



# HEALTH OF YOUNG VICTORIANS STUDY (HOYVS) 2005 REPORT

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# HOYVS REPORT 2005

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## ► ACKNOWLEDGEMENTS

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The HOYVS team would like to sincerely thank all of the students and their parents/guardians who participated again this year. Your help with this study was much appreciated, and has made this study a great success. We would also like to thank the schools involved who allowed us to visit to survey the students. Your time and assistance were invaluable to us.



## ► RECAP ON HOYVS 1997

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The **Health of Young Victorians Study 1997** (HOYVS 1997) was a state-wide study of the health and well-being of Victorian school children. Twenty-four primary schools and twenty-four secondary schools were involved. The study was conducted in Terms 3 and 4 of the 1997 school year. Each school was randomly selected to provide a representative sample of schools from the three school sectors (Government, Catholic, and Independent). Within each school, one class was randomly selected from each year level to participate. For some smaller schools, the entire school was included in the study. Only students whose parents/guardians provided written consent were able to take part.

The study involved several components:

- Parents completed a **written questionnaire** at home which provided information about their child's physical, emotional, social and behavioural health and well-being, health concerns, health service use, diet, activity and sociodemographic information.
- Secondary school students completed a **written questionnaire** at school which provided similar information to the parent questionnaire.
- Primary school students had their **height, weight, and head circumference** measured by a member of the research team.
- Primary school students completed a written questionnaire about their **attitudes and patterns of physical activity**.

Overall, 5414 parents (72% of those invited to participate) and 5465 students (73%



of those invited to participate) took part in the study. Response rates were higher for parents and students at primary schools than for parents and students at secondary schools.



The HOYVS 1997 sample was found to be similar to the Victorian population in reference to number of parents born in Australia, and number of children from indigenous backgrounds. The majority of parents who completed the questionnaire were biological mothers (86%). Many children had mothers who were employed part-time or full-time (55%) and most had fathers who were employed part-time or full-time (85%). About 40% of children were from families with two children.

## ► RECAP ON HOYVS 2000

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The **Health of Young Victorian Study 2000** (HOYVS 2000) followed up children who took part in HOYVS 1997 when they were in grades prep to 3. These students were now in grades 3 to 6. The study was conducted during Term 4 of 2000 and Terms 1 and 2 of 2001. The main aim of HOYVS 2000 was to investigate children's growth patterns, how their health and well-being had changed over the three year interval, and factors that may have influenced these changes.

All 24 primary schools who participated in HOYVS 1997 again participated in 2000. Also, as many children had moved schools in the intervening period, an additional 146 schools were visited. As with HOYVS 1997, only those students who obtained written consent from parents/guardians were able to take part.

HOYVS 2000 contained the following activities:

► Parents completed a **written questionnaire** at home about their child's physical, emotional, social and behavioural health and well-being, diet, activity and sociodemographic information.

► Students had their **height, weight, waist circumference, hip circumference, and blood pressure** measured by a member of the research team.

► Students completed a **written questionnaire** at school about their physical, emotional, social and behavioural health and well-being, and their attitudes and patterns of diet and physical activity.



## HOYVS REPORT 2005

Of the 1942 children who took part in HOYVS 1997 (prep to 3), 28 could not be identified, 43 had moved interstate, 11 had moved overseas, and 122 had moved schools but their original school did not know where they had transferred to. Of the 1738 children who were able to be contacted and invited to participate in 2000, 1569 agreed to take part (90%). This represents a retention rate of 81% (1569/1942) of the 1997 prep to 3 cohort.



## ► OVERVIEW OF HOYVS 2005

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The **Health of Young Victorians Study 2005** (HOYVS 2005) followed up children who participated in HOYVS 1997 (grade prep to 3), and children who participated in HOYVS 2000 (grade 3 to 6). These children were now in years 8-11. The study was conducted between September 2005 and December 2006. The main aim of HOYVS 2005 was to investigate how children's health, well-being and growth patterns change over time, and the factors that may have influenced these changes. Only students whose parents/guardians provided written consent were able to participate, and students also had to provide written consent on the survey day to participate.

HOYVS 2005 involved the following activities:

- Parents filled out a short **written questionnaire** about their own and their child's health, diet and physical activity.
- Students had their **height, weight, waist circumference and blood pressure** measured by a member of the research team.



- ▶ Students completed a **written questionnaire** about their physical and emotional health and well-being, health issues like asthma and sleep problems, family activities and relationships, physical activity, and diet.
- ▶ Students also completed a **computerised questionnaire** about possible symptoms that might suggest eating disorders, contact with and use of alcohol, smoking, and marijuana/cannabis, and pubertal changes.
- ▶ Students also completed a **computer diary** about their activities for four days (2 school days and 2 non-school days).

### **Response rate and sample characteristics**

This study aimed to follow up the 1942 children who took part in HOYVS 1997 when they were in grades prep-3 (8 of these were ineligible and 7 were unidentifiable). Of these, 1662 could be located. 960 agreed to participate again, a response rate of 58%. 929 adolescents completed at least one component of the study, with 880 completing all requirements (written questionnaire, computerised questionnaire, anthropometric measurements, and four diary days). There were 467 males and 462 females. Ages ranged from 13.6 to 19.4 years with the average age being 16 years. 22 adolescents were no longer at school. 125 Victorian schools were involved in HOYVS 2005.



## ► RESULTS OF HOYVS 2005: ADOLESCENT GROWTH

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Adolescents had their weight, height, waist, and blood pressure measured. Body Mass Index (BMI) was calculated for each adolescent from their height and weight. Adolescents younger than 19 years of age were classified as non-overweight, overweight but not obese, or obese according to the International Obesity TaskForce (IOTF) age- and sex-specific criteria for BMI ( $\text{kg}/\text{m}^2$ ). Adolescents 19 years of age or older were classified by BMI as non-overweight ( $<25\text{kg}/\text{m}^2$ ), overweight ( $25$  and  $<30\text{kg}/\text{m}^2$ ) or obese ( $\geq 30\text{kg}/\text{m}^2$ ).

It was found that 74% of adolescents were not overweight, while 20% were found to be overweight, and 6% obese. These are similar proportions to those reported by other studies of Australian adolescents.

Of the adolescents who were measured in 1997, 2000 and in 2005-6 ( $n = 788$ ):

- 73% had the same weight status (non-overweight, overweight, obese) at all three time points
- 14% were not overweight in 1997 but were overweight/obese by 2005-6
- 5% were overweight/obese in 1997 but were found to be not overweight by 2005-6

Adolescents' **height** ranged from 140.2 cm to 198.2 cm, with the average height 169.4 cm. For males, the average height was 174.1 cm, and for females 164.5 cm.

The average **waist circumference** for the adolescents was 73.5 cm (range 56 cm to 122.5 cm). The average male waist circumference was 76 cm, with the average female waist circumference 70.9 cm.



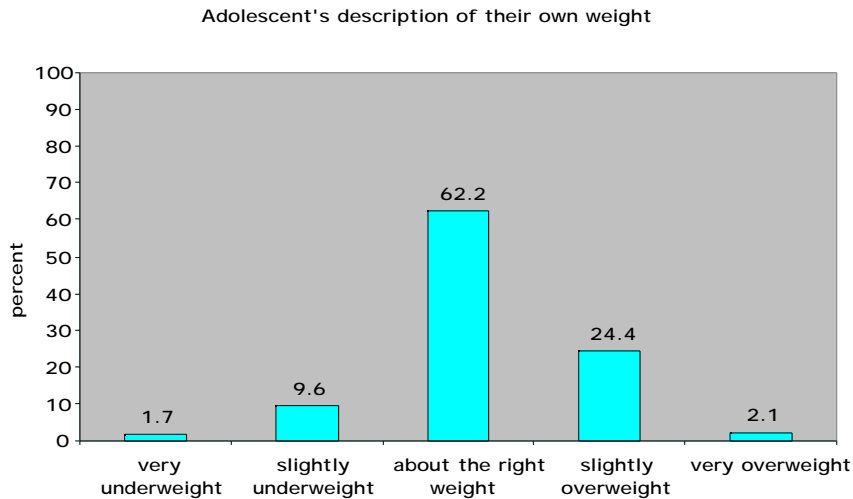
**Blood pressure** was also measured. Most adolescents were found to have normal blood pressure (83% <90th percentile). 8% of adolescents were found to be pre-hypertensive ( $\geq$  90th and <95th percentile), and 9% of adolescents were hypertensive ( $\geq$ 95th percentile). Parents of adolescents who were found to be hypertensive were advised to have their child's blood pressure checked by their local doctor on another day.



## ► ADOLESCENT BODY WEIGHT PERCEPTIONS

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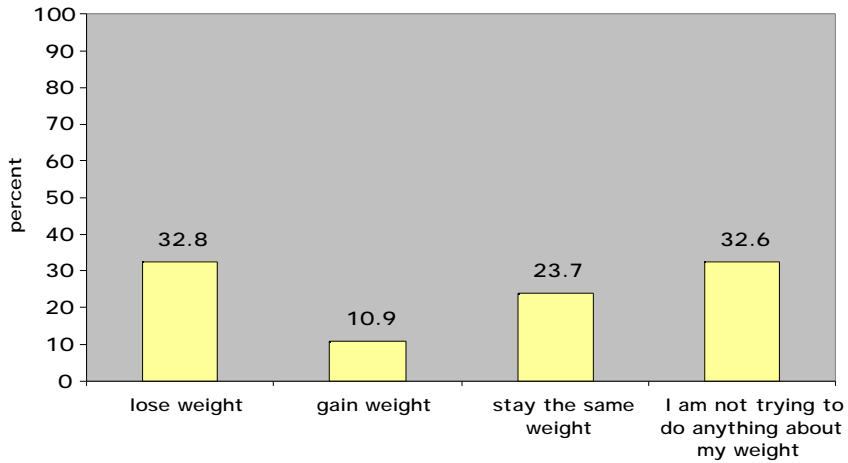
Adolescents were asked questions about how they perceived their body weight. They were asked to describe their weight, and also to indicate what they may be doing about their weight. Most adolescents (62%) indicated that their own weight was about right, whilst 24% indicated that they were slightly overweight.



## HOYVS REPORT 2005

About one third (33%) of adolescents reported that they were not trying to do anything about their weight, while almost the same number indicated that they were trying to lose weight (33%).

What adolescent is trying to do about weight



## ► PARENT REPORTS OF ADOLESCENTS' HEALTH

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Parents were asked to provide information about their adolescent's health and well-being. Twenty-three questions assessed the adolescent's physical, emotional, social, and school functioning. The questions on physical functioning provide an overview of the adolescent's physical health and well-being. The questions on the adolescent's emotional, social, and school functioning were combined to show an overview of the adolescent's psychosocial health and well-being. Scores could range from 0-100, with 100 representing best possible health. The average score for physical functioning was 84.4 and the average score for psychosocial functioning was 78.8.

## ► ADOLESCENT REPORTS OF THEIR OWN HEALTH

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Adolescents completed the same 23 questions about their own health and well-being. Results have been provided in terms of the adolescent's overall physical and psychosocial health and well-being. Adolescent reports were very similar to parent reports with a physical functioning score of 85.8 and a psychosocial functioning score of 76.5.



## ► ADOLESCENTS' DIET PATTERNS

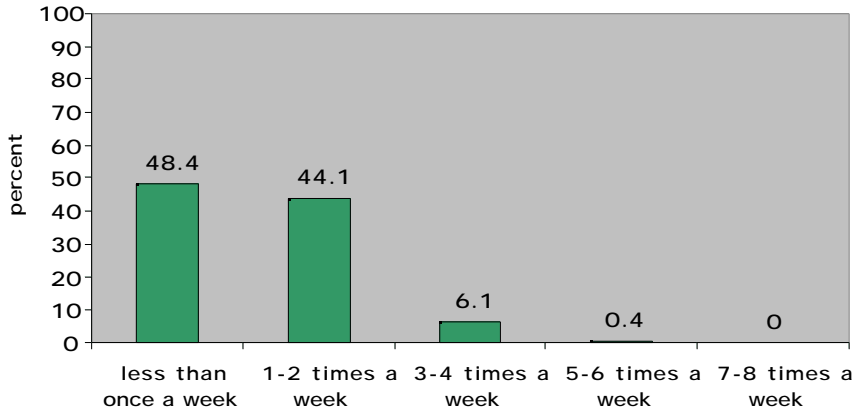
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Parents were asked to report the frequency of their adolescent eating take-away meals during the school term (not including school lunches) and how many times a week their child usually takes lunch to school from home. Most parents reported that their child had take-away meals only occasionally (48% less than once a week, 44% 1-2 time a week). However, a small number had take-away meals 3-4 times a week. The majority of parents also reported that their child took their lunch to school from home every day (61%), and 22% most days. However, a small number of adolescents (5%) did not take their lunch to school from home on any day during the week.

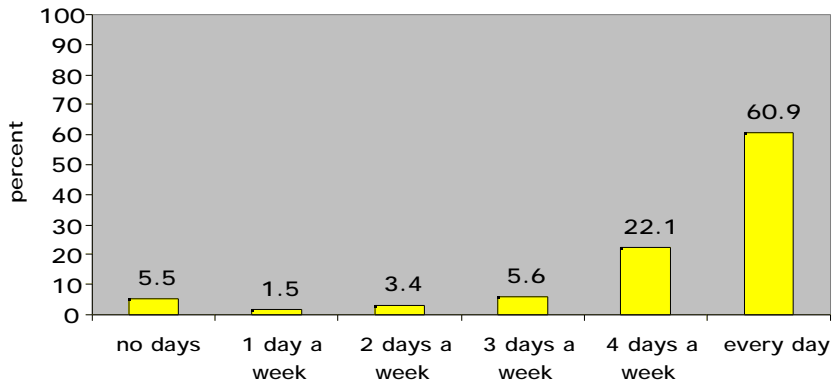
Adolescents were asked to indicate what they had eaten from a list of foods presented over the previous 24 hours. The graph below shows the percentage of children who indicated that they did not eat the food in the previous 24 hours. Encouragingly, 71% of children had not eaten any take-away food over the past day, with similar reports for hamburgers, hot dogs, or sausages (79%) and hot chips or French fries (70%). Furthermore, not many adolescents reported that they had not had fresh fruit (17%) or cooked vegetables (15%) in the last 24 hours.



Frequency of eating take-away meals

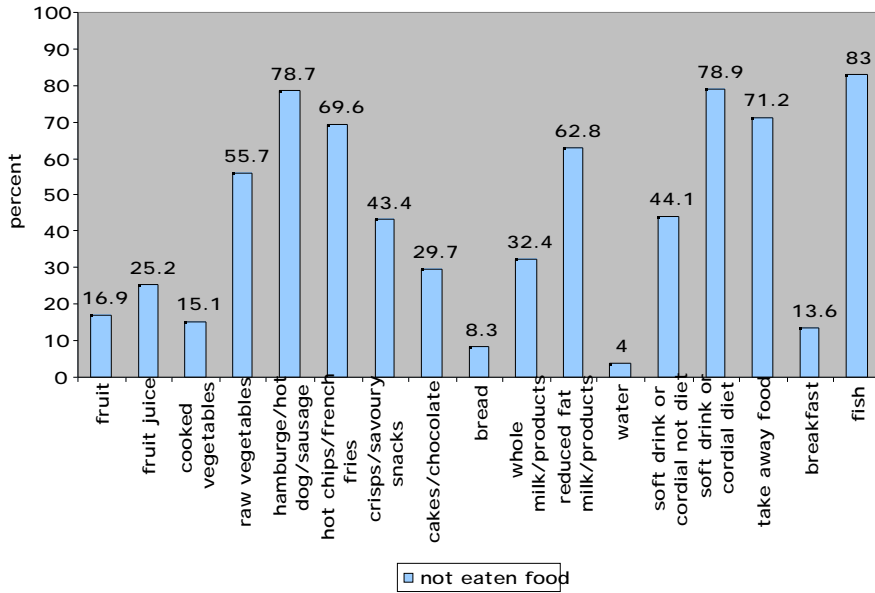


Frequency of taking lunch to school from home



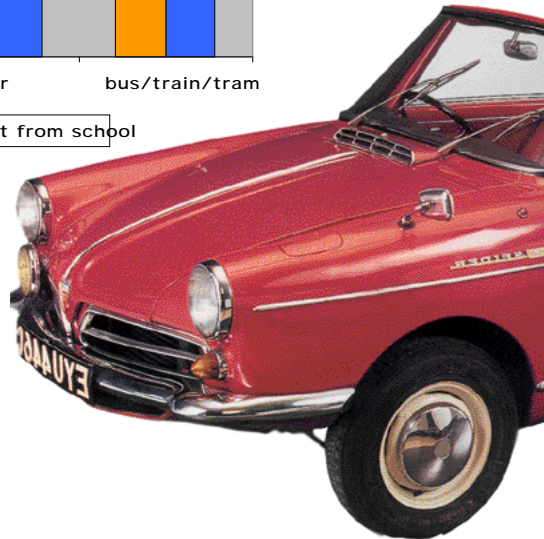
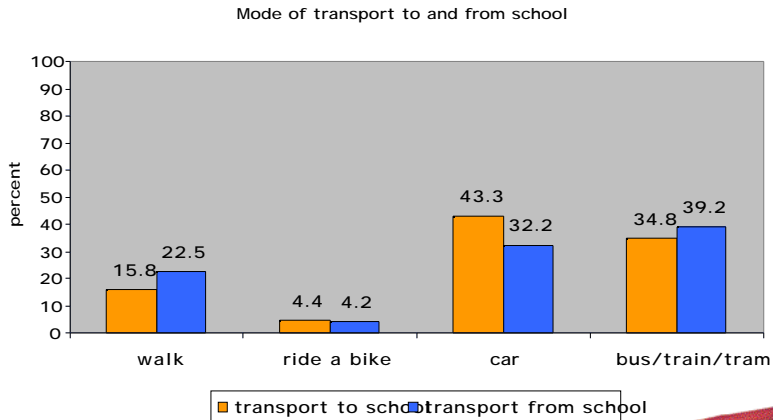
# HOYVS REPORT 2005

## Child 24 hour food recall



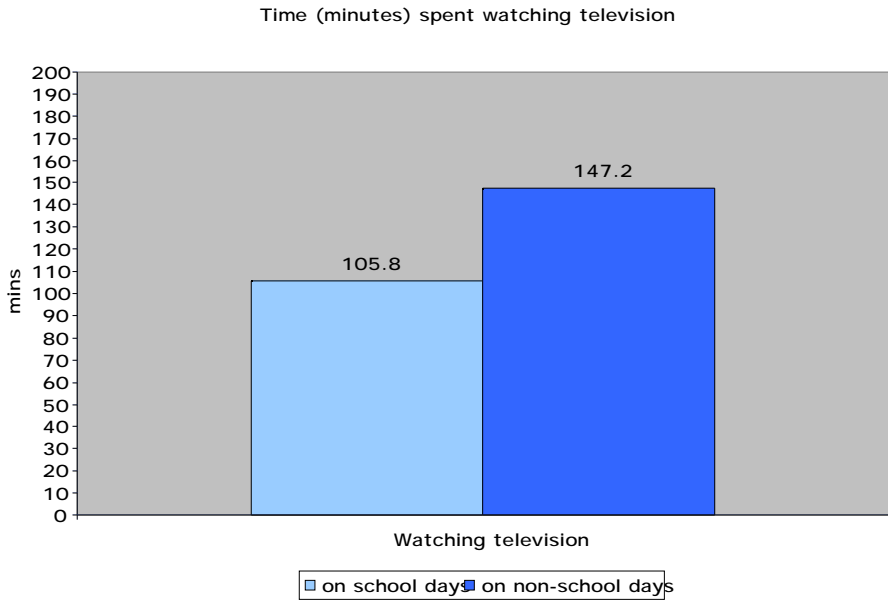
## ► TRANSPORT TO AND FROM SCHOOL

Adolescents were asked what mode of transport they used to get to and from school. The graph below indicates the most frequently used type of transport. The majority of adolescents travelled to and from school by car or bus/train/tram. However, it was encouraging to find that 16% of adolescents walked to school and 23% walked home from school.



## ► TIME SPENT WATCHING TELEVISION

Adolescents completed computerised diaries about their activities for 4 days (ideally, 2 school days and 2 non-school days). The graph below indicates how many minutes, on average, adolescents spent watching television. Adolescents spent 106 minutes (1 hr and 46 mins) watching television on a school day and 147 minutes (2 hrs and 27 mins) watching television on a non-school day.

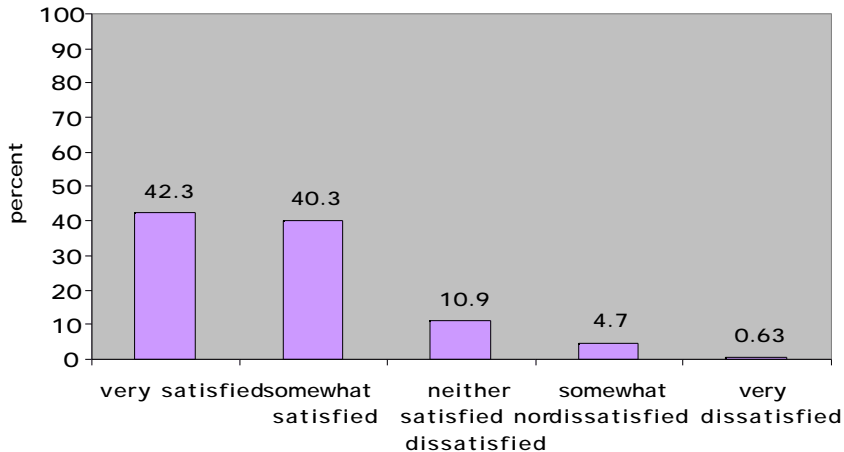


## ► SATISFACTION WITH SELF

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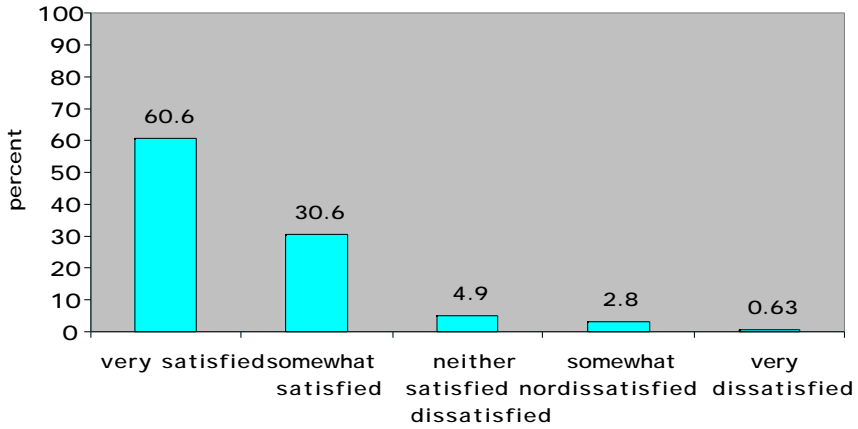
Parents were asked to indicate how satisfied they believed their adolescent felt about their own school ability. Most parents believed that their adolescent felt very satisfied (42%) or somewhat satisfied (40.3%) about their abilities in school. Parents were also asked to report on how satisfied they believed their adolescent was about their friendships and family relationships. The majority (61%) of parents believed their child was very satisfied with their friendships, and the most parents believed that their child was very satisfied (47%) or somewhat satisfied (40%) with their family relationships.

Parent report of adolescent's satisfaction with school ability

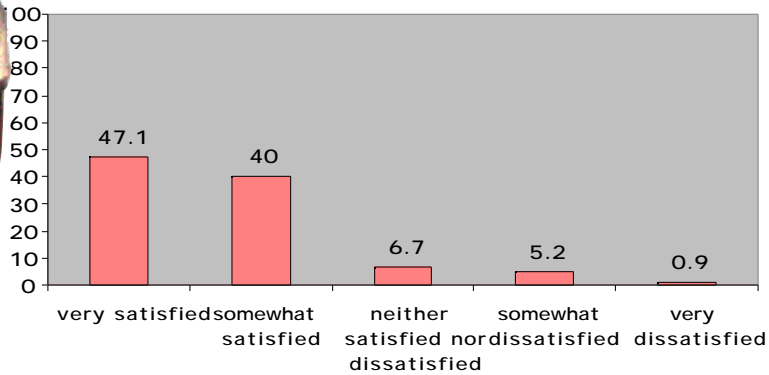


# HOYVS REPORT 2005

## Parent report of adolescent's satisfaction with friendships

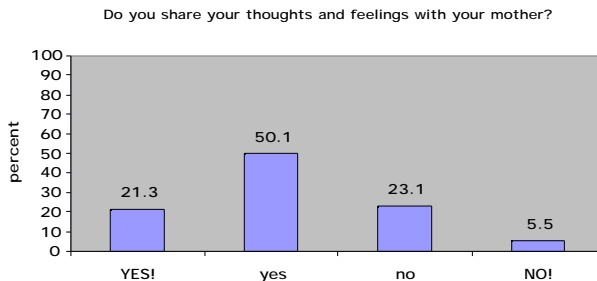
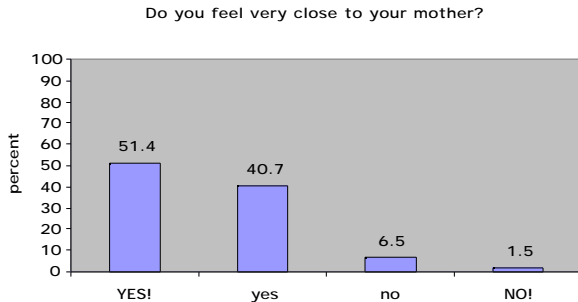


## Parent report of adolescent's satisfaction with family relationship



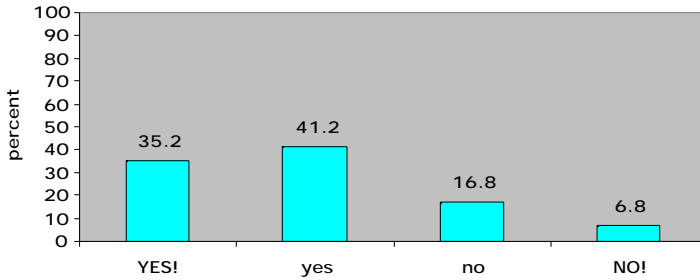
## ► FAMILY TOGETHERNESS

Adolescents were asked questions about their family relationships. Questions included "Do you feel very close to your mother?", "Do you share your thoughts and feelings with your mother?", "Do you feel very close to your father?", "Do you share your thoughts and feelings with your father?". It was reported that most adolescents felt close to their mother and father, however more adolescents felt closer to their mother than their father. Half of all students (50%) indicated that they shared their thoughts and feelings with their mother, while fewer students reported this about their father (39%).

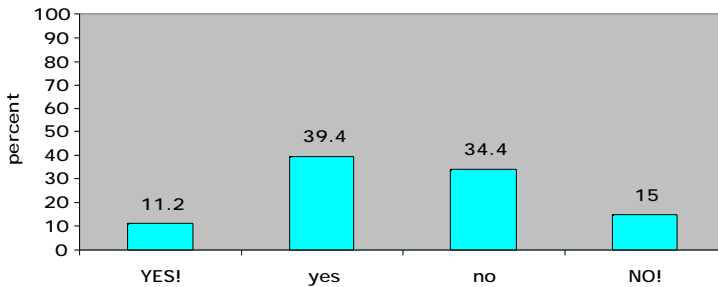


# HOYVS REPORT 2005

Do you feel very close to your father?

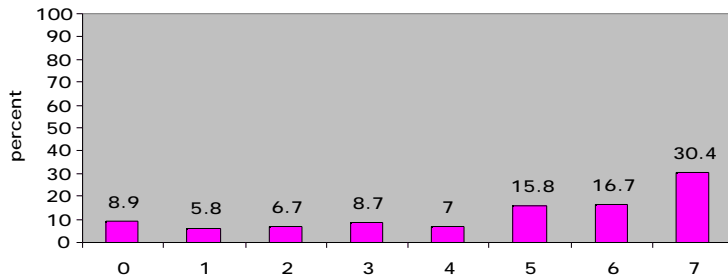


Do you share your thoughts and feelings with your father?

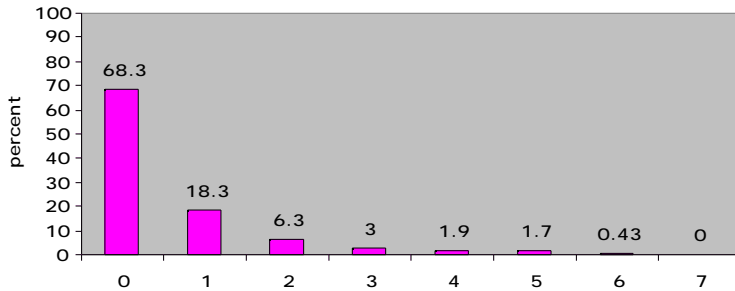


Adolescents were also asked to indicate how many days each week they ate dinner at the table together with their family, and went for walks together. The majority of adolescents ate dinner with their family at least 5 days a week, while most adolescents indicated that they never went for walks with their family (68%).

Days each week eat dinner at the table together



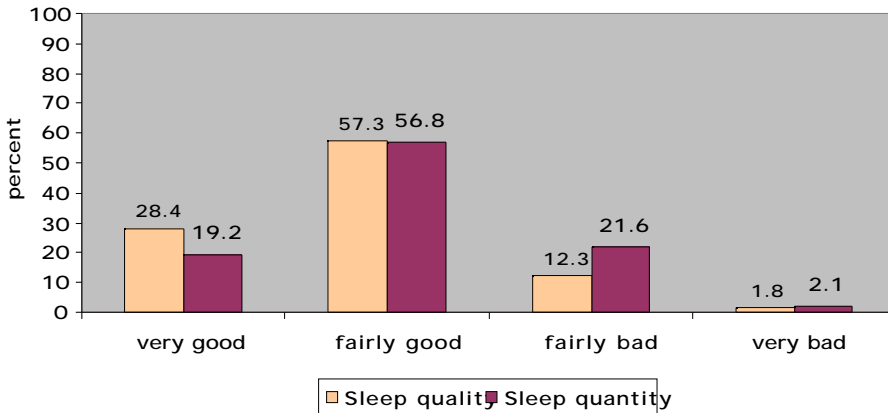
Days each week go for a walk together



## ► SLEEP QUALITY AND QUANTITY

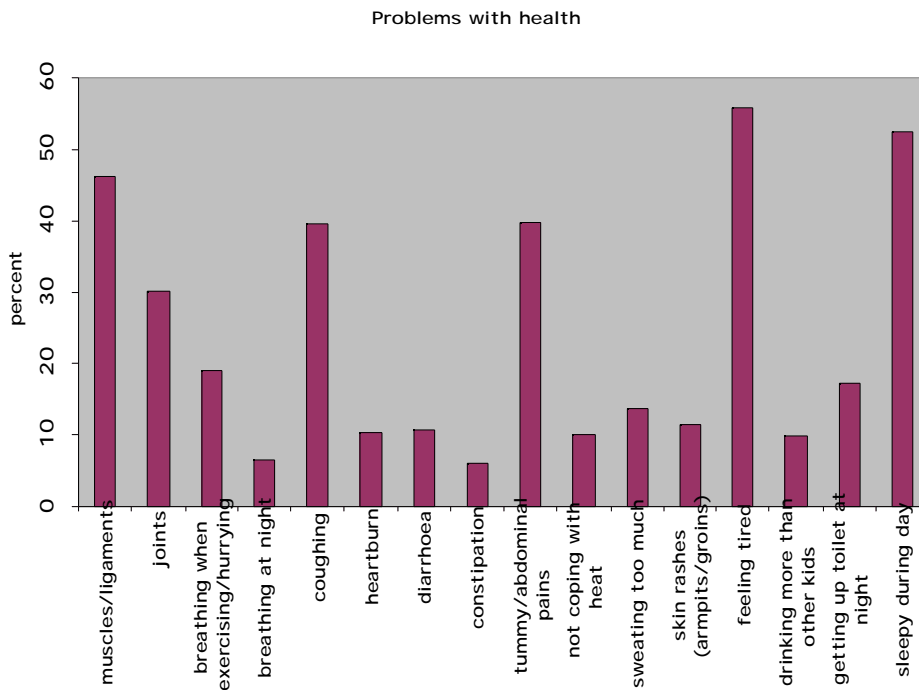
Adolescents were asked to rate how well they had slept, and how much they had slept over the previous month. The majority of adolescents indicated that both their sleep quality (how well they slept) and sleep quantity (how much they slept) was fairly good.

Adolescent ratings of sleep quality and quantity



## ► ADOLESCENTS' SELF-REPORTED HEALTH CONCERNS

Adolescents were provided with a list of health concerns and were asked to report which, if any, problems they had experienced in the previous 6 months. The percentage of adolescents reporting each problem is presented below. Problems with muscles/ligaments, feeling tired, and feeling very sleepy during the day were reported most often by adolescents.

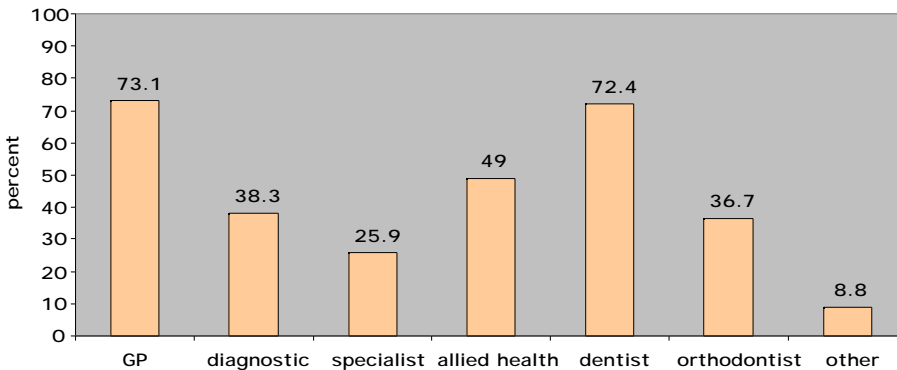


## ► ADOLESCENT HEALTH SERVICE USE

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Parents were provided with a list of health services and asked to report which, if any, of the services their adolescent had used for their health in the past 12 months. The percentage of parents reporting their adolescent using each of the following services is presented below. Parents reported visiting the GP (73%) and visiting the dentist (72%) as the most frequently used health services for adolescents.

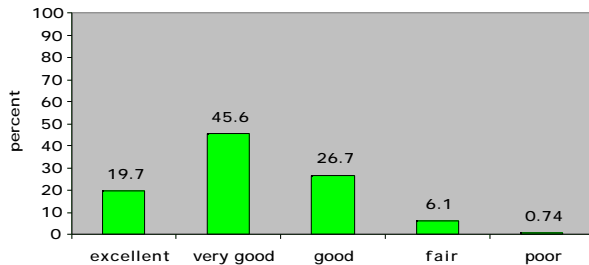
Adolescent health service use as reported by parents



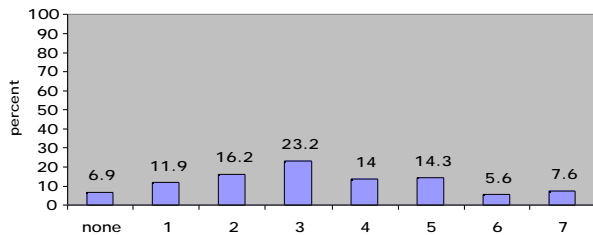
## ► PARENTS' OWN HEALTH

Parents were asked to rate their own overall health, and were also asked how many days each week they did at least 30 minutes of moderate or vigorous physical activity (like walking briskly, riding a bike, gardening, tennis, swimming, running etc). The National Physical Activity Guidelines for Australians recommend doing at least 30 minutes of moderate-intensity physical activity on most, preferable all, days. Most parents reported that their health was very good (46%) or good (27%) and most parents spent 3 days per week doing at least 30 minutes of physical activity (23%).

Parents' rating of own health

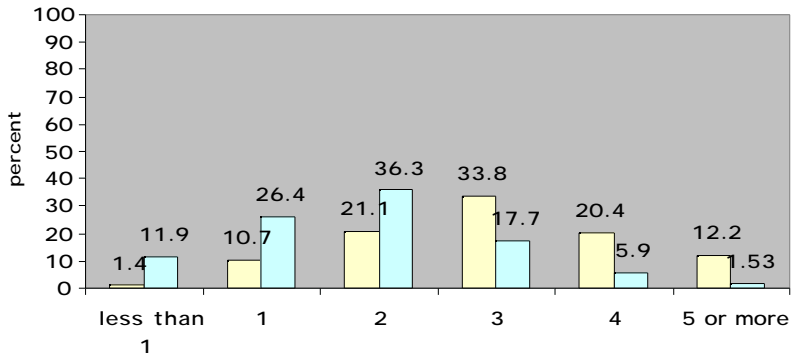


Days per week parent physical activity



Parents were also asked how many serves of vegetables and how many serves of fruit they usually ate each day. The Australian Nutrition Foundation recommends that people eat **5 serves of vegetables and 2 serves of fruit** a day. The graph below indicates that only 12% of parents ate 5 or more serves of vegetables a day. The majority of parents ate 3 serves per day (34%). However, the majority of parents ate the recommended 2 serves of fruit a day (36%).

Parent fruit and vegetable consumption



## ► SUMMARY OF HOYVS 2005 RESULTS

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► 20% of adolescents were found to be **overweight** in 2005-6. 73% had the same weight status (non-overweight, overweight, obese) at all three time points. 14% were not overweight in 1997 but were overweight/obese by 2005-6. 5% were overweight/obese in 1997 but were found to be not overweight by 2005-6

► Most adolescents had **normal blood pressure**.

► The majority of adolescents indicated that **their own weight was about right**, whilst 24% reported that they were slightly overweight. Equal numbers of adolescents (around 30%) said either that they were not doing anything about their weight or were trying to lose weight.

► Few problems were reported by parents and adolescents in regards to adolescents' **physical and psychosocial functioning**.

► Most parents reported that their adolescent ate **take-away meals** only occasionally. However, a small number had take-away meals 3-4 times a week.

► Parents reported that their adolescent always or almost always **took their lunch to school from home**. However, a small proportion did not take their lunch to school from home on any day of the week.

► Most adolescents indicated that they had not eaten **takeaway** or other fast food over the previous day.

► Travelling by car or bus/train/tram was the most common form of **transport to and from school**.



- ▶ Adolescents spent 106 minutes (1 hr and 46 mins) watching television on a school day and 147 minutes (2 hrs and 27 mins) watching television on a non-school day.
- ▶ Most parents reported that their adolescent was very satisfied or somewhat satisfied with their **school abilities, friendships, and family relationships**.
- ▶ While most adolescents reported that they felt **close to their mother and father**, more adolescents felt closer to their mother, and more shared their thoughts and feelings with their mother than father.
- ▶ Most adolescents **ate dinner with the family** at least 5 days a week, while most never went for walks with their family during the week.
- ▶ **Sleep quality and quantity** were rated as fairly good by most adolescents.
- ▶ The most commonly reported **health concerns** for adolescents were problems with muscles/ligaments, feeling tired, and feeling very sleepy during the day.
- ▶ **Visiting the doctor** and visiting the dentist were the most frequently used health services for adolescents.
- ▶ Most **parents reported that their health was very good or good** and 23.2% spent 3 days per week doing at least 30 minutes of physical activity.
- ▶ Only 12% of parents ate the recommended **5 serves of vegetables** a day, while the majority of parents ate the recommended **2 serves of fruit** a day.



August 2007

At each of the three time points (1997, 2000, and 2005), the majority of participants were found to have good physical and psychosocial health, however a small number were identified with health problems and concerns. The information from HOYVS will help schools, hospitals, community health programs and others to improve health education and services for children. We are planning to continue following participants in 2010 to determine how childhood/adolescent health impacts adult health.

