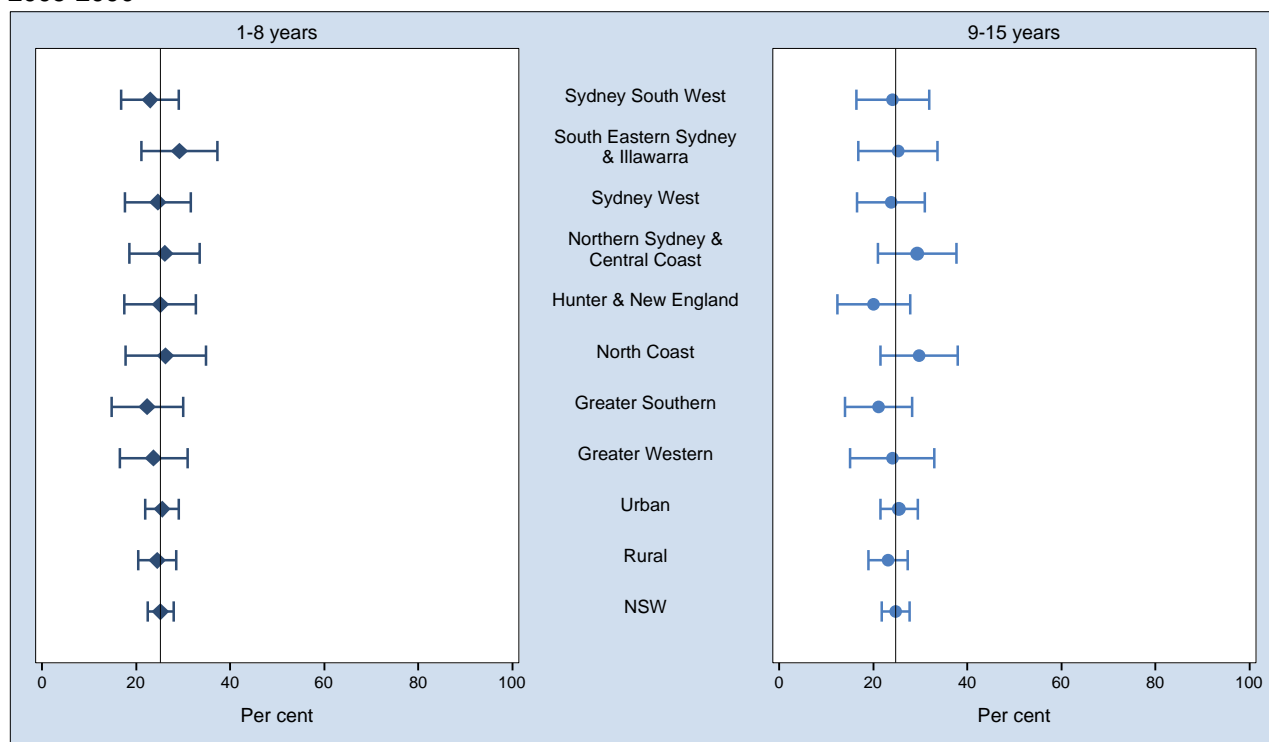
Need for support services by mothers' characteristics, parents or carers of children 1-15 years, NSW, 2005-2006



Note: Estimates are based on 2,203 respondents in NSW. For this indicator 2 (0.09%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who needed support services to assist in caring for their child. The question used to define the indicator was: Have you ever felt the need for any type of support services to assist in caring for child or dealing with problems you may have experienced with child? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

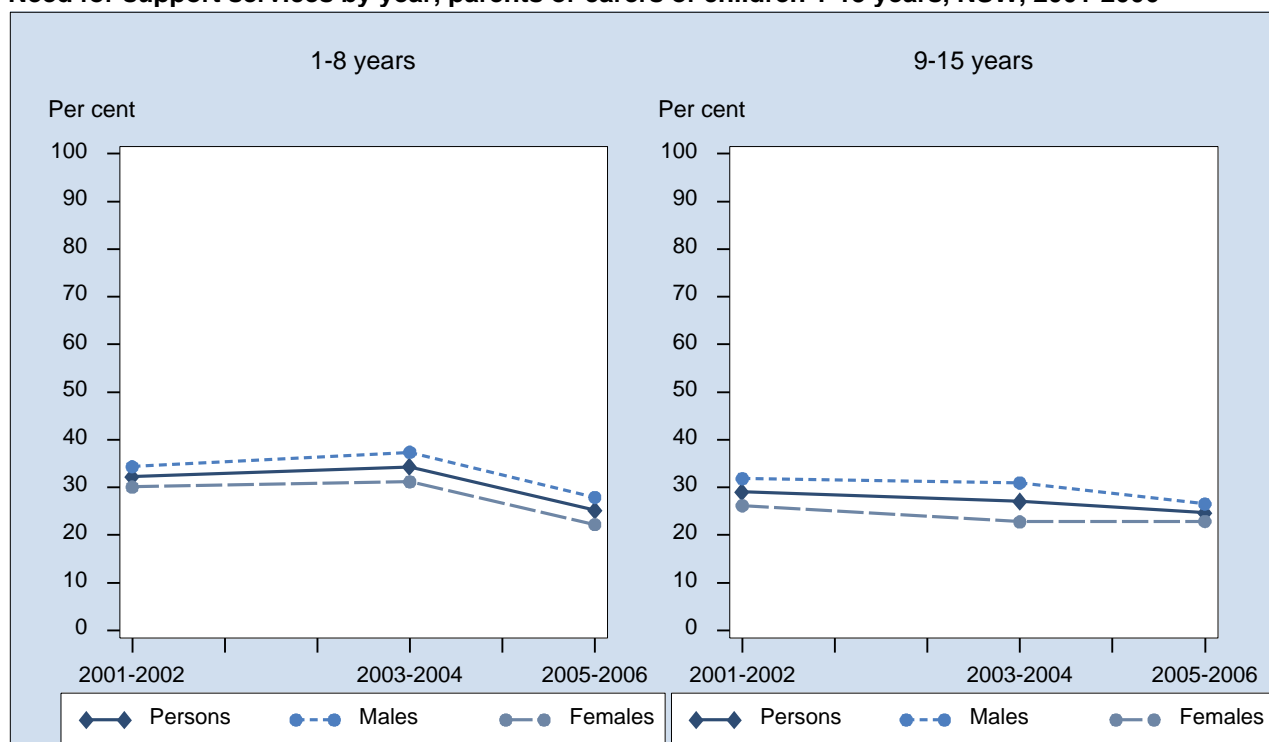
Need for support services by area health service, parents or carers of children 1-15 years, NSW, 2005-2006



Note: Estimates are based on 2,203 respondents in NSW. For this indicator 2 (0.09%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers who needed support services to assist in caring for their child. The question used to define the indicator was: Have you ever felt the need for any type of support services to assist in caring for child or dealing with problems you may have experienced with child?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

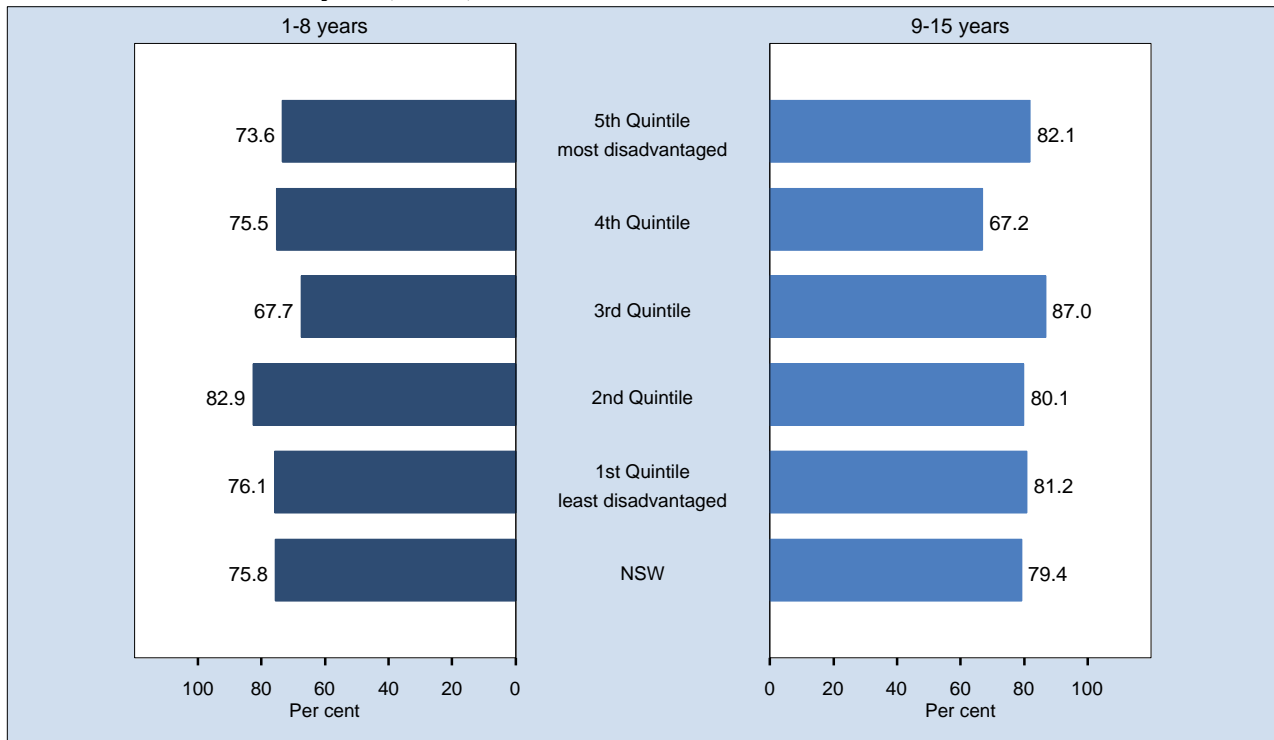
Need for support services by year, parents or carers of children 1-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (8,676), 2004 (2,644), 2006 (2,203). The indicator includes parents or carers who needed support services to assist in caring for their child. The question used to define the indicator was: Have you ever felt the need for any type of support services to assist in caring for child or dealing with problems you may have experienced with child?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

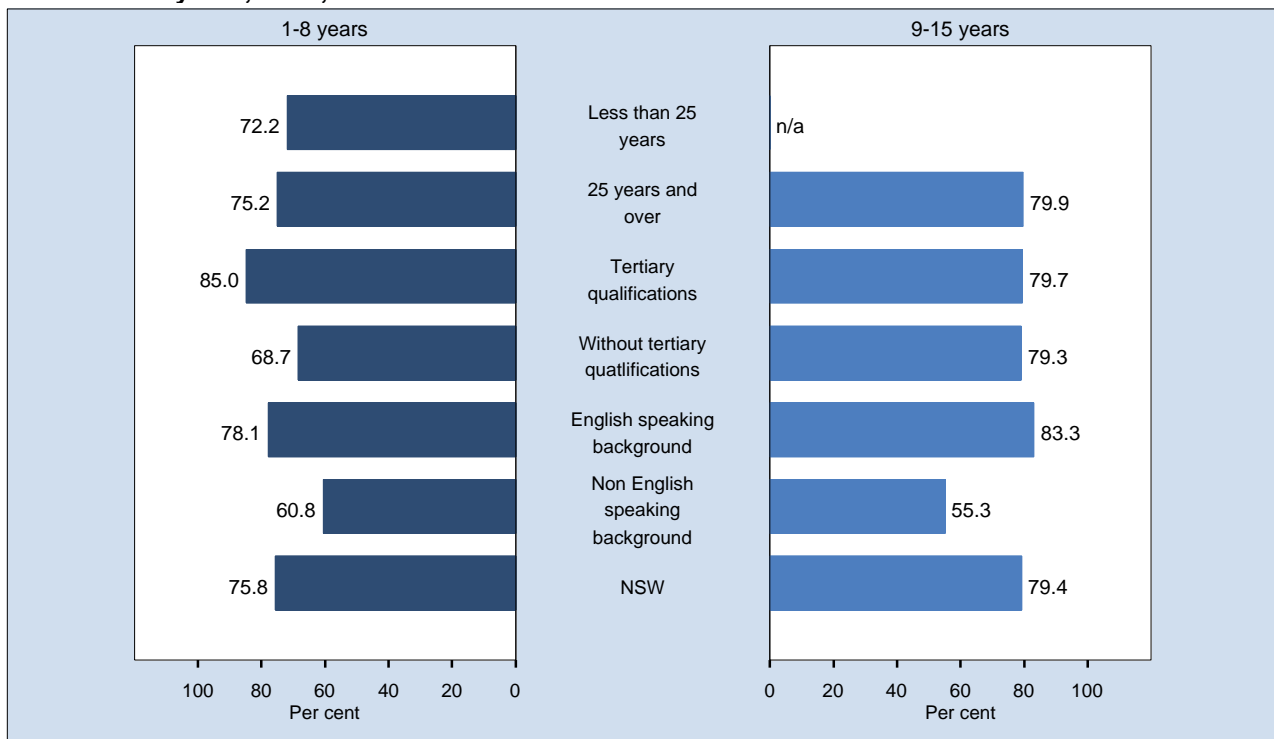
Used support services by socioeconomic disadvantage, parents or carers who needed support services of children 1-15 years, NSW, 2005-2006



Note: Estimates are based on 565 respondents in NSW. For this indicator 3 (0.53%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers of children who needed support services to assist in caring for their child. The question used to define the indicator was: Have you ever felt the need for any type of support services to assist in caring for child or dealing with problems you may have experienced with child?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

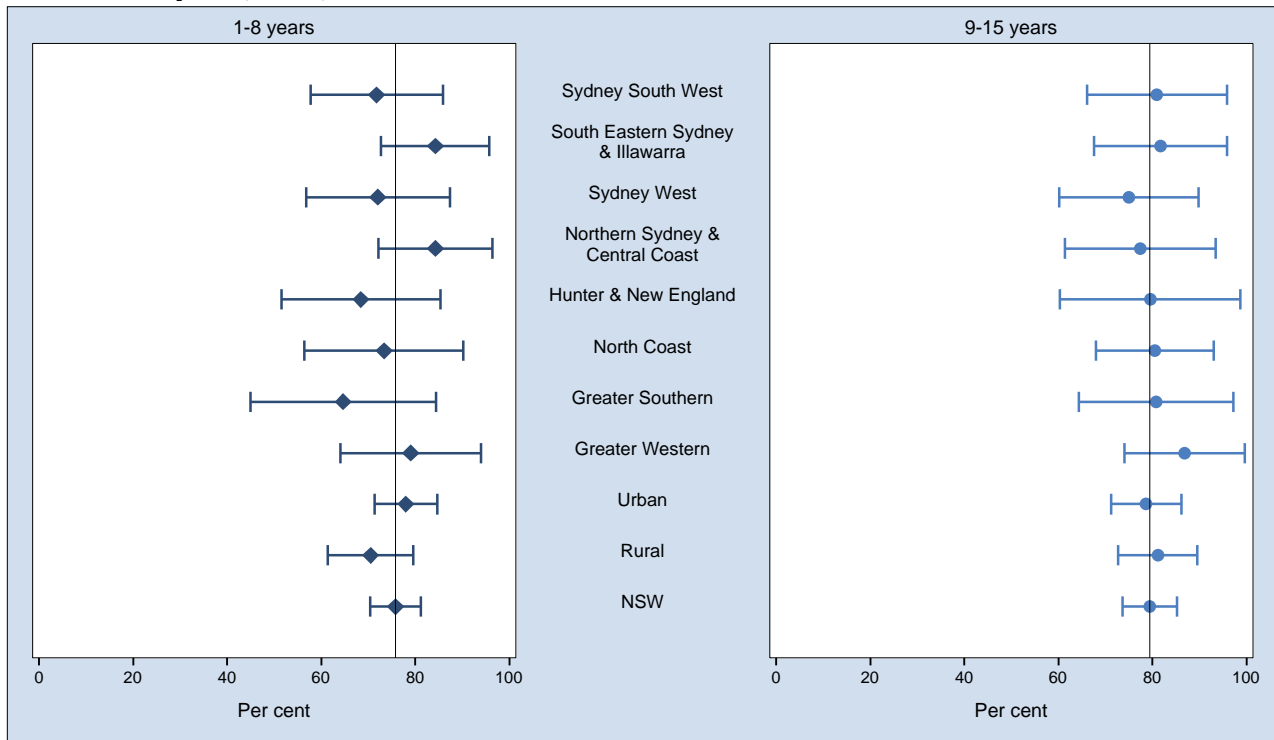
Used support services by mothers' characteristics, parents or carers who needed support services of children 1-15 years, NSW, 2005-2006



Note: Estimates are based on 565 respondents in NSW. For this indicator 3 (0.53%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers of children who needed support services to assist in caring for their child. The question used to define the indicator was: Have you ever felt the need for any type of support services to assist in caring for child or dealing with problems you may have experienced with child? n/a = prevalence estimates not presented due to unreliability.

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

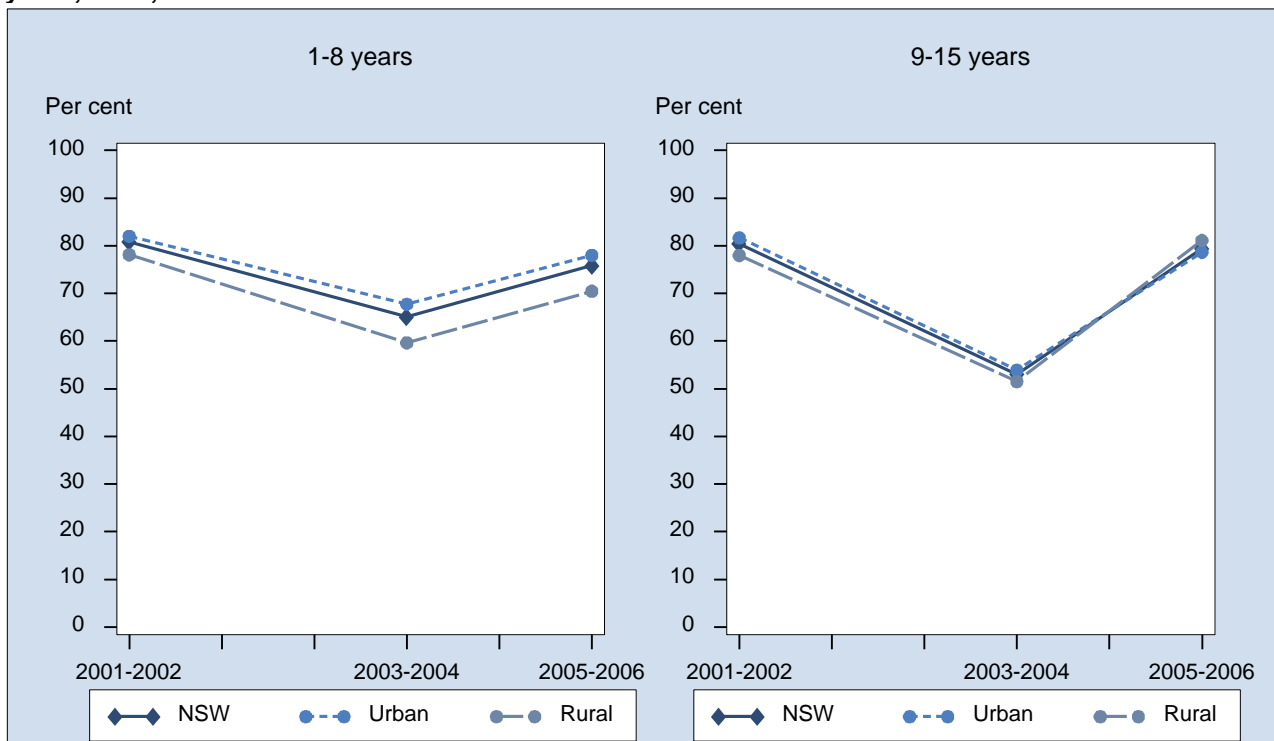
Used support services by area health service, parents or carers who needed support services of children 1-15 years, NSW, 2005-2006



Note: Estimates are based on 565 respondents in NSW. For this indicator 3 (0.53%) were not stated (Don't know or Refused) in NSW. The indicator includes parents or carers of children who needed support services to assist in caring for their child. The question used to define the indicator was: Have you ever felt the need for any type of support services to assist in caring for child or dealing with problems you may have experienced with child?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Used support services by year, parents or carers who needed support services of children 1-15 years, NSW, 2001-2006



Note: Estimates are based on the following numbers of respondents for NSW: 2001 (2,732), 2004 (1,265), 2006 (565). The indicator includes parents or carers of children who needed support services to assist in caring for their child. The question used to define the indicator was: Have you ever felt the need for any type of support services to assist in caring for child or dealing with problems you may have experienced with child?

Source: New South Wales Population Health Survey 2006 (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Conclusion

The child component of the New South Wales Population Health Survey commenced in 2003, following a child health survey in 2001. This report on the health of children aged 0-15 years, from information collected in 2005 and 2006, is the second report on child health from this ongoing survey.

Data were collected on a range of demographic information, health behaviours, health status, use of and satisfaction with health services, and the social determinants of health. Where possible, indicators have been aligned with those collected previously, so that trends can be examined.

Trends in child health

Health behaviours

Health behaviours influence child health and wellbeing from the antenatal period and beyond. Parental health behaviours directly influence children in the early years. Child health behaviours affect health in later life, because behaviours in childhood influence behaviours in adulthood, and because the beginnings of many chronic diseases may occur in childhood. There have been significant changes in some indicators of health behaviour, while other indicators have not changed significantly.

There have been significant increases in: infants fully breastfed at 6 months, children vaccinated against meningococcal C disease since January of the previous year, action taken by parents and carers following child's attendance at a fire education program at school, infants being placed on their back to sleep from birth, children consuming the recommended daily vegetable intake, children consuming the recommended daily dairy intake, and children living in smoke-free households.

There have been significant decreases in: mothers who introduced solids to their infants before 6 months of age, mothers who introduced breastmilk substitutes before 6 months of age, and children who consumed 2 or more cups of milk a day.

The following indicators have not significantly changed: infants ever breastfed, infants breastfed at 12 months, infants exclusively breastfed at 6 months, mothers who took folate supplements 1 month before and during the first trimester of pregnancy, children living in homes with a smoke alarm or detector, children participating in a fire education program at school, children who consumed the recommended daily fruit intake, food insecurity in the last 12 months, smoking during pregnancy, and parents or carers with smoke-free cars.

In 2005 and 2006, 4 new indicators were collected for health behaviours: influence of television on child food choices, ever heard about the healthy school canteen strategy, adequate physical activity, and recommended sedentary behaviour during leisure time.

Health status

Monitoring the health status of a population helps detect emerging patterns of illness and disease and provides information to inform health policy and planning of health services. There have been significant changes in some indicators of health status, while other indicators have not changed significantly.

There have been significant increases in: the proportion of children visiting a dental professional in the last 12 months, and the proportion of children who experienced moderate or severe bodily pain.

There have been significant decreases in: children ever diagnosed with asthma, children with current asthma, and children who experience moderate to extreme interference with their daily activities because of their asthma.

There has been no significant change in the proportion of children who: have a written asthma management plan, are at substantial risk of developing clinical behavioural problems, have excellent or very good or good self-reported health status, or experience difficulties doing their daily activities.

In 2005 and 2006, 2 new indicators were collected for health status: use of asthma reliever medications, and use of asthma preventer medications.

Health services

Information about the use of and satisfaction with health services assists in formulating health policy and health service planning. There have been significant changes in some health service indicators, while other indicators have not changed significantly.

There have been significant increases in: community health centre attendance in the last 12 months, and emergency department presentations in the last 12 months.

There have been significant decreases in: community health centre care ratings, and children currently seeing a baby health or early childhood nurse.

There has been no significant change in: difficulties getting health care when needing it, early childhood health centre attendance, emergency department care ratings, home visits from health professionals, hospital admissions, hospital care ratings, public dental service attendance, and public dental care ratings.

In 2005 and 2006, 1 new indicator was collected for health services: private health insurance coverage.

Social determinants of health

The health and wellbeing of children is strongly influenced by social and family circumstances. The context in which children live their lives, including family, school, and community environments, and how these settings interact, is crucial to their health and wellbeing. There have been significant changes in some indicators of the social determinants of health, while other indicators have not changed significantly.

There have been significant increases in: the proportion of children who ever participated in early childhood activities, the proportion of children who attended pre-school, and the proportion of parents or carers who read to child daily.

There have been significant decreases in: the proportion of children who had ever been to childcare, the proportion of children who currently go to childcare, and the proportion of parents or carers who felt the need for support services.

There has been no significant change in: the proportion of children who currently participate in early childhood activities, the proportion of children who live in functioning families, and the proportion of parents or carers who felt the need for support services and who used those services.

The future

The collection and reporting plan for the New South Wales Population Health Survey to 2012 can be found at www.health.nsw.gov.au/public-health/survey/hsurvey.html.

The continued monitoring of indicators via the Survey will provide information to assist health professionals, health service planners and those involved in development of health policy.

In future, when the survey obtains, by combining several years of data collection, adequate numbers of children who are Aboriginal, or who were born overseas, prevalence estimates for these sub-groups can be reported.

Trends in health behaviours

Indicator	Year	Males % (95% CI)	Females % (95% CI)	Urban % (95% CI)	Rural % (95% CI)	<= 8 years % (95% CI)	>= 9 years % (95% CI)	All % (95% CI)
Ever breastfed, children aged 0 to 4 years	2001-2002			89.6 (86.5-92.7)	92.1 (89.8-94.4)			90.3 (88.0-92.6)
	2003-2004			88.6 (85.9-91.2)	83.8 (80.2-87.4)			87.1 (84.9-89.3)
	2005-2006			91.4 (88.6-94.2)	90.6 (87.4-93.7)			91.1 (89.0-93.3)
Breastfed at 12 months, children aged 0 to 4 years	2001-2002			25.8 (22.7-28.9)	26.0 (21.3-30.9)			25.8 (23.2-28.4)
	2003-2004			30.6 (27.7-33.7)	23.6 (19.6-27.9)			28.5 (26.1-31.0)
	2005-2006			27.6 (23.3-32.2)	27.7 (21.3-34.5)			27.8 (24.1-31.5)
Exclusively breastfed at 6 months, children aged 0 to 4 years	2003-2004			17.6 (15.2-20.2)	10.9 (8.0-14.2)			15.8 (13.8-17.8)
	2005-2006			17.4 (14.0-21.1)	19.2 (14.1-24.7)			17.5 (14.6-20.5)
Fully breastfed at 6 months, children aged 0 to 4 years	2001-2002			13.6 (11.4-15.9)	16.8 (13.2-20.7)			14.5 (12.6-16.5)
	2003-2004			26.5 (23.7-29.3)	20.6 (16.8-24.6)			24.7 (22.4-27.0)
	2005-2006			27.3 (23.3-31.5)	26.0 (20.2-32.1)			27.0 (23.7-30.5)
Introduced solids before 6 months, children aged 0 to 4 years	2001-2002			70.1 (67.0-73.1)	68.2 (63.4-72.9)			69.4 (66.8-72.0)
	2003-2004			51.5 (48.3-54.7)	60.3 (55.6-65.1)			54.0 (51.4-56.7)
	2005-2006			46.4 (41.8-51.3)	49.0 (42.3-56.1)			46.9 (43.1-50.9)
Introduced breastmilk substitutes before 6 months, children aged 0 to 4 years	2001-2002			61.8 (58.7-64.9)	53.2 (48.4-58.1)			59.4 (56.8-62.1)
	2003-2004			48.5 (45.4-51.7)	50.5 (45.8-55.3)			49.0 (46.4-51.7)
	2005-2006			50.9 (46.5-55.5)	54.8 (48.3-61.5)			52.2 (48.5-56.0)
Folate supplements 1 month before and during pregnancy, infants aged 0 to 11 months	2001-2002			52.9 (46.1-59.8)	44.0 (36.3-51.6)			50.3 (44.9-55.6)
	2003-2004			51.4 (41.6-61.3)	37.7 (27.6-47.9)			47.2 (39.6-54.8)
	2005-2006			50.5 (41.5-59.5)	58.4 (49.0-67.7)			53.1 (46.3-59.9)
Vaccinated against meningococcal C disease in last year, children aged 1 to 15 years	2003-2004	59.9 (56.8-63.0)	56.1 (52.9-59.3)	55.6 (52.7-58.6)	63.1 (60.1-66.2)	60.1 (57.0-63.2)	55.9 (52.7-59.2)	58.1 (55.8-60.3)
	2005-2006	72.6 (70.3-74.8)	73.6 (71.3-75.9)	73.9 (71.8-76.0)	71.3 (69.0-73.5)	72.8 (70.6-75.0)	73.3 (71.0-75.7)	73.1 (71.5-74.7)
Homes with a smoke alarm or detector, children aged 0 to 15 years	2003-2004			80.7 (78.9-82.6)	84.8 (83.2-86.5)	82.2 (80.4-84.0)	81.9 (79.8-84.0)	82.0 (80.7-83.4)
	2005-2006			80.1 (77.5-82.7)	87.3 (85.2-89.4)	80.6 (78.0-83.2)	84.7 (81.9-87.4)	82.5 (80.6-84.4)
Participation in fire education program, children aged 5 to 12 years	2003-2004	79.1 (75.8-82.3)	80.1 (76.8-83.3)	77.9 (74.8-81.1)	82.7 (79.8-85.6)	75.2 (71.5-78.8)	84.0 (81.3-86.8)	79.5 (77.2-81.9)
	2005-2006	80.7 (77.8-83.7)	77.7 (74.6-80.8)	76.0 (73.0-79.0)	85.6 (83.0-88.1)	75.3 (72.1-78.5)	83.2 (80.4-86.1)	79.2 (77.1-81.4)
Action taken following fire education program, children aged 5 to 12 years	2003-2004			49.9 (45.2-54.5)	59.5 (54.8-64.3)	54.3 (49.4-59.2)	52.4 (47.6-57.2)	53.3 (49.9-56.8)
	2005-2006			61.6 (57.4-65.9)	67.3 (63.6-71.0)	62.0 (57.6-66.4)	65.4 (61.4-69.5)	63.8 (60.8-66.8)
Placed on their back to sleep from birth, infants aged 0 to 11 months	2001-2002			66.3 (60.0-72.6)	57.0 (49.8-64.2)			63.6 (58.7-68.5)
	2003-2004			81.8 (74.5-89.2)	79.9 (72.5-87.3)			81.3 (75.7-86.8)
	2005-2006			82.1 (75.4-88.7)	85.2 (78.5-91.8)			83.1 (78.1-88.1)
Recommended daily vegetable intake, children aged 2 to 15 years	2001-2002	13.5 (12.1-14.9)	12.4 (11.0-13.8)	11.4 (10.1-12.7)	16.2 (14.7-17.7)	16.4 (15.0-17.8)	9.0 (7.6-10.4)	13.0 (12.0-14.0)
	2003-2004	22.7 (21.0-24.5)	23.6 (21.8-25.5)	21.4 (19.8-23.1)	26.7 (24.8-28.6)	27.0 (25.1-29.0)	19.6 (17.9-21.3)	23.2 (21.9-24.5)
	2005-2006	38.4 (36.0-40.8)	38.0 (35.6-40.5)	36.8 (34.5-39.1)	41.1 (38.7-43.6)	44.9 (42.3-47.4)	32.5 (30.1-34.8)	38.2 (36.5-40.0)
Recommended daily fruit intake, children aged 2 to 15 years	2001-2002	68.8 (66.7-70.8)	71.3 (69.2-73.3)	70.0 (68.0-72.0)	70.0 (68.0-71.9)	79.3 (77.8-80.8)	59.2 (56.8-61.7)	70.0 (68.5-71.5)
	2003-2004	65.9 (63.4-68.4)	69.7 (67.2-72.2)	68.1 (65.8-70.5)	66.9 (64.4-69.5)	88.3 (86.5-90.1)	48.8 (46.2-51.5)	67.7 (66.0-69.5)
	2005-2006	67.6 (65.2-70.0)	70.0 (67.6-72.4)	69.3 (67.0-71.5)	67.8 (65.4-70.1)	92.5 (91.1-93.8)	48.2 (45.7-50.7)	68.8 (67.1-70.5)
Two or more cups of milk per day, children aged 2 to 15 years	2001-2002	63.4 (61.3-65.4)	52.7 (50.5-55.0)	57.9 (55.8-59.9)	58.9 (56.8-60.9)	59.5 (57.6-61.3)	56.8 (54.3-59.2)	58.2 (56.7-59.7)
	2003-2004	52.6 (49.9-55.3)	42.9 (40.1-45.6)	47.3 (44.8-49.8)	49.0 (46.3-51.7)	51.7 (48.9-54.4)	44.4 (41.8-47.1)	47.9 (46.0-49.8)
	2005-2006	58.4 (55.9-60.9)	49.4 (46.8-51.9)	52.1 (49.7-54.5)	57.9 (55.5-60.4)	56.5 (54.0-59.1)	51.8 (49.3-54.4)	54.0 (52.2-55.8)
Recommended daily dairy intake, children aged 2 to 15 years	2001-2002	57.8 (55.7-59.9)	48.0 (45.8-50.1)	52.8 (50.7-54.8)	53.5 (51.5-55.6)	58.0 (56.2-59.8)	47.3 (44.8-49.7)	53.0 (51.5-54.5)
	2003-2004	70.2 (67.7-72.7)	65.3 (62.6-67.9)	67.0 (64.6-69.4)	69.5 (67.0-72.1)	81.3 (79.1-83.4)	55.4 (52.7-58.1)	67.8 (66.0-69.6)

Indicator	Year	Males % (95% CI)	Females % (95% CI)	Urban % (95% CI)	Rural % (95% CI)	<= 8 years % (95% CI)	>= 9 years % (95% CI)	All % (95% CI)
	2005-2006	72.7 (70.4-75.0)	69.4 (67.0-71.9)	70.0 (67.7-72.2)	73.4 (71.2-75.6)	84.5 (82.6-86.4)	59.4 (56.9-61.9)	71.1 (69.4-72.8)
Influence of television on food choices, children aged 2 to 15 years	2005-2006	43.7 (40.3-47.1)	43.2 (39.6-46.8)	43.9 (40.6-47.2)	42.5 (39.0-46.1)	45.6 (42.1-49.2)	41.7 (38.3-45.1)	43.5 (41.0-45.9)
Ever heard about healthy school canteen strategy, children aged 5 to 15 years	2005-2006			73.3 (70.0-76.6)	86.1 (83.4-88.8)	74.7 (70.6-78.7)	78.7 (75.7-81.8)	77.4 (75.0-79.8)
Food insecurity in the last 12 months, children aged 0 to 15 years	2001-2002			6.0 (5.1-6.9)	6.1 (5.3-7.0)	5.1 (4.4-5.9)	7.3 (6.0-8.6)	6.0 (5.3-6.7)
	2003-2004			5.2 (4.4-6.0)	6.9 (6.0-7.8)	5.1 (4.4-5.9)	6.5 (5.5-7.5)	5.8 (5.1-6.4)
	2005-2006			5.1 (4.2-6.1)	6.3 (5.2-7.4)	6.0 (4.9-7.1)	4.9 (3.9-5.9)	5.5 (4.8-6.2)
Adequate physical activity, children aged 5 to 15 years	2005-2006	29.2 (26.6-31.8)	21.7 (19.3-24.0)	22.3 (20.0-24.5)	32.1 (29.4-34.7)	34.3 (31.1-37.6)	21.2 (19.1-23.2)	25.6 (23.8-27.3)
Sedentary behaviour, children aged 5 to 15 years	2005-2006	87.3 (84.5-90.1)	78.5 (73.5-83.5)	83.9 (80.5-87.3)	85.5 (82.2-88.7)	75.2 (69.5-80.8)	88.2 (85.6-90.8)	84.4 (81.9-86.9)
Smoking during pregnancy, infants aged 0 to 11 months	2001-2002			12.0 (7.3-16.7)	21.1 (15.2-27.0)			14.7 (11.0-18.4)
	2003-2004			11.5 (5.1-17.9)	21.5 (12.1-30.9)			14.6 (9.3-19.9)
	2005-2006			12.3 (6.3-18.3)	11.7 (5.4-18.1)			12.1 (7.6-16.6)
Smoke-free households, children aged 0 to 15 years	2001-2002			86.5 (85.3-87.8)	81.3 (79.9-82.8)	87.3 (86.3-88.4)	81.2 (79.3-83.1)	84.8 (83.9-85.8)
	2003-2004			88.4 (87.2-89.5)	84.0 (82.6-85.4)	89.3 (88.2-90.5)	84.1 (82.6-85.5)	86.9 (86.0-87.8)
	2005-2006			91.2 (89.9-92.5)	90.3 (88.9-91.6)	93.3 (92.1-94.4)	88.2 (86.7-89.8)	90.9 (89.9-91.9)
Smoke-free cars, children aged 0 to 15 years	2003-2004			91.6 (90.3-92.9)	88.8 (87.3-90.3)	92.4 (91.2-93.6)	88.6 (87.0-90.2)	90.7 (89.7-91.7)
	2005-2006			91.8 (90.6-93.1)	90.9 (89.6-92.2)	92.7 (91.5-93.8)	90.3 (88.8-91.7)	91.5 (90.6-92.5)

Trends in health status

Indicator	Year	Males % (95% CI)	Females % (95% CI)	Urban % (95% CI)	Rural % (95% CI)	<= 8 years % (95% CI)	>= 9 years % (95% CI)	All % (95% CI)
Ever diagnosed with asthma, children aged 2 to 15 years	2001-2002	30.6 (28.7-32.6)	23.6 (21.8-25.5)	26.0 (24.2-27.7)	29.7 (27.9-31.6)	24.2 (22.7-25.8)	30.6 (28.4-32.9)	27.2 (25.9-28.6)
	2003-2004	29.7 (27.8-31.6)	23.5 (21.7-25.3)	24.9 (23.2-26.6)	30.4 (28.3-32.4)	22.9 (21.1-24.7)	30.2 (28.3-32.1)	26.7 (25.4-28.0)
	2005-2006	25.1 (23.0-27.3)	20.1 (18.1-22.1)	20.5 (18.6-22.4)	27.4 (25.2-29.6)	19.7 (17.7-21.8)	25.3 (23.2-27.4)	22.7 (21.2-24.2)
Current asthma, children aged 2 to 15 years	2001-2002	18.3 (16.6-19.9)	12.9 (11.5-14.3)	15.2 (13.8-16.6)	16.6 (15.1-18.1)	15.6 (14.3-17.0)	15.7 (14.0-17.5)	15.7 (14.6-16.7)
	2003-2004	16.5 (15.0-18.1)	12.6 (11.2-14.1)	13.8 (12.5-15.1)	16.4 (14.7-18.1)	15.4 (13.8-17.0)	14.0 (12.6-15.4)	14.7 (13.6-15.7)
	2005-2006	15.1 (13.3-16.8)	10.7 (9.1-12.2)	11.9 (10.4-13.5)	15.0 (13.3-16.8)	13.8 (12.0-15.5)	12.2 (10.6-13.8)	12.9 (11.7-14.1)
Moderate to extreme interference with daily activities, children aged 2 to 15 years	2003-2004			54.3 (32.6-76.0)	63.0 (45.7-80.3)	61.9 (43.2-80.6)	54.9 (33.6-76.2)	58.0 (43.4-72.7)
	2005-2006			13.8 (9.1-18.6)	10.3 (6.1-14.5)	12.3 (7.5-17.2)	12.6 (8.0-17.2)	12.5 (9.1-15.8)
Written asthma management plan, children aged 2 to 15 years	2003-2004			43.8 (32.0-55.6)	55.3 (44.3-66.4)	55.6 (42.9-68.3)	43.0 (32.1-53.9)	48.5 (40.1-56.9)
	2005-2006			56.8 (49.9-63.7)	53.6 (47.3-59.9)	56.5 (49.5-63.5)	54.7 (47.8-61.6)	55.6 (50.7-60.5)
Asthma reliever medications used in the last 12 months, children aged 2 to 15 years	2005-2006			45.0 (38.0-51.9)	40.0 (33.7-46.2)	44.0 (37.0-51.1)	42.2 (35.3-49.0)	43.1 (38.2-48.0)
Asthma preventer medications used in the last 12 months, children aged 2 to 15 years	2005-2006			27.1 (20.8-33.5)	28.5 (22.6-34.3)	29.9 (23.2-36.5)	25.4 (19.3-31.6)	27.6 (23.1-32.2)
Substantial risk of clinical behavioural problems, children aged 4 to 15 years	2003-2004	11.0 (9.3-12.8)	6.6 (5.1-8.1)	9.0 (7.4-10.5)	8.8 (7.2-10.3)	8.1 (6.2-10.0)	9.3 (7.8-10.8)	8.9 (7.7-10.1)
	2005-2006	8.9 (7.3-10.5)	6.1 (4.8-7.5)	7.1 (5.7-8.4)	8.5 (7.0-10.1)	7.0 (5.3-8.8)	7.8 (6.5-9.1)	7.6 (6.5-8.6)
Visited a dental professional in the last 12 months, children aged 5 to 15 years	2001-2002	48.1 (45.6-50.7)	49.7 (47.1-52.3)	58.9 (56.4-61.3)	29.2 (27.0-31.5)	45.5 (42.9-48.0)	51.2 (48.7-53.8)	48.9 (47.1-50.7)
	2003-2004	72.0 (69.9-74.1)	74.4 (72.3-76.6)	73.1 (71.1-75.1)	73.4 (71.2-75.6)	70.1 (67.4-72.8)	74.9 (73.0-76.7)	73.2 (71.7-74.7)
	2005-2006	74.5 (70.8-78.1)	77.7 (74.2-81.1)	75.1 (71.7-78.5)	77.7 (74.4-80.9)	68.3 (63.7-72.8)	80.0 (77.1-82.9)	76.0 (73.5-78.5)
Excellent, very good, or good health status, children aged 5 to 15 years	2001-2002	91.8 (90.4-93.1)	92.2 (90.8-93.5)	92.1 (90.8-93.3)	91.8 (90.4-93.1)	92.7 (91.4-93.9)	91.5 (90.1-92.8)	92.0 (91.0-92.9)
	2003-2004	91.0 (89.7-92.4)	90.7 (89.2-92.2)	90.6 (89.3-91.9)	91.4 (90.0-92.8)	90.1 (88.4-91.8)	91.3 (90.0-92.5)	90.9 (89.9-91.9)
	2005-2006	90.6 (89.0-92.1)	91.1 (89.4-92.8)	91.3 (89.8-92.8)	89.8 (88.1-91.5)	89.0 (86.9-91.0)	91.7 (90.4-93.1)	90.8 (89.7-92.0)
Difficulties doing daily activities, children aged 5 to 15 years	2003-2004	9.4 (7.8-11.0)	8.3 (6.8-9.9)	8.7 (7.3-10.1)	9.3 (7.6-11.1)	8.9 (6.9-10.8)	8.9 (7.6-10.2)	8.9 (7.8-10.0)
	2005-2006	11.6 (9.1-14.2)	9.4 (7.0-11.7)	10.5 (8.2-12.9)	10.6 (8.3-12.9)	10.4 (7.4-13.5)	10.6 (8.5-12.8)	10.6 (8.8-12.3)
Moderate or severe bodily pain, children aged 5 to 15 years	2001-2002	3.0 (2.1-3.9)	3.3 (2.4-4.2)	3.2 (2.4-4.1)	2.9 (2.1-3.8)	2.6 (1.8-3.4)	3.5 (2.6-4.4)	3.1 (2.5-3.8)
	2003-2004	7.6 (6.2-9.0)	8.1 (6.5-9.7)	7.8 (6.4-9.2)	7.9 (6.5-9.4)	7.0 (5.1-8.8)	8.3 (7.0-9.6)	7.9 (6.8-8.9)
	2005-2006	7.2 (5.2-9.2)	8.4 (6.2-10.7)	7.3 (5.3-9.3)	8.7 (6.6-10.8)	6.5 (4.2-8.9)	8.4 (6.5-10.4)	7.8 (6.3-9.3)

Trends in health services

Indicator	Year	Males % (95% CI)	Females % (95% CI)	Urban % (95% CI)	Rural % (95% CI)	<= 8 years % (95% CI)	>= 9 years % (95% CI)	All % (95% CI)
Private health insurance, children aged 0 to 15 years	2005-2006	54.9 (52.6-57.1)	53.7 (51.4-56.1)	58.8 (56.7-61.0)	44.8 (42.5-47.1)	52.2 (50.1-54.4)	56.6 (54.2-59.1)	54.3 (52.7-55.9)
Difficulties getting health care when needing it, children aged 0 to 15 years	2003-2004	16.5 (15.1-17.8)	16.0 (14.6-17.4)	12.8 (11.6-14.0)	23.3 (21.7-24.9)	16.5 (15.2-17.8)	16.0 (14.5-17.4)	16.2 (15.3-17.2)
	2005-2006	14.8 (13.3-16.4)	16.5 (14.9-18.2)	11.9 (10.5-13.3)	23.5 (21.6-25.5)	15.8 (14.2-17.3)	15.5 (13.8-17.2)	15.6 (14.5-16.8)
Community health centre attendance in the previous 12 months, children aged 0 to 15 years	2001-2002			7.1 (6.2-8.1)	12.9 (11.6-14.2)	10.3 (9.3-11.3)	7.3 (6.1-8.5)	9.0 (8.2-9.8)
	2003-2004			7.7 (6.8-8.7)	13.7 (12.4-15.0)	14.0 (12.7-15.2)	4.6 (3.8-5.4)	9.7 (8.9-10.5)
	2005-2006			10.8 (9.5-12.1)	14.7 (13.2-16.3)	17.3 (15.7-18.9)	6.2 (5.0-7.4)	12.1 (11.0-13.1)
Community health centre care rated as excellent, very good or good, children aged 0 to 15 years	2003-2004			93.2 (90.0-96.4)	96.9 (95.4-98.4)	96.6 (94.9-98.3)	88.9 (83.1-94.7)	94.9 (93.0-96.7)
	2005-2006			90.3 (85.8-94.8)	92.5 (88.6-96.4)	91.4 (88.1-94.7)	89.6 (80.7-98.5)	91.1 (87.9-94.3)
Attended early childhood health centre in previous 12 months, children aged 0 to 4 years	2003-2004			40.9 (37.8-44.0)	40.6 (37.0-44.1)			40.8 (38.4-43.2)
	2005-2006			40.9 (37.3-44.5)	39.1 (35.1-43.1)			40.4 (37.6-43.2)
Currently seeing baby or early childhood health nurse, children aged 0 to 4 years	2001-2002			29.0 (26.4-31.6)	29.5 (26.7-32.4)			29.1 (27.1-31.1)
	2003-2004			28.3 (25.5-31.1)	30.1 (26.8-33.4)			28.9 (26.7-31.1)
	2005-2006			23.2 (20.1-26.3)	24.9 (21.4-28.5)			23.7 (21.3-26.1)
Emergency department presentations in the last 12 months, children aged 0 to 15 years	2001-2002	19.3 (17.7-21.0)	17.4 (15.9-18.9)	16.6 (15.2-18.1)	21.9 (20.2-23.7)	22.1 (20.6-23.6)	13.2 (11.5-14.9)	18.4 (17.2-19.5)
	2003-2004	23.6 (22.0-25.2)	19.2 (17.6-20.7)	18.7 (17.3-20.1)	27.2 (25.4-29.0)	25.6 (24.0-27.2)	16.6 (15.0-18.1)	21.4 (20.3-22.6)
	2005-2006	24.4 (22.4-26.4)	18.8 (17.0-20.6)	19.9 (18.2-21.7)	25.4 (23.4-27.4)	25.7 (23.8-27.6)	17.2 (15.3-19.1)	21.7 (20.3-23.0)
Emergency department rated as excellent, very good or good, children aged 0 to 15 years	2003-2004	84.4 (81.7-87.1)	82.9 (79.6-86.2)	80.8 (77.7-83.9)	87.9 (85.4-90.4)	85.3 (82.9-87.8)	80.8 (76.9-84.7)	83.7 (81.6-85.8)
	2005-2006	86.6 (83.5-89.6)	82.7 (78.8-86.6)	85.8 (82.4-89.1)	83.6 (80.4-86.9)	84.2 (81.1-87.2)	86.3 (82.4-90.2)	85.0 (82.5-87.4)
Visit by a health professional in the home in the last 12 months, children aged 0 to 4 years	2003-2004	15.6 (13.2-18.0)	15.5 (12.9-18.1)	15.9 (13.7-18.2)	14.6 (12.1-17.2)			15.5 (13.8-17.3)
	2005-2006	19.1 (16.0-22.1)	17.2 (14.0-20.3)	17.8 (15.0-20.6)	18.9 (15.7-22.2)			18.2 (16.0-20.3)
Hospital admissions in previous 12 months, children aged 0 to 15 years	2003-2004	11.2 (10.0-12.4)	10.0 (8.8-11.1)	10.9 (9.8-12.0)	10.0 (8.8-11.1)	15.3 (14.0-16.6)	5.0 (4.2-5.9)	10.6 (9.8-11.4)
	2005-2006	10.4 (9.1-11.8)	9.5 (8.2-10.9)	10.2 (8.9-11.5)	9.6 (8.3-11.0)	13.5 (12.0-15.0)	6.0 (4.8-7.2)	10.0 (9.0-11.0)
Hospital care rated as excellent, very good or good, children aged 0 to 15 years	2003-2004	93.2 (90.6-95.8)	91.6 (88.1-95.1)	91.7 (88.8-94.5)	94.3 (92.0-96.7)	93.0 (90.7-95.3)	90.5 (85.4-95.6)	92.5 (90.4-94.6)
	2005-2006	92.1 (88.5-95.7)	91.7 (87.7-95.7)	91.3 (87.7-94.9)	93.3 (90.1-96.5)	92.2 (89.0-95.3)	91.3 (86.1-96.5)	91.9 (89.2-94.6)
Public dental service attendance in the last 12 months, children aged 0 to 15 years	2003-2004	12.8 (11.6-14.1)	12.9 (11.6-14.3)	9.6 (8.5-10.7)	19.7 (18.0-21.3)	10.8 (9.6-11.9)	15.4 (14.0-16.8)	12.9 (12.0-13.8)
	2005-2006	11.3 (9.9-12.7)	12.8 (11.3-14.4)	9.0 (7.7-10.2)	18.5 (16.7-20.3)	9.4 (8.1-10.6)	15.1 (13.4-16.7)	12.1 (11.0-13.1)
Public dental service care rated as excellent, very good or good, children aged 0 to 15 years	2003-2004			94.0 (91.2-96.9)	96.6 (95.3-98.0)	95.7 (93.5-97.9)	95.0 (92.8-97.2)	95.3 (93.7-96.9)
	2005-2006			93.9 (89.5-98.4)	94.6 (91.4-97.9)	93.6 (89.1-98.1)	94.9 (91.5-98.2)	94.3 (91.5-97.0)

Trends in social determinants of health

Indicator	Year	Males % (95% CI)	Females % (95% CI)	Urban % (95% CI)	Rural % (95% CI)	<= 8 years % (95% CI)	>= 9 years % (95% CI)	All % (95% CI)
Ever participated in early childhood activities, children aged 0 to 5 years	2001-2002	36.8 (33.6-40.0)	36.9 (33.6-40.2)	37.1 (34.1-40.1)	36.3 (32.9-39.6)			36.8 (34.5-39.1)
	2003-2004	57.9 (54.8-61.1)	55.4 (52.1-58.6)	55.4 (52.5-58.3)	59.5 (56.3-62.8)			56.7 (54.4-59.0)
	2005-2006	63.1 (59.5-66.7)	59.2 (55.4-62.9)	58.8 (55.4-62.2)	66.5 (62.9-70.1)			61.1 (58.5-63.7)
Currently participate in early childhood activities, children aged 0 to 5 years	2001-2002	36.8 (33.6-40.0)	36.9 (33.6-40.2)	37.1 (34.1-40.1)	36.3 (32.9-39.6)			36.8 (34.5-39.1)
	2003-2004	33.5 (30.6-36.5)	32.7 (29.6-35.8)	33.2 (30.5-36.0)	32.8 (29.7-36.0)			33.1 (31.0-35.2)
	2005-2006	41.6 (38.0-45.3)	35.2 (31.6-38.7)	37.1 (33.8-40.4)	41.4 (37.7-45.2)			38.4 (35.8-41.0)
Ever been to childcare, children aged 0 to 5 years	2001-2002	53.3 (50.3-56.3)	53.9 (50.8-57.0)	53.8 (51.0-56.6)	53.1 (50.0-56.3)			53.6 (51.4-55.8)
	2003-2004	49.7 (46.5-52.9)	42.4 (39.2-45.6)	45.5 (42.6-48.4)	47.6 (44.3-50.9)			46.2 (43.9-48.4)
	2005-2006	48.2 (44.5-51.9)	45.6 (41.8-49.4)	47.7 (44.3-51.2)	45.0 (41.3-48.8)			46.9 (44.3-49.6)
Currently go to childcare, children aged 0 to 5 years	2001-2002	43.2 (40.3-46.1)	43.9 (40.8-47.0)	43.4 (40.7-46.1)	43.8 (40.8-46.8)			43.5 (41.4-45.6)
	2003-2004	35.8 (32.8-38.8)	29.3 (26.4-32.2)	32.0 (29.3-34.8)	33.9 (30.8-37.0)			32.6 (30.5-34.7)
	2005-2006	37.0 (33.4-40.6)	32.4 (28.9-36.0)	34.9 (31.6-38.2)	34.3 (30.8-37.9)			34.7 (32.2-37.3)
Attendance at preschool, children aged 3 to 4 years	2001-2002	68.8 (64.2-73.3)	69.4 (64.6-74.2)	67.5 (63.1-71.9)	72.5 (68.1-76.8)			69.1 (65.8-72.4)
	2003-2004	76.5 (71.8-81.1)	70.3 (65.1-75.5)	72.5 (67.9-77.0)	76.0 (71.3-80.7)			73.6 (70.1-77.1)
	2005-2006	76.5 (71.0-82.0)	72.2 (65.8-78.5)	74.5 (69.1-80.0)	74.3 (68.5-80.2)			74.5 (70.3-78.6)
Read to child daily, children aged 0 to 5 years	2003-2004			67.3 (63.0-71.7)	69.4 (64.7-74.2)			68.0 (64.6-71.3)
	2005-2006			71.9 (68.7-75.0)	76.6 (73.3-79.8)			73.3 (70.9-75.7)
Healthy family functioning, children aged 0 to 15 years	2003-2004			94.2 (92.6-95.9)	96.0 (94.6-97.3)	96.0 (94.6-97.4)	93.4 (91.4-95.5)	94.8 (93.6-96.0)
	2005-2006			94.8 (93.2-96.3)	94.9 (93.5-96.4)	95.7 (94.3-97.0)	93.9 (92.0-95.8)	94.8 (93.7-96.0)
Need for support services, children aged 1 to 15 years	2001-2002	33.3 (31.4-35.2)	28.4 (26.5-30.2)	31.5 (29.7-33.2)	29.7 (27.9-31.5)	32.3 (30.7-33.9)	29.1 (26.8-31.3)	30.9 (29.6-32.2)
	2003-2004	34.2 (31.1-37.3)	27.2 (24.1-30.2)	31.8 (28.9-34.8)	28.7 (25.9-31.5)	34.3 (31.2-37.4)	27.1 (24.0-30.1)	30.8 (28.6-32.9)
	2005-2006	27.2 (24.3-30.1)	22.6 (19.7-25.4)	25.5 (22.8-28.1)	23.8 (20.8-26.7)	25.2 (22.4-28.0)	24.7 (21.7-27.7)	24.9 (22.9-27.0)
Used support services, children aged 1 to 15 years	2001-2002	81.5 (78.8-84.3)	79.6 (76.4-82.8)	81.9 (79.2-84.6)	78.1 (74.9-81.3)	80.8 (78.4-83.3)	80.4 (76.6-84.2)	80.7 (78.6-82.8)
	2003-2004	60.2 (55.8-64.7)	58.6 (53.7-63.5)	61.5 (57.0-65.9)	55.7 (51.3-60.2)	65.1 (60.8-69.3)	53.1 (48.1-58.1)	59.5 (56.2-62.8)
	2005-2006	77.7 (72.5-83.0)	77.5 (71.5-83.6)	78.3 (73.4-83.3)	76.1 (69.9-82.3)	75.8 (70.4-81.2)	79.4 (73.7-85.1)	77.6 (73.7-81.6)

Question modules

The survey questions used in the child component of the New South Wales Population Health Survey in 2005 and 2006 are available as individual question modules on: asthma, breastfeeding, community health centres, demographics, early childhood educational development, early childhood health centres, emergency department presentations, family functioning and parental support, folate and pregnancy, health service use and access, home visiting, hospital admissions, immunisation, injury prevention, mental health, nutrition, oral health, physical activity, public dental services, self-rated health status, and smoking.

Asthma

Q1. Has child ever been told by a doctor or hospital he/she has asthma? [ASKED IF CHILD AGED 2-15 YEARS]

- 1. Yes
- 2. No → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q2. Has child had symptoms of asthma or taken treatment for asthma in the last 12 months? [ASKED IF CHILD AGED 2-15 YEARS]

- 1. Yes, symptoms
- 2. Yes, treatment
- 3. Yes, both
- 4. No → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q3. During the last 4 weeks did child's asthma interfere with his-her ability to manage his-her day-to-day activities? [ASKED IF CHILD AGED 2-15 YEARS]

- 1. Yes
- 2. No → Q6
- X Don't know → Q6
- R Refused → Q6

Q4. Did it interfere with these activities? [READ OUT] [ASKED IF CHILD AGED 2-15 YEARS]

- 1. A little bit
- 2. Moderately
- 3. Quite a bit
- 4. Extremely
- X Don't know
- R Refused

Q5. Does child have a written asthma management plan from his-her doctor on how to treat his-her asthma? [ASKED IF CHILD AGED 2-15 YEARS]

- 1. Yes
- 2. No
- X Don't know
- R Refused

Q6. What are the names or brands of all the medications child took for asthma in the last 12 months? [READ OUT] [ASKED IF CHILD AGED 2-15 YEARS]

- 1. _____ [SPECIFY]
- X Don't know
- R Refused

Breastfeeding

Q1. Has child ever been breastfed? [ASKED IF CHILD AGED 0-4 YEARS]

- 1. Yes
- 2. No → Q4
- X Don't know → Q5
- R Refused → Q5

Q2. Is child currently being breastfed? [ASKED IF CHILD AGED 0-4 YEARS]

- 1. Yes → Q5
- 2. No
- X Don't know → Q5
- R Refused → Q5

Q3. Including times of weaning, what is the total time child was breastfed in months and weeks? [ASKED IF CHILD AGED 0-4 YEARS]

2. Answer in months and weeks → Q5

3. Less than one week → Q5

X Don't know → Q5

R Refused → Q5

Q4. What was the main reason you decided not to breastfeed? [ASKED IF CHILD AGED 0-4 YEARS]

1. Reason_____

X Don't know

R Refused → Q6

Q5. Has child ever been given infant or toddler formula regularly? (PROMPT IF NECESSARY: regularly means at least once a day) [ASKED IF CHILD AGED 0-4 YEARS]

1. Yes

2. No → Q7

X Don't know → Q7

R Refused → Q7

Q6. At what age was child first given infant or toddler formula regularly? (ENTER FULL NUMBERS ONLY: IGNORE HALF. FOR EXAMPLE ENTER 1 WEEK FOR ONE-AND-A-HALF-WEEKS) [ASKED IF CHILD AGED 0-4 YEARS]

2. Answer in months and weeks

3. Less than 1 week

X Don't know

R Refused

Q7. Has child ever been given cow's milk regularly? [ASKED IF CHILD AGED 0-4 YEARS]

1. Yes

2. No → Q9

X Don't know → Q9

R Refused → Q9

Q8. At what age was child first given cow's milk regularly? (ENTER FULL NUMBERS ONLY: IGNORE HALF. FOR EXAMPLE ENTER 1 WEEK FOR ONE-AND-A-HALF WEEKS) [ASKED IF CHILD AGED 0-4 YEARS]

2. Answer in months and weeks

3. Less than 1 week

X Don't know

R Refused

Q9. Has child ever been given any other type of milk substitute on a regular basis? (PROMPT: Apart from breast milk or infant formula or cow's milk) [ASKED IF CHILD AGED 0-4 YEARS]

1. Yes

2. No → Q12

X Don't know → Q12

R Refused → Q12

Q10. What type of milk substitutes did child have? [MULTIPLE RESPONSE] [ASKED IF CHILD AGED 0-4 YEARS]

1. Soy milk

2. Goat's milk

3. Evaporated milk

4. Other [SPECIFY]

X Don't know

R Refused

Q11. At what age was child first given milk substitute regularly? (NOTE: IF USED MORE THAN 1 TYPE OF MILK RECORD EARLIEST AGE THAT ANY MILK SUBSTITUTE WAS GIVEN REGULARLY)(ENTER FULL NUMBERS ONLY: IGNORE HALF) [ASKED IF CHILD AGED 0-4 YEARS]

2. Answer in months and weeks

3. Less than 1 week

X Don't know

R Refused

Q12. At what age was child first given solid food regularly? (ENTER FULL NUMBERS ONLY: IGNORE HALF) [ASKED IF CHILD AGED 0-4 YEARS]

2. Answer in months and weeks

3. Never given solids or not yet started solids

X Don't know

R Refused

Q13. At what age was child first given fruit juice regularly? (ENTER FULL NUMBERS ONLY: IGNORE HALF. FOR EXAMPLE ENTER 1 WEEK FOR ONE-AND-A-HALF WEEKS) [ASKED IF CHILD AGED 0-4 YEARS]

2. Answer in months and weeks

3. Less than 1 week

4. Never given fruit juice or not yet started fruit juice

X Don't know

R Refused

Q14. At what age was child first given water regularly? (ENTER FULL NUMBERS ONLY: IGNORE HALF. FOR EXAMPLE ENTER 1 WEEK FOR ONE-AND-A-HALF WEEKS) [ASKED IF CHILD AGED 0-4 YEARS]

2. Answer in months and weeks

3. Less than 1 week

4. Never given water or not yet started water

X Don't know

R Refused

Community health centres

Q1. In the last 12 months, has child 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 child received at this community health centre?
[READ OUT]

1. Excellent

2. Very good

3. Good

4. Fair

5. Poor

X Don't know

R Refused

Q3. Could you briefly describe why you rated the care child received as fair or poor?

1. Reasons _____

Demographics

Q1. [RECORD LANGUAGE SURVEY RECORDED IN]

1. English

2. Arabic

3. Chinese

4. Greek

5. Italian

6. Vietnamese

Q2. Firstly can I confirm you live in NSW?

1. Yes: NSW

2. ACT → END OF MODULE

3. Vic → END OF MODULE

4. QLD → END OF MODULE

5. SA → END OF MODULE

R Refused → END OF MODULE

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 child is today?

1. _____ age in months (0-23 months only)

2. _____ age in years

X Don't know

R Refused

Q7. Is child male or female? [ONLY ASK IF UNSURE]

1. Male

2. Female

Q8. Record sex of respondent. [IF UNSURE ASK: Are you male or female?]

1. Male

2. Female

Q9. What is your relationship to child? For example are you child's mother or father or other relation?

1. Mother

2. Father

3. Stepmother

4. Stepfather

5. Grandmother

6. Grandfather

7. Legal guardian or foster parent

8. Other

X Don't know

R Refused

Q10. Could you please tell me how old you are today?

_____ years

X Don't know

R Refused

Q11. Besides yourself, who else does child live with, such as brothers and sisters, mother or stepmother, step brothers and step sisters? [MULTIPLE RESPONSE]

1. [BLANK]

2. Mother

3. Father

4. Respondent's partner [PROBE FOR RELATIONSHIP WITH CHILD]

5. Stepmother

6. Stepfather

7. Grandparents

8. Sons or daughters

9. Brothers and sisters

10. Stepbrothers or stepsisters

11. Other relatives

12. Non-family members

13. Other [SPECIFY]

X Don't know

R Refused

Q12. What is your current formal marital status?

1. Married (this refers to registered marriages)

2. Widowed

3. Separated but not divorced

- 4. Divorced
- 5. Never married
- X Don't know
- R Refused

Q13. In which country was child born?

- 1. Australia
- 2. _____ other country [SPECIFY]
- X Don't know
- R Refused

Q14. In which country were you born?

- 1. Australia
- 2. _____ other country [SPECIFY]
- X Don't know
- R Refused

Q15. In which country was child's natural [mother or stepmother or father or stepfather] born?

- 1. Australia
- 2. _____ other country [SPECIFY]
- X Don't know
- R Refused

Q16. When did you first arrive in Australia to live here for 1 year or more?

- 1. ____ year
- X Don't know
- R Refused

Q17. Do you usually speak a language other than English at home?

- 1. Yes
- 2. No → Q19
- X Don't know → Q19
- R Refused → Q19

Q18. What language do you usually speak at home?

- 1. _____ language [SPECIFY]
- X Don't know
- R Refused

Q19. Is child of Aboriginal or Torres Strait Islander origin?

- 1 Aboriginal but not Torres Strait Islander
- 2 Torres Strait Islander but not Aboriginal origin
- 3 Aboriginal and Torres Strait Islander origin
- 4 Not Aboriginal or Torres Strait Islander origin
- X Don't know
- R Refused

Q20. What is the level of the highest qualification child's mother or stepmother has 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

Q21. What is the level of the highest qualification child's father or stepfather has 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

Q22. In the last week, which of the following best describes child's mother or stepmother's employment status?

[READ OUT 1-5]

1. Worked for payment or profit → Q24

2. Worked for payment or profit but absent on paid leave, holidays, on strike or stood down → Q24

3. Unpaid work in a family business → Q24

4. Other unpaid work → Q24

5. Did not have a job

X Don't know or not sure → Q24

R Refused → Q24

Q23. Was child's mother or stepmother 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

Q24. In the last week, which of the following best describes child's father or stepfather's employment status?

[READ OUT 1-5]

1. Worked for payment or profit → Q26

2. Worked for payment or profit but absent on paid leave, holidays, on strike or stood down → Q26

3. Unpaid work in a family business → Q26

4. Other unpaid work → Q26

5. Did not have a job

X Don't know or not sure → Q26

R Refused → Q26

Q25. Was child's father or stepfather 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

Q26. Apart from Medicare is child currently covered by private health insurance?

1. Yes

2. No

X Don't know

R Refused

Q27. 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 full owner

4. Living rent free

5. Purchasing under a rent and buy scheme

6. Occupying your dwelling under a life tenure scheme

7. Other [SPECIFY]

X Don't know

R Refused

Q28. What type of accommodation do you live in? [PROMPT IF NECESSARY]

1. Separate house

2. Semi-detached townhouse or terrace house or villa

3. Unit, flat or apartment or granny flat

4. Caravan or cabin or houseboat

5. Improvised home or tent or sleepout

6. House or flat attached to a shop or office

7. Other [SPECIFY] _____ (for example, hotel, retirement village)

X Don't know

R Refused

Q29. I would now like to ask you about your household's income. What is your annual household income before tax? Would it be:

1. Less than \$20,000

2. \$20,000 to \$40,000

3. \$40,000 to \$60,000

4. \$60,000 to \$80,000

5. More than \$80,000

X Don't know

R Refused

Q30. How long have you lived in your local area?

1. _____ years

X Don't know

R Refused

Q31. What is the name of your local council or shire?

1. _____

X Don't know

R Refused

Q32. What is the name of the town or suburb where you live?

1. _____

X Don't know

R Refused

Q33. Could you tell me your postcode?

1. _____

X Don't know

R Refused

Q34. Do you have more than one telephone number in your household?

1. Yes

2. No

X Don't know

R Refused

Q35. 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

Early childhood educational development

Q1. Has child ever attended any playgroup or other early childhood program or activity (apart from childcare or preschool)? [ASKED IF CHILD AGED 0-5 YEARS]

1. Yes

2. No → Q3

X Don't know

R Refused

Q2. Does child currently attend any playgroup or other early childhood program or activity (apart from childcare or preschool)? [ASKED IF CHILD AGED 0-5 YEARS]

1. Yes

2. No

X Don't know

R Refused

Q3. Have you ever used any child care for child on a regular basis? (PROMPT: Regular basis means at least half a day a week) [ASKED IF CHILD AGED 0-5 YEARS]

- 1. Yes
- 2. No → Q8
- X Don't know
- R Refused

Q4. How old was child when he-she first started childcare for half a day or longer? [ASKED IF CHILD AGED 0-5 YEARS]

- 1. Record in years and months
- X Don't know
- R Refused

Q5. Is child currently having any type of childcare on a regular basis? [ASKED IF CHILD AGED 0-5 YEARS]

- 1. Yes
- 2. No → Q8
- X Don't know
- R Refused

Q6. What type of childcare does child have? [MULTIPLE RESPONSE] [ASKED IF CHILD AGED 0-5 YEARS]

- 1. Long day care centre
- 2. Occasional care
- 3. Friend
- 4. Grandparent
- 5. Nanny
- 6. Babysitter
- 7. Relative or family (other than grandparent)
- 8. Family day care (usually organised through local councils)
- 9. Other [SPECIFY]
- X Don't know
- R Refused

Q7. In total, how many hours per week is child usually cared for in this type of childcare? [ASKED IF CHILD AGED 0-5 YEARS]

- 1. Record hours _____
- X Don't know
- R Refused

Q8. Does child go to preschool? [ASKED IF CHILD AGED 2-5 YEARS.]

- 1. Yes
- 2. No
- X Don't know
- R Refused

Q9. Do you or other members of your family read or look at books with child? [ASKED IF CHILD AGED 0-5 YEARS]

- 1. Yes
- 2. No → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q10. In a typical week, how often do you or other members of your family read or look at books with child? [ASKED IF CHILD AGED 0-5 YEARS]

- 1. Every day
- 2. At least once a week
- 3. At least once a month
- 4. Rarely
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q11. How old was child when you or another member of your family started reading to him-her? [ASKED IF CHILD AGED 0-5 YEARS]

- 1. Less than 6 weeks

- 2. 6 months to 1 year
- 3. 1-2 years
- 4. 2-3 years
- 5. 3 years and over
- X Don't know
- R Refused

Early childhood health centres

Q1. In the last 12 months, has child attended an early childhood health centre? [ASKED IF CHILD AGED 0-4 YEARS]

- 1. Yes
- 2. No → Q3
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q2. Is child seeing a baby health or early childhood health nurse on a regular basis? (PROMPT includes regular visits to early childhood health centre or baby health centre. Regular visits means attended last appointment and plan to take child again) [ASKED IF CHILD AGED 0-4 YEARS]

- 1. Yes → END OF MODULE
- 2. No
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q3. Can you tell me the main reason child is not seeing a baby health or early childhood health nurse on a regular basis? [ASKED IF CHILD AGED 0-4 YEARS]

- 1. Centre at inconvenient location
- 2. Centre has inconvenient or unsuitable hours
- 3. Insufficient services
- 4. Unwelcome atmosphere
- 5. No need to attend any more
- 6. Not useful or not useful any more
- 7. Use other services instead
- 8. Other [SPECIFY]
- 9. Next scheduled visit not due yet
- X Don't know
- R Refused

Emergency departments

Q1. In the last 12 months, has child attended a hospital emergency department (or casualty) for his-her medical care?

- 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 child received at this emergency department? [READ OUT]

- 1. Excellent → END OF MODULE
- 2. Very good → END OF MODULE
- 3. Good → END OF MODULE
- 4. Fair → Q3
- 5. Poor → Q3
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q3. Could you briefly describe why you rated the care child received as fair or poor?

- 1. Reasons _____

Family functioning and parental support

Q1. Planning family activities is difficult because we misunderstand each other. Do you: [READ OUT]

- 1. Strongly agree
- 2. Agree
- 3. Disagree
- 4. Strongly disagree
- X Don't know
- R Refused

Q2. In times of crisis we can turn to each other for support. [READ OUT]

- 1. Strongly agree
- 2. Agree
- 3. Disagree
- 4. Strongly disagree
- X Don't know
- R Refused

Q3. We cannot talk to each other about sadness we feel. [READ OUT]

- 1. Strongly agree
- 2. Agree
- 3. Disagree
- 4. Strongly disagree
- X Don't know
- R Refused

Q4. Individuals (in the family) are accepted for what they are. [READ OUT]

- 1. Strongly agree
- 2. Agree
- 3. Disagree
- 4. Strongly disagree
- X Don't know
- R Refused

Q5. We avoid discussing our fears and concerns. [READ OUT]

- 1. Strongly agree
- 2. Agree
- 3. Disagree
- 4. Strongly disagree
- X Don't know
- R Refused

Q6. We express feelings to each other. [READ OUT]

- 1. Strongly agree
- 2. Agree
- 3. Disagree
- 4. Strongly disagree
- X Don't know
- R Refused

Q7. There are lots of bad feelings in our family. [READ OUT]

- 1. Strongly agree
- 2. Agree
- 3. Disagree
- 4. Strongly disagree
- X Don't know
- R Refused

Q8. We feel accepted for what we are. [READ OUT]

- 1. Strongly agree
- 2. Agree
- 3. Disagree
- 4. Strongly disagree

X Don't know
R Refused

Q9. Making decisions is a problem in our family. [READ OUT]

1. Strongly agree
 2. Agree
 3. Disagree
 4. Strongly disagree
- X Don't know
R Refused

Q10. We are able to make decisions about how to solve problems. [READ OUT]

1. Strongly agree
 2. Agree
 3. Disagree
 4. Strongly disagree
- X Don't know
R Refused

Q11. We don't get on well together. [READ OUT]

1. Strongly agree
 2. Agree
 3. Disagree
 4. Strongly disagree
- X Don't know
R Refused

Q12. We confide in each other. [READ OUT]

1. Strongly agree
 2. Agree
 3. Disagree
 4. Strongly disagree
- X Don't know
R Refused

Q13. Have you ever felt the need for any type of support services to assist in caring for child or dealing with problems you may have experienced with child? (PROMPT: Support services include Karitane, Tresillian, early childhood health services, family support services, counsellors)

1. Yes
 2. No → END OF MODULE
- X Don't know → END OF MODULE
R Refused → END OF MODULE

Q14. Have you ever used any support services?

1. Yes
 2. No
- X Don't know
R Refused

Folate and pregnancy

Q1. Did you take tablets or capsules containing folate or folic acid in the month immediately before and/or in the first 3 months of this pregnancy? (NOTE: 'In the month before' includes taking folate for more than 1 month prior to pregnancy. 'First 3 months of pregnancy' includes taking folate for more than the first 3 months of pregnancy) [ASKED IF CHILD AGED 0-11 MONTHS]

1. Yes, in the month before AND first 3 months of pregnancy
 2. Yes, in the month before only
 3. Yes, in the first 3 months of pregnancy only
 4. No
 5. Not applicable as not the birth mother
- X Don't know
R Refused

Health service use and access

Q1. In the last 12 months, has child: [READ OUT]

1. Stayed for at least 1 night in hospital
2. Attended a hospital emergency department
3. Attended an early childhood health centre [ASKED IF CHILD AGED 0-4 YEARS]
4. Attended a government run community health centre
5. Attended a government run public dental service or dental hospital

X Don't know

R Refused

Q2. Apart from Medicare, do you have private health insurance?

1. Yes → Q3
2. No → Q3
3. Don't need health care → Q3

X Don't know → Q3

R Refused → Q3

Q3. Do you have any difficulties getting health care when child needs it?

1. Yes → Q4
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

Q4. Please describe the difficulties you have.

1. Description _____ → END OF MODULE

Home visiting

Q1. In the last 12 months, have you had any health professionals visit child in your home? [ASKED IF CHILD AGED 0-4 YEARS]

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, which health professionals visited child in your home? [ASKED IF CHILD AGED 0-4 YEARS]

1. Community nurse
 2. Private nurse
 3. Midwife
 4. General practitioner
 5. Podiatrist or chiropodist
 6. Physiotherapist
 7. Other health professional [SPECIFY]
 8. Not visited by anyone
- X Don't know
- R Refused

Hospital admissions

Q1. In the last 12 months, has child stayed for at least 1 night in 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 child received at this hospital? [READ OUT]

- 1. Excellent → END OF MODULE
- 2. Very good → END OF MODULE
- 3. Good → END OF MODULE
- 4. Fair → Q3
- 5. Poor → Q3
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q3. Could you briefly describe why you rated the care child received as fair or poor?

- 1. Description _____

Immunisation

Q1. Since January [of last year] has child been vaccinated against meningococcal C disease? [ASKED IF CHILD AGED 1-15 YEARS]

- 1. Yes
- 2. No → Q4
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q2. When was child vaccinated? [ASKED IF CHILD AGED 1-15 YEARS]

- 1. Enter date (to nearest month) _____
- X Don't know
- R Refused

Q3. Where did child receive the vaccine? [ASKED IF CHILD AGED 1-15 YEARS]

- 1. General practitioner → END OF MODULE
- 2. Council → END OF MODULE
- 3. Community health centre → END OF MODULE
- 4. School clinic → END OF MODULE
- 5. Other [Specify] → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q4. The Commonwealth has made meningococcal C vaccine available free from general practitioners, community health centres or local councils. Do you intend to have child vaccinated? [ASKED IF CHILD AGED 1-15 YEARS]

- 1. Yes
- 2. No
- X Don't know
- R Refused

Injury prevention

Q1. Do you have any of the following fire safety measures in your home? [READ OUT] [External water supply refers to water tankers, swimming pools, dams, storm water retention pits, garden hoses and fixed sprinklers. Hard wired smoke alarms are wired into your electricity supply and have battery back up]

- 1. Fire alarm (hard wired)
- 2. Fire alarm (battery operated only)
- 3. Fire sprinkler system
- 4. Safety switch or circuit breaker

5. Fire extinguisher
6. Fire evacuation plan
7. External water supply
8. External sprinkler
9. Other [SPECIFY]
10. None of the above

Q2. Has child participated in the fire education program in schools? [ASKED IF CHILD AGED 5-15 YEARS]

1. Yes
2. No → END OF MODULE
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q3. Did child tell you anything about the following? [MULTIPLE RESPONSE] [ASKED IF CHILD AGED 5-15 YEARS]

1. Get down low & go go go
2. Home evacuation plan
3. Stop drop and roll
4. Install smoke alarms
5. Knotted rope
6. None of the above
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q4. Did you take action on any of these things? [ASKED IF CHILD AGED 5-15 YEARS]

1. Yes
2. No
- X Don't know
- R Refused

Q5. What position did you put child to sleep in from birth? [READ OUT] [ASKED IF CHILD AGED 0-11 MONTHS]

1. On his-her back
2. On his-her side
3. On his-her tummy
4. Any other position [SPECIFY] _____
- X Don't know
- R Refused

Mental health

The next section is about child's personality and behaviour. For each statement please tell me if it is not true, somewhat true or certainly true for child over the last 6 months.

Q1. Child is considerate of other people's feelings. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

1. Not true
2. Somewhat true
3. Certainly true
- X Don't know
- R Refused

Q2. Child is restless, overactive or cannot stay still for long. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

1. Not true
2. Somewhat true
3. Certainly true
- X Don't know
- R Refused

Q3. Child often complains of headaches, stomach aches or sickness. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q4a. Child shares readily with other children, for example toys, treats and pencils. Is that: [READ OUT] [ASKED IF CHILD AGED 4-10 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q4b. Child shares readily with other young people, for example CDs, games and food. Is that: [READ OUT] [ASKED IF CHILD AGED 11-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q5. Child often loses temper. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q6a. Child is rather solitary or prefers to play alone. Is that: [READ OUT] [ASKED IF CHILD AGED 4-10 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q6b. Child would rather be alone than with other young people. Is that: [READ OUT] [ASKED IF CHILD AGED 11-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q7. Child is generally well behaved and usually does what adults request. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q8. Child has many worries or often seems worried. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q9. Child is helpful if someone is hurt, upset or feeling ill. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q10. Child is constantly fidgeting or squirming. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q11. Child has at least one good friend. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q12a. Child often fights with or bullies other children. Is that: [READ OUT] [ASKED IF CHILD AGED 4-10 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q12b. Child often fights with or bullies other young people. Is that: [READ OUT] [ASKED IF CHILD AGED 11-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q13. Child is often unhappy, depressed or tearful. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q14a. Child is generally liked by other children. Is that: [READ OUT] [ASKED IF CHILD AGED 4-10 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q14b. Child is generally liked by other young people. Is that: [READ OUT] [ASKED IF CHILD AGED 11-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q15. Child is easily distracted or his-her concentration wanders. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not true

- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q16a. Child is nervous or clingy in new situations or easily loses confidence. Is that: [READ OUT] [ASKED IF CHILD AGED 4-10 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q16b. Child is nervous in new situations or easily loses confidence. Is that: [READ OUT] [ASKED IF CHILD AGED 11-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q17. Child is kind to younger children. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q18. Child often lies or cheats. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q19a. Child is picked on or bullied by other children. Is that: [READ OUT] [ASKED IF CHILD AGED 4-10 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q19b. Child is picked on or bullied by other young people. Is that: [READ OUT] [ASKED IF CHILD AGED 11-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q20a. Child often volunteers to help others such as parents, teachers or other children. Is that: [READ OUT] [ASKED IF CHILD AGED 4-10 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true
- X Don't know
- R Refused

Q20b. Child often volunteers to help others such as parents, teachers or children. Is that: [READ OUT] [ASKED IF CHILD AGED 11-15 YEARS]

- 1. Not true
- 2. Somewhat true
- 3. Certainly true

X Don't know
R Refused

Q21. Child thinks things out before acting. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

1. Not true
2. Somewhat true
3. Certainly true

X Don't know
R Refused

Q22. Child steals from home, school or elsewhere. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

1. Not true
2. Somewhat true
3. Certainly true

X Don't know
R Refused

Q23a. Child gets along better with adults than with other children. Is that: [READ OUT] [ASKED IF CHILD AGED 4-10 YEARS]

1. Not true
2. Somewhat true
3. Certainly true

X Don't know
R Refused

Q23b. Child gets along better with adults than with other young people. Is that: [READ OUT] [ASKED IF CHILD AGED 11-15 YEARS]

1. Not true
2. Somewhat true
3. Certainly true

X Don't know
R Refused

Q24. Child has many fears or is easily scared. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

1. Not true
2. Somewhat true
3. Certainly true

X Don't know
R Refused

Q25. Child has a good attention span and sees chores or homework through to the end. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

1. Not true
2. Somewhat true
3. Certainly true

X Don't know
R Refused

Q26. Child is constantly fidgeting or squirming. Is that: [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

1. Not true
2. Somewhat true
3. Certainly true

X Don't know
R Refused

Q27. Overall do you think that Child has difficulties in any of the following areas: emotions, concentration, behaviour or being able to get along with other people? [ASKED IF CHILD AGED 4-15 YEARS]

1. No → END OF MODULE
 2. Yes: minor difficulties
 3. Yes: definite difficulties
 4. Yes: severe difficulties
- X Don't know → END OF MODULE
R Refused → END OF MODULE

Q28. How long have these difficulties been present? [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Less than a month
- 2. 1-5 months
- 3. 6-12 months
- 4. Over a year
- X Don't know
- R Refused

Q29. How much do these difficulties upset or distress Child? [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not at all
- 2. A little
- 3. A medium amount
- 4. A great deal
- X Don't know
- R Refused

Q30. How much do these difficulties interfere with [child's] everyday home life? [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not at all
- 2. A little
- 3. A medium amount
- 4. A great deal
- X Don't know
- R Refused

Q31. How much do these difficulties interfere with [child's] friendships? [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not at all
- 2. A little
- 3. A medium amount
- 4. A great deal
- X Don't know
- R Refused

Q32. How much do these difficulties interfere with [child's] classroom learning? [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not at all
- 2. A little
- 3. A medium amount
- 4. A great deal
- X Don't know
- R Refused

Q33. How much do these difficulties interfere with [child's] leisure activities? [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not at all
- 2. A little
- 3. A medium amount
- 4. A great deal
- X Don't know
- R Refused

Q34. How much do these difficulties put a burden on you or your family as a whole? [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

- 1. Not at all
- 2. A little
- 3. A medium amount
- 4. A great deal
- X Don't know
- R Refused

Nutrition

Q1. How many serves of vegetables does child usually eat each day? [1 serve = 1/2 cup cooked or 1 cup of salad vegetables] [ASKED IF CHILD AGED 2-15 YEARS]

- 1. ____ serves per day
- 2. ____ serves per week
- 3. Doesn't eat vegetables
- X Don't know
- R Refused

Q2. How many serves of fruit does child usually eat each day? [1 serve = 1 medium piece or 2 small pieces of fruit or 1 cup of diced pieces] [ASKED IF CHILD AGED 2-15 YEARS]

- 1. ____ serves per day
- 2. ____ serves per week
- 3. Doesn't eat fruit
- X Don't know
- R Refused

Q3. How many cups of fruit juice does child usually drink in a day? (1 cup = 250ml, a household tea cup or large popper) [ASKED IF CHILD AGED 2-15 YEARS]

- 1. ____ cups per day
- 2. ____ cups per week
- 3. Doesn't drink juice
- X Don't know
- R Refused

Q4. How many cups of milk does child usually drink in a day? (1 cup = 250ml, a household tea cup) (PROMPT: MILK = COW'S MILK. IF CHILD DRINKS OTHER MILK SUCH AS SOYMILK USE RESPONSE OPTION 3) [ASKED IF CHILD AGED 2-15 YEARS]

- 1. ____ cups per day
- 2. ____ cups per week
- 3. Drinks other milk such as soy milk
- 4. Doesn't drink cow's milk or other milk
- X Don't know
- R Refused

Q5. How many serves of yoghurt does child usually have in a day? (1 serve is 200 grams of yoghurt)[ASKED IF CHILD AGED 2-15 YEARS]

- 1. ____ serves per day
- 2. ____ serves per week
- 3. Doesn't have yoghurt
- X Don't know
- R Refused

Q6. How many serves of custard does child usually have in a day? (1 serve is 250 mls of custard)[ASKED IF CHILD AGED 2-15 YEARS]

- 1. ____ serves per day
- 2. ____ serves per week
- 3. Doesn't have custard
- X Don't know
- R Refused

Q7. How many serves of cheese does child usually have in a day? (1 serve is 40 grams of cheese)[ASKED IF CHILD AGED 2-15 YEARS]

- 1. ____ serves per day
- 2. ____ serves per week
- 3. Doesn't eat cheese
- X Don't know
- R Refused

Q8. How many cups of soft drink, cordials or sports drink, such as lemonade or Gatorade, does child usually drink in a day? (1 cup = 250ml, a household tea cup or large popper) [ASKED IF CHILD AGED 2-15 YEARS]

1. ____ cups per day
2. ____ cups per week
3. Doesn't drink soft drink or cordial or sports drink
- X Don't know
- R Refused

Q9. How often does child have meals or snacks such as burgers, pizza, chicken or chips from places like McDonald's, Hungry Jacks, Pizza Hut, KFC, Red Rooster, or local takeaway places? [ASKED IF CHILD AGED 2-15 YEARS]

1. ____ times per day
2. ____ times per week
3. ____ times per month
4. Rarely or never
- X Don't know
- R Refused

Q10. How often does child eat hot chips, french fries, wedges or fried potatoes? [ASKED IF CHILD AGED 2-15 YEARS]

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 does child eat potato crisps or other salty snacks? [ASKED IF CHILD AGED 2-15 YEARS]

1. ____ times per day
2. ____ times per week
3. ____ times per month
4. Rarely or never
- X Don't know
- R Refused

Q12. How often does child eat processed meat products such as sausages, frankfurts, devon, salami, meat pies, bacon or ham? [ASKED IF CHILD AGED 2-15 YEARS]

1. ____ times per day
2. ____ times per week
3. ____ times per month
4. Rarely or never
- X Don't know
- R Refused

Q13. In the last 12 months, were there any times that you ran out of food and couldn't afford to buy more?

1. Yes
2. No → Q15
- X Don't know → Q15
- R Refused → Q15

Q14. How do you cope with feeding child when this happens?

1. Parent or guardian skips meals or eats less
2. Children or child skip meals or eat less
3. Cut down on variety of foods family eats
4. Seek help from relatives
5. Seek help from friends
6. Seek help from government or Centrelink
7. Seek help from welfare agencies
8. Other
- X Don't know
- R Refused

Q15. What do you think about the amount of television advertising of confectionary and takeaway food during children's viewing times?

1. ___ too much
2. ___ about right
3. ___ not enough

X Don't know

R Refused

Q16. Who do you think should control the amount of television advertising of confectionary and takeaway food during children's viewing times?

1. ___ parents
2. ___ government
3. ___ television stations
4. other (specify) _____

X Don't know

R Refused

Q17. Are the types of foods child asks you to buy influenced by the television advertisements child sees?

1. ___ yes
2. ___ no

X Don't know

R Refused

Q18. Have you heard of the NSW Healthy School Canteen *Fresh Tastes @ School Strategy*? [ASKED IF CHILD AGED 5-15 YEARS]

1. ___ yes
2. ___ no

X Don't know

R Refused

Q19. How did you hear about the strategy? [ASKED IF CHILD AGED 5-15 YEARS]

1. ___ [SPECIFY]

X Don't know

R Refused

Oral health

Q1. In the last 12 months, how often has child had a toothache or other problem with his or her mouth or dentures? [READ OUT] [ASKED IF CHILD AGED 5-15 YEARS]

1. Very often
2. Often
3. Sometimes
4. Hardly ever
5. Never (during the last 12 months) → Q4

X Don't know → Q4

R Refused → Q4

Q2. What was the most recent problem child had? [ASKED IF CHILD AGED 4-15 YEARS]

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 → Q4

R Refused → Q4

Q3. What treatment did child receive for [problem in Q2]? [MULTIPLE RESPONSE] [ASKED IF CHILD AGED 4-15 YEARS]

1. Check up → Q5
2. Dental filling → Q5
3. Amalgam replacement → Q5

4. Root canal filling → Q5
5. Crown → Q5
6. Tooth extracted → Q5
7. Fluoride treatment → Q5
8. Gum treatment → Q5
9. Teeth straightened or braces → Q5
10. New or replacement dentures → Q5
11. Teeth cleaned → Q5
12. Fissure sealant → Q5
13. Whitening or bleaching → Q5
14. Denture repair → Q5
15. None: Did not visit dental professional
16. Other treatment [SPECIFY] → Q5
- X Don't know → Q5
- R Refused → Q5

Q4. When did child last visit a dental professional about his or her teeth, dentures or gums? [A dental professional includes dentist, dental specialist, dental hygienist, dental technician, dental mechanic, denturist or dental therapist] [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

1. Less than 12 months ago
2. 1 year to less than 2 years ago → Q6
3. 2 to less than 5 years ago → Q6
4. 5 to less than 10 years ago → Q6
5. 10 years ago or more → Q6
6. Never → Q6
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q5. Where was child's last dental visit made? [READ OUT] [ASKED IF CHILD AGED 4-15 YEARS]

1. Government dental clinic or hospital → END OF MODULE
2. School dental service → 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

Q6. What are the main reasons for child not visiting the dentist in the last 12 months? [MULTIPLE RESPONSE] [ASKED IF CHILD AGED 4-15 YEARS]

1. Child has dentures
2. Worried or afraid of going; doesn't like going
3. Doesn'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

Public dental services

Q1. In the last 12 months, has child attended a government 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 child received at this public dental service? [READ OUT]

1. Excellent → END OF MODULE
2. Very good → END OF MODULE
3. Good → END OF MODULE
4. Fair
5. Poor
- X Don't know → END OF MODULE
- R Refused → END OF MODULE

Q3. Could you briefly describe why you rated the care child received as fair or poor?

1. Reasons _____

Physical activity

Q1. On about how many days during the school week does child usually do physical activity outside of school hours? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of days [If = 0 → Q3]

X Don't know → Q3

R Refused → Q3

Q2. On those days, about how many hours does child usually do physical activity? [In hours and minutes] [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ hours _____ minutes

X Don't know

R Refused

Q3. On about how many weekend days does child usually do physical activity? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of days [If = 0 → Q5]

X Don't know → Q5

R Refused → Q5

Q4. On a typical weekend day, about how many hours does child usually do physical activity? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of hours

X Don't know

R Refused

Q5. In the last 12 months, what types of sports and outdoor activities did child play? [ASKED IF CHILD AGED 5-15 YEARS]

1. Basketball
2. Cricket
3. Cycling or mountain biking or bike riding
4. Dancing or ballet
5. Jogging or athletics or running
6. Martial arts
7. Netball
8. Rugby league
9. Rugby union
10. Skateboarding or rollerblading
11. Soccer
12. Swimming
13. Other (specify) _____
14. Did not play any sport

X Don't know

R Refused

Q6. On about how many days during the school week does child usually watch TV, videos or DVDs at home? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of days [If = 0 → Q8]

X Don't know → Q8

R Refused → Q8

Q7. On those days, about how many hours does child usually spend watching TV, videos or DVDs? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of hours

X Don't know

R Refused

Q8. On about how many weekend days does child usually watch TV, videos or DVDs at home? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of days [If = 0 → Q10]

X Don't know → Q10

R Refused → Q10

Q9. On a typical weekend day, about how many hours does child usually spend watching TV, videos or DVDs? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of hours

X Don't know

R Refused

Q10. On about how many days during the school week does child usually play video or computer games? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of days [If = 0 → Q12]

X Don't know → Q12

R Refused → Q12

Q11. On those days, about how many hours does child usually spend playing video or computer games? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of hours

X Don't know

R Refused

Q12. On about how many weekend days does child usually play video or computer games? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of days [If = 0 → Q14]

X Don't know → Q14

R Refused → Q14

Q13. On a typical weekend day, about how many hours does child usually spend playing video or computer games? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of hours

X Don't know

R Refused

Q14. How many minutes of physical activity is it recommended that children do each day? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of minutes

X Don't know

R Refused

Q15. Up to how many hours of television, video, DVD or computer games is it recommended that children watch each day? [ASKED IF CHILD AGED 5-15 YEARS]

1. _____ number of hours

X Don't know

R Refused

Self-rated health status

Q1. Overall, how would you rate child's health during the last 4 weeks? [READ OUT] [ASKED IF CHILD AGED 5-15 YEARS]

1. Excellent

2. Very good

3. Good

4. Fair

5. Poor

- 6. Very poor
- X Don't know
- R Refused

Q2. During the last 4 weeks how much difficulty did child have doing his-her daily work or activities? [READ OUT] [ASKED IF CHILD AGED 5-15 YEARS]

- 1. No difficulty at all
- 2. A little bit of difficulty
- 3. Some difficulty
- 4. Much difficulty
- 5. Could not do work or activities
- X Don't know
- R Refused

Q3. During the last 4 weeks how much bodily pain has child generally had? [READ OUT] [ASKED IF CHILD AGED 5-15 YEARS]

- 1. None
- 2. Very mild
- 3. Mild
- 4. Moderate
- 5. Severe
- 6. Very severe
- X Don't know
- R Refused

Smoking

Q1. When you were pregnant with child, did you ever smoke cigarettes, cigars, pipes or other tobacco products? [ASKED OF MOTHERS IF CHILD LESS THAN 1 YEAR OLD]

- 1. Yes
- 2. No
- X Don't know
- R Refused

Q2. When you were pregnant with child, did you? [ASKED OF MOTHERS IF CHILD LESS THAN 1 YEAR OLD]

- 1. Reduce the amount of tobacco you smoked
- 2. Try to give up smoking but were unsuccessful
- 3. Successfully gave up smoking
- 4. None of the above
- X Don't know
- R Refused

Q3. Which of the following best describes your home situation? (READ OPTIONS 1-3)

- 1. My home is smoke free (includes smoking allowed outside only)
- 2. People occasionally smoke in the house
- 3. People frequently smoke in the house
- X Don't know
- R Refused

Q4. Are people allowed to smoke in your car?

- 1. Yes
- 2. No
- 3. Don't have a car
- X Don't know
- R Refused