



Global School-based Student Health Survey
2007
Country Report
Republic of Mauritius



Ministry of Health & Quality of Life, Mauritius

Global School-based Student Health Survey

2007

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EXECUTIVE SUMMARY

In 2001, WHO, in collaboration with UNAIDS, UNESCO, and UNICEF, and with technical assistance from the US Centers for Disease Control and Prevention (CDC), initiated the development of the Global School-based Student Health Survey (GSHS), which focuses on critical health behaviours and protective factors established during adolescence.

Based on data obtained from the GSHS, school health and youth health programmes and policies can be developed, implemented and evaluated.

The 2007 Mauritius and Rodrigues GSHS employed a standardised two-stage cluster sample design to produce a representative sample of students aged between 13 to 15 years, in Forms II, III and IV. Core questionnaire modules, core expanded questions and country specific questions were combined to form a self administered anonymous questionnaire which was administered in one regular class period. Survey administration was carried out from 28 June to 6 July 2007 in Mauritius and 27 to 31 August 2007 in Rodrigues.

The main findings were as follows:

- In Mauritius, 24 schools participated in the survey, the school response rate was 96 %, the student response rate was 91%, and the overall response rate was 88 %, and in Rodrigues all 5 schools participated in the survey, the school response rate was 100 %, the student response rate was 90%, and the overall response rate was 90 %.
- 31.2 % of students in Mauritius and 34.7% students in Rodrigues were in a physical fight on school property, and 27.4% of students in Mauritius and 23.6% in Rodrigues reported being physically attacked one or more times during the past 12 months.
- 52.9 % of students in Mauritius and 48.7% in Rodrigues were seriously injured one or more times during the past 12 months. Of those seriously injured, 35.6% in Mauritius and 48.6% in Rodrigues were hurt accidentally.
- 40.9% of students in Mauritius and 45.5% in Rodrigues reported being bullied on one or more days during the past 30 days prior to the survey.
- Only 13.0% of students in Mauritius and 10.0 % in Rodrigues were physically active on all 7 days during a typical or usual week for a total of at least 60 minutes per day, and

34.8% of students in Mauritius and 40.0% in Rodrigues spent three or more hours per day doing sitting activities during a typical or usual day.

- 16.5 % of students in Mauritius and 12.5% in Rodrigues were current smokers, and 69.2 % students in Mauritius and 72.5% in Rodrigues initiated smoking at age 13 years or earlier.
- 76.7 % of students in Mauritius and 78.65% in Rodrigues reported people smoking in their presence, and 31.9% schoolchildren in Mauritius and 39.1% in Rodrigues were refused sale of cigarettes because of their age.
- 69.3 % of current smokers in Mauritius and 81.8% in Rodrigues reported having attempted smoking cessation.
- The prevalence of current alcohol use among students in Mauritius and Rodrigues was 20.8 % and 24.4% respectively, and 63.2 % students in Mauritius and 75.0 % in Rodrigues had their first drink of alcohol before the age of 14 years.
- 47.7 % of students in Mauritius and 62.0% in Rodrigues usually drank alcohol in the company of friends.
- In Mauritius 21.4 % of students and in Rodrigues 23.5% reported that someone refused to sell them alcohol because of their age.
- The prevalence of lifetime drug use was 6.4% in Mauritius and 4.7% in Rodrigues.
- In Mauritius, 21.1% of students and in Rodrigues 17.1% missed classes or school without permission.
- In Mauritius, 36.4 % of students and in Rodrigues 48.9% students reported that their parents or guardians never or rarely understood their problems and worries, and 37 % of students in Mauritius and 38.3% in Rodrigues reported that their parents never or rarely really knew what they were doing in their free time.
- 74.8% of students in Mauritius and 63.2% in Rodrigues recalled being taught about prevention of Chikungunya during the school year, while 82.4% of students in Mauritius, but only 48.7% in Rodrigues had seen 'Ti Moris' the chikungunya prevention video on television. However, 57.9% of students in Mauritius and 50.8% in Rodrigues showed any

behavior change by removing all collections of water and rubbish from their yards at least once a week.

Data generated from this GSHS will serve as a baseline to measure interventions and health promotion activities which will be implemented in schools in Mauritius and Rodrigues. Both stakeholder Ministries of Health and Education must work together to develop a comprehensive and integrated approach to health promotion in schools, involving the active participation of all pupils, and targeting important components of adolescent health such as healthy eating, physical activity, smoking, alcohol and drug abuse, HIV&AIDS ,and sexual health.

School health programs can help students to develop life skills such as critical thinking, saying no to peer pressure, and communication skills among others.

Parents and guardians need to be educated so that they can be role models for their children, and also be equipped with knowledge and skills in order to improve their communication skills with their children or wards.

Legislations concerning sale of cigarettes and alcohol to minors already exist but have to be reviewed and reinforced.

INTRODUCTION

This report describes results from the first GSHS conducted in the Republic of Mauritius (consisting of the main island of Mauritius, and the island of Rodrigues) by the Ministry of Health & Quality of Life during July and August 2007.

Global School-based Student Health Survey (GSHS).

The Global School-based Student Health Survey (GSHS) was initiated in 2001 by the WHO, in collaboration with UNAIDS, UNESCO, and UNICEF, and with technical assistance from the US Centers for Disease Control and Prevention (CDC).

Since 2003, Ministries of Health and Education around the world have been using the GSHS to periodically monitor the prevalence of important health risk behaviours and protective factors among students, and to date 43 countries have completed a GSHS.

The purpose of the GSHS is to provide accurate data on health behaviours and protective factors among students to:

- help countries develop priorities, establish programmes, and advocate for resources for school health and youth health programmes and policies;
- establish trends in the prevalence of health behaviours and protective factors by country for use in evaluation of school health and youth health promotion; and
- allow countries, international agencies, and others to make comparisons across countries and within countries regarding the prevalence of health behaviours and protective factors.

The GSHS, which is a school-based survey conducted primarily among students aged 13-15 years, focuses on critical health behaviours and protective factors established during adolescence, which are related to significant causes of morbidity and mortality during youth and adulthood.

These include:

- Alcohol and other drug use
- Dietary behaviours
- Hygiene
- Mental health
- Physical activity

- Protective factors
- Sexual behaviours that contribute to HIV infection, other STI, and unintended pregnancy
- Tobacco use
- Violence and unintentional injury

Health profile in Mauritius.

Chronic health conditions such as diabetes, hypertension, coronary heart disease, and cancers, have emerged in recent years as the leading causes of illness, disability, and death in the Mauritian population. Evidence shows that this disease picture is primarily due to a range of risky behaviours that undermine people's health, such as wrong eating habits, a sedentary lifestyle, smoking, and alcohol abuse.

There are many pressures on children to act in unhealthy ways, and adolescence has become a period of risk and opportunity, with dangers from drugs, temptations for junk foods, and risky sexual behaviours, compounded by the negative effects of peer pressure, media marketing, and films.

Since these bad habits are inculcated during childhood, strategies to reduce the burden of health problems, specially noncommunicable diseases, should be targeted towards the school population. Besides providing basic education, schools can be a setting for effective health promotion, so that pupils develop healthy attitudes and behaviours, which can be carried forward to the next generation.

Literature Review

Several surveys to measure adolescent behaviours have previously been conducted in Mauritius. These include:

1. The Global Youth Tobacco Survey¹ which was conducted in 2003, provided data on the smoking behaviour of the school population. This survey revealed that among the 13 to 15 year olds, 14.8% were current smokers, 31.3% had ever smoked a cigarette, and the most common age to start smoking was 12 to 13 years. Results from the GYTS in Rodrigues showed that 19.7% among the 13 to 15 year olds were current smokers, 54.5% had ever smoked and the most common age to try the first cigarette was the same as in Mauritius.

2. The Mauritius Nutrition survey² which was carried out in 2004, revealed that in the age group 12 to 19 years, 7.3% of adolescents were obese while 8.4% were overweight, and 44.2% spent two or more hours per day watching television and playing with other electronic gadgets. In the same age group, 10.8 % of males and 4.2% of girls were current smokers, and 15.2% of males and 9.5% of females were casual drinkers.

3. A Study on Health Risk Behaviours among Youths³ which was conducted by the Mauritius Institute of Health in 2006. It enlisted a representative sample of 1,000 youths, 500 males and 500 females aged 15-24 years, and collected data on various risk behaviours, such as smoking, alcohol and drug use, physical activity and sexual contact. This study documented that 24.4% of youth were current smokers, 32.1% were current alcohol users, and many youths had their first alcoholic drink between 15-16 years of age, but some as early as age 13 or earlier.

23.8% of youths were lifetime users of marijuana, and 22.0% were current users. The most common age of starting drug use was 15-16 years, with some initiating use between 13-14 years.

Only 14.8% of youths practiced sufficient vigorous physical exercises and 17.7% sufficient moderate physical exercises. 95.7% watched television daily and 33.4% played computer games.

In Mauritius, 10.7% had been in a physical fight, and 12.0% were physically attacked, while in Rodrigues, 4.6% had been in a physical fight and 8.6 % were physically attacked. This Survey also documented that 14.4% of the youth in Mauritius and 15.7% of the youth in Rodrigues reported being bullied.

METHODS

Sampling.

The 2007 Mauritius and Rodrigues GSHS employed a two-stage cluster sample design to produce a representative sample of students in Forms II, III, and IV.

The first-stage sampling frame consisted of all schools containing any of Forms II, III, and IV. Schools were selected with probability proportional to school enrolment size.

25 secondary schools were selected to participate in the Mauritius GSHS and 5 secondary schools were selected to participate in the Rodrigues GSHS.

The second stage of sampling consisted of randomly selecting intact classrooms (using a random start) from each school to participate. All classrooms in each selected school were included in the sampling frame. All students in the sampled classrooms were eligible to participate in the GSHS.

Weighting.

In order to minimise bias and to reflect the likelihood of sampling each student, a weighting factor was applied to each student record, so that the results could be used to make important inferences about the priority health-risk behaviors and protective factors of the whole population of students in Forms II, III, and IV.

(Weighting formula at Appendix 1)

Response rates.

Table 1 shows the response rates for Mauritius and Rodrigues.

For the 2007 **Mauritius** GSHS, 2278 questionnaires were completed in 24 schools. The school response rate was 96 %, the student response rate was 91%, and the overall response rate was 88 %.

For the 2007 **Rodrigues** GSHS, 1140 questionnaires were completed in 5 schools. The school response rate was 100 %, the student response rate was 90%, and the overall response rate was 90 %.

Region	Number of schools	School response rate	Student response rate	Overall response rate
Mauritius	24	96	91	88
Rodrigues	5	100	90	90

Table 1 Response rates in Mauritius and Rodrigues.

The data set was cleaned and edited for inconsistencies. Missing data were not statistically imputed. Software that takes into consideration the complex sample design was used to compute prevalence estimates and 95% confidence intervals. GSHS data are representative of all students attending Forms II, III and IV in Mauritius and Rodrigues

The data was processed and analysed using the EPI-Info statistical package. In this report, percentages have been calculated, and some cross-tabulations have also been included.

Survey administration.

Survey administration was carried out from 28 June to 6 July 2007 in Mauritius and 27 to 31 August 2007 in Rodrigues. Survey procedures were designed to protect student privacy by allowing for anonymous and voluntary participation. Students completed the self-administered questionnaire during one classroom period and recorded their responses directly on a computer-scannable answer sheet.

10 Survey Administrators in Mauritius and 5 Survey Administrators in Rodrigues were specially trained to conduct the GSHS. They included staff from the following cadres: Community Health Nursing Officers, Community Health Care Officers, Health Information, Education and Communication Officers and General Nurses. (***Appendix II***)

GSHS questionnaire.

The Mauritius and Rodrigues GSHS questionnaire addressed the following topics:

- Demographics
- Violence and unintentional injury
- Physical activity
- Tobacco use
- Alcohol and other drug use
- Protective factors

The GSHS survey questionnaire included 34 core questions, 22 core expanded questions and 3 country specific questions on knowledge and behaviour concerning Chikungunya, for a total of 59 questions.

The questionnaire was developed by the GSHS technical steering committee (***Appendix III***)

RESULTS

Demographics

In **Mauritius** 2 278 pupils participated in the survey, out of whom 1118 were males and 1157 were females.

In **Rodrigues** 1140 pupils participated in the survey, out of whom 530 were males and 609 were females.

Table 2 describes the demographic characteristics of the sample.

Survey site	Total	Sex*		Age*			Forms*		
		Male	Female	12 or younger	13-15 years	16 or older	II	III	IV
Mauritius	2278	1118	1157	178	1783	314	688	759	823
Rodrigues	1140	530	609	46	1033	58	402	349	386

*Missing data not included.

Table 2. Demographic characteristics.

Violence and Unintentional Injury

Violence and injuries have serious consequences at all levels and in all strata of society, and impose an enormous burden on health care services. This section included questions about violence within and outside school premises, about injuries sustained by pupils and the circumstances surrounding them, and about the nature of bullying in schools.

Following are the findings for Mauritius:

Questions	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Were in a physical fight one or more times during the past 12 months	42.3 (36.4 - 48.2)	56.7 (53.3- 60.1)	28.9 (24.3 - 33.5)
Were in a physical fight on school property one or more times during the past 12 months	31.2 (25.8-36.5)	43.5 (37.8-49.1)	19.7 (15.9-23.5)
Were physically attacked one or more times during the past 12 months	27.4 (23.5 - 31.3)	37.0 (34.0- 39.9)	18.5 (13.8 - 23.1)
Had someone threaten or injure them with a weapon, such as a gun, knife, or club, on school property one or more times during the past 12 months	9.1 (6.7 - 11.4)	12.4 (9.9- 14.8)	6.0 (2.7 - 9.4)
Were seriously injured one or more times during the past 12 months	52.9 (48.2 - 57.6)	63.8 (59.2- 68.4)	43.2 (37.6 - 48.7)
Among students who were seriously injured during the past 12 months, those who most serious injury was the result of them hurting themselves by accident	35.6 (31.6 - 39.5)	36.3 (33.4- 39.2)	34.5 (28.0 - 41.0)
Among students who were seriously injured during the past 12 months, those whose most serious injury happened to them while they were playing or training for a sport	28.7 (24.7 - 32.8)	36.4 (31.9- 40.9)	18.5 (15.0 - 22.1)
Among students who were seriously injured during the past 12 months, those whose most serious injury was the result of a fall	39.6 (34.9 - 44.2)	43.4 (37.3- 49.4)	34.6 (28.9 - 40.3)
Were bullied on one or more days during the past 30 days	40.9 (34.8 - 47.0)	47.5 (42.1- 52.8)	34.9 (28.2 - 41.6)
Among students who were bullied during the past 30 days, those who were bullied most often by being hit, kicked, pushed, shoved around, or locked indoors	12.3 (8.6 - 16.1)	17.6 (14.0- 21.3)	5.7 (3.3 - 8.1)

* CI 95% confidence interval.

Table 3. Violence and unintentional injury among students in Mauritius.

In **Mauritius**, 42.3 % of students were in a physical fight one or more times during the past 12 months. Male students (56.7 %) are significantly more likely than female students (28.9 %) to have been in a physical fight.

It was found that 31.2 % of students were in a physical fight on school property one or more times during the past 12 months. Male students (43.5%) are significantly more likely than female students (19.7 %) to have been in a fight on school property during the past 12 months. Results showed that 27.4% of students were physically attacked one or more times during the past 12 months. Male students (37.0 %) are significantly more likely to have been physically attacked than their female counterparts (18.5 %) during the past 12 months.

It was also found that 9.1 % of students reported that someone threatened or injured them with a weapon, such as a gun, knife, or club, on school property one or more times during the past 12 months. Male students (12.4%) are significantly more likely to report having been threatened by a weapon on school property than female students (6.0%)

Overall, 52.9 % of students were seriously injured one or more times during the past 12 months. Male students (63.8 %) are significantly more likely than female students (43.2 %) to have been seriously injured one or more times during the past 12 months.

Among students who were seriously injured during the past 12 months, 35.6% reported having hurt themselves by accident. There are no significant differences between male students (36.3%) and female students (34.5%) having their most serious injury as a result of hurting themselves by accident. Among students who were seriously injured during the past 12 months, 28.7 % were playing or training for a sport when their most serious injury happened to them, while 39.6 % had their most serious injury caused by a fall.

Male students (36.4%) are significantly more likely than female students (18.5%) to be playing or training for a sport when their most serious injury happened to them. There are no significant differences between male students (43.4%) and female students (34.6%) reporting that their most serious injury was caused by a fall.

Overall, 40.9% of students were bullied on one or more days during the past 30 days. Male students (47.5%) are significantly more likely than female students (34.9%) to be bullied.

Among students who were bullied during the past 30 days, 12.3% were bullied most often by being hit, kicked, pushed, shoved around, or locked indoors. Male students (17.6%) are

significantly more likely than female students (5.7%) to be bullied most often by being hit, kicked, pushed, shoved around, or locked indoors.

Following are the findings for Rodrigues:

Questions	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Were in a physical fight one or more times during the past 12 months	34.7 (34.2 - 35.3)	40.8 (40.0- 41.7)	29.2 (28.5 - 30.0)
Were in a physical fight on school property one or more times during the past 12 months	25.6 (25.1 - 26.2)	30.8 (30.0- 31.5)	21.0 (20.2 - 21.7)
Were physically attacked one or more times during the past 12 months	23.6 (22.9 - 24.3)	25.9 (25.0- 26.7)	21.5 (20.7 - 22.3)
Had someone threaten or injure them with a weapon, such as a gun, knife, or club, on school property one or more times during the past 12 months	9.7 (9.0 - 10.5)	9.9 (8.9- 10.8)	9.5 (8.7 - 10.3)
Were seriously injured one or more times during the past 12 months	48.7 (48.0 - 49.5)	54.4 (53.2- 55.6)	43.7 (42.9 - 44.5)
Among students who were seriously injured during the past 12 months, those who most serious injury was the result of them hurting themselves by accident	48.6 (47.5 - 49.6)	50.8 (49.4- 52.3)	46.3 (44.5 - 48.0)
Among students who were seriously injured during the past 12 months, those whose most serious injury happened to them while they were playing or training for a sport	32.7 (31.3 - 34.2)	46.2 (44.2- 48.1)	18.2 (17.1 - 19.3)
Among students who were seriously injured during the past 12 months, those whose most serious injury was the result of a fall	32.6 (30.8 - 34.5)	36.3 (34.0- 38.6)	28.7 (26.9 - 30.5)
Were bullied on one or more days during the past 30 days	45.5 (44.7 - 46.2)	44.3 (43.0- 45.6)	46.4 (45.6 - 47.3)
Among students who were bullied during the past 30 days, those who were bullied most often by being hit, kicked, pushed, shoved around, or locked indoors	8.9 (8.1 - 9.6)	12.3 (11.1- 13.5)	6.0 (4.0 - 7.9)

* CI 95% confidence interval.

Table 4. Violence and unintentional injury among students in Rodrigues.

In **Rodrigues**, 34.7 % of students were in a physical fight one or more times during the past 12 months. Male students (40.8 %) are significantly more likely than female students (29.2 %) to have been in a physical fight. It was found that 25.6% of students were in a physical fight on

school property one or more times during the past 12 months. Male students (30.8%) are significantly more likely than female students (21.0 %) to have been in a fight on school property during the past 12 months.

Results showed that 23.6 % of students were physically attacked one or more times during the past 12 months. Male students (25.9 %) are significantly more likely to have been physically attacked than their female counterparts (21.5 %) during the past 12 months. It was also found that 9.7 % of students reported that someone threatened or injured them with a weapon, such as a gun, knife, or club, on school property one or more times during the past 12 months. There are no significant differences between male students (9.9 %) being more likely to report having been threatened by a weapon on school property than female students (9.5 %).

Overall, 48.7 % of students were seriously injured one or more times during the past 12 months. Male students (54.4 %) are significantly more likely than female students (43.7 %) to have been seriously injured one or more times during the past 12 months.

Among students who were seriously injured during the past 12 months, 48.6% reported having hurt themselves by accident. There are no significant differences between male students (50.8 %) and female students (46.3%) having their most serious injury as a result of hurting themselves by accident.

Among students who were seriously injured during the past 12 months, 32.7 % were playing or training for a sport when their most serious injury happened to them, and 32.6 % had their most serious injury caused by a fall.

Male students (46.2%) are significantly more likely than female students (18.2%) to be playing or training for a sport when their most serious injury happened to them. Male students (36.3 %) are significantly more likely than female students (28.7 %) to have their most serious injury being caused by a fall.

Overall, 45.5% of students were bullied on one or more days during the past 30 days. There are no significant differences between male students (44.3%) and female students (46.4%) reporting being bullied. Among students who were bullied during the past 30 days, 8.9 % were bullied most often by being hit, kicked, pushed, shoved around, or locked indoors. Male students (12.3%) are significantly more likely than female students (6.0 %) to be bullied most often by physical means.

Physical Activity

It is estimated that roughly 60% of the world's population does not practice enough physical activity.

The questions in this section measured students' physical activity, their participation in sedentary behaviours, and travel to school. Physical activity was described as any activity that increases the heart rate and respiration. It included activities performed during sports, while playing with friends, or walking or cycling to school.

Following are the findings for Mauritius:

Questions	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Physically active for a total of at least 60 minutes per day on all seven days during a typical or usual week	13.0 (10.7 – 15.3)	17.5 (15.2-19.9)	8.8 (6.6-11.0)
Participated in insufficient physical activity i.e. was physically active on less than five or fewer days per week on average	81.4 (78.0-84.8)	73.9 (70.7-77.1)	88.2 (85.3-91.2)
Went to physical education class 1 day or less each week during this school year	72.3 (69.3 – 75.4)	66.1 (60.1 – 72.2)	78.1 (73.6 – 82.5)
Went to physical education class 4 days or more each week during this school year	17.7 (15.6-19.9)	18.1 (15.8-20.4)	17.4 (13.5-21.4)
Were taught in any of their classes during this school year the benefits of physical activity	70.3 (66.6 - 74.0)	66.3 (61.1- 71.5)	74.0 (69.0 - 79.0)
Spent three or more hours per day doing sitting activities during a typical or usual day	34.8 (30.7-38.8)	34.3 (29.6-38.9)	35.2 (28.0-42.4)
Did not walk or bicycle to and from school during the past seven days	59.2 (54.6-63.9)	54.8 (50.6-59.0)	63.4 (56.0-70.8)

* CI 95% confidence interval.

Table 5. Physical activity among students in Mauritius.

In **Mauritius**, 13.0% of students were physically active on all 7 days during a typical or usual week for a total of at least 60 minutes per day. Male students (17.5%) are significantly more likely than female students (8.8%) to be physically active on all 7 days during a typical or usual week.

Overall, 81.4% of students participated in insufficient physical activity (i.e., participated in physical activity for a total of at least 60 minutes per day on less than five or fewer days on

average). Female students (88.2%) are significantly more likely than male students (73.9%) to participate in insufficient physical activity.

Overall 72.3% of students went to physical education class on one day or less per week during this school year. Female students (78.1 %) are significantly more likely than male students (66.1 %) to attend physical education class on one day or less per week.

However, only 17.7 % of students went to physical education class on four or more days each week during this school year. There are no significant differences between male students (18.1%) and female students (17.4%) going to physical education class for more than four days per week during this school year.

70.3 % of students reported that they were taught in any of their classes during this school year the benefits of physical activity. There are no significant differences between male students (66.3%) and female students (74%) reporting being taught in any of their classes the benefits of physical activity.

Results show that 34.8% of students spent three or more hours per day doing sitting activities during a typical or usual day. There are no significant differences between male students (34.3%) and female students (35.2%) spending three or more hours per day doing sitting activities.

Overall, 59.2% of students neither walked nor bicycled to and from school during the past 7 days. There are no significant differences between male students (54.8%) and female students (63.4%) reporting that they did not walk or bicycle to and from school during the past 7 days.

Following are the findings for Rodrigues:

Question	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Physically active for a total of at least 60 minutes per day on all seven days during a typical or usual week	10.0 (9.5 – 10.4)	13.6 (12.6 – 14.7)	6.7 (6.3 – 7.1)
Participated in insufficient physical activity i.e., for a total of at least 60 minutes per day on less than five or fewer days per week on average	82.7 (82.0 – 83.3)	75.7 (74.4 – 76.9)	88.8 (88.3 – 89.2)
Went to physical education class 1 day or less each week during this school year	70.3 (69.6 – 71.0)	70.4 (69.6 – 71.2)	70.2 (69.2 – 71.2)
Went to physical education class 4 days or more each week during this school year	18.1 (17.7 - 18.6)	17.8 (17.1- 18.4)	18.4 (17.7 - 19.2)
Were taught in any of their classes during this school year the benefits of physical activity	56.3 (55.7 - 56.9)	57.7 (56.5- 59.0)	55.1 (54.3 - 56.0)
Spent three or more hours per day doing sitting activities during a typical or usual day	40.0 (39.3 – 40.7)	35.2 (33.0 – 37.4)	44.3 (43.2 – 45.3)
Did not walk or bicycle to and from school during the past seven days	55.1 (54.5 – 55.7)	51.9 (51.0 – 52.8)	57.9 (57.1 – 58.6)

* CI 95% confidence interval.

Table 6. Physical activity among students in Rodrigues.

In **Rodrigues**, 10.0 % of students were physically active on all 7 days during a typical or usual week for a total of at least 60 minutes per day. Male students (13.6%) are significantly more likely than female students (6.7%) to be physically active on all 7 days during a typical or usual week.

Overall, 82.7% of students participated in insufficient physical activity (i.e., participated in physical activity for a total of at least 60 minutes per day on five or fewer days on average). Female students (88.8%) are significantly more likely than male students (75.7%) to participate in insufficient physical activity, i.e. female students were more sedentary than their male counterparts.

Overall 70.3 % of students went to physical education class on one day or less per week during this school year. There are no significant differences between male students (70.4%) and female students (70.2%) going to physical education classes on one day or less per week during this school year.

However, only 18.1% of students went to physical education class on four or more days each week during this school year. There are no significant differences between male students (17.8%) and female students (18.4%) going to physical education class for more than four days per week during this school year.

Only 56.3 % of students reported that they were taught in any of their classes during this school year the benefits of physical activity. Male students (57.7%) are more likely to report that they were taught the benefits of physical activity as compared to female students (55.1%).

Results show that 40.0% of students spent three or more hours per day doing sitting activities during a typical or usual day. Female students (44.3%) are significantly more likely than male students (35.2%) to spend three or more hours per day doing sitting activities.

Overall, 55.1% of students did not walk or bicycle to and from school during the past 7 days. Male students (51.9%) are significantly less likely than female students (57.9%) to not walk or bicycle to and from school during the past 7 days.

Tobacco Use

The wave of tobacco consumption that surged through the world's developed countries in the 20th century is now breaking in developing countries where it can be least afforded. About 84% of smokers currently live in developing and transitional economy countries.

The overwhelming majority of smokers begin tobacco use before they reach adulthood. This survey collected data on the smoking habits of students aged 13 to 15 years, to find out the percentage of current smokers, the age of first starting to smoke, and attempted cessation of smoking. Children are at particular risk from exposure to environmental tobacco smoke from adults' who smoke. The important issues of exposure to second hand smoke and sale of cigarettes to minors were also addressed.

Following are the findings for Mauritius:

Question	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Smoked cigarettes on one or more days during the past 30 days	16.5 (12.5 - 20.6)	24.5 (19.8- 29.2)	9.3 (5.7 - 12.9)
Among students who smoked cigarettes during the past 30 days, those who tried their first cigarette at age 13 or younger	69.2 (61.0 - 77.4)	73.7 (64.0- 83.4)	58.5 (50.3 - 66.8)
Among students who smoked cigarettes during the past 12 months, those who tried to stop smoking cigarettes	69.3 (63.4 - 75.3)	71.7 (62.5- 80.9)	64.2 (55.5 - 72.8)
Ever refused sale of cigarettes by anyone because of their age	31.9 (26.9-36.9)	34.8 (28.0-41.6)	26.2 (21.2-31.2)
People smoked in their presence on one or more days during the past seven days	76.7 (74.1 - 79.3)	79.5 (77.7- 81.3)	74.1 (69.4 - 78.7)
Have a parent or guardian who uses any form of tobacco	28.3 (25.9 - 30.8)	28.7 (25.8- 31.7)	27.9 (24.5 - 31.3)
Taught in any of their classes about the dangers of smoking	66.8 (62.9-70.6)	62.6 (57.8-67.3)	70.8 (65.9-75.6)

* CI 95% confidence interval.

Table 7 Tobacco use among students in Mauritius.

In **Mauritius**, it was found that 16.5 % of students smoked cigarettes on one or more days during the past 30 days. Male students (24.5 %) are significantly more likely than female students (9.3%) to have smoked cigarettes on one or more days during the past 30 days.

Results show that among students who smoked cigarettes during the past 30 days, 69.2 % tried their first cigarette at age 13 or younger. There are no significant gender differences between male students (73.7 %) and female students (58.5 %) having tried their first cigarette at age 13 years or younger.

Among students who smoked cigarettes during the past 12 months, 69.3 % tried to stop smoking cigarettes. There are no significant differences between male students (71.7 %) and female students (64.2 %) having tried to stop smoking cigarettes.

Among those students who tried to buy cigarettes, only 31.9% were refused sale of cigarettes because of their age. There are no significant differences between male students (34.8 %) and female students (26.2 %) reporting that they were refused sale of cigarettes because of their age.

Overall, 76.7 % of students reported that people smoked in their presence on one or more days during the past seven days. There are no significant differences between male students (79.5 %) and female students (74.1 %) reporting that people smoked in their presence on one or more days. Overall, 28.3 % of students had a parent or guardian who uses any form of tobacco. There are no significant differences between male students (28.7 %) and female students (27.9%) having a parent or guardian who uses any form of tobacco.

Overall, 66.8 % students were taught in their classes about the dangers of smoking. There are no significant differences between male students (62.6 %) and female students (70.8 %) reporting that they were taught in their classes about the dangers of smoking.

Following are the findings for Rodrigues:

Question	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Smoked cigarettes on one or more days during the past 30 days	12.5 (12.1 - 12.9)	16.1 (15.2- 16.9)	9.3 (8.8 - 9.7)
Among students who smoked cigarettes during the past 30 days, those who tried their first cigarette at age 13 or younger	72.5 (71.1 - 73.9)	NA	NA
Among students who smoked cigarettes during the past 12 months, those who tried to stop smoking cigarettes	81.8 (80.8 - 82.9)	85.1 (84.0- 86.2)	NA
Ever refused sale of cigarettes by anyone because of their age	39.1 (37.7 - 40.6)	40.9 (37.9- 43.9)	36.9 (35.1 - 38.7)
People smoked in their presence on one or more days during the past seven days	78.6 (78.2 - 79.1)	78.4 (77.6- 79.1)	78.9 (78.3 - 79.5)
Have a parent or guardian who uses any form of tobacco	28.6 (27.8 - 29.3)	26.2 (24.8- 27.5)	30.7 (30.0 - 31.4)
Taught in any of their classes about the dangers of smoking	58.6 (58.0 - 59.1)	57.6 (56.5- 58.8)	59.3 (58.4 - 60.3)

* CI 95% confidence interval.

NA: the number of respondents in this cell was less than 100.

Table 8. Tobacco use among students in Rodrigues.

In **Rodrigues**, 12.5 % of students smoked cigarettes on one or more days during the past 30 days. Male students (16.1%) are significantly more likely than female students (9.3 %) to have smoked cigarettes on one or more days during the past thirty days.

Among students who smoked cigarettes during the past 30 days, 72.5 % tried their first cigarette at age 13 or younger. It was found that among students who smoked cigarettes during the past 12 months, 81.8 % tried to stop smoking cigarettes.

Results show that among those students who tried to buy cigarettes, 39.1% were refused sale of cigarettes because of their age. There are significant differences between male students (34.8 %) and female students (26.2 %) reporting that they were refused sale of cigarettes because of their age.

Overall, 78.6 % of students reported that people smoked in their presence on one or more days during the past seven days. There are no significant differences between male students

(78.4 %) and female students (78.9 %) reporting that people smoked in their presence on one or more days. Overall, 28.6 % of students had a parent or guardian who uses any form of tobacco. Male students (26.2 %) are significantly less likely than female students (30.7 %) to have a parent or guardian who uses any form of tobacco.

Overall, 58.6% students were taught in their classes about the dangers of smoking. There are no significant differences between male students (57.6 %) and female students (59.3 %) reporting that they were taught in their classes about the dangers of smoking.

Alcohol and Drug use.

Alcohol.

Young people across the globe are exposed to aggressive marketing strategies, encouraging them to start drinking from an early age and to drink heavily.

This study asked questions about current alcohol use, the amount of alcohol taken, the source of supply and the problems associated with alcohol use. The definition of drinking alcohol did not include taking a few sips of wine or whisky for religious purposes.

Following are the findings for Mauritius:

Questions	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Had at least one drink containing alcohol on one or more days during the past 30 days (i.e., current alcohol use)	20.8 (15.4 - 26.1)	23.1 (17.3 - 28.9)	18.7 (12.1 - 25.4)
Among students who reported current alcohol use, those who drank two or more drinks per day on the days they drank alcohol during the past 30 days	40.5 (33.5 - 47.5)	45.6 (39.1 - 52.1)	35.0 (23.8 - 46.2)
Drank so much alcohol they were really drunk one or more times during their life	20.6 (14.6- 26.5)	25.2 (16.6 - 33.8)	16.3 (10.9 - 21.7)
Had a hang-over, felt sick, got into trouble, missed school, or got into fights one or more times as a result of drinking alcohol during their life	8.7 (7.0 - 10.4)	10.4 (8.1 - 12.6)	7.2 (5.5 - 8.9)
Among students who reported current alcohol use, those who had their first drink of alcohol before age 14 years	63.2 (57.3-69.2)	65.3 (55.9- 74.6)	60.8 (50.9 - 70.8)
Among students who reported current alcohol use, those who usually drink alcohol with their friends	47.7 (41.9 - 53.5)	60.9 (55.1- 66.6)	33.2 (25.4 - 41.0)
Among students who reported current alcohol use, those who drink beer, lager, or stout as the type of alcohol they usually drink	62.9 (58.2 - 67.5)	65.2 (59.6- 70.9)	60.2 (52.6 - 67.8)
Among students who reported current alcohol use, those who usually got the alcohol they drank by buying it in a store or shop during the past 30 days.	18.6 (12.4 - 24.7)	27.6 (21.5 - 33.7)	8.6 (3.6 -13.5)
Had someone refuse to sell them alcohol because of their age	21.4 (17.3 - 25.4)	22.9 (18.7- 27.0)	18.8 (11.9 - 25.7)

* CI 95% confidence interval.

Table 9. Alcohol use among students in Mauritius.

In **Mauritius**, the prevalence of current alcohol use among students (i.e., having at least one drink containing alcohol on one or more of the past 30 days) was 20.8 %. There are no significant differences between male students (23.1%) and female students (18.7 %) in reporting current alcohol use.

Overall, among students who reported current alcohol use, 40.5% reported having two or more drinks per day on the days they drank alcohol during the past 30 days. There are no significant differences between male students (45.6 %) and female students (35.0 %) having two or more drinks per day on the days they drank alcohol.

During their life, 20.6 % of students drank so much alcohol they were really drunk one or more times. There are no significant differences between male students (25.2%) and female students (16.3 %) reporting that they drank so much alcohol they were really drunk one or more times during their life.

Overall, 8.7 % of students ever had a hang-over, felt sick, got into trouble, missed school, or got into fights one or more times as a result of drinking alcohol during their life. There are no significant differences between male students (10.4%) and female students (7.2 %) reporting that they had a hang-over, felt sick, got into trouble, missed school or got into fights as a results of drinking alcohol.

Among students who reported current alcohol use, 63.2 % had their first drink of alcohol before the age of 14 years. There are no significant differences between male students (65.3 %) and female students (60.8%) reporting having had their first drink of alcohol before the age of 14 years.

This survey showed that among students who reported current alcohol use, 47.7 % reported that they usually drink alcohol in the company of friends. Male students (60.9 %) are significantly more likely than female students (33.2 %) to usually drink alcohol with their friends.

Among students who reported current alcohol use, most (62.9%) usually drank beer, lager, or stout. There are no significant differences between male students (65.2 %) and female students (60.2 %) reporting beer, lager, or stout as the most common type of alcohol usually consumed by them.

Survey results showed that 18.6 % of students who reported current alcohol use usually got the alcohol they drank by buying it in a store or shop. Male students (27.6%) are significantly more likely than female students (8.6 %) to usually get the alcohol they drink by buying it from a store or shop. It was found that only 21.4 % of students had someone refuse to sell them alcohol because of their age. There are no significant differences between male students (22.9 %) and female students (18.8 %) being refused sale of alcohol because of their age.

Following are the findings for Rodrigues:

Questions	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Had at least one drink containing alcohol on one or more of the past 30 days (i.e., current alcohol use)	24.4 (23.6 – 25.2)	27.3 (25.7 – 28.9)	21.9 (21.3 – 22.6)
Among students who reported current alcohol use, those who drank two or more drinks per day on the days they drank alcohol during the past 30 days	30.0 (28.6 – 31.4)	28.2 (25.4 – 30.9)	31.8 (29.2 – 34.5)
Drank so much alcohol they were really drunk one or more times during their life	32.2 (31.3 – 33.1)	37.2 (36.2 – 38.2)	27.8 (26.7 – 28.9)
Had a hang-over, felt sick, got into trouble, missed school, or got into fights one or more times as a result of drinking alcohol during their life	8.7 (8.2 - 9.1)	8.9 (8.2 - 9.6)	8.4 (8.1 - 8.8)
Among students who reported current alcohol use, those who had their first drink of alcohol before age 14 years	75.0 (74.4 - 75.6)	76.8 (75.9- 77.6)	72.8 (71.7 - 73.9)
Among students who reported current alcohol use, those who usually drink alcohol with their friends	62.0 (60.7 - 63.3)	71.0 (69.7- 72.3)	53.4 (51.4 - 55.3)
Among students who reported current alcohol use, those who drink beer, lager, or stout as the type of alcohol they usually drink	67.4 (66.5 - 68.3)	69.8 (68.7- 71.0)	65.1 (64.0 - 66.2)
Among students who reported current alcohol use, those who usually got the alcohol they drank by buying it in a store or shop during the past 30 days.	15.8 (14.2 – 17.3)	25.4 (22.6 – 28.2)	5.7 (5.3 – 6.2)
Had someone refuse to sell them alcohol because of their age	23.5 (22.2 - 24.8)	25.7 (24.2- 27.2)	20.7 (19.3 - 22.2)

* CI 95% confidence interval.

Table 10. Alcohol use among students in Rodrigues.

In **Rodrigues**, the prevalence of current alcohol use among students (i.e., drinking at least one drink containing alcohol on one or more of the past 30 days) is 24.4 %. Male students (27.3%) are significantly more likely than female students (21.9 %) to report current alcohol use.

Overall, among students who reported current alcohol use, 30.0 % of students drank two or more drinks per day on the days they drank alcohol during the past 30 days. There are no significant differences between male students (28.2 %) and female students (31.8 %) reporting consumption of two or more drinks per day on the days they drank alcohol.

During their life, 32.2 % of students drank so much alcohol they were really drunk one or more times. Male students (37.2%) are significantly more likely than female students (27.8 %) to drink so much alcohol they are really drunk one or more times.

Overall, 8.7% of students ever had a hang-over, felt sick, got into trouble, missed school, or got into fights one or more times as a result of drinking alcohol during their life. There are no significant differences between male students (8.9%) and female students (8.4%) reporting that they ever had a hang-over, felt sick, got into trouble, missed school or got into fights as a results of drinking alcohol.

Among students who reported current alcohol use, 75.0 % had their first drink of alcohol before the age of 14 years. Male students (76.8%) are significantly more likely than female students (72.8 %) to have had their first drink of alcohol before the age of 14 years.

Among students who reported current alcohol use, 62.0% of students usually drank alcohol with their friends. Male students (71.0 %) are significantly more likely than female students (53.4 %) to usually drink alcohol with their friends.

Among students who reported current alcohol use, most (67.4%) drink beer, lager, or stout as the type of alcohol they usually drink. Male students (69.8%) are significantly more likely than female students (65.1 %) to drink beer, lager, or stout as the type of alcohol they usually drink.

Overall, among students who reported current alcohol use, 15.8 % usually got the alcohol they drank by buying it in a store, shop, or from a street vendor during the past 30 days. Male students (25.4%) are significantly more likely than female students (5.7%) to usually get the alcohol they drink by buying it from a store, shop, or from a street vendor.

Only 23.5 % of students had someone refuse to sell them alcohol because of their age. Male students (25.7%) are significantly more likely than female students (20.7 %) to have had someone refuse to sell them alcohol because of their age.

Alcohol and Drug use.

Drugs

In this section, pupils were asked about lifetime drug use, and the age of first experimenting with drugs. Health education on substance abuse is a regular feature in secondary schools, and students were therefore asked whether they were taught in any of the classes the dangers of using drugs and where to get help if they wanted to stop.

Following are the findings for Mauritius:

Questions	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Used drugs such as brown sugar, gandia, white lady, or subutex one or more times during their life(i.e., lifetime drug use)	6.4 (4.1 - 8.7)	9.3 (6.4- 12.2)	3.7 (1.8 - 5.6)
Of those who reported lifetime drug use, those who tried drugs, such as brown sugar, gandia, white lady, or subutex, for the first time before age 14 years	44.8 (35.1 - 54.4)	46.7 (35.2- 58.2)	NA
Were taught in any of their classes during this school year the dangers of using drugs, such as brown sugar, gandia, white lady, or subutex	54.3 (50.0 - 58.6)	50.4 (45.6- 55.3)	57.9 (51.6 - 64.2)
Were taught in any of their classes during this school year where to get help to stop using drugs.	28.6 (25.3 - 31.9)	29.8 (24.9- 34.7)	27.5 (23.2 - 31.9)

* CI 95% confidence interval.

NA: the number of respondents in this cell was less than 100.

Table 11. Drug use among students in Mauritius

In **Mauritius**, the prevalence of lifetime drug use (i.e., using drugs, such as brown sugar, gandia, white lady, or subutex, one or more times during their life) was 6.4%. Male students (9.3%) are significantly more likely than female students (3.7%) to report lifetime drug use.

Of those students who reported lifetime drug use, 44.8% did so for the first time before the age of 14 years. Overall, 54.3% of students were taught in any of their classes during this school year the dangers of using drugs. There are no significant differences between male students (50.4%) and female students (57.9%) being taught about the dangers of using drugs.

Overall, 28.6% students reported that they were taught in any of their classes during this school year where to get help to stop using drugs. There are no significant differences between male students (29.8%) and female students (27.5%) being taught where to get help to stop using drugs.

Following are the findings for Rodrigues:

Question	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Used drugs such such as brown sugar, gandia, white lady, or subutex one or more times during their life (i.e., lifetime drug use)	4.7 (4.5 - 5.0)	7.3 (6.7- 7.8)	2.5 (2.3 - 2.7)
Were taught in any of their classes during this school year the dangers of using drugs, such as brown sugar, gandia, white lady, or subutex	47.0 (46.4 - 47.6)	51.2 (50.2- 52.1)	43.4 (42.7 - 44.2)
Were taught in any of their classes during this school year where to get help to stop using drugs.	34.2 (33.6 - 34.8)	35.2 (34.2- 36.2)	33.3 (32.6 - 34.1)

* CI 95% confidence interval.

Table 12. Drug use among students in Rodrigues.

In **Rodrigues**, the prevalence of lifetime drug use was 4.7%. Male students (7.3%) are significantly more likely than female students (2.5%) to report lifetime drug use.

Overall, 47.0% of students reported that they were taught in any of their classes during this school year the dangers of using drugs. Male students (51.2%) are significantly more likely than female students (43.4%) to report that they were taught about the dangers of using drugs.

Overall, 34.2% students reported that they were taught in any of their classes during this school year where to get help to stop using drugs. Male students (35.2%) are significantly more likely than female students (33.3%) to report that they have been taught where to get help to stop using drugs.

Protective Factors

Factors in the social environment of adolescents which protect them from negative health outcomes are referred to as protective factors. These include a stable and emotional bond with parents, a positive relationship with teachers and acceptance by peers.

This section measured truancy, perceived social support by peers and their bonding with parents.

Following are the findings for Mauritius:

Question	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Missed classes or school without permission on one or more of the past 30 days	21.1 (18.0 - 24.2)	27.1 (23.2- 31.0)	15.6 (12.6 - 18.6)
Most of the students in their school were never or rarely kind and helpful during the past 30 days	37.8 (33.5 - 42.0)	42.7 (38.0- 47.3)	33.2 (26.9 - 39.6)
Parents or guardians never or rarely checked to see if their homework was done during the past 30 days	42.8 (38.6 - 47.0)	38.5 (35.6- 41.5)	46.6 (40.4 - 52.9)
Parents or guardians never or rarely understood their problems and worries during the past 30 days	36.4 (34.5 - 38.3)	36.7 (34.1- 39.2)	36.1 (33.2 - 39.0)
Parents or guardians never or rarely really knew what they were doing with their free time during the past 30 days	37.0 (33.9 - 40.2)	40.2 (36.7- 43.8)	34.1 (30.6 - 37.5)

* CI 95% confidence interval.

Table 13. Protective factors among students in Mauritius.

In **Mauritius**, 21.1% of students missed classes or school without permission on one or more of the past 30 days. Male students (27.1%) are significantly more likely than female students (15.6%) to miss classes or school without permission.

Overall, 37.8% of students reported that most of the students in their school were never or rarely kind and helpful during the past 30 days. There are no significant differences between male students (42.7%) and female students (33.2%) in reporting that most of the students in their school were never or rarely kind and helpful during the past 30 days.

42.8% of students reported that their parents or guardians never or rarely checked to see if their homework was done during the past 30 days. There are no significant differences

between male students (38.5%) and female students (46.6%) reporting that their parents or guardians never or rarely check to see if their homework is done.

Results also showed that 36.4 % of students reported that their parents or guardians never or rarely understood their problems and worries. There are no significant differences between male students (36.7%) and female students (36.1%) reporting that their parents or guardians never or rarely understood their problems and worries.

Overall, 37.0 % of students reported their parents or guardians never or rarely really knew what they were doing with their free time during the past 30 days. There are no significant differences between male students (40.2%) and female students (34.1%) reporting that their parents or guardians never or rarely really knew what they were doing with their free time.

Following are the findings for Rodrigues:

Question	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Missed classes or school without permission on one or more of the past 30 days	17.1 (16.7 - 17.5)	21.3 (20.2- 22.3)	13.4 (12.8 - 14.1)
Most of the students in their school were never or rarely kind and helpful during the past 30 days	42.4 (41.7 - 43.2)	42.3 (41.4- 43.2)	42.5 (41.4 - 43.5)
Parents or guardians never or rarely checked to see if their homework was done during the past 30 days	50.0 (49.3 - 50.7)	45.5 (44.5- 46.6)	53.8 (52.3 - 55.3)
Parents or guardians never or rarely understood their problems and worries during the past 30 days	48.9 (48.2 - 49.6)	48.1 (47.0- 49.2)	49.5 (48.7 - 50.3)
Parents or guardians never or rarely really knew what they were doing with their free time during the past 30 days	38.3 (37.7 - 38.8)	41.2 (39.8- 42.7)	35.6 (34.2 - 37.0)

* CI 95% confidence interval.

Table 14. Protective factors among students in Rodrigues.

In **Rodrigues**, 17.1% of students missed classes or school without permission on one or more of the past 30 days. Male students (21.3%) are significantly more likely than female students (13.4%) to miss classes or school without permission.

Overall, 42.4% of students reported that most of the students in their school were never or rarely kind and helpful during the past 30 days. There are no significant differences between

male students (42.3%) and female students (42.5%) reporting that most of the students in their school were never or rarely kind and helpful during the past 30 days.

50.0% of students reported their parents or guardians never or rarely checked to see if their homework was done during the past 30 days. Male students (45.5%) are significantly less likely than female students (53.8%) to report that their parents or guardians never or rarely check to see if their homework is done.

Results also showed that 48.9 % of students reported that their parents or guardians never or rarely understood their problems and worries. There are no significant differences between male students (48.1%) and female students (49.5%) reporting that their parents or guardians never or rarely understood their problems and worries.

Overall, 38.3 % of students reported their parents or guardians never or rarely really knew what they were doing with their free time during the past 30 days. Male students (41.2%) are significantly more likely than female students (35.6%) to report that their parents or guardians never or rarely really knew what they were doing with their free time.

Chikungunya

The next three questions were asked to assess the knowledge and behaviour change in students, following an extensive education campaign that was carried out in 2006 and 2007 to sensitise them about prevention of Chikungunya.

Following are the findings for Mauritius:

Question	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Taught during the school year about how to prevent getting Chikungunya	74.8 (71.2-78.3)	71.1 (66.9-75.3)	78.1 (72.9-83.3)
Removed all collections of water and rubbish from their home and yard at least once a week	57.9 (55.1-60.7)	52.0 (49.3-54.7)	63.4 (59.4-67.3)
Have seen 'ti moris' the Chikungunya prevention video on television.	82.4 (79.9-84.8)	82.6 (80.0-85.2)	82.1 (78.4-85.9)

* CI 95% confidence interval.

Table 15. Chikungunya knowledge and behaviours among students in Mauritius.

In **Mauritius**, overall, 74.8% of students recalled being taught about prevention of Chikungunya during the school year. There are no significant differences between males (71.1%) and females (78.1%) reporting being taught about how to prevent getting Chikungunya.

Overall, 57.9 of all students removed all collections of water and rubbish from their yards at least once a week. Males (52.0%) are less likely than females (63.4%) to remove all collections of water and rubbish from their yards at least once a week.

Overall, 82.4% of students had seen 'ti moris' the Chikungunya prevention video on television. There are no significant differences between males (82.6%) and females (82.1%) reporting having seen the Chikungunya prevention video on television.

Following are the findings for Rodrigues:

Question	Total % (CI)*	Sex	
		Male % (CI)	Female % (CI)
Taught during the school year about how to prevent getting Chikungunya	63.2 (62.5 - 63.8)	61.7 (60.8- 62.6)	64.6 (63.8 - 65.3)
Removed all collections of water and rubbish from their home and yard at least once a week	50.8 (50.2 - 51.4)	48.3 (47.4- 49.3)	53.1 (52.3 - 53.8)
Have seen 'ti moris' the Chikungunya prevention video on television.	48.7 (48.0 - 49.4)	49.7 (48.8- 50.5)	47.7 (46.7 - 48.8)

* CI 95% confidence interval.

Table 16. Chikungunya knowledge and behaviours among students in Rodrigues.

In **Rodrigues**, overall, 63.2% of students recalled being taught about prevention of Chikungunya during the school year. Male students (61.7%) are significantly less likely than female students (64.6%) to report being taught about how to prevent getting Chikungunya during the school year.

Overall, 50.8 of all students removed all collections of water and rubbish from their yards at least once a week. Males (50.8%) are less likely than females (53.1%) to remove all collections of water and rubbish from their yards at least once a week.

Overall, 48.7% of students had seen 'ti moris' the Chikungunya prevention video on television. There are no significant differences between males (49.7%) and females (47.7%) reporting having seen the Chikungunya prevention video on television.

DISCUSSION.

The main aim of collecting and discussing the data generated from the GSHS is to highlight problem areas in youth behaviours, and recommend appropriate strategies to address them.

Unintentional Injuries and Violence.

In most countries of the world, accidental injuries rank among the important causes of morbidity and mortality in childhood. Many of these accidental injuries can lead to permanent disability, brain damage, depression, substance abuse, suicide attempts, and the adoption of risky health behaviours.

The late Dr Lee Jong-Wook, Director General of WHO stated that “we have had great success in fighting diseases that kill and maim children. We can’t now sit and watch children die or become severely disabled due to injuries that can be prevented. It is time to take an active approach to preventing child injuries”.

This survey found that 52.9% of students in Mauritius and 48.7% students in Rodrigues were seriously injured one or more times during the 12 months prior to the survey. Among these, 35.6% in Mauritius and 48.6% in Rodrigues were injured accidentally.

Evidence-based interventions for prevention of injuries and poisoning need to be implemented to sensitise parents and children. These should be accompanied by establishing social and physical environments that can promote child safety and prevent injuries.

Children in all countries are commonly victims of violence at school, in the form of fighting, corporal punishment, bullying or harassment from teachers or other students. Violence has serious consequences at all levels and in all strata of society, but adolescents are particularly vulnerable to the consequences of violence, resulting in lasting psychological and behavioural problems such as low self esteem, difficulty in relating to peers, highly sexualised or aggressive behaviour and substance abuse. Violence and bullying in school also result in absenteeism, impaired concentration and poor cognitive development in the victims. It has been documented that victims of bullying have increased stress, a reduced ability to concentrate, and are at increased risk for substance abuse, aggressive behaviour, and suicide attempts ⁴.

The results of this GSHS show that in Mauritius 42.3 % of students had been in a physical fight and 27.4 % were physically attacked, while in Rodrigues 34.7 % had been in a physical fight and

23.6 % were physically attacked. Also, 40.9 % of students in Mauritius and 45.5 % in Rodrigues reported being bullied in school. Based on these results, violence seems to be more common among the students in Mauritius.

The school provides an ideal setting for violence prevention interventions, by addressing the broad range of behaviours and conditions that support and perpetuate violence. Setting up counselling services in secondary schools may meet students' needs and should be considered.

In order to reduce the burden of injuries and violence in children and adolescents, an action plan has to be prepared and implemented. While the Ministries of Health and Education will be central to this effort, other key ministries and non-governmental organisations should also be taken on board.

Physical Activity

Lack of physical activity doubles the risk of cardiovascular diseases, diabetes and obesity, and substantially increases the risk of high blood pressure, lipid disorders, colon cancer, osteoporosis, depression and anxiety.

Participating in adequate physical activity throughout the life span and maintaining a normal weight are the most effective ways of preventing many chronic diseases, including cardiovascular disease and type 2 diabetes, which is increasingly appearing in young and obese children⁵.

Moreover, being physically active helps students to stay alert and concentrate better, and a good academic performance is directly related to an active lifestyle.

Data from the Mauritius Nutrition Survey 2004,² and the Study on Health Risk Behaviours among Youths³ in Mauritius 2006, showed that the level of physical activity is low in the young population of Mauritius.

It can be seen in Figure 1 that only 13.0 % of students in Mauritius and 10.0% in Rodrigues were physically active for a total of at least 60 minutes per day on all seven days during a usual week. Moreover, 81.4% of pupils in Mauritius and 82.7% in Rodrigues participated in insufficient physical activity, although 70.3% of students in Mauritius and 56.3% in Rodrigues, reported that they were taught in school about the benefits of physical activity. Students therefore possess

knowledge, but are either not motivated to practice daily physical activity or they do not have a supportive environment where they can do so.

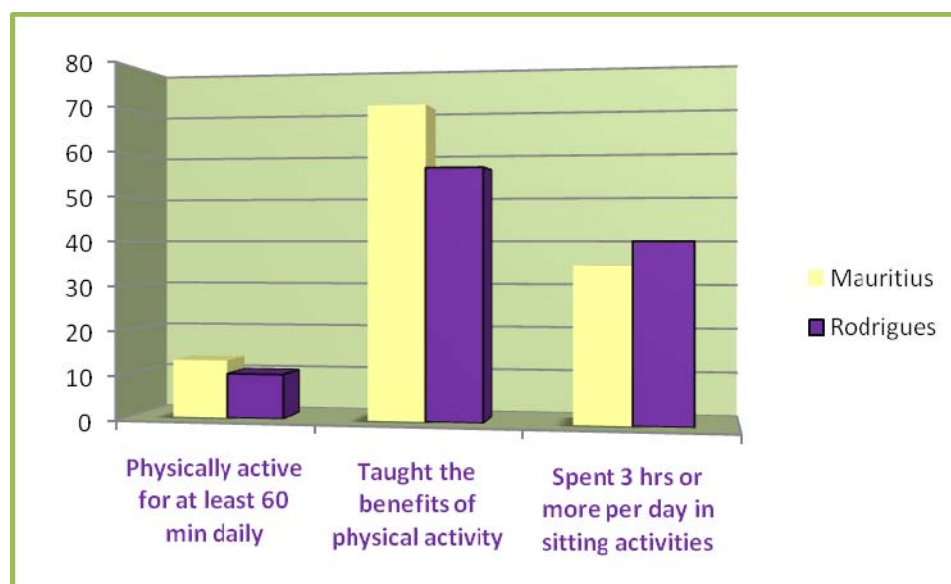


Figure 1. Comparison of some key variables of physical activity among students in Mauritius and Rodrigues.

If the habit of physical activity is established during childhood and adolescence, it is more likely to lead to an active lifestyle throughout the life span. Conversely, sedentary behaviours, such as watching television and playing electronic games, if adopted at a young age, are more likely to persist⁶.

Watching television is also often accompanied by snacking. The more television children watch, the more they eat. It is estimated that girls who watch TV for more than five hours per day, can consume about 200 more calories than girls who watch TV for one hour or less. The internet and electronic and computer games also contribute to the hours children spend sitting.

34.8 % students in Mauritius and 40.0% in Rodrigues reported that they spent three or more hours per day in sedentary pastimes (Figure 1). Students in Rodrigues are significantly more likely than their counterparts in Mauritius to spend three or more hours per day in sitting activities. Alternative leisure pastimes involving active exercises have to be devised for students, both in Mauritius and in Rodrigues.

Schools are ideal settings to offer pupils more opportunity to participate in physical activities and sports, yet the survey findings showed that the majority of pupils attended physical education classes only once a week or less, with only a very low percentage in both Mauritius and Rodrigues going to physical education classes on four days each week. The frequency of physical education classes in all schools should be increased, and a daily period of 30 minutes for physical activity in all schools in Mauritius and Rodrigues must be introduced. This will help to develop a routine of physical activity which will persist during adulthood. Sports competitions between colleges can be organised on a regular basis so as to provide motivation for pupils to compete in sports events.

In view of these findings, a culture of physical activity must be inculcated in the young generation so that they adopt a regular routine of physical activity, which will enable them to remain free from the debilitating effects of chronic diseases. Sports and other physical activities such as hiking and mountain climbing organized during school holidays by concerned ministries, will enable children to spend their time in active pursuits instead of sedentary activities at home or in video games clubs.

Sports complexes and school gymnasias can be put at the disposal of youth during school vacations and weekends, and they can make use of them for physical activities and sports.

Children can also be encouraged to walk or cycle to school if they reside within a short distance, instead of using cars or vans for this purpose.

Tobacco use

Results of this GSHS show that among the 13 to 15 year olds, 16.5 % in Mauritius and 12.5 % in Rodrigues had smoked cigarettes on one or more days during the past 30 days preceding the survey.

An overwhelming majority of smokers begin using tobacco before they reach adulthood, with nearly one quarter smoking the first cigarette before reaching their tenth birthday. Most of the young people who start smoking at an early age continue to do so in adulthood. Studies have shown that early signs of heart disease and stroke can be found in adolescents who smoke.

Moreover, smoking at an early age increases the risk of lung cancer, and for most smoking-related cancers, the risk rises as the individual continues to smoke.

Teens who smoke are three times more likely than nonsmokers to use alcohol, eight times more likely to use marijuana, and 22 times more likely to use cocaine.

	MAURITIUS		RODRIGUES	
	Initiated alcohol use before 14 yrs of age	Initiated alcohol use after 14 yrs of age	Initiated alcohol use before 14 yrs of age	Initiated alcohol use after 14 yrs of age
Started smoking at age 13 yrs or earlier	80.1%	19.9%	88.8 %	11.2 %
Started smoking after 13 yrs	32.5%	67.5%	37.6 %	62.4 %

Table 17. Relation between early age of starting smoking and early age of alcohol use.

Table 17 shows that from the survey sample, 80 % of students in Mauritius who initiated tobacco use before 13 years of age also started drinking before they were 14 years old, while 67.5 % of students who started smoking after they were 13 years old started drinking alcohol after 14 years of age.

In Rodrigues, 88.8% of students who started smoking before they were 13 years old, also started alcohol use before they were 14 years old, whereas 62.4 % of students who started smoking after they were 13 years old, initiated drinking alcohol after 14 years of age.

Smoking is also associated with a host of other risky behaviors, such as fighting and engaging in unprotected sex⁷. Pupils who smoke are also less likely to perform adequate physical activity.

Figure 2 shows that a large majority of students, i.e. 69.2% in Mauritius and 72.5% in Rodrigues initiated smoking at the age of 13 years or younger. Smoking prevention programs should therefore particularly target students when they are still in upper primary school and have just begun lower secondary school.

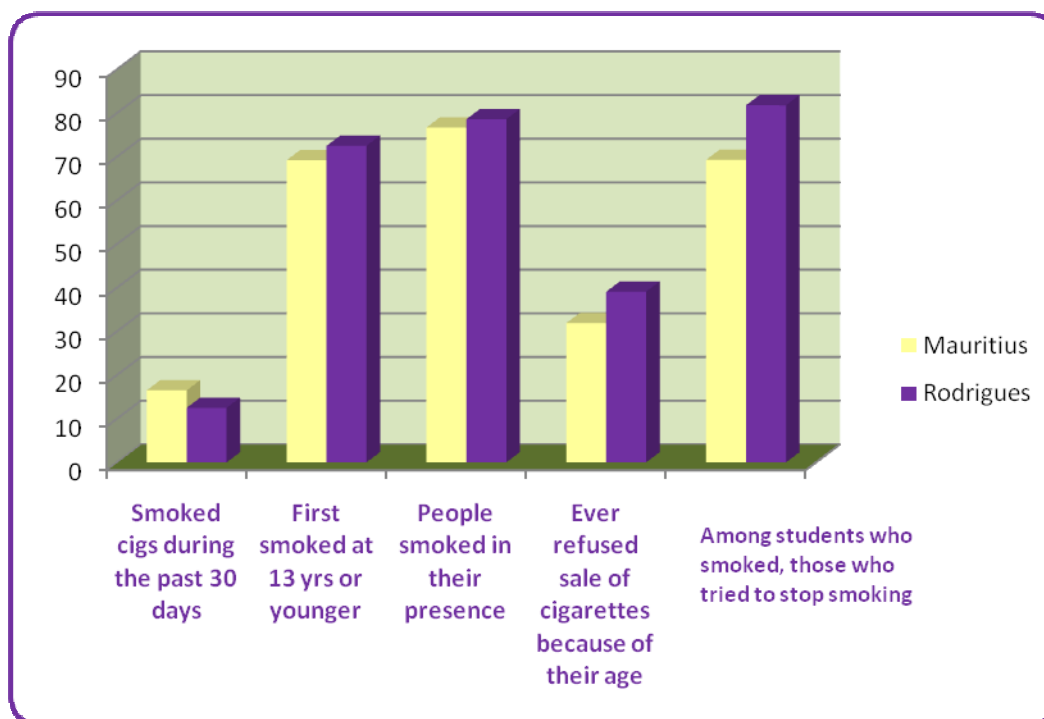


Figure 2. Comparison of some key variables of smoking habits among students in Mauritius and Rodrigues.

In this study children reported a high level of exposure to environmental smoke, with more than three quarters of students in Mauritius and in Rodrigues reporting people smoking in their presence. (Figure 2). Children are at particular risk from exposure to environmental tobacco smoke from adults' smoking, including cancer and heart disease among others. Many studies show that parental smoking is associated with higher youth smoking⁸.

Children and youth need to be protected from the harmful effects of tobacco smoke and provided with a smoke free environment through parental and adult sensitisation strategies. It is encouraging to note that the majority of students who smoked cigarettes during the past 12 months, reported that they tried to stop smoking. Students in Rodrigues are significantly more likely (81.8%) to attempt smoking cessation than those in Mauritius (69.3 %). This is a definite pointer to initiate smoking cessation programmes for the youth, whereby they can be given all the support necessary for them to give up their smoking habit.

A finding in this survey which is a cause for concern is that although there are existing laws which prohibit sale of cigarettes to minors, only about a third of students were refused sale of cigarettes. Vendors in Rodrigues were significantly more likely to refuse sale of cigarettes to minors as compared to those in Mauritius. This legislation must be reviewed and strict enforcement measures planned urgently.

Mauritius has laws restricting advertising of tobacco products, but publicity in terms of scholarships and bursaries offered to students still exists. Also cigarettes are displayed attractively at the check out counters of supermarkets. This hidden form of tobacco advertising has to be corrected.

Alcohol and drug use.

Deaths due to alcohol are highest in the 45 to 54 year age group, but alcohol use often starts in adolescence. The relationship between the age of initiation of alcohol use and the pattern of its use and abuse in adulthood makes it important to study the drinking habits of adolescents⁹.

Chronic abuse of alcohol causes liver disease and cancers, heart disease, leads to injuries and violence, and is the reason behind many social and domestic problems.

Problems with alcohol can impair adolescents' psychological development and influence both the school environment and leisure time negatively.¹⁰ Young people who drink are more likely to use tobacco and other drugs and engage in risky sexual behaviour, than those who do not drink^{11 12}.

In Mauritius, figures from the National Nutrition survey 2004² in the age group 12 to 19 years, showed that 12.4% were casual drinkers and 1.4% were heavy drinkers.

Figure 3 compares the findings from this GSHS concerning alcohol use among students in Mauritius and Rodrigues. 20.8% students in Mauritius, and 24.4% students in Rodrigues reported current alcohol use, i.e., having had at least 1 drink on one or more days during the past 30 days. There are no significant differences between students in Mauritius and Rodrigues reporting current alcohol use, but there are significant differences between the youth in Mauritius and Rodrigues reporting the age of first drinking alcohol. Among students who reported current alcohol use, 63.2% in Mauritius had their first drink before the age of 14 years,

whereas a larger number, i.e., 75.0 % of students in Rodrigues started drinking alcohol before the age of 14 years.

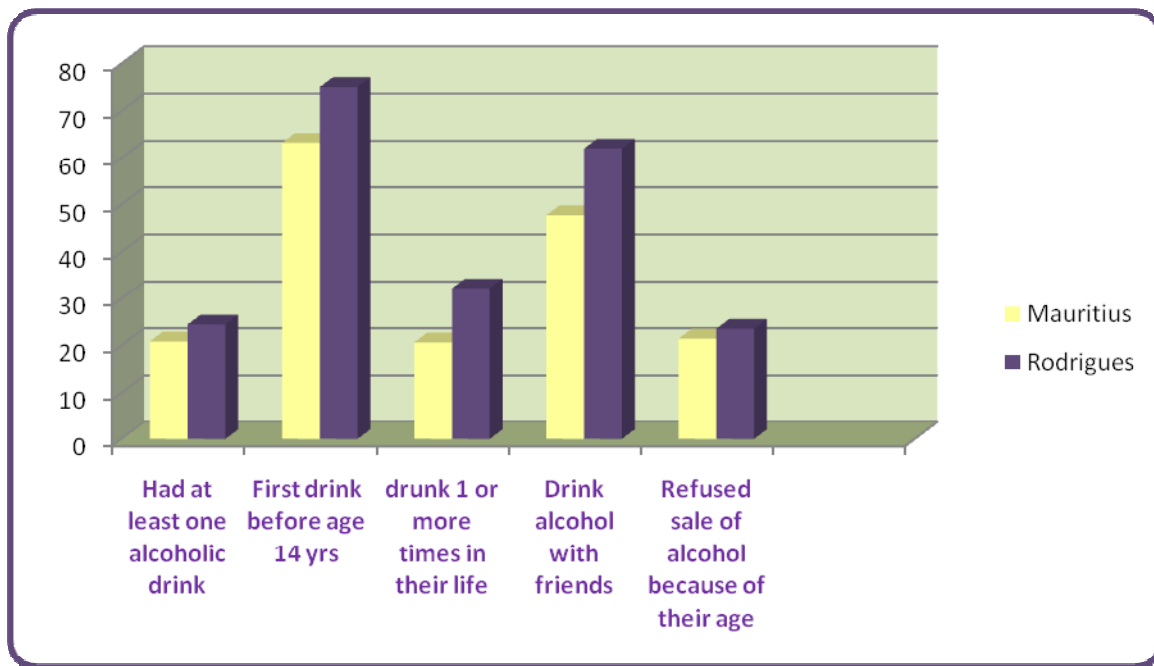


Figure3. Comparison of some key variables of alcohol use among students in Mauritius and Rodrigues.

Data on students' consumption of the number of drinks showed that students who reported current alcohol use in Mauritius are significantly more likely to take two or more drinks on the days they drink alcohol as compared to their counterparts in Rodrigues. However, students in Rodrigues (32.2 %) are significantly more likely to get drunk during their life as compared to those in Mauritius (20.6 %).

Although laws prohibiting sale of alcohol to minors exist, results show that alcohol was easily accessible to students, and only 21.4 % of students in Mauritius, and 23.5 % in Rodrigues were refused sale of alcohol because of their age. As is the case for sale of cigarettes, strict enforcement of this law is indicated to reduce the accessibility and availability of alcohol to young people. It is also necessary to combat the aggressive marketing of alcoholic products which is carried out in the media to encourage adolescents to start drinking.

Reported drug use among students in both Mauritius and Rodrigues is low, but almost half of the students who used drugs, reported first drug use at the age of 13 years. The low prevalence

may also be due to the fact that students were afraid to admit drug use, even though the survey questionnaires were anonymous. School based drug prevention programs have to be reinforced, and access and availability of hard drugs to students have to be curtailed.

Protective factors.

The school is an important setting outside of the family. Students who do not have a supportive environment at school are more likely to play truant from school and engage in violence and sexual risk behaviours.

This survey documented that 21.1% of students in Mauritius and 17.1% in Rodrigues were playing truant from school. As seen in Figure 4, students in Mauritius are significantly more likely to play truant from school than students in Rodrigues.

Being liked and accepted by peers is crucial to young people's health development, and those who are not socially integrated are far more likely to exhibit difficulties with their physical and emotional health. Isolation from peers in adolescence can lead to feelings of loneliness and psychological symptoms. Interaction with friends tends to improve social skills and strengthen the ability to cope with stressful events¹³.

In Mauritius 37.8% students and in Rodrigues 42.4% students stated that other students in their school were never or rarely kind and helpful. School health programs have to be developed to create a supportive environment and provide students with the knowledge and skills they need to establish positive and supportive relationships with their peers.

A strong relationship and bonding with parents conveys feelings of warmth, affection, comfort, and love to adolescents, and is an important protective factor for adolescent health and development.

Parental bonding and connection is associated with lower levels of depression and suicidal ideation, alcohol use, sexual risk behaviours, and violence¹⁴. Parents therefore have an important role to play in preventing risky health behaviours in adolescents.

In Mauritius, nuclear families have replaced the extended family system, and large numbers of women have entered the labour force with important negative repercussions on family life, parental bonding and the lifestyle of adolescents.

As seen in Figure 4, many students in Rodrigues (48.9%) and in Mauritius (36.4%) reported that their parents or guardians never or rarely understood their problems and worries. It is disquieting to note that in Mauritius, 42.8% students' parents never or rarely checked their children's homework, and 37.0 % of students reported that their parents never or rarely really knew what they were doing with their spare time. The situation in Rodrigues is even worse, with 50% of parents never or rarely having checked the homework of their children, and 38.3% never knowing what their children were doing with their free time. More than ever the school has an important role to play to help children cope with the problems of modern life.

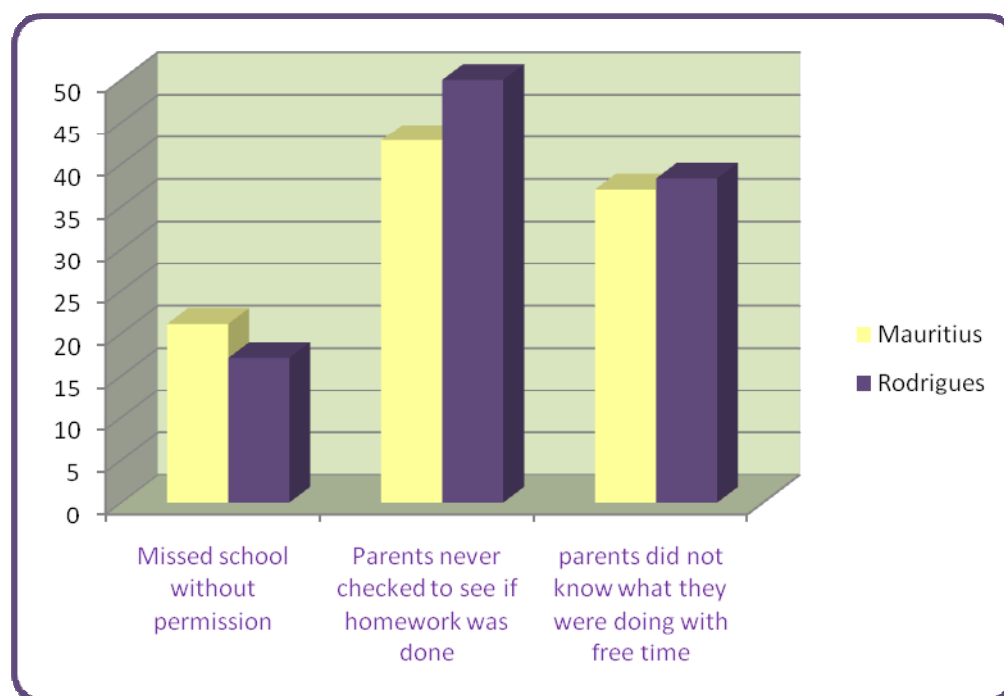


Figure 4. Comparison of some key variables of protective factors among students in Mauritius and Rodrigues.

Control of adolescent behavior by their parents and guardians is important. This should include monitoring of the children's activities, setting clear rules for behaviours and consequences of misbehaviours, and conveying clear expectations for behaviors. Studies have shown that there is a positive association between behavioral control and adolescent outcomes, resulting in

decreased substance abuse, less problems in school, decreased delinquency and less negative peer influences¹⁵.

Chikungunya

Mauritius faced an outbreak of Chikungunya in 2006. An intensive health education campaign, using the COMBI approach, was launched to sensitise the population about preventive measures. A special package was developed for school children, and messages on preventive measures were read in the morning assembly in all educational institutions. The objective of including three questions on Chikungunya was to assess the impact of these sensitization activities, including the video spot which was regularly broadcast on the local television, and to evaluate behaviour changes for the prevention of the disease, such as regular removal of rubbish and collections of water around the house .

It can be seen from the results, that the media-based campaign did have a positive impact on the students, with nearly 75.0 % in Mauritius and 63.0 % of students in Mauritius reporting that they were taught about Chikungunya during the school year. However the behaviour change was reported in only half the student population, and more aggressive and sustained campaigns are indicated.

Nearly two thirds of morbidity and mortality occurring in adults can be associated with behaviours that begin in youth. In order to protect and preserve subsequent generations, the best investment would therefore be health promotion in schools, specially targeting risky health behaviours among adolescents.

RECOMMENDATIONS

Overall recommendations.

1. Establish intersectoral collaboration between Ministries of Health and Education. Both stakeholder ministries should work together to develop a comprehensive and integrated approach to health promotion in schools.
2. Use active methods of health promotion in schools. One of the most important aspects of school health programmes is to help children to learn how to prevent ill health. They should not only learn, but also practice good habits and understand the consequences of unhealthy actions, specially those which do not seem to have any immediate harmful effects. Programs of health promotion in schools should enable teachers and students to be active partners in promoting health.
3. Maintain the GSHS surveillance system to provide data on the effectiveness of school health programs and interventions, and to help assess the trend in student behaviors over time. It is therefore recommended that this survey be repeated after an interval of three years. It is strongly recommended that the module on sexual behaviours should be included in the next GSHS so as to have baseline data on youth sexual knowledge and behaviour.
4. Introduce Health Education as a separate subject in the secondary school curriculum, as has been done for primary schools, and include sexual health education in the curriculum of upper primary and secondary classes.

Recommendations for violence and injuries in schools.

1. Prepare an action plan against violence and injuries in children and adolescents, in consultation with all stakeholders, and put in place strategies to combat the increasing problem of violence in schools.
2. Integrate childhood and adolescent injury and violence prevention into other areas of health promotion.

3. Identify aspects in the school environment which do not support social and emotional well-being and carry out positive changes to enhance the psychosocial and emotional health of students.
4. Employ school counsellors or school nurses in all primary and secondary schools.

Recommendations for physical activity.

1. Increase the number of physical education classes by scheduling one compulsory period for physical education daily in all schools (Ministry of Education & Human Resources).
2. Program sports and physical activity events during school holidays (Ministry of Youth & Sports in collaboration with the Ministry of Education & Human Resources).
3. Put sports centres and school gymnasias at the disposal of families and young children during weekends and school vacations, so as to encourage active pastimes and provide an alternative to sedentary leisure activities in adolescents.

Recommendations for tobacco use.

1. Conduct aggressive anti smoking campaigns in both primary and secondary schools, using a child-centered approach in their design and implementation.
2. Utilise modern media methods such as internet and short messaging service (SMS) to create and maintain awareness about the adverse health effects of smoking in the young.
3. Set up youth friendly smoking cessation clinics in primary health care centres to provide help and support to young people who want to quit.
4. Impose a complete ban on tobacco advertising in any form, such as scholarships and sale of cigarettes near check out counters in supermarkets.
5. Enforce strictly all laws prohibiting sale of cigarettes to minors, and smoking in public places.
6. Increase taxes on cigarettes and use this revenue for anti smoking programs and smoking cessation clinics.

Recommendations for alcohol use.

1. Plan and implement school health programs to help students acquire life skills such as critical thinking and resisting peer pressure, so that they can be prevented from alcohol and drug use.
2. Increase taxes on alcohol to discourage abuse.
3. Ban all forms of advertising of alcoholic products.

Recommendations for protective factors.

1. Provide parents and guardians with support, information, skills, and resources in areas of adolescent health such as normal development, changes during puberty, HIV&AIDS, substance abuse and communication techniques.
2. Enlist the support of PTAs, NGOs, and other local organisations to reach parents.
3. Train mentors or community leaders to equip parents with child rearing skills and assist them in assuming their roles and responsibilities.
4. Include life-skills education in the curricula of primary and secondary schools, to equip students with basic life skills such as self esteem, listening skills, empathy, and resisting peer pressure.

Weighting Procedures

The weight used for estimation was calculated by the following formula:

$$W = W1 \times W2 \times f1 \times f2 \times f3$$

where:

W1 = the inverse of the probability of selecting the school;

W2 = the inverse of the probability of selecting the classroom within the school;

f1 = a school-level nonresponse adjustment factor calculated by school size category (small, medium, large). The factor was calculated in terms of school enrolment instead of number of schools.

f2 = a student-level nonresponse adjustment factor calculated by class.

f3 = a poststratification adjustment factor calculated by Form.

Survey Administrators

MAURITIUS		
	Name	Post
1	Mrs B S Appanah	Senior Community Health Nursing Officer
2	Mrs B F Auckburally	Senior Community Health Nursing Officer
3	Mrs P Dulloo	Senior Community Health Nursing Officer
4	Mrs M Théodore	Senior Community Health Nursing Officer
5	Mrs K Bheekarry	Community Health Nursing Officer
6	Mr G Dhunnookchand	Community Health Nursing Officer
7	Mrs C Ramsurn	Community Health Nursing Officer
8	Mr P K Seerattun	Community Health Nursing Officer
9	Mrs Tejwantree Mooloo	HIEC Officer
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RODRIGUES		
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1	Mr Andre Eddy	Charge Nurse NCD Unit, Queen Elizabeth Hospital
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Dr K Pauvaday	Director Health Services
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Mr P Burhoo	Research Officer, Mauritius Institute of Health
Mr D Mohee	Principal HIEC Officer

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BIBLIOGRAPHY & WEBOGRAPHY

1. The Global Youth Tobacco Survey (GYTS), Mauritius and Rodrigues, 2003.
2. Ministry of Health & Quality of Life. The Mauritius Nutrition Survey, 2004.
3. Mauritius Institute of Health. A Study on Health Risk Behaviours among Youths, 2006.
4. Anti-Bullying Centre. School Bullying: Key Facts. Trinity College, Dublin: Anti-Bullying Centre, 2002. Available on-line at www.abc.tcd.ie/school.htm.
5. WHO. *Diet, Physical Activity and Health: Report by the Secretariat*. Fifty-fifth World Health Assembly, Provisional agenda item 13.11, 2002.
6. WHO. Information Sheet on Physical Activity. Geneva, Switzerland, 2003. Available on-line at: <http://www.who.int/dietphysicalactivity/media/en/gsfspa.pdf>
7. CDC. Preventing tobacco use among Young people: A report of the Surgeon General. 1994.
8. WHO. The Tobacco Atlas. Geneva, Switzerland, 2002. Available on-line at: http://www.who.int/tobacco/resources/publications/tobacco_atlas/en/index.html
9. POIKOLAINEN K, TUULIO-HENRIKSSON A, AALTO-SETALA T, MARTTUNEN M, LONNQVIST J. Predictors of alcohol intake and heavy drinking in early adulthood: a 5-year follow-up of 15-19 year-old Finnish adolescents, *Alcohol and Alcoholism*. 36(1): 85-88, 2001.
10. BONOMO Y, COFFEY C, WOLFE R, LYNSEY M, BOWES G, PATTON G. Adverse outcomes of alcohol use in adolescents. *Addiction* 96 (10): 1485-1496, 2001.
11. Hibell B, Andersson B, Ahlstrom S, Balakireva O, Bjarnason T, Kokkevi A, Morgan M. The 1999 ESPAD Report: Alcohol and Other Drug Use Among Students in 30 European Countries. Stockholm, Sweden: Council of Europe, 2000.
12. CURRIE C, HURRELMANN K, SETTERTOBULTE W, SMITH R, TODD J, eds. *Health and Health Behaviour Among Young People*. Copenhagen, Denmark: WHO Regional Office for Europe, 2000.
13. WHO Regional Office for Europe. Young people's health in context Health Behaviour in School-aged Children (HBSC) study: international report from the 2001/2002 survey. Copenhagen, Denmark, 2004. Available on-line at: <http://www.hbsc.org/publications/reports.html>

14. BARBER BK. *Regulation, connection, and psychological autonomy: Evidence from the Cross-National Adolescent Project (C-NAP)*. Paper presented at the WHO-sponsored meeting Regulation as a Concept and Construct for Adolescent Health and Development. WHO Headquarters, Geneva, Switzerland, April 16-18, 2002.
15. WHO. Helping parents in developing countries improve adolescents' health. 2007.

QUESTIONNAIRE

2007 MAURITIUS & RODRIGUES GLOBAL SCHOOL-BASED STUDENT HEALTH SURVEY

This survey is about your health and the things you do that may affect your health. Students like you all over your country are doing this survey. Students in many other countries around the world also are doing this survey. The information you give will be used to develop better health programs for young people like yourself.

DO NOT write your name on this survey or the answer sheet. The answers you give will be kept private. No one will know how you answer. Answer the questions based on what you really know or do. There are no right or wrong answers.

Completing the survey is voluntary. Your grade or mark in this class will not be affected whether or not you answer the questions. If you do not want to answer a question, just leave it blank.

Make sure to read every question. Fill in the circles on your answer sheet that match your answer. Use only the pencil you are given. When you are done, do what the person who is giving you the survey says to do.

Here is an example of how to fill in the circles:

Fill in the circles like this



Not like this



or



Survey

1. Do fish live in water?
A. Yes

Answer sheet

1. ☒ (B) (C) (D) (E) (F) (G) (H)

Thank you very much for your help.

1. How old are you?

- A. 11 years old or younger
- B. 12 years old
- C. 13 years old
- D. 14 years old
- E. 15 years old
- F. 16 years old or older

2. What is your sex?

- A. Male
- B. Female

3. In what grade are you?

- A. Form 2
- B. Form 3
- C. Form 4

The next question asks about physical attacks. A physical attack occurs when one or more people hit or strike someone, or when one or more people hurt another person with a weapon (such as a stick, knife, or gun). It is not a physical attack when two students of about the same strength or power choose to fight each other.

4. During the past 12 months, how many times were you physically attacked?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or 7 times
- F. 8 or 9 times
- G. 10 or 11 times
- H. 12 or more times

The next 2 questions ask about physical fights. A physical fight occurs when two or more students of about the same strength or power choose to fight each other.

5. During the past 12 months, how many times were you in a physical fight?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or 7 times
- F. 8 or 9 times
- G. 10 or 11 times
- H. 12 or more times

6. During the past 12 months, how many times were you in a physical fight **on school property**?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or 7 times
- F. 8 or 9 times
- G. 10 or 11 times
- H. 12 or more times

The next 5 questions ask about **the most serious injury** that happened to you during the past 12 months. An injury is serious when it makes you miss at least one full day of usual activities (such as school, sports, or a job) or requires treatment by a doctor or nurse.

7. During the past 12 months, how many times were you seriously injured?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or 7 times
- F. 8 or 9 times
- G. 10 or 11 times
- H. 12 or more times

8. During the past 12 months, **what were you doing** when the most serious injury happened to you?

- A. I was not seriously injured during the past 12 months
- B. Playing or training for a sport
- C. Walking or running, but not as part of playing or training for a sport
- D. Riding a bicycle or scooter
- E. Riding or driving in a car or other motor vehicle
- F. Doing any paid or unpaid work, including housework, yard work, or cooking
- G. Nothing
- H. Something else

9. During the past 12 months, **what was the major cause** of the most serious injury that happened to you?

- A. I was not seriously injured during the past 12 months
- B. I was in a motor vehicle accident or hit by a motor vehicle
- C. I fell
- D. Something fell on me or hit me
- E. I was fighting with someone
- F. I was attacked, assaulted, or abused by someone
- G. I was in a fire or too near a flame or something hot
- H. Something else caused my injury

10. During the past 12 months, **how** did the most serious injury happen to you?

- A. I was not seriously injured during the past 12 months
- B. I hurt myself by accident
- C. Someone else hurt me by accident
- D. I hurt myself on purpose
- E. Someone else hurt me on purpose

11. During the past 12 months, **what was** the most serious injury that happened to you?

- A. I was not seriously injured during the past 12 months
- B. I had a broken bone or a dislocated joint
- C. I had a cut, puncture, or stab wound
- D. I had a concussion or other head or neck injury, was knocked out, or could not breathe
- E. I had a gunshot wound
- F. I had a bad burn
- G. I lost all or part of a foot, leg, hand, or arm
- H. Something else happened to me

The next 2 questions ask about bullying. Bullying occurs when a student or group of students say or do bad and unpleasant things to another student. It is also bullying when a student is teased a lot in an unpleasant way or when a student is left out of things on purpose. It is not bullying when two students of about the same strength or power argue or fight or when teasing is done in a friendly and fun way.

12. During the past 30 days, on how many days were you bullied?

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days

13. During the past 30 days, how were you bullied **most often**?

- A. I was not bullied during the past 30 days
- B. I was hit, kicked, pushed, shoved around, or locked indoors
- C. I was made fun of because of my race or color
- D. I was made fun of because of my religion
- E. I was made fun of with sexual jokes, comments, or gestures
- F. I was left out of activities on purpose or completely ignored
- G. I was made fun of because of how my body or face looks
- H. I was bullied in some other way

The next question asks about being threatened with a weapon.

14. During the past 30 days, how many times has someone threatened or injured you with a weapon, such as a gun, knife, or club, on school property?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or 7 times
- F. 8 or 9 times
- G. 10 or 11 times
- H. 12 or more times

The next 2 questions ask about avoiding and preventing accidents.

15. During this school year, were you taught in any of your classes how to avoid or prevent motor vehicle accidents?

- A. Yes
- B. No
- C. I do not know

16. During this school year, were you taught in any of your classes how to avoid or prevent other types of accidents, such as fires or poisonings?

- A. Yes
- B. No
- C. I do not know

The next 11 questions ask about cigarette and other tobacco use.

17. How old were you when you first tried a cigarette?

- A. I have never smoked cigarettes
- B. 7 years old or younger
- C. 8 or 9 years old
- D. 10 or 11 years old
- E. 12 or 13 years old
- F. 14 or 15 years old
- G. 16 years old or older

18. During the past 30 days, on how many days did you smoke cigarettes?

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days

19. During the past 30 days, did anyone ever refuse to sell you cigarettes because of your age?

- A. I did not try to buy cigarettes during the past 30 days
- B. Yes, someone refused to sell me cigarettes because of my age
- C. No, my age did not keep me from buying cigarettes

20. During the past 30 days, how much do you think you spent on cigarettes?

- A. I do not smoke cigarettes
- B. I do not buy my cigarettes
- C. Rs 100 to Rs150
- D. Rs 150 to Rs200
- E. Rs 200 to Rs250
- F. Rs 255 or more

21. During the past 30 days, on how many days did you use any other form of tobacco, such as cigars?

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days

22. During the past 12 months, have you ever tried to stop smoking cigarettes?

- A. I have never smoked cigarettes
- B. I did not smoke cigarettes during the past 12 months
- C. Yes
- D. No

23. During the past 7 days, on how many days have people smoked in your presence?

- A. 0 days
- B. 1 or 2 days
- C. 3 or 4 days
- D. 5 or 6 days
- E. All 7 days

24. Which of your parents or guardians use any form of tobacco?

- A. Neither
- B. My father or male guardian
- C. My mother or female guardian
- D. Both
- E. I do not know

25. If one of your best friends offered you a cigarette, would you smoke it?

- A. Definitely not
- B. Probably not
- C. Probably yes
- D. Definitely yes

26. Once someone has started smoking, do you think it would be difficult to quit?

- A. Definitely not
- B. Probably not
- C. Probably yes
- D. Definitely yes

27. During this school year, were you taught in any of your classes about the dangers of smoking?

- A. Yes
- B. No
- C. I do not know

The next 11 questions ask about drinking alcohol. This includes drinking beer, rum, wine, whisky, or Smirnoff. Drinking alcohol does not include drinking a few sips of wine or whisky for religious purposes.

28. How old were you when you had your first drink of alcohol other than a few sips?

- A. I have never had a drink of alcohol other than a few sips
- B. 7 years old or younger
- C. 8 or 9 years old
- D. 10 or 11 years old
- E. 12 or 13 years old
- F. 14 or 15 years old
- G. 16 years old or older

29. During the past 30 days, did anyone refuse to sell you alcohol because of your age?

- A. I did not try to buy alcohol during the past 30 days
- B. Yes, someone refused to sell me alcohol because of my age
- C. No, my age did not keep me from buying alcohol

30. During the past 30 days, on how many days did you have at least one drink containing alcohol?

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days

31. During the past 30 days, on the days you drank alcohol, how many drinks did you **usually** drink per day?

- A. I did not drink alcohol during the past 30 days
- B. Less than one drink
- C. 1 drink
- D. 2 drinks**
- E. 3 drinks
- F. 4 drinks
- G. 5 or more drinks

32. During the past 30 days, how did you **usually** get the alcohol you drank? **SELECT ONLY ONE RESPONSE.**

- A. I did not drink alcohol during the past 30 days
- B. I bought it in a store, shop, or from a street vendor
- C. I gave someone else money to buy it for me
- D. I got it from my friends
- E. I got it from home
- F. I stole it
- G. I got it some other way

33. What type of alcohol do you **usually** drink? **SELECT ONLY ONE RESPONSE.**

- A. I do not drink alcohol
- B. Beer, lager, or stout
- C. Wine
- D. Spirits, such as whiskey
- E. Rum
- F. Some other type

34. With whom do you **usually** drink alcohol?

- A. I do not drink alcohol
- B. With my friends
- C. With my family
- D. With persons I have just met
- E. I usually drink alone

35. During your life, how many times did you drink so much alcohol that you were really drunk?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 or more times

36. During your life, how many times have you ever had a hang-over, felt sick, got into trouble with your family or friends, missed school, or got into fights, as a result of drinking alcohol?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 or more times

37. If one of your best friends offered you a drink of alcohol, would you drink it?

- A. Definitely not
- B. Probably not
- C. Probably yes
- D. Definitely yes

38. During this school year, were you taught in any of your classes the dangers of alcohol use?

- A. Yes
- B. No
- C. I do not know

The next 4 questions ask about drug use.

39. During your life, how many times have you used drugs, such as brown sugar, gandia, white lady, or subutex?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 or more times

40. How old were you when you tried drugs, such as brown sugar, gandia, white lady, or subutex, for the first time?

- A. I have never tried drugs, such as brown sugar, gandia, white lady, or subutex.
- B. 7 years old or younger
- C. 8 or 9 years old
- D. 10 or 11 years old
- E. 12 or 13 years old
- F. 14 or 15 years old
- G. 16 years old or older

41. During this school year, were you taught in any of your classes the dangers of using drugs, such as brown sugar, gandia, white lady, or subutex?

- A. Yes
- B. No
- C. I do not know

42. During this school year, were you taught in any of your classes where to get help to stop using drugs, such as brown sugar, gandia, white lady, or subutex?

- A. Yes
- B. No
- C. I do not know

The next 2 questions ask about HIV infection or AIDS.

43. Can people get HIV infection or AIDS from mosquito bites?

- A. Yes
- B. No
- C. I do not know

44. Can people get HIV infection or AIDS by sharing a meal with someone who is infected?

- A. Yes
- B. No
- C. I do not know

The next 2 questions ask about physical activity.

Physical activity is any activity that increases your heart rate and makes you get out of breath some of the time. Physical activity can be done in sports, playing with friends, or walking to school. Some examples of physical activity are running, fast walking, biking, dancing, football, swimming, basketball, volleyball, badminton, table tennis, and gardening.

ADD UP ALL THE TIME YOU SPEND IN PHYSICAL ACTIVITY EACH DAY. DO **NOT** INCLUDE YOUR PHYSICAL EDUCATION OR GYM CLASS.

45. During the past **7 days**, on how many days were you physically active for a total of at least 60 minutes per day?

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days
- G. 6 days
- H. 7 days

46. During a **typical or usual** week, on how many days are you physically active for a total of at least 60 minutes per day?

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days
- G. 6 days
- H. 7 days

The next 2 questions ask about physical education and benefits of physical activity.

47. During this school year, on how many days did you go to physical education class each week?

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 or more days

48. During this school year, were you taught in any of your classes the benefits of physical activity?

- A. Yes
- B. No
- C. I do not know

The next question asks about the time you spend mostly sitting when you are not in school or doing homework.

49. How much time do you spend during a **typical or usual** day sitting and watching television, playing computer games, talking with friends, or doing other sitting activities, such as going to the cinema or playing cards?

- A. Less than 1 hour per day
- B. 1 to 2 hours per day
- C. 3 to 4 hours per day
- D. 5 to 6 hours per day
- E. 7 to 8 hours per day
- F. More than 8 hours per day

The next 2 questions ask about going to and coming home from school.

50. During the past 7 days, on how many days did you walk or ride a bicycle to and from school?

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days
- G. 6 days
- H. 7 days

51. During the past 7 days, how long did it **usually** take for you to get to and from school each day?

ADD UP THE TIME YOU SPEND GOING TO AND COMING HOME FROM SCHOOL.

- A. Less than 10 minutes per day
- B. 10 to 19 minutes per day
- C. 20 to 29 minutes per day
- D. 30 to 39 minutes per day
- E. 40 to 49 minutes per day
- F. 50 to 59 minutes per day
- G. 60 or more minutes per day

The next 5 questions ask about your experiences at school and at home.

52. During the past 30 days, on how many days did you miss classes or school without permission?

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 or more days

53. During the past 30 days, how often were most of the students in your school kind and helpful?

- A. Never
- B. Rarely
- C. Sometimes
- D. Most of the time
- E. Always

54. During the past 30 days, how often did your parents or guardians check to see if your homework was done?

- A. Never
- B. Rarely
- C. Sometimes
- D. Most of the time
- E. Always

55. During the past 30 days, how often did your parents or guardians understand your problems and worries?

- A. Never
- B. Rarely
- C. Sometimes
- D. Most of the time
- E. Always

56. During the past 30 days, how often did your parents or guardians **really** know what you were doing with your free time?

- A. Never
- B. Rarely
- C. Sometimes
- D. Most of the time
- E. Always

The next 3 questions ask about Chikungunya.

57. During this school year, were you taught how to prevent getting chikungunya?

- A. Yes
- B. No
- C. I do not know

58. How often do you or your family remove all collections of water and rubbish from your home and yard?

- A. Never
- B. At least once a week
- C. At least once every two weeks
- D. At least once every month

59. Have you seen "Ti Moris" the chikungunya prevention video on television?

- A. Yes
- B. No
- C. I do not remember

