



child and adolescent
physical activity
and **nutrition** (CAPANS)
survey 2003

SUMMARY

BACKGROUND

Physical inactivity is recognised as one of the most important risk factors for ill health in Australia. Of particular concern is the rapid increase in the prevalence of overweight and obesity among children and adolescents. Getting children and adolescents to establish an active lifestyle and healthy eating habits is vital to improve the short and long term health and wellbeing of our young people.

This project was undertaken jointly by the Premier's Physical Activity Taskforce (PATF), Healthway and the Department of Health to provide a set of baseline data on child and adolescent physical activity behaviours, eating patterns and physiques. The University of Notre Dame Australia was commissioned to undertake the survey and prepare a report on the results.

METHOD

Data on children and adolescents was collected during terms three and four of the 2003 Western Australian school year, from children in school years 3, 5, 7, 8, 10 and 11. The overall response rate was 60% (n=2,274), with 17 secondary schools and 19 primary schools participating. The sample was stratified to be generally representative of the Western Australian population.

The study consisted of five components: (i) a physical activity questionnaire, (ii) a seven day pedometer diary, (iii) a 24-hour dietary record, (iv) a food frequency questionnaire and (v) measurements of height, weight and waist girth.

KEY FINDINGS

Participation in different types of physical activity

At least nine in ten primary school and eight in ten secondary school students participate in school physical education or sport. Secondary school boys participate in more sessions than secondary school girls.

Soccer was the most popular sport, exercise or dance activity among primary school males (55.2%) and Australian Rules Football for secondary school males (46.2%). Among females, dance (51.5% primary and 43.6% secondary), swimming laps (47.7% primary and 29.6% secondary) and netball (44.6% primary and 33.3% secondary) were the most popular activities.

The most prevalent active play activities for males and females were bike riding, playing with pets, walking for exercise and walking the dog. Almost 30% of primary school students and 50% of secondary school students did not participate in active play. Secondary school students reported lower participation in active play than primary school students.

The percentage of students who reported walking or cycling to and from school on the day of the survey increased with age. Approximately 50% of the sample reported no active transport at any time.

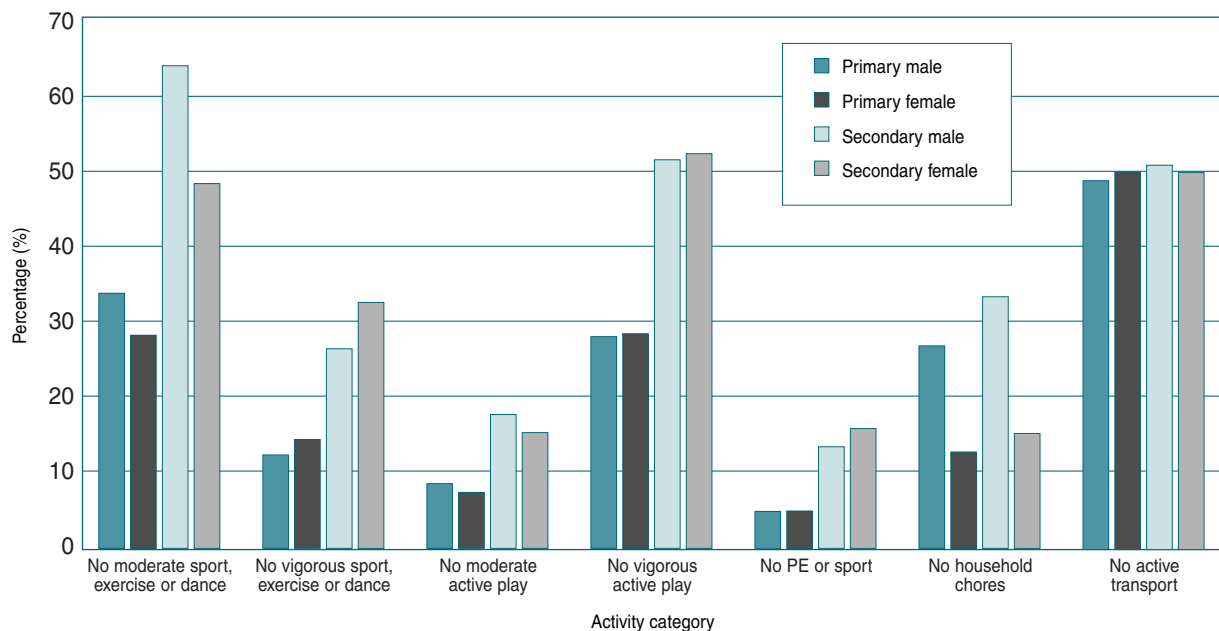
Daily steps taken by children and youth

Primary school males recorded 12,464 steps while primary school females recorded 10,673 steps on average per school day. Secondary school males reported taking more steps on average per school day (13,741 per day) than females (11,309 per day). On weekends primary school students recorded fewer steps, whereas secondary school students slightly increased steps taken.

Physical inactivity and sedentary behaviour

Approximately one in four secondary school males and one in three secondary school females reported doing no physical activity in a typical week. In primary school, less than one in seven students reported doing no sport, exercise or dance activities in a typical week. Just under 50% of all girls and 33% of all boys spent ten or more hours per week on sedentary behaviours. On average, primary and secondary students spent from 17 to 20 hours on sedentary recreation on weekends. On weekdays, primary school males spent an average of 2.2 hours per day watching TV and primary school females 2.1 hours. This increased to 3.9 hours for secondary school males and 4.3 hours for secondary school females.

FIGURE 1: NO REPORTED ACTIVITY FOR EACH ACTIVITY CATEGORY BY GENDER AND SCHOOL GROUP



Barriers to participation in physical activity

For over 70% of students, the most common barrier to participating in more physical activity was the perception *I do a lot of physical activity*. Other main barriers to participation in physical activity for primary school and secondary school students included *I don't have anyone to be physically active with*, and *I prefer to watch TV or play electronic games*. Secondary school females rated *I don't think I am very good at physical activity* higher than other groups. More metropolitan than non-metropolitan students rated *there are no parks, or sports grounds near where I live* as a barrier to physical activity. Primary school students were more likely to agree *I don't like how being active physically makes me feel (e.g. hot, sweaty, out of breath)* as a barrier to participation.

Motivation to be physically active

The majority of students agreed that being physically active over the next year would *keep me healthy* (95% of males and 97% of females), *make me feel good about myself* (89% of males and 88.7% of females) and *make or keep me fit* (96% of males, 96% of females). *Improving my appearance* was a motivation for secondary school students (80% males and 81% females) more than for than primary school students (73% males and 70% females). More males than females agreed that *lets me have a lot of fun* was a motivation to be physically active. Compared to primary school (72%) and secondary school (66%) males, females were less likely to agree that physical activity *helps me spend time with my friends* (66% and 56% respectively). Secondary school females agreed most strongly (85%) that physical activity would *help me lose weight or help me control my weight*.

Nutrition

Average reported fruit and vegetable intake fell well short of minimum recommended daily intakes. Average intakes of meat and alternative foods were substantially greater than the minimum recommended, particularly for the younger age group. Average reported milk and dairy food intake of secondary school females was only two-thirds of the amount recommended.

FIGURE 2: PROPORTION OF RECOMMENDED AMOUNTS OF CORE FOOD GROUPS CONSUMED BY MALES

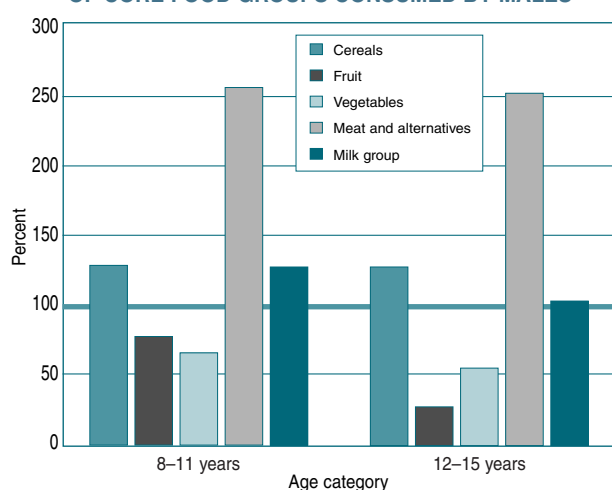
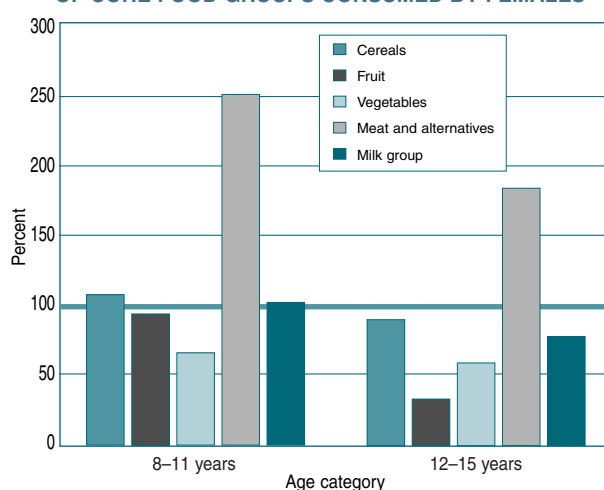


FIGURE 3: PROPORTION OF RECOMMENDED AMOUNTS OF CORE FOOD GROUPS CONSUMED BY FEMALES



Approximately 95% of students ate cereals and cereal products; 90% consumed milk or milk products; 75% ate meat, poultry and game products or dishes; 70% ate vegetables; 55% ate fruit and 10% or less ate fish or eggs.

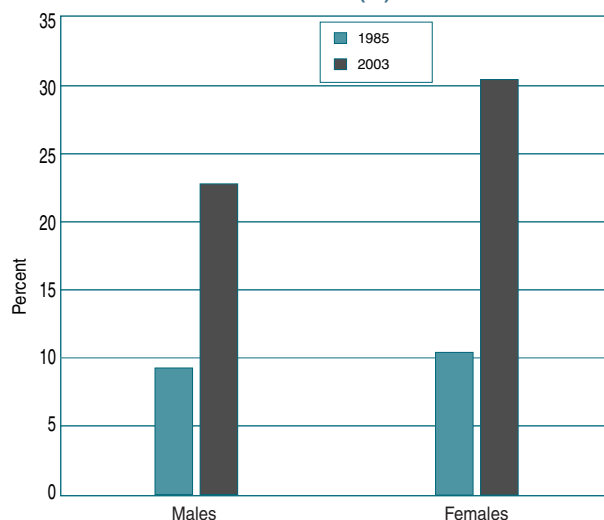
Approximately 70% of students ate cereal based products (e.g. cakes, biscuits, pizza), 50% of students ate fats and oils, 45% of students ate confectionery (e.g. lollies, chocolates, snack bars) and 45% of students ate other sugar products and dishes (e.g. sweet spreads, jelly, icy poles).

Trends since 1985¹ and 1995² indicate increases in the percentage of children and adolescents consuming confectionery, fish and fish products (females) and snack foods (males); and decreases in the percentage of both males and females consuming meat and poultry, fats and oils, eggs, milk and milk products, sugar and sugar products, fruit (particularly among males) and vegetables. In children and adolescents since 1985, there have been increases in the mean intake of meat and poultry, confectionery and snack foods, and decreases in the mean intake of fats and oils, milk products and dishes, vegetables, and eggs.

Overweight and obesity

Today, West Australian children of all ages are taller, heavier and have larger waist girths, when compared to data from 1985. Mean weight increased by as much as 12kg in males, and 6.6kg in females. Waist girths were larger at all ages and children were taller by an average 3.2cm for males and 2.8cm for females. Measured according to Body Mass Index (BMI), the prevalence of overweight and obesity in 7 to 15 year old males has doubled from 9.3% in 1985 to 23.1% in 2003; and tripled in females from 10.6% in 1985 to 30.5% in 2003.

FIGURE 4: PROPORTION OF CHILDREN AND YOUTH ABOVE HEALTHY WEIGHT (%) 1985 AND 2003



FUTURE EFFORTS IN PROMOTING PHYSICAL ACTIVITY AND NUTRITION

Given the decline in the number of West Australian children and adolescents that meet current physical activity guidelines, and the rising levels of overweight and obesity, increased efforts are required to reverse current trends. Benefits would include improved physical, mental and social health and greater wellbeing. There is a need for a combined effort across all sectors to increase awareness and implement effective programs. Evidence suggests that the most effective programs are comprehensive and innovative and often incorporate mass media campaigns. The creation of supportive environments, including access to safe, convenient facilities and the promotion of existing facilities is also vital for creating effective and sustainable programs.

RECOMMENDATIONS

With consideration of the results of the CAPANS study and existing policies, programs and infrastructure in Western Australia, the Premier's Physical Activity Taskforce recommends:

1. Enhancing the policy and curriculum emphasis on the physical activity and healthy lifestyles program that is delivered in schools, with monitoring and evaluation of the educational outcomes in line with literacy and numeracy outcomes.
2. Implementing a professional learning program and resources for teachers in the K-10 years of schooling, to support the delivery of quality physical activity and healthy eating programs. This will include expanded Fundamental Movement Skills training for K-3 teachers so that all schools have access to trained staff.
3. Initiating communication and mass media campaigns promoting the National Child and Youth Physical Activity Recommendations to parents and children with an emphasis on decreasing sedentary behaviour.
4. Providing ongoing funding for the monitoring of child and adolescent physical activity levels, nutrition and growth status.
5. Focusing on nutrition at school and ensuring adequate accreditation in all school canteens, and sustained funding of the WA School Canteen Association to administer the accreditation and professional development of canteen staff.
6. Developing a set of resources and a professional development program for teachers around healthy eating habits for life and a corresponding mass media campaign linked to the above physical activity campaign.
7. Implementing professional development of the health work-force to promote physical activity and healthy eating.
8. Increasing the skills and capacity of community sport and recreation service providers to target children's participation needs.
9. Promoting physical activity opportunities both in and outside of school hours with an emphasis on programs that encourage the participation of female secondary students.
10. Continuing to support and expand programs which inform and encourage active transport, such as walking and cycling, among school-aged children, their parents and their teachers.

AUSTRALIAN PHYSICAL ACTIVITY RECOMMENDATIONS

The Australian Physical Activity recommendations for Children (5–12 year olds) and Youth (12–18 year olds), released in 2004, are³:

1. Children and youth should participate in at least 60 minutes (and up to several hours) of moderate to vigorous physical activity every day.
2. Children and youth should not spend more than 2 hours per day using electronic media for entertainment, such as TV, computer games and the Internet, particularly during daylight hours.

1 Department of Community Services and Health (1989) *National Dietary Survey of School Children (10-15 years): 1985 no 1-Foods consumed*, Canberra: Australian Government Publishing Service.

2 Australian Bureau of Statistics and Department of Health and Aged Care (1999) *National Nutrition Survey Foods Eaten Australia 1995*, ABS cat. no. 4804.0, Canberra: ABS.

3 Commonwealth Department of Health and Aged Care (2004). *Australia's physical activity recommendations for children 5-18 years [brochure series]*. Canberra: Australian Government.



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Premier's Physical Activity Taskforce
Department of Health

