

# MEASURES TAKEN IN NEW SOUTH WALES TO ADDRESS CHILDHOOD OBESITY FOLLOWING THE NSW CHILDHOOD OBESITY SUMMIT

*Liz Develin*

*Centre for Health Promotion  
NSW Department of Health*

'A nation of porkers'; 'All guns firing in the battle of the bulge'; and 'Junk food wars': these are just some of the headlines used by the print media to describe the national epidemic of overweight and obesity. And while slowing or reversing the increasing prevalence of obesity is the difficult task that faces NSW—and indeed the whole developed world—the NSW Government has taken steps to address this population health crisis. This article describes the health risks of and trends in overweight and obesity in NSW, and the key initiatives that emerged from the NSW Childhood Obesity Summit, in particular the NSW Healthy School Canteen Strategy and the Schools Physical Activity and Nutrition Survey.

## TRENDS IN OVERWEIGHT AND OBESITY

The last 100 years have seen significant advances in the health of most people in NSW. Better nutrition, improved living conditions, and increasing therapeutic options, have led to gains in infant, child, and adult health. Today, the majority of children born in NSW can expect to live for about 80 years—most of those relatively healthy years.<sup>1</sup> As the effects of communicable diseases and under-nutrition diminish, they are being replaced, as the greatest causes of ill health and premature death, by chronic diseases caused by factors such as a lack of physical activity and poor quality nutrition.<sup>2</sup>

Over the last 20 years, rates of obesity in children have risen in many countries, leading some researchers to speak of an 'international epidemic of childhood obesity'.<sup>3</sup> But this problem does not affect children alone; in the adult population overweight or obesity is also common, with data for NSW estimating that 63 per cent of men and 46 per cent of women are either overweight or obese.<sup>4</sup>

Research from the late 1990s indicates that around one in every 4–5 children in NSW is overweight or obese. In the 10-year period from 1985 to 1995 the level of combined overweight–obesity in children aged 7–15 years in Australia more than doubled in all but the youngest age group of boys (7–11 years), while the level of obesity tripled in all age groups and for both sexes (Figures 1–4).<sup>5</sup>

The rate of increase in the prevalence of childhood overweight and obesity in Australia appears to be accelerating sharply when viewed from an historical perspective.<sup>6</sup> For most of the century, the proportion of

overweight children was low and stable at about 2–5 per cent. From a slow rise in the 1950s and 1960s there has been a dramatic acceleration from the late 1970s onwards.

## HEALTH RISKS ASSOCIATED WITH OVERWEIGHT AND OBESITY

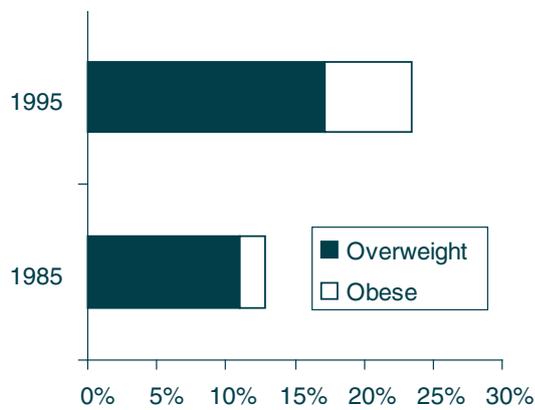
Being overweight or obese can affect both the physical and mental wellbeing of a child and adolescent. Health effects include raised blood pressure, high cholesterol, and elevated blood sugar,<sup>3</sup> and there are an increasing number of cases of type 2 diabetes being diagnosed in Australian adolescents.<sup>8</sup> Other problems include orthopaedic complications due to excessive weight bearing on joints, sleep apnoea, asthma, and fatty liver.<sup>3</sup> Children not only incur adverse physical health effects, overweight and obesity can also have adverse psychological effects that are related to body image and self-esteem.<sup>7</sup>

Obese children have a 25–50 per cent chance of progressing to be obese adults, and this chance may be as high as 78 per cent in older obese adolescents.<sup>9</sup> Overweight and obesity develops over time, and once it occurs it is difficult to treat. Prevention of weight gain (including involvement in physical activity and good nutrition habits) offers the most effective means of control. This is the rationale for the NSW Health focus on the weight of children and adolescents.

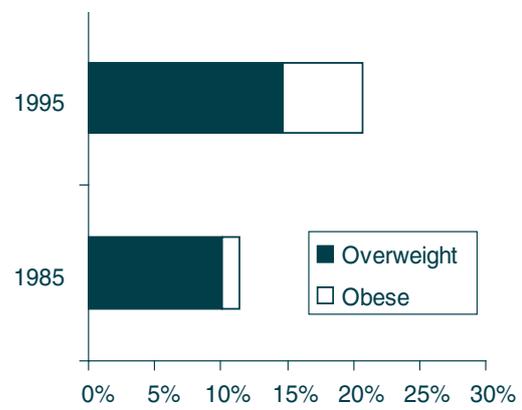
## NSW CHILDHOOD OBESITY SUMMIT AND GOVERNMENT ACTION PLAN

Internationally, the World Health Organization has been raising the issue of 'globesity' for some time, and is developing the *Global Strategy on Diet, Physical Activity and Health*. In NSW, the NSW Childhood Obesity Summit was convened in September 2002. The NSW Department of Health, and in particular the Centre for Health Promotion, took the lead in planning and coordinating this.

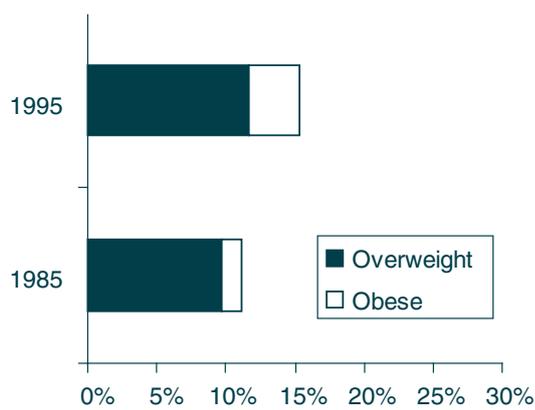
From the outset, the need for an across-government, intersectoral response to obesity was recognised. Approximately 200 people attended as delegates, including representatives from government, community, industry, parents, and most importantly, children and young people. During the Summit, nine working groups were convened, which spanned the areas of early childhood, family and community, education, health, sport, food industry, media, transport and planning, and local government. Each working group drafted recommendations for action that aimed to decrease the

**FIGURE 1****COMPARISON OF THE PERCENTAGE OF OVERWEIGHT AND OBESE GIRLS AGED 7–11 YEARS, AUSTRALIA, 1985 AND 1995**

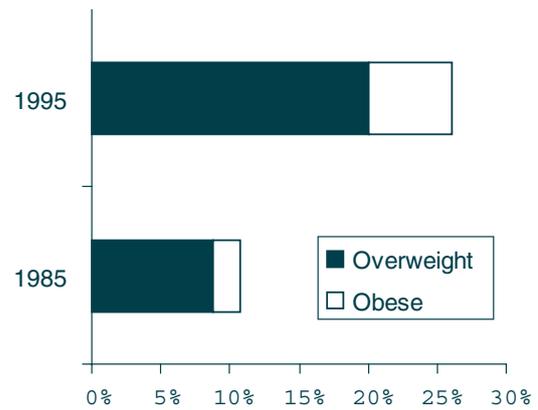
Source: Adapted from Magarey, Daniels, and Boulton.<sup>5</sup>

**FIGURE 2****COMPARISON OF THE PERCENTAGE OF OVERWEIGHT AND OBESE GIRLS AGED 12–15 YEARS, AUSTRALIA, 1985 AND 1995**

Source: Adapted from Magarey, Daniels, and Boulton.<sup>5</sup>

**FIGURE 3****COMPARISON OF THE PERCENTAGE OF OVERWEIGHT AND OBESE BOYS AGED 7–11 YEARS, AUSTRALIA, 1985 AND 1995**

Source: Adapted from Magarey, Daniels, and Boulton.<sup>5</sup>

**FIGURE 4****COMPARISON OF THE PERCENTAGE OF OVERWEIGHT AND OBESE BOYS AGED 12–15 YEARS, AUSTRALIA, 1985 AND 1995**

Source: Adapted from Magarey, Daniels, and Boulton.<sup>5</sup>

burden of childhood obesity in NSW. These recommendations formed the basis of a draft communiqué that contained 145 resolutions.

A Senior Officers Coordinating Committee (SOCC) chaired by The NSW Cabinet Office was initiated. The SOCC then set about developing the NSW Government's response to the Summit resolutions, along with an action plan to tackle childhood overweight and obesity in NSW. Just over one year after the Summit, the Premier The Honourable Bob Carr launched *Prevention of Obesity in Children and Young People: NSW Government Action Plan 2003–2007*.<sup>10</sup>

The Action Plan was developed after thorough analysis of the resolutions and consideration of each sector's capacity. It was evident through this process that there were several key priority areas:

- healthier schools;
- an active community;
- support for parents;
- healthy child and out-of-school care;
- community understanding;
- increasing our knowledge;
- governments, industry and the community working together.

Following the release of the Action Plan, the National Obesity Taskforce released the strategy *Healthy Weight 2008—Australia's Future: The National Action Agenda for Children and Young People and their Families*.<sup>11</sup> Many of the settings identified nationally are complementary to the seven priority areas identified in NSW. However, within these seven NSW priority areas there are two initiatives that are particularly notable: within the 'healthier schools' priority area the NSW Government mandated healthy school canteens; and in the 'knowledge' priority area there was a commitment to a statewide survey of 5–16 year olds.

### **NSW HEALTHY SCHOOL CANTEEN STRATEGY**

For many years, Australian states and territories have encouraged and supported guidelines for the operation of healthy canteens. However, NSW is the first state to implement a government-endorsed approach to ensure that schools provide a canteen service that provides healthy and nutritious food.

School canteens in NSW are one of the major take-away food markets for children and adolescents. There are more than 3,200 schools (government, independent, and Catholic) in NSW with close to one million students. Approximately 2,700 schools provide a canteen service. A child who regularly purchases lunch and snacks from the school canteen consumes a substantial portion of their daily food intake from this source. It is unrealistic to expect children to make healthy food choices when faced with high-fat and high-sugar alternatives that have often been heavily advertised.

The NSW Healthy School Canteen Strategy has been in development since early 2003. To ensure an approach that would engage all of the school community, an overseeing committee that included representation from the three education sectors (government, independent, and Catholic), parents' groups, principals, canteens, nutritionists, health, and a school student, developed *Fresh Tastes @ School*—NSW Healthy School Canteen Strategy.

The significant difference between this approach and those that have been employed previously is that the Strategy clearly defines—through criteria—what can and cannot be sold in school canteens. The nutrient criteria was developed through consideration of the general characteristics of products (for example, serving size), food technology issues, and the limitations of producing healthier products. The nutritional pros and cons of food categories were also considered, and what contribution different types of foods make to a child or young person's daily nutrient intake was also taken into account.

The challenge for the Strategy was to translate this complex nutritional thinking into a menu-planning tool relevant to schools, and in particular canteen managers. Support

materials have been prepared to assist schools in the implementation of the *Fresh Tastes @ School* Strategy. All schools will receive the *Canteen Menu Planning Guide*, which outlines the nutrient criteria, and a supporting presentation that can be used to educate, and initiate the engagement of, the whole school community. Later in 2004, further support materials including a self-assessment tool, action planner, sample menus, promotional ideas, guidelines on negotiating a healthy leased canteen, healthy fundraising ideas, and case studies, will be disseminated.

It is unlikely that the NSW Healthy School Canteen Strategy will be implemented without some controversy. From a population health perspective, it seems intuitive that public health practitioners would seize any opportunity to offer children more fruit and vegetables, and less foods of minimal nutritional value, particularly those that offer little but sugar and saturated fat. However, it is possible that some sections of the food industry will be apprehensive, as their products are restricted for sale in canteens. Some schools may also fear the potential loss of ancillary funds from the revenue generated through the canteen.

There are, however, opportunities being created for the food industry in the promotion and marketing of new, modified and existing healthy products to all schools. Initial case studies from both primary and secondary schools that have changed to a healthy canteen have also demonstrated the significant opportunity that exists to increase profits through a school canteen menu that contains healthy choices. Case studies are available from both the NSW School Canteen Association website at [www.schoolcanteens.org.au](http://www.schoolcanteens.org.au) and the Federation of Parents and Citizens Associations of NSW at [www.pandc.org.au](http://www.pandc.org.au).

### **SCHOOLS PHYSICAL ACTIVITY AND NUTRITION SURVEY**

Attempting to change the dietary behaviour of children and young people is not the 'magic bullet' for childhood obesity. Future strategies need to be based on what we know about children and young people's dietary and physical activity behaviours. To provide this information, NSW Health is funding the Schools Physical Activity and Nutrition Survey (SPANS). A survey of this magnitude has not been conducted since 1997.<sup>12</sup> In Term One of 2004, a cohort of approximately 8,000 students from across the state has participated in the survey, which is being conducted as the inaugural project of the NSW Centre for Overweight and Obesity.

Data collected via questionnaires will include: sociodemographics; physical activity and sedentary recreation behaviour; nutrition information; dieting—weight loss beliefs; and perceptions of aspects of the social

and physical environments relevant to physical activity participation and food consumption. Direct measurements will include adiposity (height, weight, waist girth, and hip girth), cardio-respiratory endurance, and fundamental movement skill proficiency.

A sub-study will also be conducted in a cohort of about 600 Year 10 students (in metropolitan areas only) that involves blood pressure measurement and blood sampling. The blood sample will be tested for: cholesterol, glucose, insulin, liver function, and C-reactive protein. This sub-study will consider the association between body weight and risk factors for diseases such as heart disease and diabetes.

## 2004 AND BEYOND

Developing the NSW Healthy School Canteen Strategy and implementation of the SPANS, are certainly the key initiatives that are being conducted in 2004 to address overweight and obesity. However, the *NSW Government Action Plan 2003–2007* contains a range of initiatives over the next 3–4 years. NSW Health will also be seeking to encourage breastfeeding; increase best-practice in nutrition and physical activity in the child-care sector; and develop and implement a statewide community education campaign.

A challenge in overweight and obesity prevention is the sparse evidence base from which to develop and plan successful initiatives. However, this should not preclude action. Rather, it affirms the need for comprehensive evaluation of all initiatives, including those such as the introduction of healthy canteens. The NSW Centre for Overweight and Obesity will oversee the evaluation of the Action Plan.

While public health practitioners do not expect to reverse the trend of overweight and obesity in our children and young people quickly—practitioners can strengthen their endeavours and aim for a time when the headlines read ‘A nation of vegie munchers’; ‘All guns firing in the battle of the bicep’; and ‘Junk food sales dropping’.

Copies of the *Prevention of Obesity in Children and Young People: NSW Government Action Plan 2003–2007* and the Obesity Summit Response Document are available from the NSW Department of Health’s website at [www.health.nsw.gov.au/obesity](http://www.health.nsw.gov.au/obesity).

## REFERENCES

1. Public Health Division. *The health of the people of New South Wales—Report of the Chief Health Officer*. Sydney: NSW Department of Health, 2002.
2. Mathers C, Vos T, Stevenson C. *Burden of disease and injury in Australia*. Canberra: Australian Institute of Health and Welfare, 1999.
3. Ebbeling CB, Pawlak DB, Ludwig DS. Childhood obesity: Public-health crisis, common sense cure. *Lancet* 2002; 360: 473–82.
4. Australian Bureau of Statistics. *National Nutrition Survey Nutrient Intakes and Physical Measurements Australia 1995*. Catalogue no 4805.0. Canberra: ABS, 1998.
5. Magarey A, Daniels L, Boulton TJC. Prevalence of overweight and obesity in Australian Children and adolescents: Reassessment of 1985 and 1995 data against new standard international definitions. *Med J Aust* 2001; 174: 561–564.
6. Booth ML, Chey T, Wake M, Norton K, Hesketh K, Dollman J, Robertson I. Change in prevalence of overweight and obesity among young Australians, 1969–1997. *Am J Clin Nutr*, 2003; 77: 29–36.
7. Hill A, Silver E. Fat, friendliness and unhealthy: 9 year old children’s perceptions of body shape and stereotypes. *Int J Obes Relat Metab Disord* 1995; 19 (6): 423–30.
8. Associate Professor Louise Baur, The Children’s Hospital, Westmead (Personal Communication).
9. Must A, Strauss R. Risk and consequences of childhood and adolescent obesity. *Int J Obes Relat Metab Disord* 1999; 23 (S-2): S2–S11.
10. NSW Department of Health. *Prevention of Obesity in Children and Young People: NSW Government Action Plan 2003–2007*. Sydney: NSW Department of Health, 2003. Available online at [www.health.nsw.gov.au/obesity/adult/gap/ObesityActionPlan.pdf](http://www.health.nsw.gov.au/obesity/adult/gap/ObesityActionPlan.pdf).
11. National Obesity Taskforce. *Healthy Weight 2008—Australia’s Future: The National Action Agenda for Children and Young People and their Families*. Canberra: Commonwealth Department of Health and Ageing, 2003. Available online at [www.healthyandactive.health.gov.au/docs/healthy\\_weight08.pdf](http://www.healthyandactive.health.gov.au/docs/healthy_weight08.pdf).
12. Booth M, Macaskill P, McLellan L, Phongsavan P, Okely T, Patterson J, Wright J, Bauman A, Baur L. *NSW Schools Fitness and Physical Activity Survey 1997*. Sydney: NSW Department of School Education, 1997. ☒