National Report

The Curaçao Global School-based Student Health Survey (GSHS) Study 2015

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CENTERS FOR DISEASE CONTROL AND PREVENTION

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Table of Contents

Table of Contents

Executive Summary

Between October 20th and November 30th 2015, the Global School-Based Student Health Survey (GSHS) Curaçao was conducted in 27 AGO, VSBO, HAVO/VWO and SBO (first two classes) schools. This report presents the findings of this study. It provides an up-to-date view of youth health and well-being among adolescent students who attend the public education system in Curaçao. In addition, it compares our students to Caribbean states that previously participated in the GSHS study and to Dutch students who participated in a comparable survey in the Netherlands.

The study was conducted conform international GSHS guidelines that determined the methodology and conduct of the study. The results are based on a nationally representative sample of public schools in Curaçao, using the class as the primary sampling unit. A total of 3,219 students in 161 classes in 28 schools were selected to participate in the survey. The overall response rate was 83%. The participating students represent 20.9% of the total student enrolment in the 34 schools in our sampling frame. Our methods and the participation rate ensure that the precision of the survey is sufficient to obtain reliable overall estimates of the total student population that attend the public education system in Curaçao.

The main results in this report are presented for the total student population, by gender, by age and by school level. Comparisons between students in Curaçao and students in other Caribbean states that previously participated in the GSHS only consider 13- to 15-year olds to enhance comparability. For the same reason, only the first four grades of VSBO (called VMBO in the Netherlands), HAVO and VWO school levels were considered in the comparison between students in Curaçao and students the Netherlands that previously participated in a similar study, the HBSC. The following sections provide an overview of the key results per topic in brief summary points.

Family life

- Fewer than half (48.9%) of the students reported they live with both their parents. Living with both parents was less common among female students and AGO students.
- One in five (18.5%) students said they could not rely on any adults when they have personal problems. AGO students were most likely to report they could not rely on any adults.
- A small majority (64.4%) of the students reported that their parents or guardians usually really knew what they were doing with their free time.
- One-third (33.5%) of the students reported that their parents or guardians usually checked to see if their homework was done, which was more common among AGO and VSBO students.
- A majority (78.2%) of the students reported that their parents or guardians never or rarely went through their belongings without their approval. This was most common among HAVO/VWO students.
- A small majority (53.0%) of the students reported that their parents or guardians most of the time or always understood their problems and worries during the 30 days.

Executive Summary

- More than one-tenth (11.5%) of the students reported that their parents or guardians never or rarely provide for their necessities, which was more common among male and AGO students.

Peer relationships

- One in ten (10.0%) students reported they did not have any close friends. HAVO/VWO students were least likely to report they did not have any close friends.
- Almost half the students (47.6%) reported that most of the students in their school were usually kind and helpful. HAVO/VWO students were most likely to report that students in their school were usually kind and helpful.
- 15.5% of the students said they usually felt lonely. This was more common among female students than among male students. Female students' reports of loneliness increased dramatically between the age groups 12 or younger and 13- to 15- years old.

Mental Health

- 11.4% of the students reported they usually were so worried about something they could not sleep at night. This was most commonly reported by AGO students and female students of 13 years and older.
- Just over one-tenth (11.3%) of the students reported they seriously considered attempting suicide during the 12 months before the survey. This was most commonly reported among female students of 13 years and older.
- Among students who reported to have seriously considered suicide in the 12 months before the survey, 28.0% said they actually attempted suicide two or more times.

Healthy behaviours

- Although a minimum of 8 hours per night is recommended for 13- to 17-year olds to promote optimal functioning, almost one-third (34.9%) of the students said they slept 8 hours or more on an average school night. Sleeping 8 hours or more on a school night decreased with age.
- A large majority (96.1%) of students said they clean or brush their teeth daily.
- One in twelve (7.9%) students said they have never seen a dentist for a check-up, such as an exam, teeth cleaning or other dental work. This was less commonly reported by HAVO/VWO students.
- A small proportion of the students said they had not practised basic hygienic practices, such as never or rarely washing their hands before eating (12.1%), never or rarely washing their hands after using the toilet (3.7%) and never or rarely using soap when washing their hands (5.9%).
- A quarter (26.6%) of the students skipped classes without permission on one or more days during the 30 days before the survey. This was most commonly reported by AGO students.

Physical activity

- Almost one in eight (11.8%) students met the WHO recommended guideline to do at least 60 minutes of physical activity daily. Male students (14.9%) were more likely to have met this WHO guideline than female students (9.1%).

- One-third (32.3%) of the students reported they were not physically active at all for at least 60 minutes on any day during the 7 days before the survey. This was more common among female students and AGO students.
- One-fifth (20.8%) of the students reported they had not attended physical education classes during the current (2015) school year.
- A majority (61.9%) of the students reported they usually spent three or more hours per day doing sitting activities, such as watching television, playing computer games, talking with friends or doing homework when not in school. AGO students were least likely to report sedentary behaviour.

Dietary behaviours

- 3.7% of the students reported they always or most of the time went hungry during the 30 days before the survey because there was not enough food in their home. 9.3% said this happened sometimes. AGO students were most likely to report they always or most of the time went hungry during the 30 days before the survey.
- 7.3% of the students never eat breakfast and 7.6% ate breakfast infrequently during the 30 days before the survey.
- 58.3% of the male students and 61.2% of the female students said they ate fruit at least once a day during the 30 days before the survey.
- 73.4% of the male students and 71.8% of the female students said they ate vegetables at least once a day during the 30 days before the survey.
- A majority (60.9%) of the students reported drinking carbonated soft drinks daily, while 22.6% of the students drank carbonated soft drinks at least three times a day.
- A majority (69.0%) of the students reported eating fast food on one or more days during the 7 days before the survey, while 21.2% ate fast food on at least three days. Female students were more likely to have eaten fast food than their male peers.
- Relatively few students (54.0%) have been weighed or measured in the 12 months before the survey. HAVO/VWO students were more likely to report they were weighed or measured than students in the other school levels.
- Female students were more likely to report being slightly or very overweight compared to the male students (33.0% vs. 23.9%).
- Female students were also more likely than male students to report trying to lose weight (42.1% vs. 30.3%). Trying to lose weight was most common among students of 12 years and younger compared to students in the older age groups.

Sexual health and knowledge

- 38.5% of the students reported they had sexual intercourse. AGO students were more likely to ever had sexual intercourse than VSBO and HAVO/VWO students, but not more likely compared to SBO students.
- Among students who never had sexual intercourse, the main reason was that they wanted to wait until they were older (approximately 45%).

Executive Summary

- Among students who ever had sexual intercourse, 27.3% said they first had sexual intercourse at age 14 or younger.
- Among students who ever had sexual intercourse, female students were less likely than male students to have used any contraception methods, including condoms, during their last sexual intercourse.
- Among students who ever had sexual intercourse, 62.2% reported they used reliable methods of birth control, such as condoms, birth control pills or an intra-uterine device, to prevent pregnancy. Other, less reliable, birth control methods, such as withdrawal or the rhythm method, were used by 6.5% of the female students and 4.2% of the male students.
- Almost one in ten (9.1%) female students who ever had sexual intercourse said they used the morning after pill as the main method to prevent pregnancy.
- Among students who ever had sexual intercourse, 12.4% of the students said they had been pregnant or had gotten someone pregnant at least once. This was more commonly reported among female students than for male students (16.2% vs 8.8%).

Substance use

Tobacco

- One in eleven (9.0%) students reported they currently smoked. This was most common among AGO students.
- Among students who ever smoked cigarettes, the majority (60.5%) tried a cigarette before the age of 14. Early smoking onset was most common among VSBO students.

Alcohol

- Two in five (40.8%) students reported they drank alcohol in the past month, which was most commonly obtained through their families.
- One-fifth (21.6%) of the students said they had been really drunk one or more times in their life.
- 6.2% of the students reported they got in trouble with their family or friends, missed school, or got into fights as a result of drinking alcohol, which was most commonly reported by AGO students.

Drugs

- One in nine (10.9%) students said they have used marijuana one or more times during their life. 5.7% of the students reported to have used marijuana at least once during the 30 days before the survey. This was more common among male students (7.1%) than among female students (4.1%).
- Among students who had used marijuana at least once during the 30 days before the survey, 13.2% did so 20 times or more.
- A small proportion (1.7%) of the students reported they used methamphetamine, cocaine, or XTC one or more times during their life.
- Among students who ever used drugs, 29.6% of the students reported they used drugs for the first time before the age of 14.
- 3.9% of the students reported they got in trouble with their family or friends, missed school, or got into fights as a result of using drugs. This was most commonly reported by AGO students.

Violence and injuries

- A quarter (25.4%) of the students reported being bullied on one or more days during the 30 days before the survey. AGO students were more than twice as likely to report being bullied compared to HAVO/VWO students and SBO students.
- 6.1% of the students reported they belong to a violent group or gang, which was most commonly reported by AGO and VSBO students.
- One in seven (13.9%) students reported they carried a weapon, such as a knife, gun or club, on one or more days during the 30 days before the survey. Male students were twice as likely to report having carried a weapon than female students (18.5% vs. 9.1%).
- One in six (16.7%) students who said they were in a relationship reported they were hit, slapped or otherwise physically hurt by their boyfriend or girlfriend during the 12 months before the survey.
- 15.2% of the students reported they were hit, slapped or otherwise physically hurt by their parents or guardians during the 12 months before the survey.
- One in seven (14.3%) students reported they were physically attacked one or more times during the 12 months before the survey.
- 17.9% of the students reported they were involved in a fight one or more times during the 12 months before the survey. The proportion of students who reported they were involved in a fight in Curaçao was among the lowest compared to students in other Caribbean states.
- One in three (31.7%) students reported they had been seriously injured during the 12 months before the survey. Motor vehicle accidents, one of the main causes of death among adolescents, was reported to be the major cause of injury by 7.2% of the students who were seriously injured.
- Male students were more likely to report they never or rarely used a seat belt than female students (34.7% vs. 28.0%) during the 30 days before the survey.
- One in five students (21.8%) who rode in a motor vehicle driven by someone else reported they were driven by someone who had been drinking alcohol during the 30 days before the survey.

Comparison with other Caribbean states

- In comparison with the average Caribbean proportions, the overall health profile of 13- to 15-year old students in Curaçao was therefore more favourable for most of the health indicators. In other words, students in Curaçao have generally lower risks for the negative effects of most presented health behaviours compared to their Caribbean peers, with the large exception for the negative effects of insufficient physical activity.

Comparison with the Netherlands

- In Curaçao, the proportion of female students in the first four grades of VSBO and HAVO/VWO was considerably higher than the proportion of male students, while gender differences were almost absent in Dutch high schools. Students in Curaçao were also more likely than Dutch students to attend the VSBO(VMBO), and less likely to attend the higher school levels HAVO/VWO.
- Overall, the comparisons between students in Curaçao and the Netherlands show that risk factors for health and well-being were considerably less favourable for most health indicators for students

in Curaçao. In other words, students in Curaçao have generally higher risks for the negative effects of most presented health behaviours compared to their Dutch peers, with the large exception for the negative effects of tobacco and insufficient fruit and vegetable consumption.

Discussion

Male vs. female student

- Male students were more likely to report external problem behaviour, such as their involvement in violent groups and fights, weapon carrying and traffic risk behaviour. Female students were more likely to depict internal problem behaviour, such as feelings of loneliness, worrying and suicide ideation. Substance use of tobacco and alcohol was similar between the genders, while marijuana use was more common among male than among female students.
- Male and female students also did not differ in their reports of sexual intercourse. Their experience with sexual activities, however, did differ. Male students were more likely than female students to report an early onset of sexual activity (before age 14) and that they had sexual intercourse in exchange for something, such as a phone, jewellery, or money. In contrast, female students were more likely than male students to report they had been forced to have sexual intercourse, they had experience with pregnancy and that they had not used any form of contraception during the last time they had sexual intercourse.

Health behaviours change with age

- Positive health behaviours, such as sleeping 8 hours or more and daily consumption of fruits and vegetables were most common among younger students, and decreased with age.
- Experimentation with 'adult' behaviours increased with age. Older students were more likely to report tobacco, alcohol and marijuana consumption, and sexual intercourse.
- Students' reports of violence decreased with age: experiences of bullying, involvement in physical fights and experiencing physical violence during a physical attack or from their parents/guardians was more common among younger students.

Health behaviours are associated with high school level

- The health profile of students consistently improves with increasing high school level. HAVO/VWO students' health behaviour is more favourable than that of VSBO students, which in turn is more favourable than that of AGO students.
- Risk behaviours, such as skipping school, smoking, using alcohol and marijuana, weapon carrying, involvement in fights and unsafe traffic behaviour, were most common among AGO students.
- Part of the explanation of why risk behaviours were more common among AGO students was their home and social environment: AGO students were more likely than students in other school levels to report they lived in a one-parent household, could not rely on any adults when they had personal problems and had parent/guardians who did not respect their privacy and who did not provide for their necessities. AGO students were also more likely to report they were bullied, experienced forced sexual intercourse, did not have any close friends and were hungry because there was no food in their home.

- Health promotion and related programs are therefore likely to be most effective for AGO and VSBO students, simply because more students have to gain from these programs.

International comparisons

Despite the largely positive health profile of students in Curaçao in comparison with their Caribbean peers, comparisons with Dutch students were considerably less favourable for most health behaviours. The reasons for these findings cannot be discerned from our cross-sectional study and may partly reflect differences in age, gender and school level distribution between the student populations, but also more distal factors such as socio-economic conditions, cultural preferences, the implementation of health and youth policies, and combinations thereof.

Conclusions

The GSHS Curaçao provides an overview on health behaviours and protective factors of adolescents who attend the public education system in Curaçao. The information in this report is strongly encouraged to be used for setting priorities, establishing programs, and advocating for resources for school health, youth health programs and related policies. The GSHS Curaçao will be repeated every four years. Successive study cycles will allow to establish trends in the prevalence of health behaviours and protective factors among Curaçao's adolescents for use in evaluation of health policies and health promotion programs.

Chapter 1 Introduction

Adolescence represents a key period of transition within the life course, the navigation of which provides a secure basis for adult life. Poor health and well-being during the first two decades in life, arguably more than any other time during the life course, are likely to have a detrimental effect on our overall life chances; impacting educational achievement, the attainment of life goals as well as restricting emotional and social development.

Young people also hold their own generation-specific attitudes and definitions related to health and well-being which greatly influence how they perceive and act in relation to health behaviours, and which can be very different from adult perspectives. Consequently, understanding how young people experience their own health, health risks, relationships and quality of life becomes a vital task if effective health promotion and health policies are to be developed.

The Global Student-based Health Survey (GSHS) Curaçao 2015 therefore aimed to generate an overview of the current status of health and well-being among Curaçao's adolescents. This report presents the main findings of the study. It provides an up-to-date view of adolescent health behaviour and well-being in Curaçao, it compares our adolescents' health to adolescents in other Caribbean states that previously participated in the GSHS Study and to a similar survey among students in the Netherlands.

The GSHS Study

In 2001, the World Health Organization (WHO), in collaboration with UNAIDS, UNESCO, and UNICEF, and with technical assistance from the Centers for Disease Control and Prevention (CDC), initiated the development of the GSHS. 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.

To date, more than 92 countries have completed a GSHS, among which 17 other Caribbean States. Many countries have participated in more than one study cycle, so that changes in time can be monitored. More information about the GSHS Study and the country-specific results can be found on WHO's website: http://www.who.int/chp/gshs/en/.

The GSHS Curaçao

In 2015, 12,685 12- to 17-year olds were living in Curaçao, accounting for 8.1% of the population [1]. Despite several previous publications on the health and well-being of Curaçao's adolescents, information that supports policy development on a national level is considered highly fragmentary and sometimes inconsistent [2].

The main purpose of the GSHS Curaçao is to provide accurate information on health behaviours and protective factors among primarily 12- to 17-year old students in order to:

- Provide information to policymakers within the government and the educational system to help develop priorities, establish programs, and advocate for resources for school health, youth health programs and policies;

- Allow to make comparisons across countries and within countries regarding the prevalence of health behaviours and protective factors;
- Multiple study cycles will allow to establish trends in the prevalence of health behaviours and protective factors to use in the evaluation of health policies and health promotion programs.

The current GSHS Study contributes to the increased interest in the well-being of young people in Curaçao, which has been gathering momentum with the National Youth Development program 'Desaroyo di Hubentut'. This program places adolescents in the centre of national policies in order to motivate cooperation in addressing youth related priorities. So far, 'Desaroyo di Hubentut' has resulted in a number of projects, including the organization of Youth dialogues and public private partnerships.

Educational System in Curaçao

Curaçao's public educational system is largely based on the Dutch system. Secondary education begins at age 12 and is compulsory until the age of 18. This includes compulsory education for non-registered migrant children. Secondary education is offered on several levels in Curaçao, with students enrolled according to their abilities (figure 1.1).

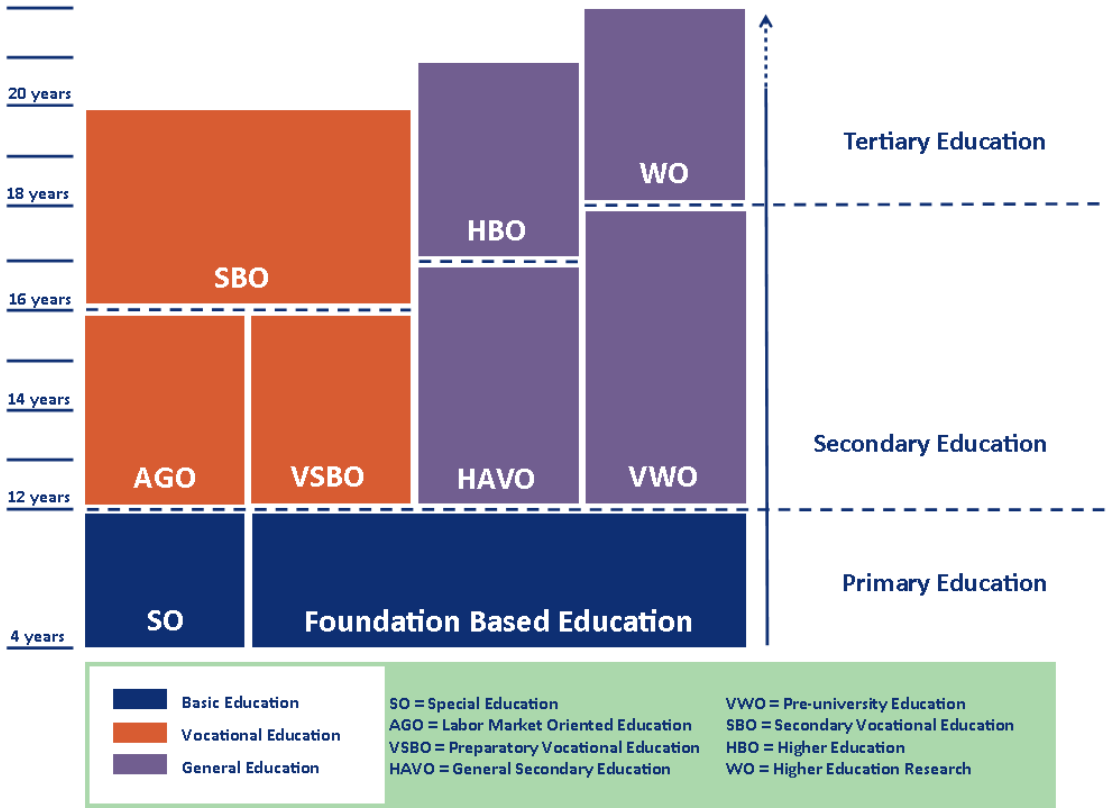


Figure 1.1 Schematic representation of the Curaçao Education System

In order to collect accurate information on health behaviours and protective factors among primarily 12- to 17-year old students, the GSHS Curaçao includes the following 5 secondary education school levels: AGO, VSBO, HAVO, VWO and -the first two classes of- SBO. AGO programs last four years and provide practical training for students with special educational needs. VSBO programs combine general and vocational training and last four years, after which a student continues the last two

compulsory school years in SBO or moves upstream to a higher school level of secondary education (HAVO/VWO). HAVO prepares students for higher education (HBO) and has five grades. VWO (six grades) is the minimal requirement for admission to a university (WO). During the Census of 2011, the youth (15- to 24-year olds) drop-out rate was estimated at 34.9% [1].

In the presentation of our results, school level differences are determined because it elucidates which types of schools are most likely to benefit from certain interventions programs and resources for school and youth health. Nonetheless, for an informative comparison there are several factors that need to be taken into account. First, the school types are not mutually exclusive in the age groups that they cover (figure 1.1). Differences among school levels, most notably the comparison of SBO students to high school (in Dutch: voortgezet onderwijs) students (AGO, VSBO, HAVO and VWO), will therefore be influenced by age differences. Second, we know from similar studies in the Netherlands that the health profile of students consistently improves with high school level. This is partly the result of differences in socio-economic environment of the students; children from affluent families are more likely to attend the higher school levels (HAVO or VWO) than children from poorer families.

Another factor that contributes to the health profile gradient across high school levels is the parenting style: parents of students in HAVO and VWO schools are less likely to allow tobacco or alcohol consumption, but are also less likely to use punishment as a disciplinary measure than parents of students in VSBO schools. Lastly, students in the lower levels of high school (AGO, VSBO) are thought to experience the transition to 'adulthood' earlier, including the display of behaviour that is interpreted as 'adult behaviour: smoking, alcohol and drug consumption and sexual activity [3].

Presentation of findings

This report consists of 14 chapters, excluding the executive summary, the references and the appendix. Chapter 2 describes the methodology and conduct of the GSHS Curaçao 2015. The results of the study are discussed in chapters 3 to 11. Per chapter, after a short introduction of the topics that will be discussed, the main results of health behaviours and protective factors among students are consistently presented by gender, age and school level. Chapter 12 present the results of the GSHS Curaçao 2015 in comparison the other Caribbean countries that have previously conducted a GSHS Study. Considering that Curaçao is part of the Kingdom of the Netherlands, health related behaviours and protective factors between Curaçao and Dutch students are compared in Chapter 13. Chapter 14 discusses the results and presents the conclusions of the GSHS Curaçao 2015.

Chapter 2 Methods and demographics

The GSHS Curaçao 2015 follows the international GSHS protocol, developed by the GSHS international network of researchers. The GSHS Study was coordinated by the Public Health Institute Curaçao (in Dutch: Volksgezondheid Instituut Curaçao). Survey administration was performed by the Central Bureau of Statistics. The Centers for Disease Control and Prevention (CDC) serves as the Data Coordination Center for all GSHS Studies conducted. As such, all data processing (scanning, cleaning, editing, and weighting) was performed by the CDC. The study methods are outlined briefly below, with a more comprehensive description available elsewhere [4].

Recruitment strategy

The GSHS Curaçao 2015 employed a two-stage cluster sample design to produce a nationally representative sample of public school students in Curaçao, using the class as the primary sampling unit.

The first-stage sampling frame consisted of all public secondary schools containing grades in which 12- to 17-year olds could reside. For Curaçao, this included all 34 public high schools and -the first two classes of- SBO schools (see appendix A). 28 schools were selected systematically with a probability proportional to their school enrolment size using a random start. The school boards representing these schools were invited to participate in the GSHS Curaçao by letter, email and follow-up. 27 schools were willing to participate in the survey. These schools were broadly representative in terms of geographical location, school level and governing school board.

The second stage of sampling included all classes in each selected school. Systematic equal probability sampling with a random start was used to select classes from each school that participated in the survey. All students in the sampled classes were eligible to participate in the GSHS. The final sample consisted of 161 classes.

Questionnaire development

The GSHS questionnaire measures behaviours and protective factors related to the leading causes of mortality and morbidity among youth and adults. The questionnaire consists of a set of questions where at least 6 of 11 modules must be used in addition to the mandatory demographic questions. In addition, the American region has collaborated via PAHO/WHO to include questions that highlight region-specific health challenges for comparative purposes. Finally, a few specific additional questions were included in consultation with the management team of the Ministry of Public Health, Environment and Nature.

The final questionnaire (in English) was translated in Papiamentu and Dutch by professional translators experienced in translating survey-questions. The initial translations were reviewed by five independent reviewers who had the target language as their mother tongue. Emphasis was placed that translation maintained the meaning of the words and phrases and that students could comprehend and easily respond to the questions. The reviewer's views and the initial translation were brought together for the final versions of the Papiamentu and Dutch questionnaire.

Methods and Demographics

The final version of the questionnaire was available in Papiamentu, Dutch and English and contained 85 questions addressing the following themes:

- Protective factors
- Mental health
- Hygiene
- Physical activity
- Dietary behaviour
- Sexual behaviour
- Tobacco use
- Alcohol use
- Drug use
- Violence and unintentional injury

To ensure that students were able to complete the questionnaire in time and were able to understand the purpose of the questions, a pilot test was undertaken with seven students of a VSBO-school. We found that the questions were comprehensible and did not make the students uncomfortable. In addition, we concluded that the questionnaire could be administered within the time frame of one classroom period. The participants' comments on (the Papiamentu version of) the questionnaire did not lead to significant adjustments.

Training of survey administrators

Fourteen survey administrators were trained during two afternoons in the week prior to the start of the survey administration. Topics included theory on the GSHS Study, quality and privacy procedures and hands-on practice with survey-materials. The large majority of the survey administrators were retired school teachers or social workers and many had extensive experience with survey administration for the Central Bureau of Statistics in Curaçao.

Survey administration and privacy

Survey administration occurred per selected class from the 20th of October to the 30th of November 2015, excluding Mondays and Fridays in order to prevent high absence rates. The date and time of survey administration were determined by preferences of the schools. The survey administrator completed a questionnaire detailing additional information on the class such as number of absences and refusals.

The procedures assuring privacy were improved through the discussions with school boards and directors, which informed the conduct of the study within schools. In order to maintain the student's confidentiality and help ensure that students were comfortable with answering personal questions in a reliable way, survey procedures were designed to protect student privacy. Students completed the self-administered questionnaire during one classroom period under "exam type conditions" and recorded their responses directly on a computer-scannable answer sheet. The survey administrator stressed that students should not write their name on the questionnaire and could choose not to answer specific questions they did not feel comfortable with. Upon completion, each student individually placed their questionnaire in a closed cardboard box handled by the survey administrator.

Consent

Two to three days before survey administration, the parents of students in the participating classes received a 'parent notification letter' with information about the GSHS study, either through their child or through the school administration. Students were able to make a decision over their participation prior to survey administration when it was explained by the survey administrator that they could withdraw from the study at any point without consequences.

Participation rate

A total of 153 classes in 27 schools participated in the GSHS Curaçao 2015. The school response rate was 96%, 27 of the 28 sampled schools participated. The student response rate was 86%, 2,772 of the 3,219 sampled students completed a questionnaire, of which 2,765 questionnaires were usable after data editing. The overall response rate was therefore (96% * 86% =) 83%.

The participating students represent 20.9% of the total student enrolment of the 34 public schools in our sampling frame. This participation rate ensures that the precision of the GSHS Curaçao is sufficient to obtain overall estimates for students with confidence intervals at ±3%.

Data processing

Data processing, including scanning of the questionnaires, cleaning and editing for inconsistencies and weighting, was conducted at CDC. Missing data were not statistically imputed. Software that takes into consideration the complex sample design of the study (SUDAAN and EPI INFO) were used to compute prevalence estimates and 95% confidence intervals. A weighting factor was applied to each student record to reflect the likelihood of sampling each student and to reduce bias by compensating for different patterns of nonresponse. The weight used for estimation is given by:

W = W1 * W2 * f1 * f2 * f3

In which:
W1 is the inverse of the probability of selecting the school
W2 is the inverse of the probability of selecting the classroom within the school
f1 is a school level nonresponse adjustment factor calculated by school size category. The factor was calculated in terms of school enrolment instead of number of schools.
f2 is a student level nonresponse adjustment factor calculated by class
f3 is a post-stratification adjustment factor calculated by grade.

Methods and Demographics

Characteristics of the students

Age and gender

After data processing and the removal of invalid questionnaires, for example due to under-completion, 2,765 students' questionnaires remained. Table 2.1 shows the participating students by gender and age. As intended, 12- to 17-year olds represent the majority of the surveyed students.

Table 2.1 Students by age and gender, number (weighted %)

	Total	Male	Female
Age			
12 or younger	260 (7.1)	112 (3.3)	137 (3.4)
13 to 15 years	1,265 (43.8)	595 (21.9)	663 (22.0)
16 and 17 years	709 (29.2)	310 (14.5)	395 (14.7)
18 years and older	521 (19.9)	210 (9.1)	309 (10.9)
Total	2,765* (100)	1,230 (48.9)	1,508 (51.1)

* 10 missing responses

School level

Table 2.2 shows the proportions of participating students by school level and gender. In line with student enrolment, VSBO students represent the majority of the surveyed students.

Table 2.2 Students by school level and gender, number and weighted %.

	Total	Male	Female
School level			
AGO	158 (7.1)	98 (4.6)	60 (2.5)
VSBO	1,471 (55.1)	704 (29.5)	767 (25.6)
HAVO/VWO	639 (22.6)	249 (9.3)	390 (13.3)
SBO (first 2 classes)	470 (15.2)	179 (6.6)	291 (8.6)
Total	2,765* (100)	1,230 (48.9)	1,508 (51.1)

*27 missing responses

As expected, SBO students are older compared to students in the other school levels. 71.1% of the participating students in the first two classes of the SBO are 18 years old or older, in contrast to 10.4% of the AGO students, 6.0% of the VSBO students and 22.9% of the HAVO/VWO students.

Presentation and interpretation of the results

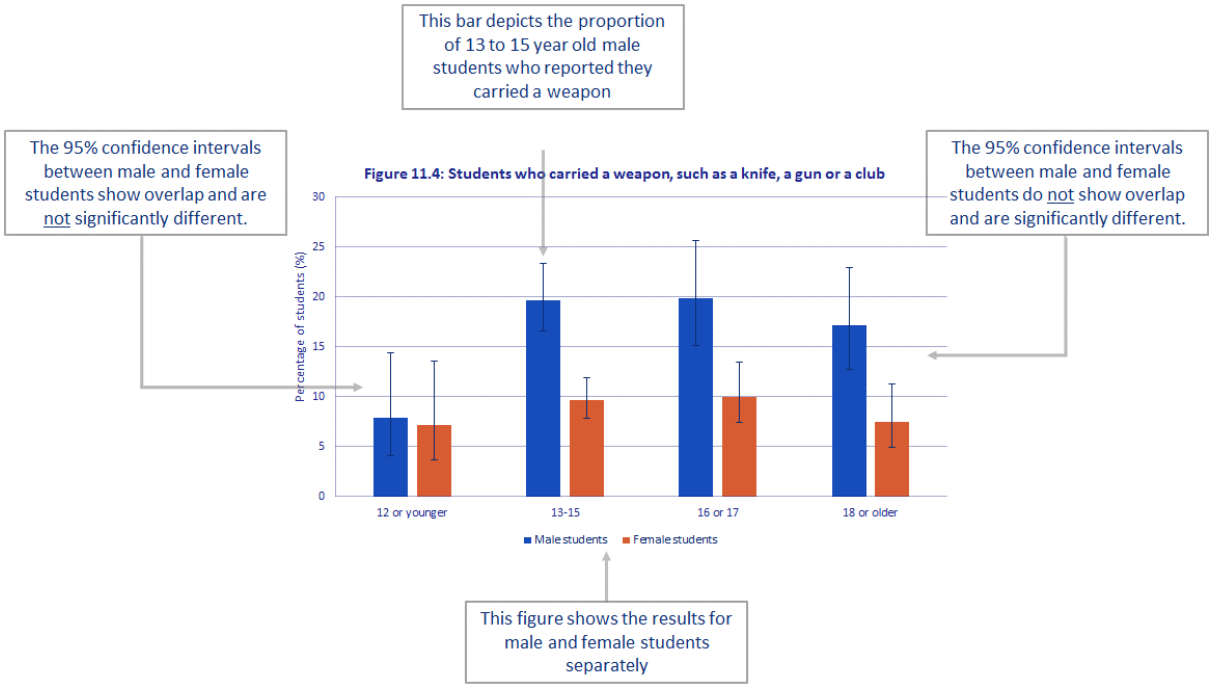
To ensure reliability of the prevalence estimates, we only report estimates for subgroups of 100 or more students. Estimates in figures are reported with 95% confidence intervals (CI's). The CI suggests that if 100 samples were drawn, the average value of the prevalence estimates for any given variable would be contained in 95 of the 100 CI's.

CI's are used as a measure of precision; a narrow CI is much more precise than a wide interval. In the example depicted in figure 2.1, we can strongly believe that approximately 10% of the 13-to 15-year

old female students showed the behaviour, but we are less certain that approximately 7% of the female students of 12 years old or younger showed the behaviour. The true proportion for female students of 12 years old or younger may have been closer to either 4% (lower limit of the CI) or 14% (higher limit of the CI).

CI's can also be used to test for statistically significant subgroup differences between any two subgroups, for example male vs. female, age-category 12 or younger vs. 18 or older and AGO students vs. VSBO students. Differences are considered significant when the 95% CI's between groups do not show any overlap. For example, in figure 2.1 the difference between male and female students is significant for students of 13 years and older.

Figure 2.1 Example of interpretation of figures in this report



For clarity CI's are not reported with the prevalence estimates in the tables and text. However, whenever differences are referred to as (statistically) significant, the CI's between the compared subgroups did not overlap. Differences that are not statistically significant are presented as 'not different'. Not because the prevalence estimates are identical, but because their CI's do not show overlap, which implies that the observed difference could have occurred from random chance.

For the international comparisons in this report, no CI's were available for prevalence estimates from several Caribbean states and the Netherlands. Description of differences among Caribbean states were therefore based on a comparison of the region-average proportions. The description of differences among students in Curaçao and the Netherlands are based on a crude comparison of the proportions.

Chapter 3 Family life

Introduction

An extensive body of research highlights the significance of family structure for adolescent health outcomes, although different cultural and social norms may result in variations of the association between family structure and health [5–9]. Current research suggests that living with both parents stimulates the positive development of children and adolescents, while living in other family structures, especially those in which multiple transitions are experienced, are linked to a higher risk of substance use disorders and depressive symptoms [10,11]. Single parent families are relatively common in Curaçao: of all households in 2011, 16.0% were headed by single mothers and 1.7% by single fathers [12].

Many studies have suggested healthier behaviour in children and adolescents who have an open communication with their parents [13,14]. Parental involvement and support is associated with lower levels of depression and suicidal ideation, alcohol use, sexual risk behaviours and violence [15]. Religion/spirituality often plays a big role in the life of adolescents and is considered a protective factor against a risk behaviour and negative health outcomes [16].

Family structure

Do you live with both your parents?

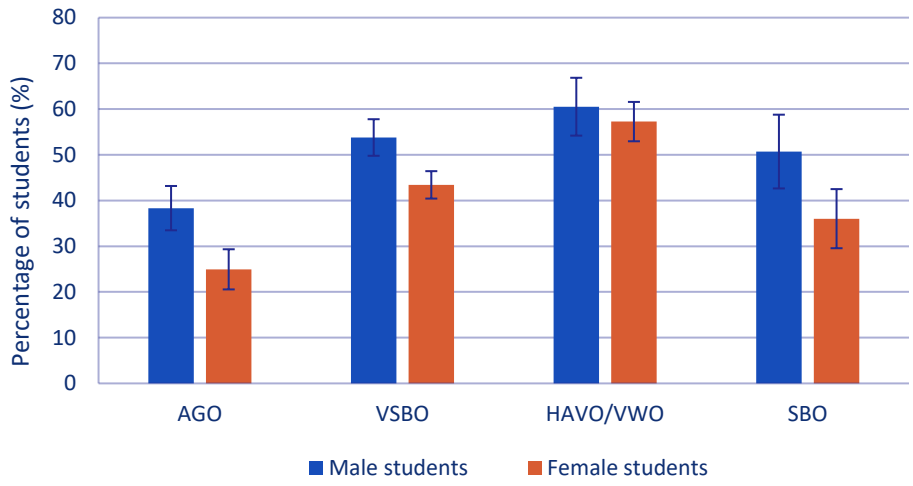
Overall, 48.9% of the students reported they live with both their parents, 39.8% with only their mother, 4.2% with only their father, 5.2% with other adult family members than their parents and 1.9% does not live with any adult family members (table 3.1).

Table 3.1 Percentage of students by family structure

	Total (%)	Male (%)	Female (%)
Both parents	48.9	53.2	45.0
Only mother	39.8	36.4	43.0
Only father	4.2	5.1	3.5
Other adult family members	5.2	4.0	6.2
No adult family members	1.9	1.3	2.4

Female students were less likely to live with both their parents compared to male students (45.0% vs. 53.2%). For both genders, no significant differences were found across the age-categories. For both genders, AGO students were least likely to live with both their parents compared to male or female students in the other three school levels (figure 3.1).

Figure 3.1: Students who live with both their parents

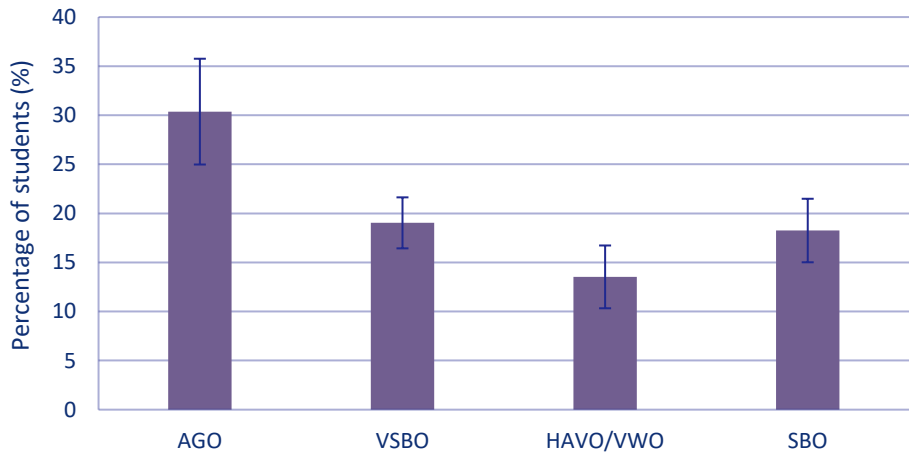


Adult support

How many adults can you rely on when you have personal problems?

Almost one in five (18.5%) students reported they could not rely on any adults when they had personal problems. Differences between the genders were small: 19.2% of the male students and 17.5% of the female students. No significant differences were found across the age-categories. The proportion of students who reported they could not rely on any adults when they had personal problems decreased with high school level (figure 3.2). AGO students were most likely to report they could not rely on any adults when they had personal problems.

Figure 3.2: Students who could not rely on any adults when they had personal problems



Family life

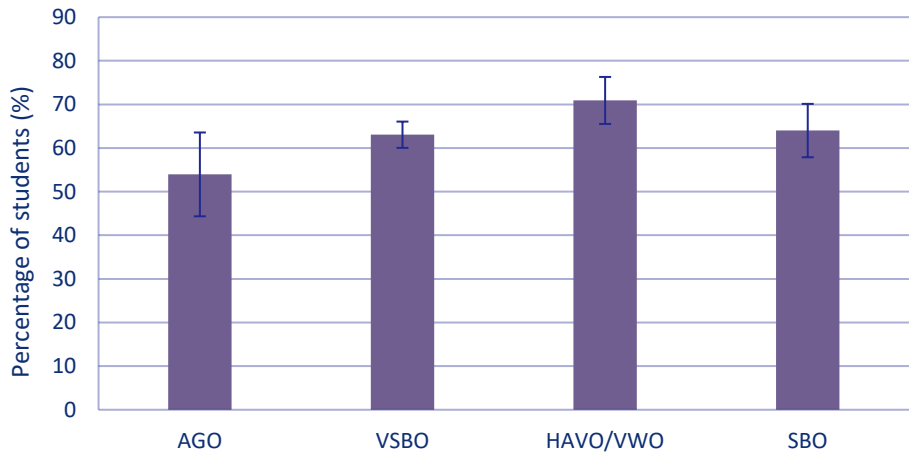
Parental involvement

Free time

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

Overall, 64.4% of the students reported that their parents or guardians most of the time or always really knew what they were doing with their free time during the 30 days before the survey. Overall, female students were more likely than male students to report that their parents or guardians knew what they were doing with their free time (66.8% vs. 61.9%). For both genders, no significant differences across the age-categories were found. HAVO/VWO students were more likely to report that their parents or guardians most of the time or always really knew what they were doing with their free time during the 30 days before the survey compared to AGO students, but not compared to VSBO and SBO students (figure 3.3).

Figure 3.3: Students with parents/guardians that most of the times or always knew what they were doing with their free time



Homework

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

One-third (33.5%) of the students reported that their parents or guardians most of the time or always checked to see if their homework was done during the 30 days before the survey. Differences between male and female students were not significant (36.9% vs. 30.5%). The proportion of students who reported they were checked to see if their homework was done decreased with age (58.9% of the 12-year olds or younger, 35.8% of the 13- to 17-year olds and 17.5% of the 18-year olds or older).

AGO and VSBO students were almost twice as likely to report that their parents or guardians most of the time or always checked to see if their homework was done than HAVO/VWO and SBO students (37.9% of the AGO students, 40.5% of the VSBO students, 22.9% of the HAVO/VWO students and 22.9% of the SBO students).

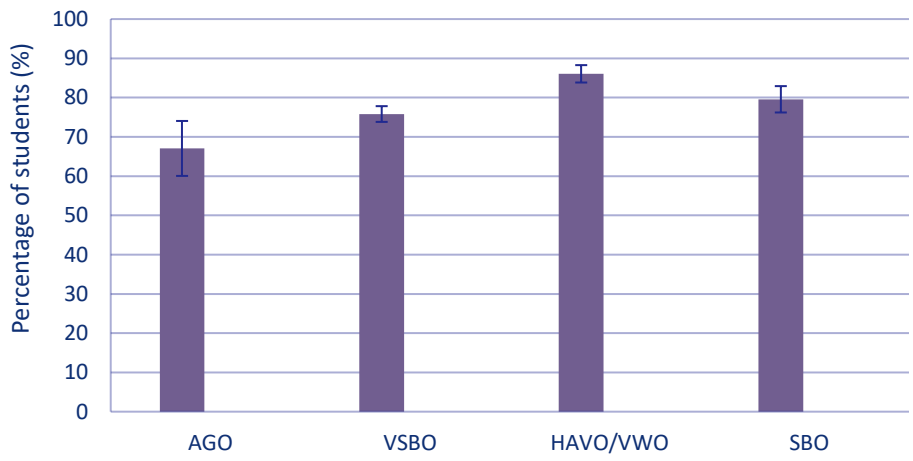
Personal space

During the past 30 days, how often did your parents or guardians go through your things without your approval?

The majority (78.2%) of the students reported that their parents or guardians never or rarely went through their things without their approval during the 30 days before the survey. Differences between male and female students were not significant (77.1% vs. 79.4%). No significant differences were found across the age-categories.

HAVO/VWO students were most likely to report that their parents or guardians never or rarely went through their things without their approval than students in other school levels (figure 3.4).

Figure 3.4: Students with parents/guardians who never or rarely went through their things without approval



Parental support

Understanding problems

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

A small majority (53.0%) of the students reported that their parents or guardians most of the time or always understood their problems and worries during the 30 days before the survey. Differences between male and female students were not significant (52.0% vs. 54.3%). No significant differences were found across the age-categories and school levels.

Almost one-third of the students reported that their parents or guardians never or rarely understood their problems and worries during the 30 days before the survey. The proportion of female students who reported that their parents or guardians understood their problems and worries was not significantly different from male students (table 3.2).

Family life

Table 3.2 Percentages of students who reported that their parents or guardians understood their problems and worries

	Total (%)	Male (%)	Female (%)
Never or rarely	30.3	31.7	28.7
Sometimes	16.7	16.3	17.0
Most of the time or always	53.0	52.0	54.3

Providing necessities

During the past 30 days, how often did your parents or guardians provide for your necessities?

Overall, 81.7% of the students reported that their parents or guardians most of the time or always provided for their necessities during the 30 days before the survey. This was more common among female students than among male students (84.0% vs. 79.1%). For both genders, no significant differences were found across the age-categories. AGO students were less likely to report that their parents or guardians most of the time or always provided for their necessities than students in other school levels, although this was only significant compared to HAVO/VWO students (71.6% of the AGO students, 81.5% of the VSBO students, 87.4% of the HAVO/VWO students and 78.5% of the SBO students).

More than one-tenth (11.5%) of the students reported that their parents or guardians never or rarely provided in their necessities during the 30 days before the survey. This was more common among male students than female students (table 3.3). For both genders, no significant differences across the age-categories were observed.

Table 3.3 Percentages of students who reported that their parents or guardians provided for their necessities

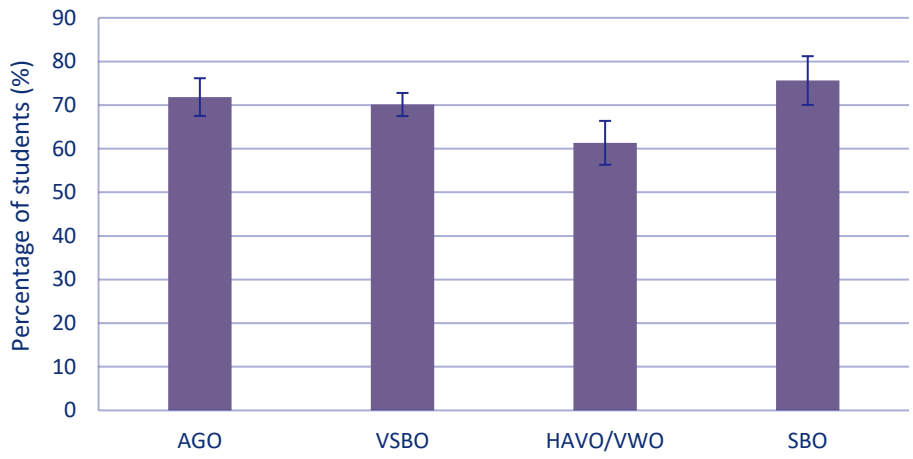
	Total (%)	Male (%)	Female (%)
Never or rarely	11.5	13.6	9.7
Sometimes	6.8	7.3	6.3
Most of the time or always	81.7	79.1	84.0

Spirituality

Do you think of yourself as a religious or spiritual person?

Overall, 69.0% of the students reported they considered themselves as a religious or spiritual person. The proportion of female students who considered themselves as a religious or spiritual person was not significantly different from male students (70.7% vs. 66.8%). No significant differences across the age-categories were found. HAVO/VWO students were less likely to think of themselves as religious or spiritual compared to students in the other school levels (figure 3.5).

Figure 3.5: Students who considered themselves religious or spiritual



Chapter 4 Peer relationships

Introduction

Friendships play a crucial role in adolescent's development, especially in helping an adolescent define their own identity by offering a safe environment in which new ideas and opinions can be tried out. Interaction with friends also tends to improve social skills and strengthen the ability to cope with stressful events. Adolescents who are not liked or accepted by peers 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 [6]. Adolescents who live in a social environment which provides meaningful relationships, encourages self-expression, and also provides structure and boundaries, are less likely to initiate sex at a young age, less likely to experience depression, and less likely to use substances [17].

Friendships

How many close friends do you have?

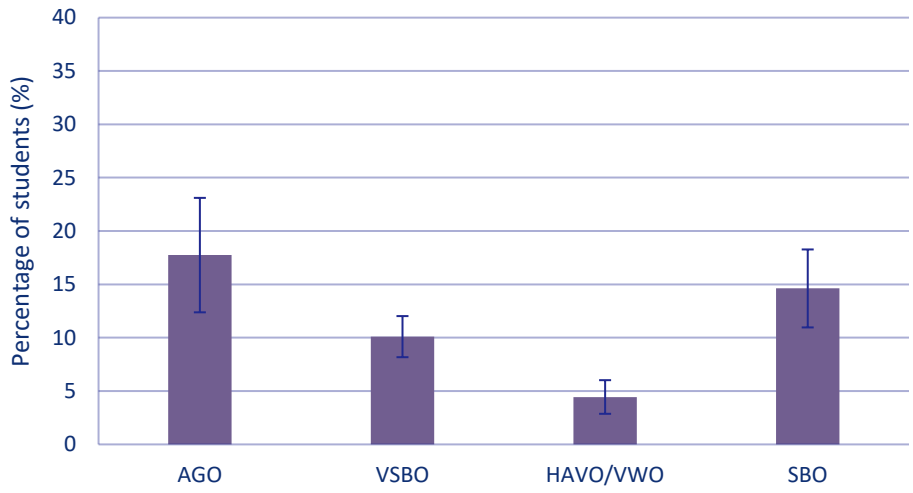
One in ten (10.0%) students reported they did not have any close friends (table 4.1). Differences between the genders were not significant: 10.2% of the male students and 9.9% of the female students said they did not have close friends. No significant differences were found across the age-categories.

Table 4.1 Students' reports on number of close friends

Number of friends	Total (%)	Male (%)	Female (%)
0	10.0	10.2	9.9
1	15.4	11.8	18.8
2	21.6	18.4	24.8
3 or more	53.0	59.6	46.5

HAVO/VWO students were less likely to report not having any close friends than students in the other three school levels (figure 4.1).

Figure 4.1: Students who had no close friends



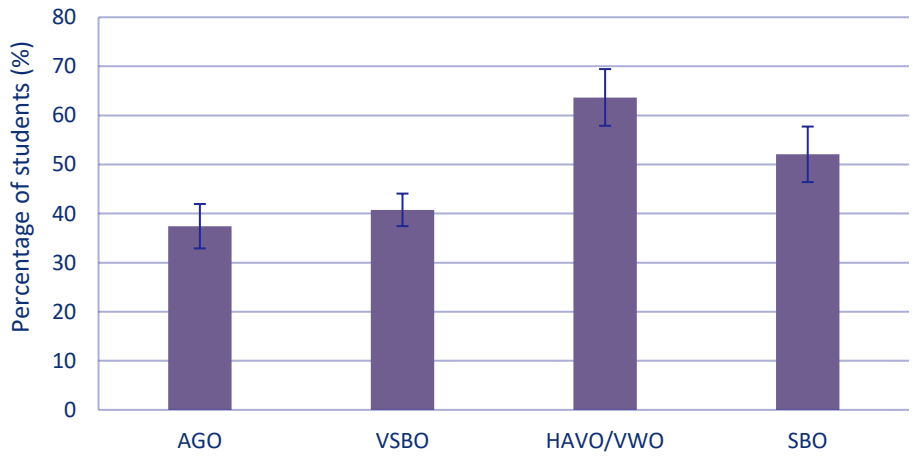
Relationships with peer students

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

Almost half the students (47.6%) reported that most of the students in their school were most of the time or always kind and helpful. Overall, gender differences were not significant: 46.7% of the male students compared to 48.6% of the female students). No differences were found across the different age-categories.

HAVO/VWO students were most likely to report that most of the students in their school were kind and helpful than students in the other school levels (figure 4.2).

Figure 4.2: Students who most of the time or always felt their peer students to be kind and helpful



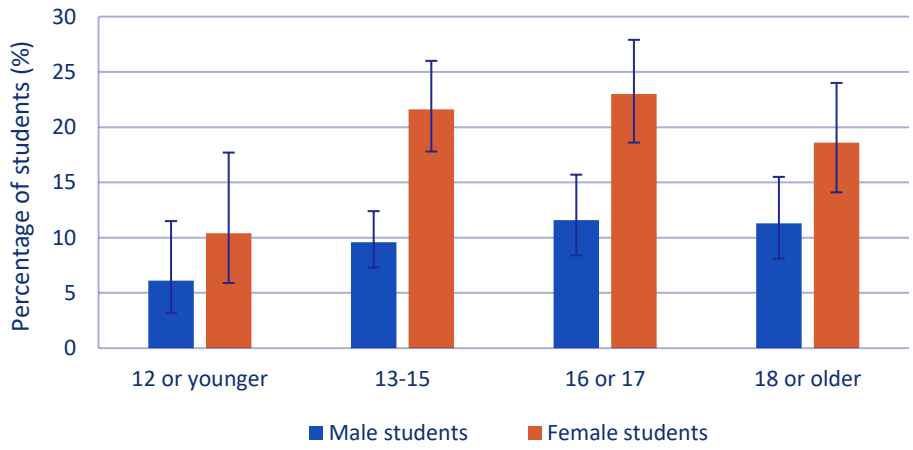
Peer relationships

Loneliness

During the past 12 months, how often have you felt lonely?

Overall, 15.5% of the students reported to have felt lonely most of the time or always during the 12 months before the survey. Female students were more likely to report feeling of loneliness than male students (20.6% vs. 10.2%). Male students' reports of loneliness showed no significant differences across the age-categories. Female students' reports of loneliness showed a dramatic increase between the two youngest age-categories (figure 4.3). No differences were found across the across the different school levels.

Figure 4.3: Students who most of the time or always felt lonely during the past 12 months



Chapter 5 Mental Health

Introduction

Every country and culture has adolescents struggling with mental health problems. The most common mental health problems among adolescents are anxiety disorders, depression and other mood disorders, and behavioural and cognitive disorders. Most mental disorders, such as bipolar disorder and schizophrenia, start during adolescence, although they are often diagnosed later in life [18].

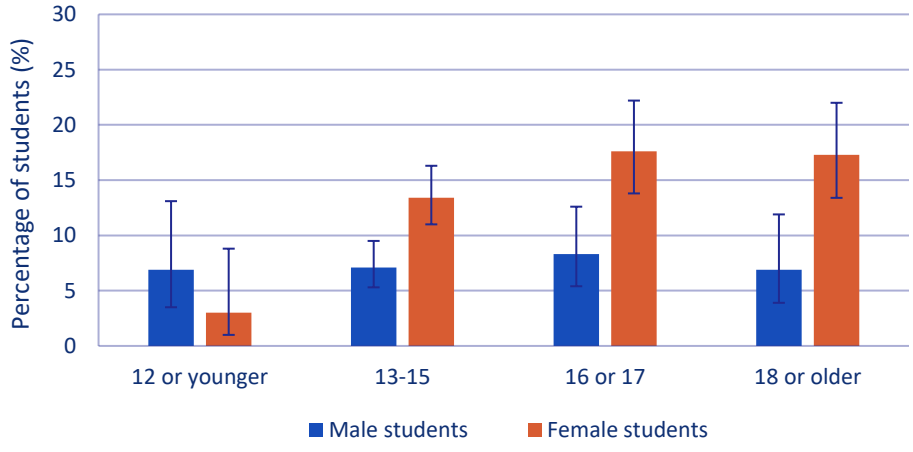
Many of the adolescents who struggle with their mental health, suffer needlessly; unable to access appropriate resources for the recognition, support, and treatment of their illness. Ignored, these adolescents are at high risk for abuse and neglect, suicide, alcohol and other drug use, school failure, violent and criminal activities, mental illness in adulthood, and health-jeopardizing impulsive behaviours [19]. Globally, suicide is the third leading cause of death among adolescents [20].

Worrying

During the past 12 months, how often have you been so worried about something that you could not sleep at night?

Overall, 11.4% of the students reported most of the time or always being so worried about something they could not sleep at night during the 12 months before the survey. Feeling worried to the extent that they could not sleep at night was more common among female students (14.7%) than among male students (7.5%). For female students, feeling worried increased by fourfold across the two youngest age-categories, whereas for male students no significant age-differences were found (figure 5.1).

Figure 5.1: Students who most of the time or always were so worried they could not sleep at night



AGO students were most likely to report feeling worried most of the time or always to the extent they could not sleep (17.4% of the AGO students, 12.1% of the VSBO students, 7.3% of the HAVO/VWO students and 12.1% of the SBO students).

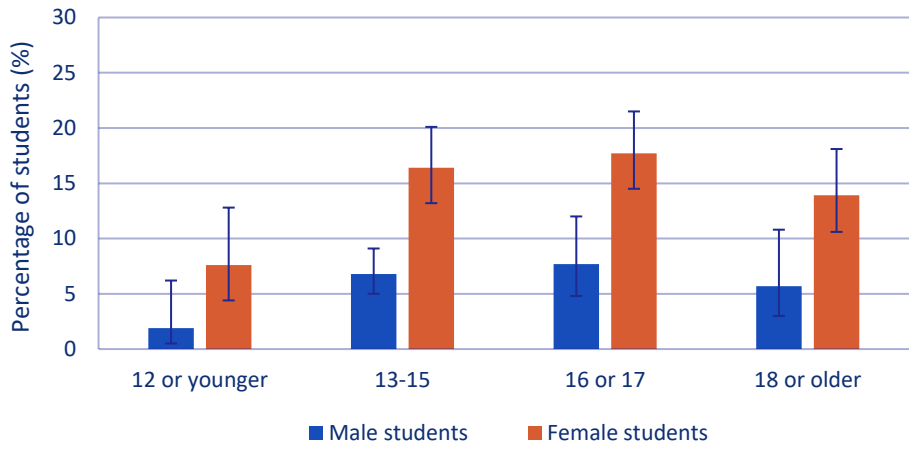
Mental health

Suicide ideation and attempts

- *During the past 12 months, did you ever seriously consider attempting suicide?*
- *During the past 12 months, how many times did you actually attempt suicide?*

Just over one-tenth (11.3%) of the students reported they seriously considered attempting suicide during the 12 months before the survey. Female students were more likely to report seriously considering suicide than male students (15.6% vs. 6.5%). Male students' reports of considering suicide showed no significant differences across the age-categories. Female students' reports of considering suicide showed a dramatic increase between the two youngest age-categories (figure 5.2). No significant differences across the different school levels were found.

Figure 5.2: Students who seriously considered attempting suicide



Among students who reported seriously considering suicide during the 12 months before the survey, 50.7% said they actually attempted suicide on one or more occasion (table 5.1). No significant differences across the age-categories and school levels were found.

Table 5.1 Students' reports on number of suicide attempts, among students who seriously considered suicide during the past 12 months

Number of attempts	Total (%)	Male (%)	Female (%)
0 times	49.3	60.8	45.0
1 time	22.7	17.8	24.5
2 or more times	28.0	21.4	30.5

Chapter 6 Healthy behaviours

Introduction

Lack of sleep, or poor sleep, has been associated with poorer health and well-being, including an increased risk of obesity [21], reduced memory skills [22] and lower decreased physical activity [23]. Sufficient sleep is also important for school performance [24]. The amount of sleep needed for optimal functioning varies by age, but a minimum of 8 hours per night is recommended for 13- to 17-year olds [25].

Dental caries affect between 60-90% of children in developing countries and are more prevalent among poor and disadvantaged population groups[26]. In addition to causing pain and discomfort, poor oral health can affect children's ability to communicate and learn. More than 50 million school hours are lost annually because of oral health problems [27].

Hygiene education and the promotion of hand-washing can reduce the number of diarrheal cases by 45% [28]. About 400 million school-aged children are infected with worms worldwide. These parasites consume nutrients from children they infect, cause abdominal pain and malfunction, and can impair learning by slowing cognitive development [29]. For most adolescents, school is the most important setting outside of the family. School attendance is related to the prevalence of several health risk behaviours including violence and sexual risk behaviours [30].

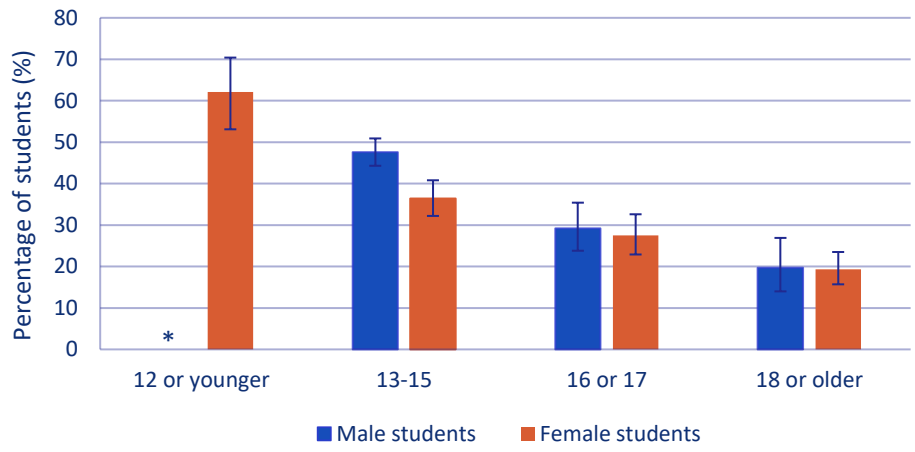
Sleep

On an average school night, how many hours of sleep do you get?

One third (34.9%) of the students reported they slept the recommended minimum of 8 hours or more on an average school night, 26.6% said they slept 7 hours and 38.5% said they slept 6 hours or less. The proportion of students who slept 8 hours or more during an average school night was not significantly different between male students and female students (38.1% vs. 31.7%). For both genders, the likelihood of reporting sleeping 8 hours or more on an average school night decreased with age (figure 6.1).

Healthy behaviours

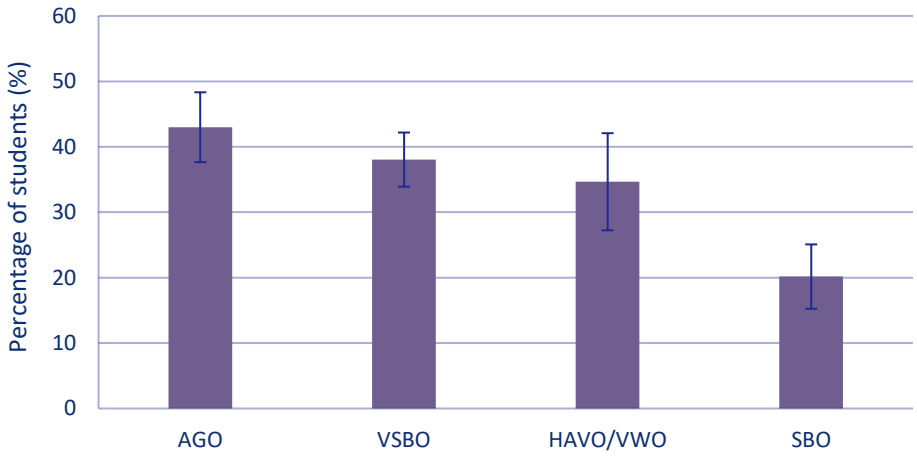
Figure 6.1: Students who slept 8 hours or more during an average school night



* Based on less than 100 observations and therefore not reported

SBO students were less likely to report sleeping 8 hours or more than students in other school levels (figure 6.2), which is likely related to their older average age compared to high school students.

Figure 6.2: Students who slept 8 hours or more on an average school night



Dental care

- *During the past 30 days, how many times per day did you usually clean or brush your teeth?*
- *How would you describe the health of your teeth?*
- *When was the last time you saw a dentist for a check-up, exam, teeth cleaning, or other dental work?*

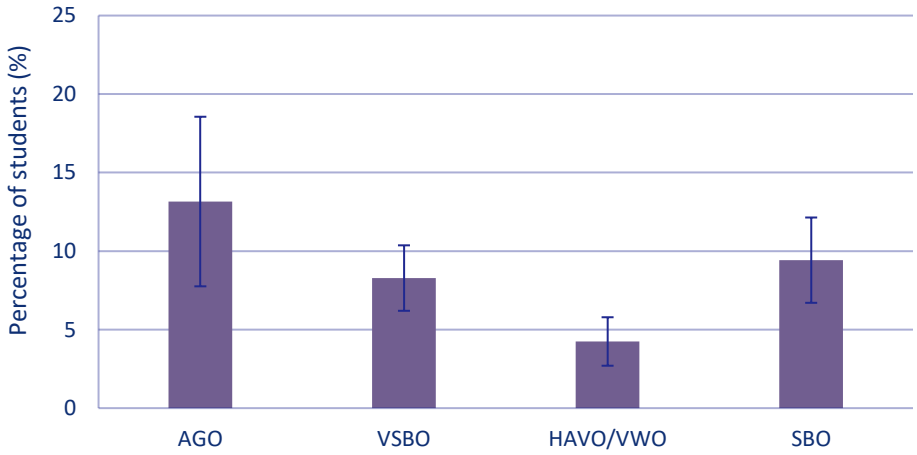
Overall, the majority (96.1%) of the students reported they usually clean or brush their teeth one or more times a day during the 30 days before the survey. The proportion of female students who reported that they usually clean or brush their teeth one or more times a day was not significantly

different from male students (95.4% vs. 96.9%). No significant differences were found across the age-categories and school levels.

Overall, three-quarters (74.5%) of the students described the health of their teeth as excellent, very good or good. The proportion of female students who described the health of their teeth as excellent, very good or good was not significantly different from male students (75.4% vs. 73.8%). No significant differences were found across the age-categories and school levels.

One in twelve (7.9%) students reported they have never seen a dentist for a check-up, such as an exam, teeth cleaning or other dental work. The proportion of female students who reported they have never seen a dentist for a check-up was not significantly different from male students (7.1% vs. 8.5%). No significant differences were found across the age-categories. HAVO/VWO students were less likely to have never seen a dentist for a check-up compared to students in other school levels (figure 6.3).

Figure 6.3: Students who have never seen a dentist for a checkup



Hygiene

- *During the past 30 days, how often did you wash your hands before eating?*
- *During the past 30 days, how often did you wash your hands after using the toilet or latrine?*
- *During the past 30 days, how often did you use soap when washing your hands?*

Overall, one in eight (12.1%) students reported they never or rarely washed their hands before eating during the 30 days before the survey. This was not significantly different between male and female students (10.3% vs. 13.8%). No significant differences across the age-categories or school levels were observed.

Overall, a small proportion (3.7%) of the students reported they never or rarely washed their hands after using the toilet during the 30 days before the survey. This was not significantly different between male and female students (4.1% vs. 3.1%). No significant differences across the age-categories or school levels were observed.

Healthy behaviours

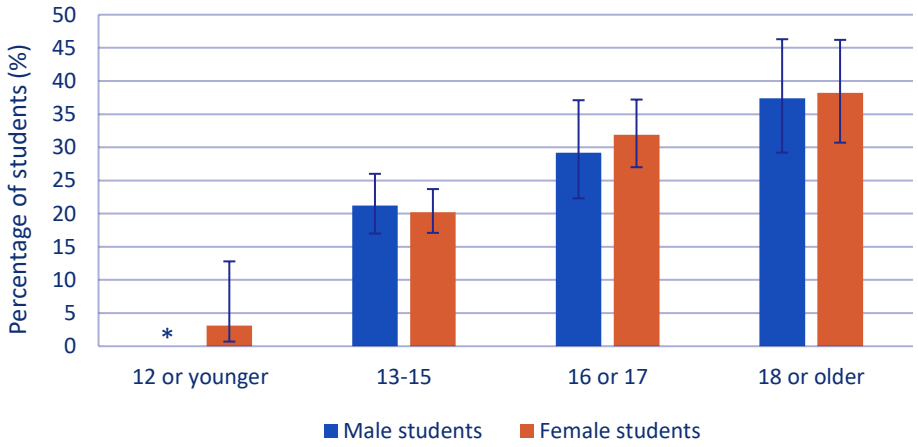
When washing their hands, overall 5.9% of the students never or rarely used soap during the 30 days before the survey. The proportion of male students who reported they never or rarely used soap was not significantly different from female students (6.1% vs. 5.8%). No significant differences across the age-categories or school levels were observed.

Skipping school

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

Overall, a quarter (26.6%) of the students missed or skipped classes without permission on one or more days during the 30 days before the survey. Differences between male and female students were not significant (26.1% vs. 26.6%). For both genders, skipping school without permission increased with age (figure 6.4).

Figure 6.4: Students who missed classes without permission on one or more days



* Based on less than 100 observations and therefore not reported

AGO students were more likely to report missing or skipping classes without permission than students in the other school levels, although this was only significant compared to VSBO and HAVO/VWO students (41.8% of the AGO students, 24.8% of the VSBO students, 20.1% of the HAVO/VWO student and 35.4% of the SBO students.

Overall, one-tenth (10,1%) of the students missed or skipped classes without permission on three days or more during the 30 days before the survey (table 6.1).

Table 6.1 Students who missed classes without permission on one or more days

Number of days	Total (%)	Male (%)	Female (%)
0 days	73.4	73.9	73.4
1 or 2 days	16.4	15.9	16.8
3 to 5 days	6.6	6.7	6.3
6 to 9 days	1.8	1.7	2.0
10 or more days	1.7	1.9	1.5

Chapter 7 Physical activity

Introduction

Adolescents are recommended by the World Health Organization to do at least 60 minutes of moderate- to vigorous-intensity physical activity daily [31]. The health benefits of participating in adequate physical activity are multiple: it helps build and maintain healthy bones and muscles, control weight, reduce blood pressure, ensure a healthy blood profile, reduce fat and promote psychological well-being. Participating in adequate physical activity throughout the life span and maintaining normal weight are also the most effective ways of preventing many chronic diseases, including cardiovascular disease and diabetes [32]. Patterns of physical activity acquired during childhood and adolescence are more likely to be maintained throughout life. Sedentary behaviour adopted at a young age is therefore likely to persist [33].

Physical activity

- *During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day?*
- *During the past 7 days, on how many days did you walk or ride a bicycle to or from school?*

Overall, 11.8% of the students met the WHO recommended guideline to daily do at least 60 minutes of physical activity during the 7 days before the survey (table 7.1). Male students were more likely to meet this guideline than female students (14.9% vs. 9.1%). No significant differences were found across the age-categories.

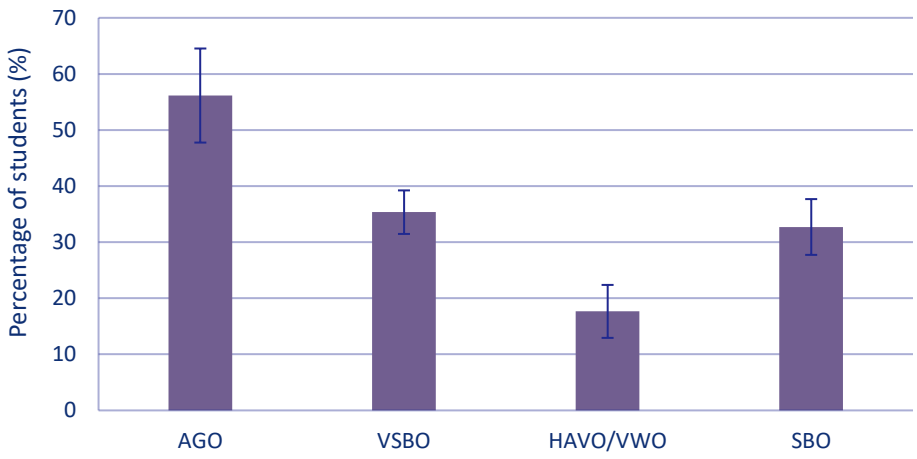
Table 7.1 Physical activity for a total of at least 60 minutes during the past 7 days

	Total (%)	Male (%)	Female (%)
0 days	32.3	27.8	36.1
1-2 days	30.9	27.6	34.1
3 or more days	36.8	44.6	29.8
5 or more days	19.4	25.1	14.5
7 days	11.8	14.9	9.1

Overall, one-third (32.3%) of the students reported they were not physically active at all for at least 60 minutes on any day during the 7 days before the survey. Female students were more likely to report physical inactivity than male students (36.1% vs. 27.8%). No significant differences were found across the age-categories. When school level was taken into account, physical inactivity was less common among HAVO/VWO students than among students in other school levels (figure 7.1).

Physical activity

Figure 7.1: Students who were not physically active for at least 60 minutes a day during the past 7 days



Half (50.6%) of the students reported they did not walk or ride a bicycle to or from school during the 7 days before the survey. Female students were more likely to report they did not walk or ride a bicycle to or from school than male students (54.2% vs. 46.2%). For both genders, no significant differences were found across the different age-categories. HAVO/VWO students were least likely to report walking or driving a bicycle to or from school during the 7 days before the survey compared to students in the other school levels (40.9% of the AGO students, 47.1% of the VSBO students, 69.1% of the HAVO/VWO students and 37.4% of the SBO students).

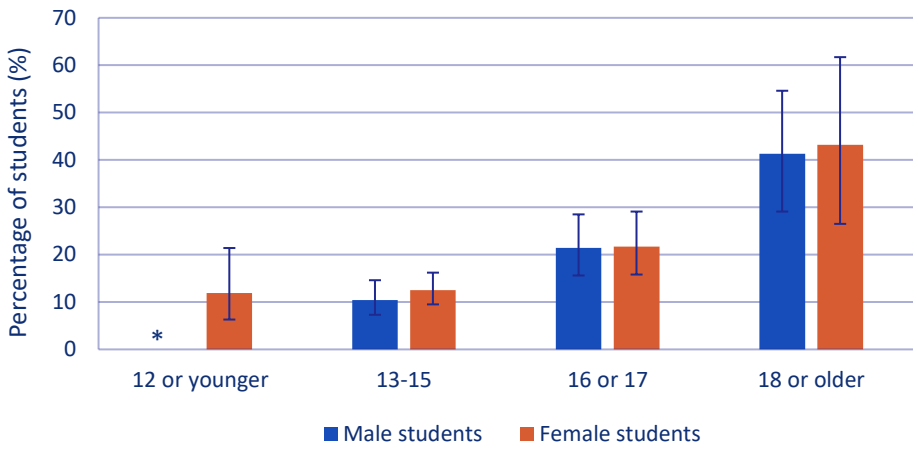
Physical education classes

During this school year, on how many days did you go to physical education (PE) class each week?

One-third (32.6%) of the students reported to have attended physical education classes on three or more days each week during the current school year. The proportion of male students who reported they attended physical education classes on three or more days each week was not significantly different from female students (35.6% vs. 29.8%). No significant differences were observed across the age-categories. SBO students were less likely to report attending physical education classes on three or more days each week during the current school year than students in other three school levels (37.7% of the AGO students, 37.1% of the VSBO students, 33.1% of the HAVO/VWO students and 13.3% of the SBO students).

One-fifth (20.8%) of the students reported to have not attended physical education classes during the current school year. Differences between male and female students were not significant (19.8% vs. 21.9%). For both genders, not having attended physical education during the current school year increased with age (figure 7.2). HAVO/VWO students were less likely to report not having attended any physical education classes than students in the other three school levels (19.5% of the AGO students, 13.6% of the VSBO students, 6.6% of the HAVO/VWO students and 68.5% of the SBO students).

Figure 7.2: Students who did not attend physical education class in the current school year



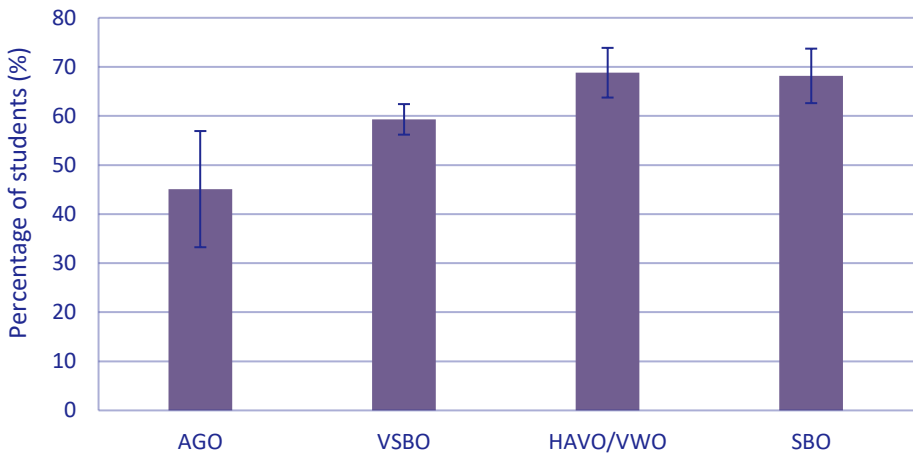
* Based on less than 100 observations and therefore not reported.

Sedentary behaviour

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 playing domino?

Overall, 61.9% of the students reported they spent three or more hours per day doing sitting activities, such as watching television, playing computer games, talking with friends or doing homework when not in school during a usual day. The proportion of male students who reported they spent three or more hours per day doing sitting activities was not significantly different from female students (62.1% vs. 61.5%). No significant differences were found across the age-categories. AGO students were least likely to report spending three or more hours per day doing sitting activities compared to students in the other school levels (figure 7.3).

Figure 7.3: Students who spent three or more hours per day doing sitting activities



Chapter 8 Dietary behaviours

Introduction

As adolescents move through adolescence they begin to have more control over their nutrition choices. The choices they make, are often carried through in adulthood [34]. A balanced diet during adolescence is important for good health and development, and can prevent health problems such as obesity, heart disease, diabetes and some types of cancer. A healthy diet should include daily breakfast, which has been associated with healthy bodyweight, better school performance and life satisfaction [35]. Nutritional deficiencies, such as protein-energy malnutrition, iron, vitamin A, and iodine deficiency, directly affects school participation and learning [36].

Experiencing hunger

During the past 30 days, how often did you go hungry because there was not enough food in your home?

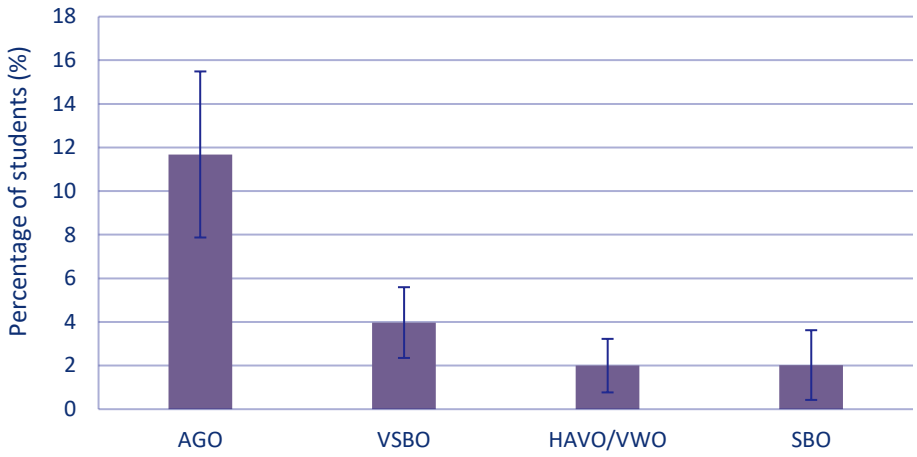
Overall, 3.7% of the students reported they went hungry most of the time or always because there was not enough food in their home during the 30 days before the survey. The proportion of male students who reported they went hungry most of the time or always was not significantly different from female students (table 8.1). No significant differences were found across the age-categories.

Table 8.1 Experiencing hunger because there was not enough food in the house during the 30 days before the survey

	Total (%)	Male (%)	Female (%)
Never	74.8	74.9	75.0
Rarely	12.1	12.2	12.1
Sometimes	9.3	9.0	9.7
Most of the time	2.2	2.2	2.0
Always	1.5	1.8	1.2

Students' reports of experiencing hunger most of the time or always were most common among AGO students: 1 in 8 AGO students said they were hungry most of the time or always because there was not enough food in their home (figure 8.1).

Figure 8.1: Students who most of the time or always went hungry because there was not enough food in their home



Eating breakfast

During the past 30 days, how often did you eat breakfast?

Around two thirds (65.3%) of the students reported eating breakfast most of the time or always during the 30 days before the survey (table 8.2). The proportion of male students who reported eating breakfast most of the time or always was not significantly different from female students (67.5% vs. 63.3%). No significant differences were found across the age-categories.

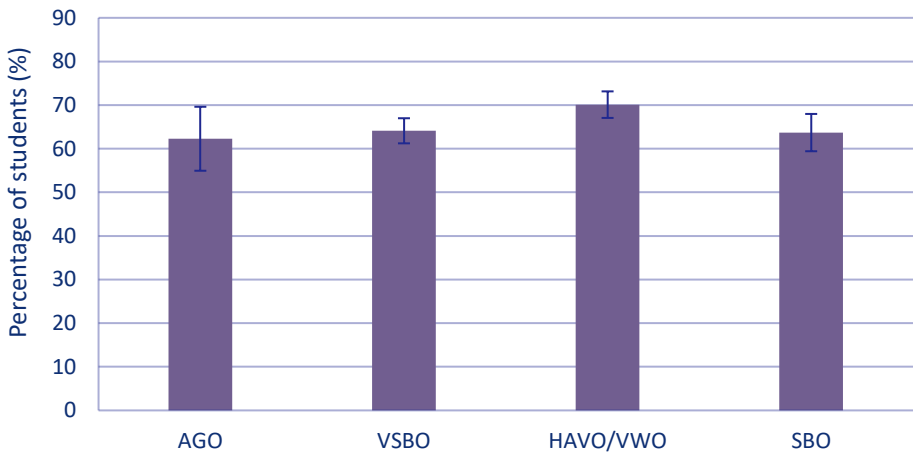
Table 8.2 Breakfast consumption during the 30 days before the survey

	Total (%)	Male (%)	Female (%)
Never	7.3	8.6	6.0
Rarely	7.6	6.6	8.4
Sometimes	19.8	17.3	22.2
Most of the time	22.2	22.2	22.5
Always	43.1	45.3	40.9

Relative small differences were found when school level was taken into account, although the difference between HAVO/VWO students and VSBO students is significant (figure 8.2).

Dietary behaviours

Figure 8.2: Students who ate breakfast most of the time or always



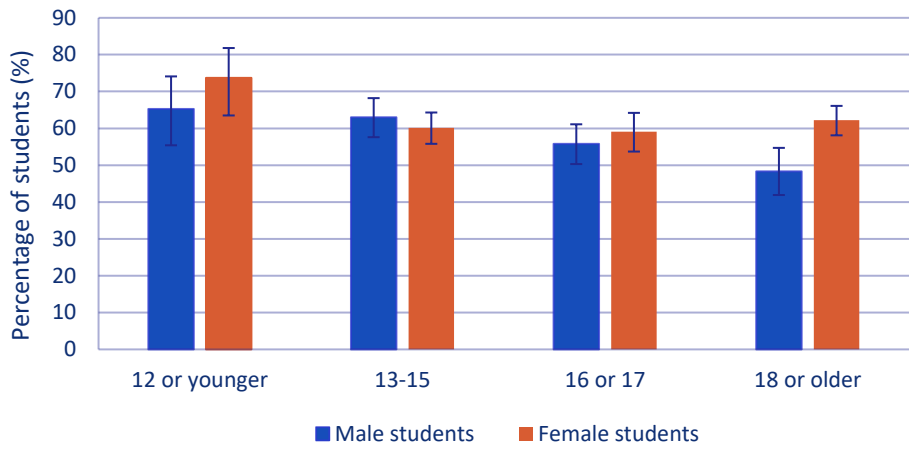
Overall, 7.3% of the students said they never eat breakfast and 7.6% reported they rarely eat breakfast. Male students were more likely to report never eating breakfast than their female peers (8.6% vs. 6.0%), while rarely eating breakfast was more common among female students (6.6% vs. 8.4%). No significant differences were found across the age-categories.

Fruit and vegetable consumption

- *During the past 30 days, how many times per day did you usually eat fruit?*
- *During the past 30 days, how many times per day did you usually eat vegetables?*

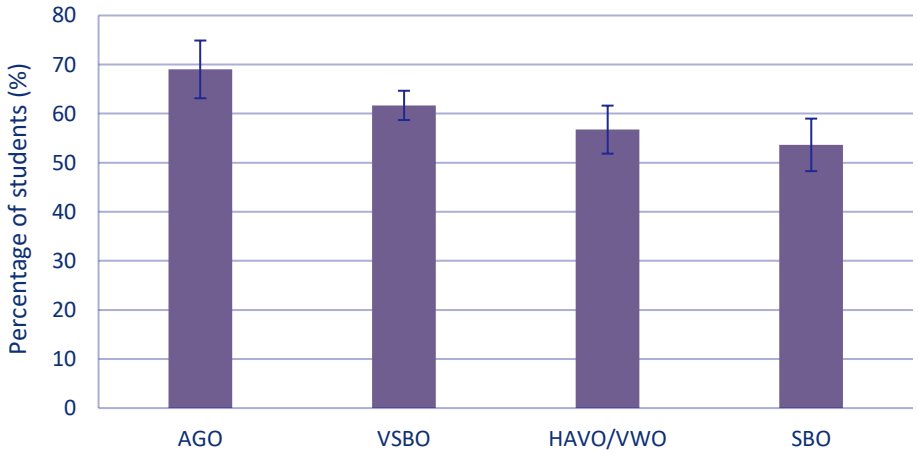
Overall, 59.9% of the students reported eating fruit one or more times a day, 24.2% of the students reported eating fruit less than once a day and 16.0% of the students reported they did not eat fruit during the 30 days before the survey. The proportion of male students who reported eating fruit at least once a day was not significantly different from female students (58.3% vs. 61.2%). For male students, but not for female students, eating fruit at least once a day decreased with age (figure 8.3).

Figure 8.3: Students who usually ate fruit one or more times per day



AGO students were more likely to have eaten fruit one or more times a day than students in other school levels, although this was not significantly different compared to VSBO students (figure 8.4).

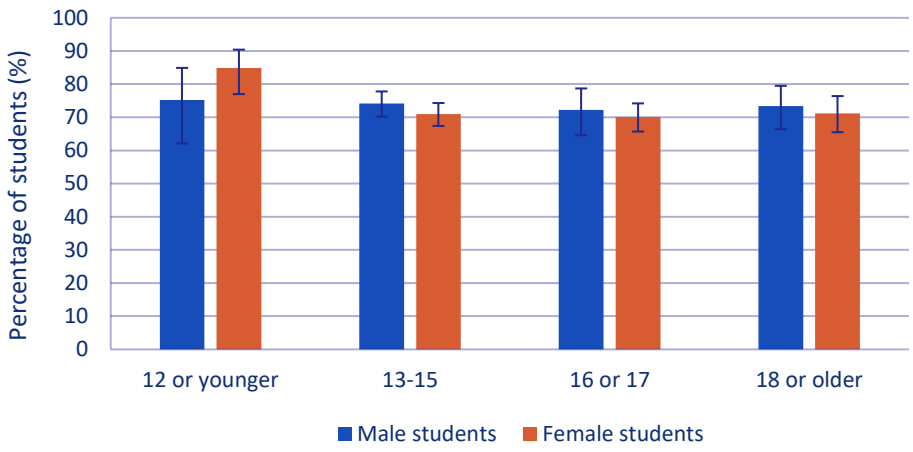
Figure 8.4: Students who usually ate fruit one or more times per day



Overall, vegetable consumption was higher than fruit consumption: 72.4% of the students reported eating vegetables one or more times a day, 16.0% of the students reported eating vegetables less than once a day and 11.6% said they did not eat vegetables during the 30 days before the survey. Similar to fruits, gender differences were not significant: 73.4% of the male students and 71.8% of the female students said they ate vegetables at least once a day. Younger female students were more likely to report eating vegetables daily compared to their older peers (figure 8.5).

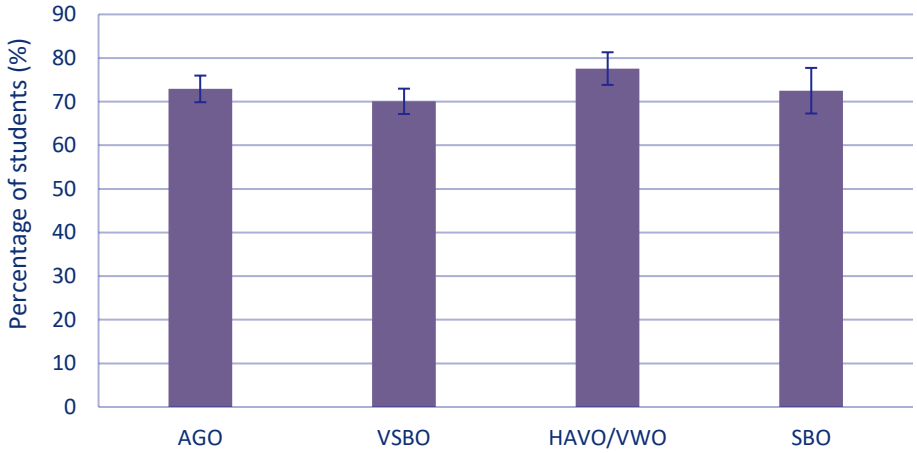
Dietary behaviours

Figure 8.5: Students who usually ate vegetables one or more times per day



Relative small differences were found between the proportions of students who usually ate vegetables one or more times a day when school level was taken into account, although the difference between HAVO/VWO students and VSBO students was significant (figure 8.6).

Figure 8.6: Students who usually ate vegetables one or more times per day

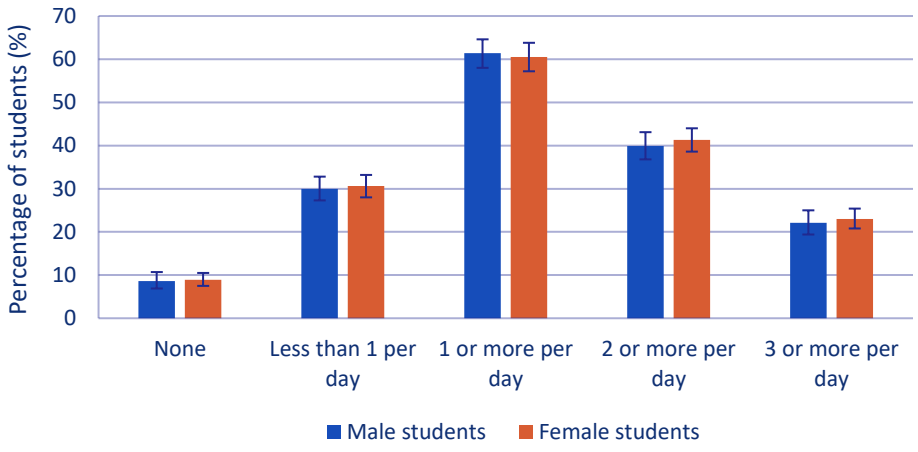


Consumption of soft drinks

During the past 30 days, how many times per day did you usually drink carbonated soft drinks? (Diet soft drinks not included)

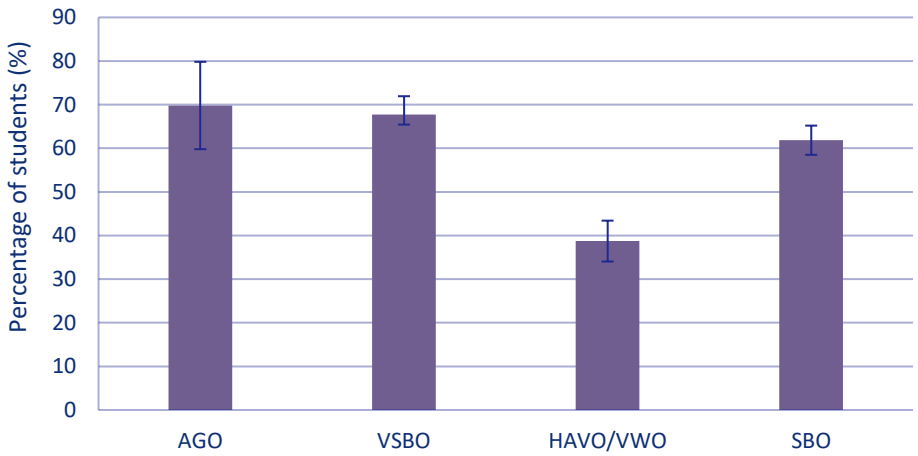
Overall, 60.9% of the students reported a daily consumption of carbonated soft drinks (for example coke, fria, monster and malta) during the 30 days before the survey, while 22.6% of the students said they drink carbonated soft drinks three or more times a day. Overall differences of daily soft drink consumption between male and female students were not significant (figure 8.7). No significant differences were found across the different age-categories.

Figure 8.7: Soft drinks consumption pattern among students during the 30 days before the survey



Daily carbonated soft drink consumption was less common among HAVO/VWO students compared to students in other school levels (figure 8.8).

Figure 8.8: Students who usually drank carbonated soft drinks one or more times per day

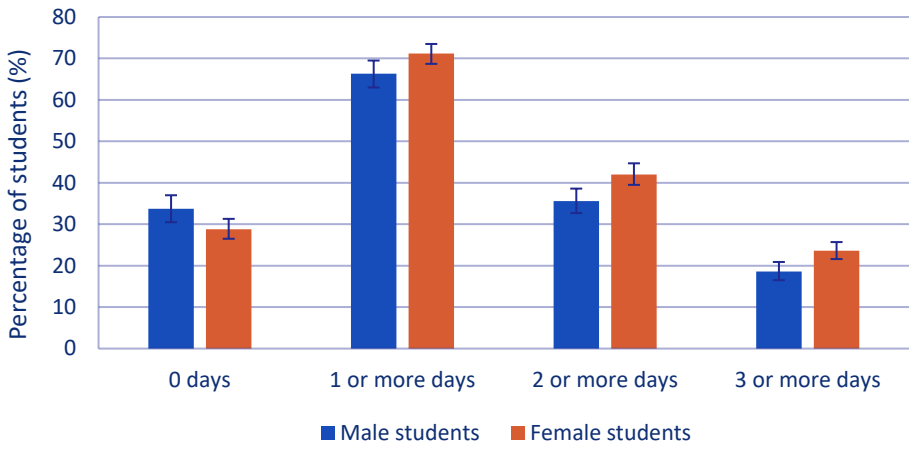


Consumption of fast food

During the past 7 days, on how many days did you eat food from a fast food restaurant?

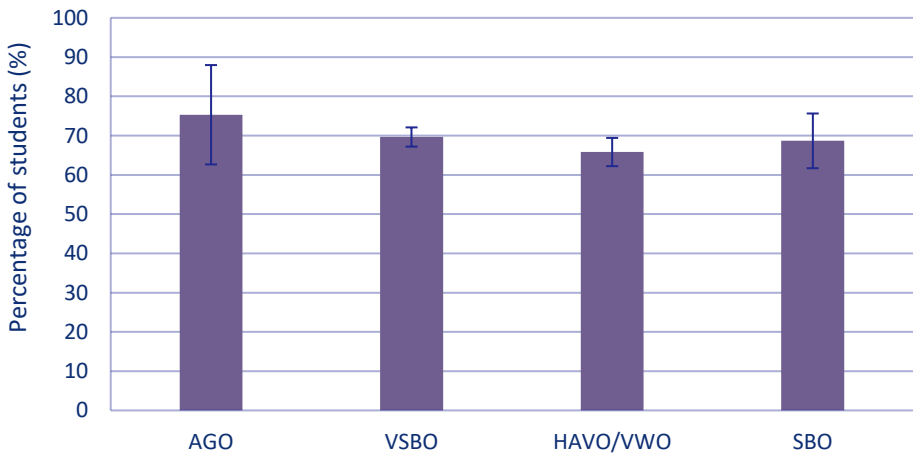
Seven out of ten students (69.0%) reported eating at a fast food restaurant (for example McDonalds, KFC and Pizza Hut) on one or more days during the 7 days before the survey, while 21.2% of the students reported eating at a fast food outlet at least three times. Female students were more likely to have eaten fast food than their male peers, and were also more likely to have eaten fast food twice or more during the past 7 days (figure 8.9). No significant differences were found across the age-categories.

Figure 8.9: Fast food consumption pattern among students during the 7 days before the survey



The consumption of fast food during the 7 days before the survey was not significantly different between students across different school levels (figure 8.10).

Figure 8.10: Students who usually ate fast food one or more days during the 7 days before the survey



Body image

- *During the past 12 months, have you been weighed and measured?*
- *How do you describe your weight?*
- *What are you trying to do about your weight?*

Overall, female students were more likely to report they have been weighted and measured during the 12 months before the survey than male students (57.0% vs. 51.3%), with no significant differences across the age-categories. HAVO/VWO students (77.7%) were more likely to have been weighted and measured than the students in other school levels (25.8% of the AGO students, 46.9% of the VSBO students and 57.6% of the SBO students). Body mass index (BMI) calculation based on self-reported height and weight was therefore considered too unreliable to be reported here.

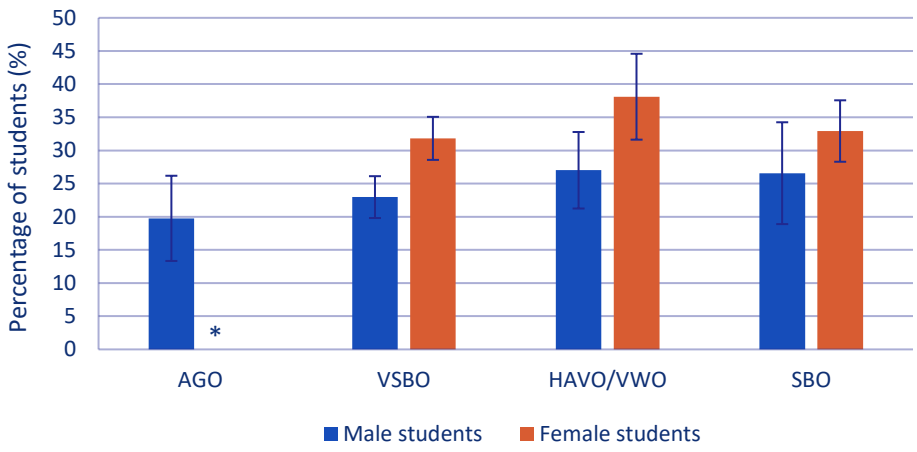
Overall, most students (56.5%) described their weight as 'about the right weight'. Female students were more likely to report their body being 'slightly or very overweight' (table 8.3). For male students, the likelihood of reporting their body weight was 'about the right weight' increased with age: 51.2% of the 12-year olds or younger, 59.8% of the 13- to 17-year olds and 61.9% of 18-year olds or older. In contrast, for female students the likelihood of reporting that their body weight was 'about the right weight' decreased with age: 55.4% of the 12-year olds or younger, 54.3% of the 13- to 17-year olds and 51.1% of the 18-year olds or older.

Table 8.3 Percentage of students by reported body image

	Total (%)	Male (%)	Female (%)
Very or slightly underweight	14.9	16.4	13.3
About the right weight	56.5	59.7	53.7
Slightly or very overweight	28.6	23.9	33.0

The proportion of students who described their weight as 'slightly or very overweight' was not significantly different across the school levels for both genders (figure 8.11).

Figure 8.11: Students who described their weight as slightly or very overweight



* Based on less than 100 observations and therefore not reported.

Overall, 36.2% of the students reported they were trying to lose weight. Female students were more likely than male students to report trying to lose weight (42.1% vs. 30.3%). Younger students were more likely to report they were trying to lose weight than older students: 43.9% of the 12-year olds or younger, 35.8% of the 13- to 17-year olds and 35.2% of the 18-year olds or older. No significant differences across the different school levels were found.

Chapter 9 Sexual health and knowledge about HIV/AIDS

Introduction

The initiation of romantic relationships is an important aspect of adolescent development, and many people have their first sexual experience at this time. This brings them at risk for teenage pregnancy and sexual transmitted diseases, which can be completely prevented if appropriate measures are taken. However, many adolescents in Curaçao have insufficient knowledge about the negative consequences of sexual behaviour and the ways to prevent them [37–40]. Many teenage pregnancies are the result of inconsequent or no use of reliable contraception methods and, moreover, unwanted. An estimated 40 to 54% of the total number of teenage pregnancies in Curaçao ends in abortion [39].

Adolescent pregnancy rates in Curaçao fell over the last two decades but, considering the likelihood of negative outcomes for both mother and child [41], remain too high: the number of teenage mothers, 15- to 19-year olds, is almost seven times higher than in the Netherlands [42]. Teenage mothers are more likely to drop out of school: three-quarters does not have a school diploma. In other cases, school attainment is relatively low [38]. This makes them more likely to suffer from poverty and accompanied social, emotional and health problems in later life [43]

Considering sexual transmitted diseases, the Caribbean is the second most-affected region in the world in terms of HIV prevalence rates, with an estimated 1% of the adult population infected [44]. The scarce information available about sexual transmitted diseases in Curaçao indicates that this topic is a matter of concern among our young (15- to 24-year olds) people as well. This age group is the only one in which more young women (n=103) than young men (n=83) are infected with HIV [45]. This is thought to be caused by relations between young women with older men that are more likely to be infected with the virus [2]. Between 2010 and 2013, one-fourth of the more than 3.000 young people who were tested by the national laboratory (ADC) were infected with Chlamydia trachomatis, a bacterium that causes infertility [46].

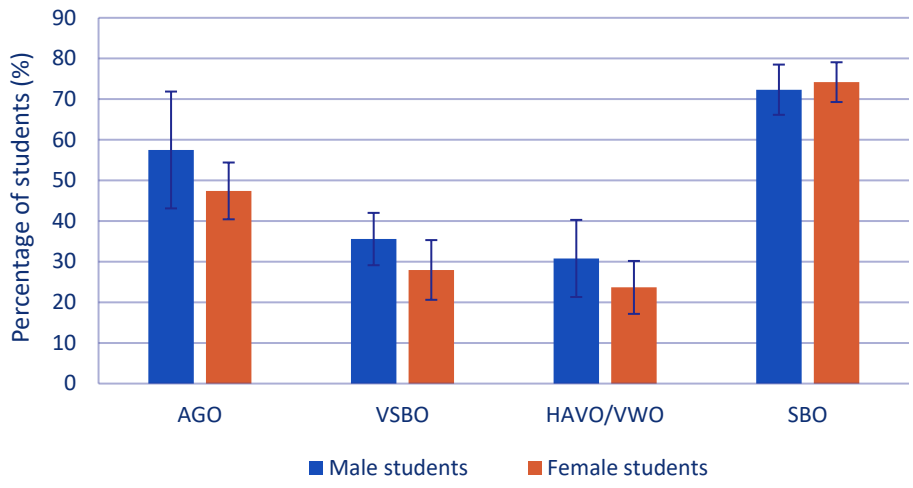
Violence against women is of particular concern in the Caribbean region and affects a significant proportion of women and girls. A regional victimization survey showed that 48% of the adolescent girls' first sexual intercourse was "forced" or "somewhat forced" in nine Caribbean countries [47].

Sexual experience

- *Have you ever had sexual intercourse?*
- *During your life, with how many people have you had sexual intercourse?*

Overall, 38.5% of the students reported they ever had sexual intercourse. The proportion of male students who reported they ever had sexual intercourse was not significantly different from female students (41.5% vs. 35.7%). The proportion of students who reported they ever had intercourse increased with age (9.4% of the 12-year olds or younger, 20.8% of the 13- to 15-year olds, 47.2% of the 16- or 17-year olds and 73.0% of the 18-year olds or older). AGO students were more likely to ever had sexual intercourse than VSBO and HAVO students, but not more likely compared to SBO students (figure 9.1).

Figure 9.1: Students who ever had sexual intercourse



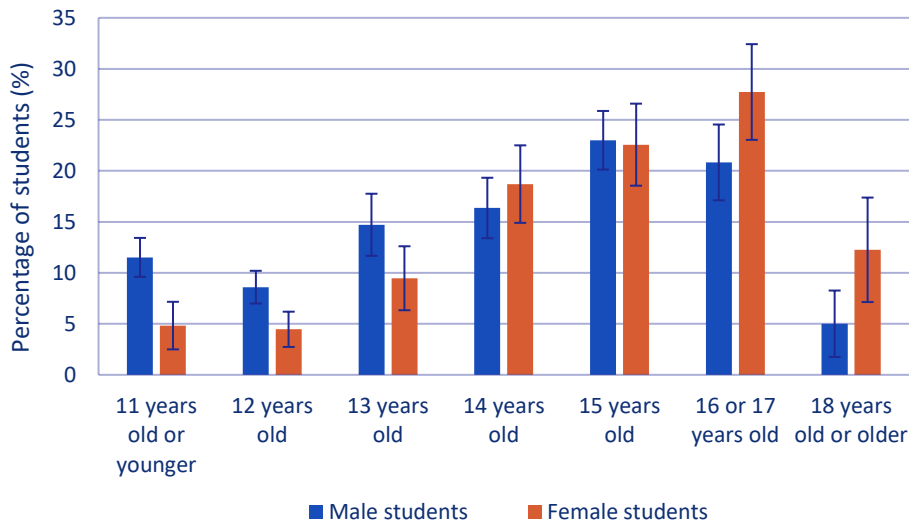
Overall, 19.5% of the students reported they had sexual intercourse with two or more persons during their life. The proportion of male students who reported they had sexual intercourse with two or more persons during their life was not significantly different from female students (22.4% vs. 16.6%). Students' reports of two or more bed partners increased with age (5.1% of the 12-year olds or younger, 13.9% of the 13- to 17-year olds and 44.7% of the 18-year olds or older). The proportion of students who reported they had sexual intercourse with two or more persons during their life was highest among SBO students (45.9%), followed by AGO students (28.3%), VSBO students (14.0%) and HAVO/VWO students (12.4%).

Onset of sexual activity

How old were you when you had sexual intercourse for the first time?

Among students who ever had sexual intercourse, 27.3% said they first had sexual intercourse at age 14 or younger. Male students were more likely to report early onset of sexual activity than female students: 34.8% of the male students who ever had sexual intercourse had their first experience before age 14, compared to 18.8% of the female students who ever had sexual intercourse (figure 9.2).

Figure 9.2: Age of onset sexual intercourse among sexually active students

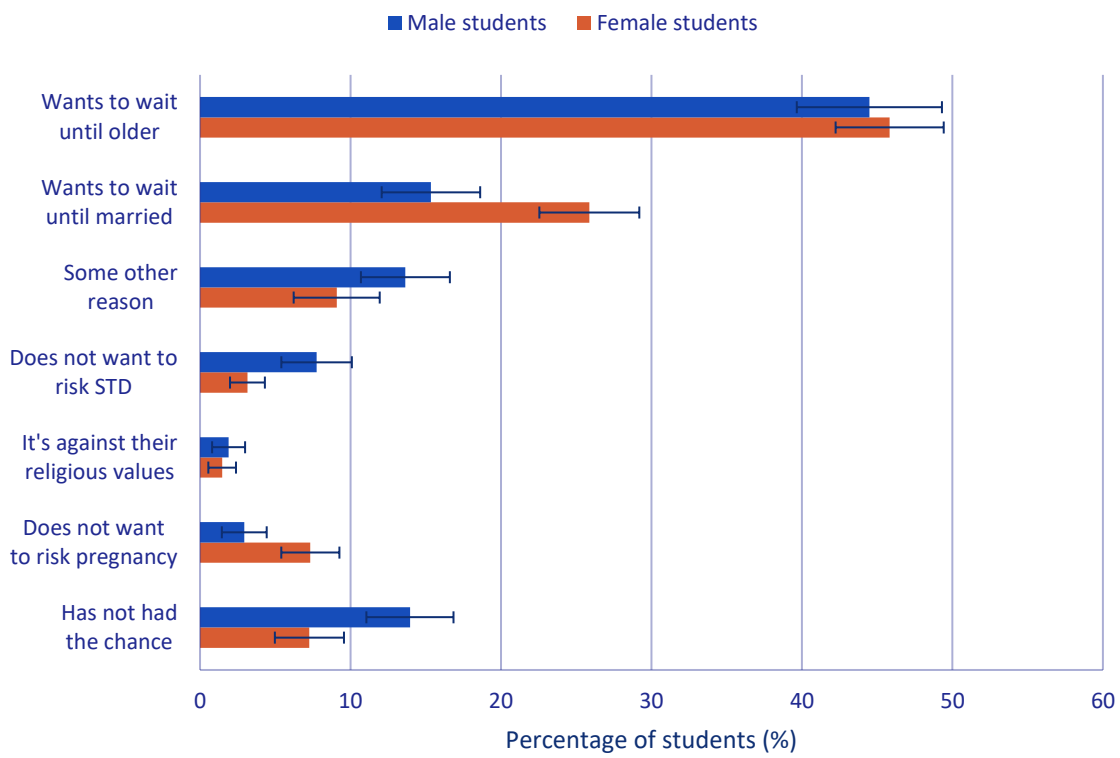


Reasons for waiting

What is the main reason you have not had sexual intercourse?

Among students who never had sexual intercourse, for both genders the main reason for not having had sexual intercourse was they wanted to wait until they were older (figure 9.3). Female students were more likely to report they wanted to wait until married or that they did not want to risk pregnancy than male students. In contrast, male students were more likely to report than female students they did not want to risk a sexual transmitted disease (STD) or that they have not had the chance to have sex with anyone.

Figure 9.3: Reported reasons for waiting to have sex among students who never had sexual intercourse



Contraception use during last sexual intercourse

- *The last time you had sexual intercourse, did you or your partner use any other method of birth control, such as withdrawal, rhythm (safe time), birth control pills, or any other method to prevent pregnancy?*
- *The last time you had sexual intercourse, did you or your partner use a condom or a rubber?*

Among students who ever had sexual intercourse, 72.7% reported they used contraception methods to prevent pregnancy, such as birth control pills, but also the less reliable withdrawal or rhythm method, during the last sexual intercourse. Female students were less likely to have used any contraception methods during the last sexual intercourse than male students (67.2% vs. 78.0%). Minimal differences were found across the age categories.

SBO students were less likely to have used any contraception method than VSBO and HAVO/VWO students (72.6% of the VSBO students, 84.5% of the HAVO/VWO students and 67.56% of the SBO students who ever had sexual intercourse). Contraception use among AGO students who ever had sexual intercourse will not be reported due to a small number of observations in this group (less than 100 respondents).

Using a condom during the last sexual intercourse, which not only prevents pregnancy but also prevents sexually transmitted diseases, was more common among male students than among female students (65.2% vs. 44.4%). No significant differences across the age-categories were found.

SBO students were less likely to have used a condom than VSBO and HAVO/VWO students (55.4% of the VSBO students, 60.6% of the HAVO/VWO students and 48.6% of the SBO students who ever had sexual intercourse). Contraception use among AGO students who ever had sexual intercourse will not be reported due to a small number of observations in this group (less than 100 respondents).

Methods used to prevent pregnancy

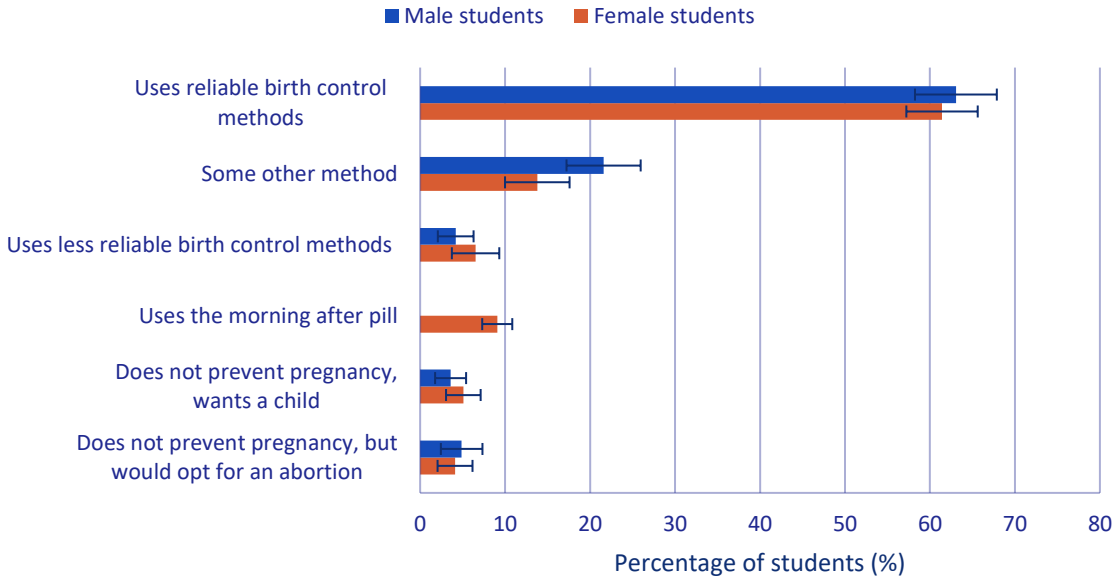
What is the main method you use to prevent pregnancy?

Among students who ever had sexual intercourse, 62.2% of the students reported they used reliable methods of birth control, such as condoms, birth control pills or an intra-uterine device, to prevent pregnancy. Differences between male and female students were not significant (63.1% vs. 61.4%). No significant differences were found across the age-categories.

HAVO/VWO students were most likely to report they used a reliable method of birth control, but this was only significant compared to VSBO students (57.6% of the VSBO students, 74.2% of the HAVO/VWO students and 63.2% of the SBO students who ever had sexual intercourse). Use of reliable methods to prevent pregnancy among AGO students who ever had sexual intercourse will not be reported due to a small number of observations in this group (less than 100 respondents).

Other, less reliable, birth control methods, such as withdrawal or the rhythm method, were used by 6.5% of the female students and 4.2% of the male students who ever had sexual intercourse (figure 9.4). Almost 1 in 10 (9.1%) of the female students who ever had sexual intercourse reported they use the morning after pill as the main method to prevent pregnancy.

Figure 9.4: Reported methods for preventing pregnancy among students who ever had sexual intercourse



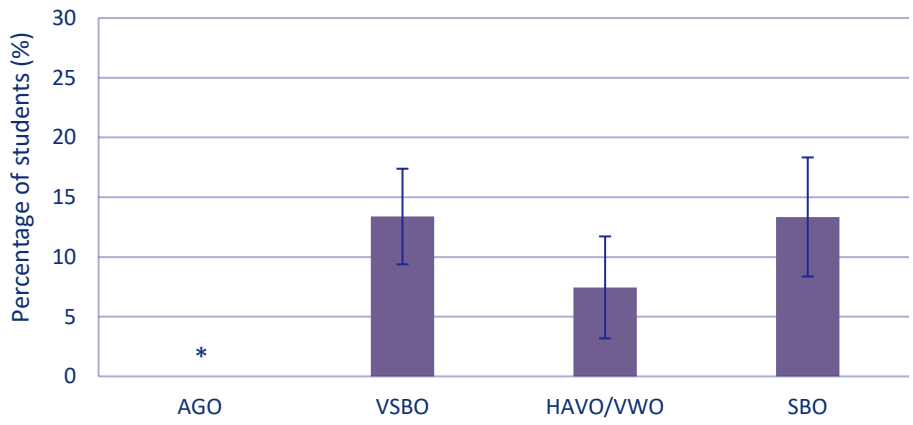
Experiences with pregnancy

How many times have you been pregnant or gotten someone pregnant?

Overall, 4.7% of the students reported they had been pregnant or had gotten someone pregnant one or more times. Among students who ever had sexual intercourse, 12.4% of the students reported they had been pregnant or had gotten someone pregnant one or more times. Female students (who ever had sexual intercourse) were more likely to report they had been pregnant than male students (who ever had sexual intercourse) reported they had gotten someone pregnant (16.2% vs 8.8%).

Student's reports of pregnancy increased with age for both genders (6.5% of the 13- to 15-year olds, 11.4% of the 16- or 17-year olds and 16.7% of the 18-year olds or older who ever had sexual intercourse). No significant differences were found across the school levels (figure 9.5). AGO students could not be included in this analysis due to a small number of observations in this group (less than 100 respondents).

Figure 9.5: Students who had been pregnant or had gotten someone pregnant among students who ever had sexual intercourse



* Based on less than 100 observations and therefore not reported.

Problematic sexual experiences

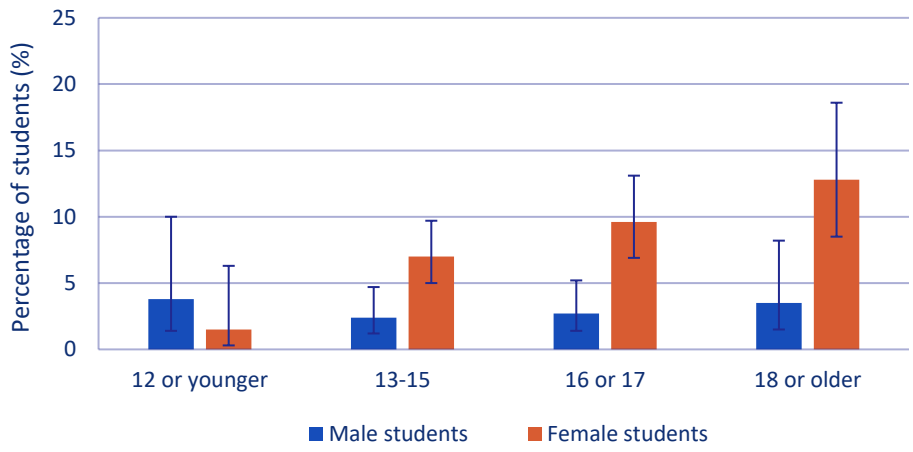
- *During your life, have you ever had sexual intercourse in exchange for something, such as a phone, jewelry, or money?*
- *Have you ever been forced to have sexual intercourse when you did not want to?*

Among students who ever had sexual intercourse, 7.8% reported they had sexual intercourse in exchange for something, such as a phone, jewellery or money. This was more likely to be reported by male students than female students (10.9% vs. 4.6%). No significant differences between the different age-categories were found. VSBO students were more likely to report they have received something in exchange for sexual intercourse than HAVO/VWO and SBO students (8.9% of the VSBO students, 3.3% of the HAVO/VWO students and 4.8% of the SBO students who ever had sexual intercourse). AGO students could not be included in this analysis due to a small number of observations in this group (less than 100 respondents).

Overall, 5.9% of the students reported they had been forced sexual intercourse when they did not want to. Female students were more likely to report they had been forced than male students (8.6% vs. 2.9%). For male students, minimal differences between the age-categories were found (figure 9.6). Female students' reports of forced sexual intercourse increased with age. HAVO/VWO students were less likely to report they had been forced sexual intercourse when they did not want to than students in other school levels, but this was only significantly different compared to AGO students (10.0% of the AGO students, 5.1% of the VSBO students, 4.7% of the HAVO/VWO students and 8.6% of the SBO students).

Sexual health and knowledge about HIV/AIDS

Figure 9.6: Students who ever been forced to have sexual intercourse when they did not want to

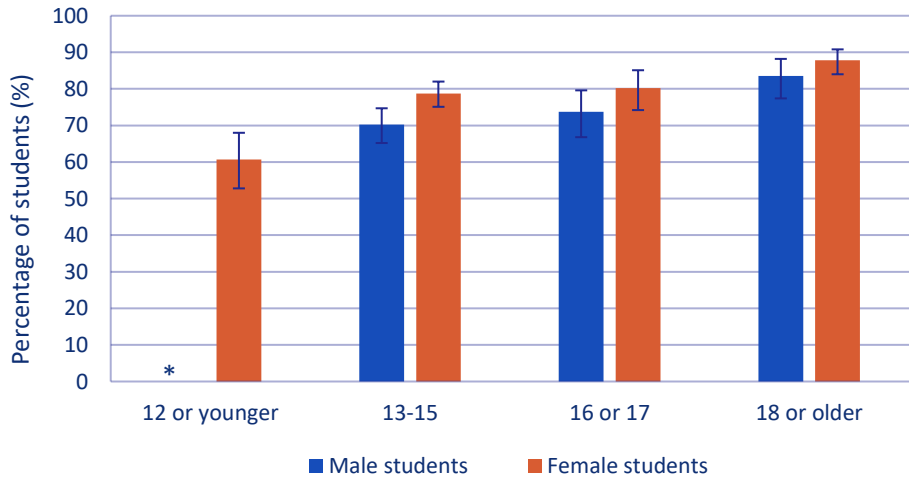


Knowledge about HIV/AIDS

- *Have you ever heard of HIV infection or the disease called AIDS?*
- *During this school year, were you taught in any of your classes how to avoid HIV infection or AIDS?*
- *Have you ever talked about HIV infection or AIDS with your parents or guardians?*

Overall, 76.9% of students reported they ever heard of HIV infection or AIDS. Female students were more likely to report they ever heard of HIV or AIDS than male students (80.0% vs. 73.6%). The proportion of students who reported they ever heard of HIV or AIDS increased with age (figure 9.7). AGO students were least likely to report they ever heard of HIV or AIDS (65.7%), followed by VSBO students (72.8%), HAVO/VWO students (83.0%) and SBO students (86.8%).

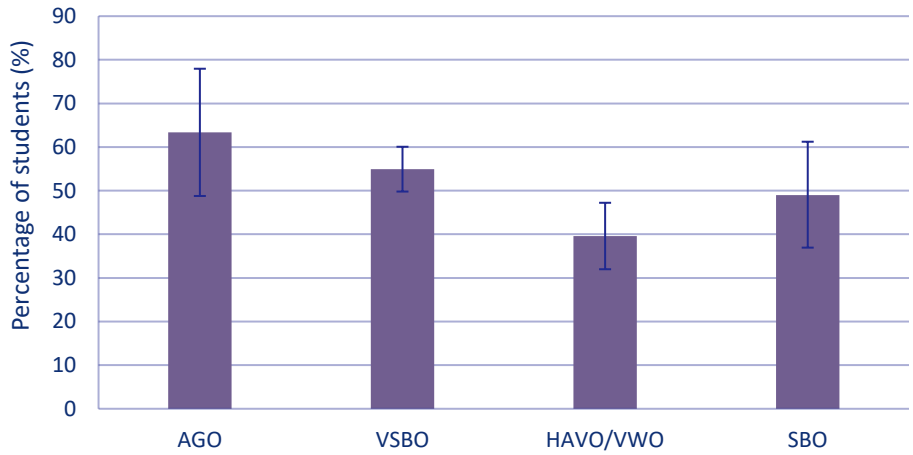
Figure 9.7: Students who ever heard of HIV infection or AIDS



* Based on less than 100 observations and therefore not reported.

Just over half (51.0%) of the students reported they were taught about HIV-prevention in any of their classes during this school year. The proportion of male students who reported they were taught about HIV-prevention in any of their classes was no different from female students (48.9% vs. 52.9%). No significant differences were found across the age-categories. HAVO/VWO students were less likely to report they were taught about HIV prevention than students in other school levels, although this was only significantly different compared to AGO and VSBO students (figure 9.8).

Figure 9.8: Students who were taught about HIV-prevention during last school year



Almost half (48.5%) of the students reported they talked about HIV infection or AIDS with their parents or guardians. This was more common among female students than among male students (52.4% vs. 44.4%). Students of 18 years old or older were more likely to have talked about HIV and AIDS than younger students (40.0% of the 12-year olds or younger, 47.0% of the 13- to 17-year olds and 56.4% of the 18-year olds or older.

AGO and VSBO students were less likely to report talking about HIV and AIDS with their parents or guardians than students in other school levels, but this was only significantly different compared to SBO students (45.6% of the AGO students, 45.4% of the VSBO students, 51.0% of the HAVO/VWO students and 56.5% of the SBO students.

Chapter 10 Substance use

Introduction

The single most preventable cause of death in the world today is tobacco. Yearly, more than 5 million people die from tobacco related diseases, more than AIDS/HIV, Tuberculosis and Malaria combined [48]. If present consumption patterns continue, it is estimated that deaths from tobacco consumption will be 10 million people per year by 2020 [49] .The overwhelming majority of smokers begin tobacco use before they reach adulthood. Among those young people who smoke, nearly one-quarter smoked their first cigarette before they reached the age of ten [50].

Despite alcohol's potential positive effects on the risk of diabetes, ischemic heart disease, and ischemic stroke, the effects of alcohol consumption on health in general are overwhelmingly negative. In the Americas, alcohol is estimated to cause 4.7% of all deaths. Alcohol Use Disorders, liver cirrhosis, and interpersonal violence are the three main causes of death and disability caused by alcohol. Most of the deaths and disabilities are associated with heavy, long-term drinking, but some, such as external injuries, are associated with acute drinking patterns [51]. 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 [52].

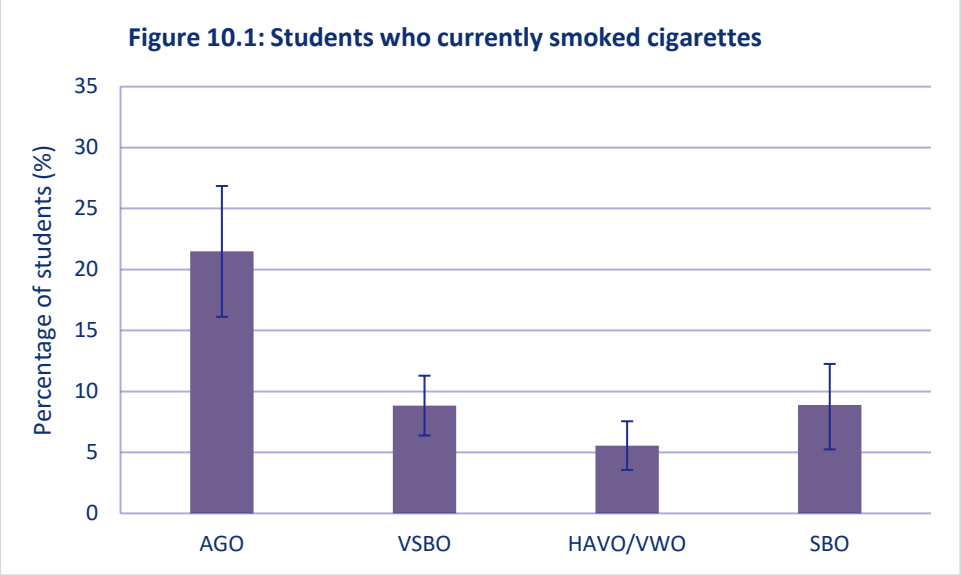
A study performed by the addiction recovery foundation (Fundashon Maneho di Adikshon), in collaboration with GGD Curaçao, found that young people started with smoking a cigarette, followed by experimentation with marijuana. Hard drug use, however, was not very prevalent among young people in Curaçao (as published in [2]).

Tobacco

Tobacco consumption

- *During the past 30 days, on how many days did you smoke cigarettes?*
- *During the past 30 days, on how many days did you use any tobacco products other than cigarettes?*
- *During the past 12 months, have you ever tried to stop smoking cigarettes?*

Overall, 9.0% of the students reported they currently smoked cigarettes on at least one day during the 30 days before the survey. The proportion of male students who currently smoked cigarettes was not significantly different from female students (10.0% vs. 8.0%). Currently smoking cigarettes increased with age (2.3% of the 12-year old or younger, 9.0% of the 13- to 17-year olds and 11.3% of the 18-year olds or older). AGO students were more likely to report they currently smoked cigarettes than students in other school levels (figure 10.1). Among the students who smoked cigarettes during the 30 days before the survey, 64.0% indicated they tried to quit smoking.



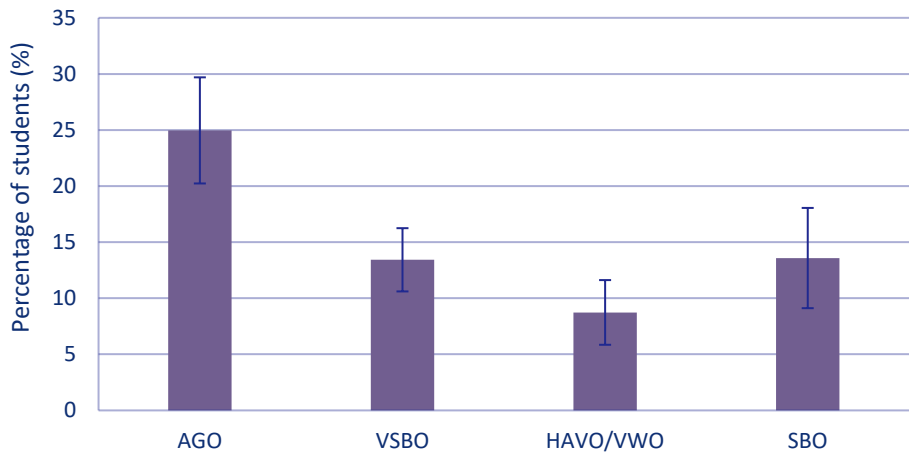
Among students who smoked during the past 30 days, 4.4% reported to smoke cigarettes daily. Differences between the genders were not significant (table 10.1).

Table 10.1 Frequency of cigarette consumption, among students who smoked during the past 30 days

	Total (%)	Male (%)	Female (%)
1 or 2 days	57.2	53.2	61.9
3 to 5 days	6.0	5.9	6.0
6 to 9 days	4.5	5.7	3.1
10 to 19 days	21.2	25.8	15.8
20 to 29 days	6.8	4.8	9.2
All 30 days	4.4	4.6	4.1

Considering the use of any tobacco product, including cigarettes, cigarillos and electronic cigarettes, 13.2% of the students reported they currently smoke. The proportion of male students who currently smoked any tobacco product was not significantly different from female students (15.5% vs. 10.8%). Currently smoking any tobacco product also increased with age (5.9% of the 12-year olds or younger, 13.3% of the 13- to 17-year olds and 15.3% of the 18-year olds or older). AGO students were more likely to report they currently smoked any tobacco product than students in other school levels (figure 10.2).

Figure 10.2: Students who currently smoked any tobacco product

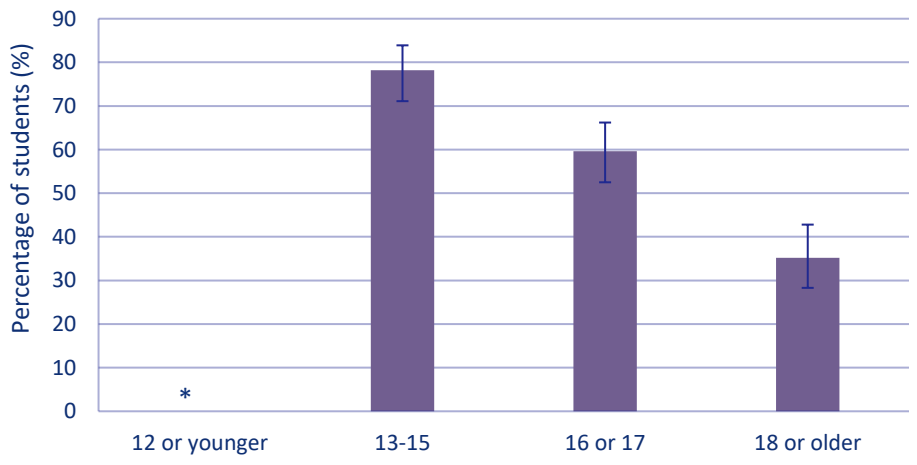


Age of first cigarette

How old were you when you first tried a cigarette?

Among students who ever smoked cigarettes, 60.5% of the students tried a cigarette before the age of 14. Early onset of smoking (before age 14) was not significantly between male and female students (64.0% vs. 56.1%). Smoking before the age of 14 decreased with age, which is likely to reflect the uptake of smoking among older students. (figure 10.3). Among students who ever smoked, VSBO students were more likely to have tried their first cigarette before age 14 than students in other school levels, although this was not significantly different compared to HAVO/VWO students (52.4% of the AGO students, 71.2% of the VSBO students, 58.0% of the HAVO/VWO students and 39.9% of the SBO students).

Figure 10.3: Students who tried a cigarette before age 14, among students who ever smoked cigarettes



* Based on less than 100 observations and therefore not reported.

Tobacco in the environment

- *During the past 7 days, on how many days have people smoked in your presence?*
- *Which of your parents or guardians use any form of tobacco?*

Overall, 58.3% of the students reported that people smoked in their presence on one or more days during the 7 days before the survey. The proportion of male students who reported that people smoked in their presence was not significantly different from female students (58.0% vs. 58.7%). Students' reports of people smoking in their presence increased with age (43.6% of the 12-year olds or younger, 57.5% of the 13- to 17-year olds and 66.3% of the 18-year olds or older). SBO students most commonly reported that people smoked in their presence (67.5%), followed by AGO students (64.3%), VSBO students (57.4%) and HAVO/VWO students (52.4%).

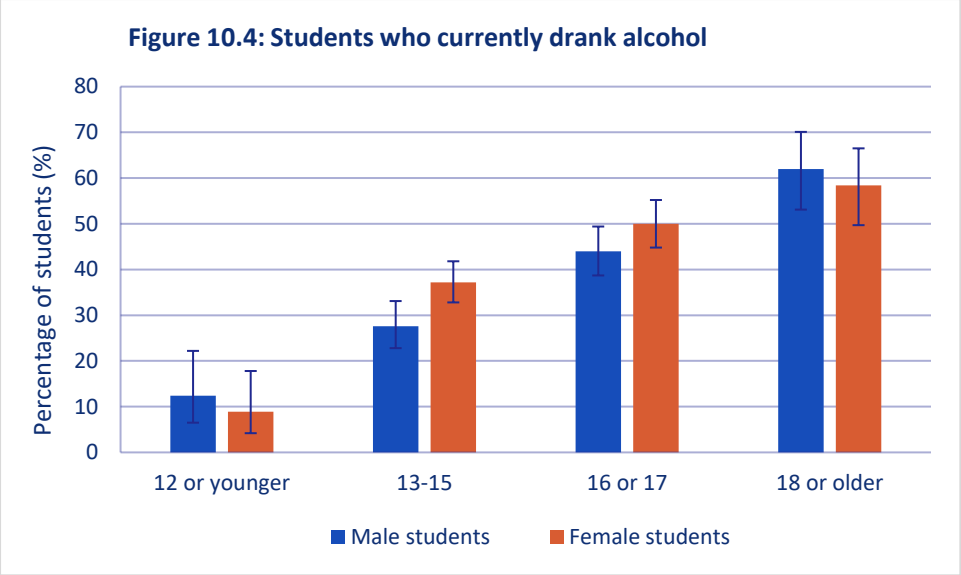
Just over one-fifth (21.1%) of the students reported they had parents or guardians who used any form of tobacco. The proportion of male students who reported they had parents or guardians who smoke was not significantly different from female students (22.4% vs. 19.8%). No significant differences were found across the age-categories. VSBO students most commonly reported they had parents or guardians who used tobacco (22.0%), followed by HAVO/VWO students (21.0%), SBO students (20.4%) and AGO students (15.7%).

Alcohol

Alcohol consumption

- *During the past 30 days, on how many days did you have at least one drink containing alcohol?*
- *During the past 30 days, on the days you drank alcohol, how many drinks did you usually drink per day?*
- *During the past 30 days, how did you usually get the alcohol you drank?*

Overall, 40.8% of the students reported they currently drank alcohol on at least one day during the 30 days before the survey. The proportion of male students who reported they currently drank alcohol was not significantly different from female students (43.5% vs. 38.0%). Students' reports of alcohol consumption increased with age (figure 10.4). One in eight (12.5%) 12-year olds or younger reported drinking alcohol on at least one day during the 30 days before the survey. SBO students most commonly reported they drank alcohol (53.9%), followed by AGO students (47.8%), VSBO students (38.0%) and HAVO/VWO students (36.4%).



Among students who drank alcohol during the past 30 days, one-third of the students (32.8%) reported they drank alcohol on 10 days or more (table 10.2). This was more common among male students than among female students (37.9% vs. 28.3%).

Table 10.2 Frequency of alcohol consumption, among students who drank alcohol during the past 30 days

	Total (%)	Male (%)	Female (%)
1 or 2 days	62.1	56.6	66.8
3 to 5 days	4.3	4.4	4.4
6 to 9 days	0.8	1.1	0.5
10 to 19 days	21.3	24.1	18.8
20 to 29 days	10.6	12.7	8.8
All 30 days	0.9	1.1	0.7

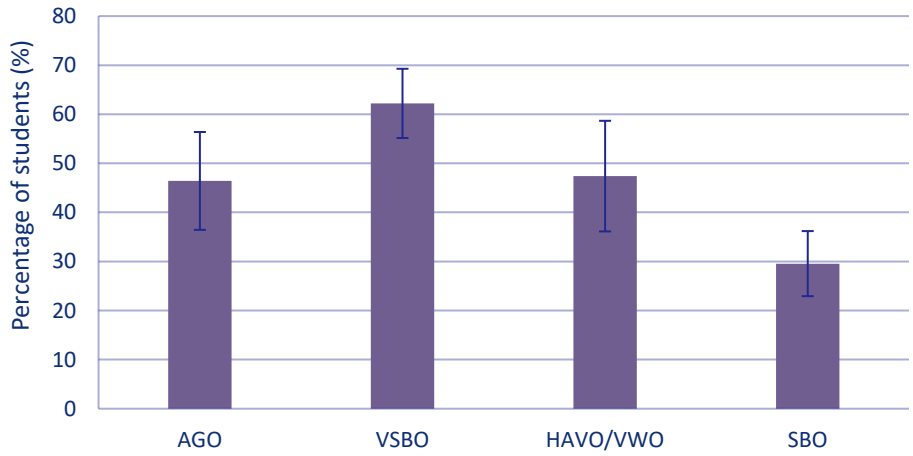
Among students who drank alcohol during the past 30 days, almost one-third (30.3%) of the students usually obtained the alcohol they drank from their family. Almost a quarter (23.7%) of the students bought the alcohol they drank in a store and 13.8% obtained it from friends.

Age of first drink

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

Among student who ever had a drink of alcohol other than a few sips, just over half (51.9%) of the students reported they drank alcohol for the first time before age 14. Early onset of alcohol consumption (before age 14) was not significantly different between male and female students (54.6% vs. 49.0%). Alcohol consumption before the age of 14 (among students who ever had a drink of alcohol) decreased with age (72.2% of the 13-to 15-year olds, 43.0% of the 16- or 17-year olds and 27.5% of the 18-year olds or older). SBO students who ever had a drink of alcohol were less likely to report they drank alcohol for the first time before age 14 than student in other school levels (figure 10.5).

Figure 10.5: Students who had their first drink of alcohol before age 14, among students who ever had a drink of alcohol



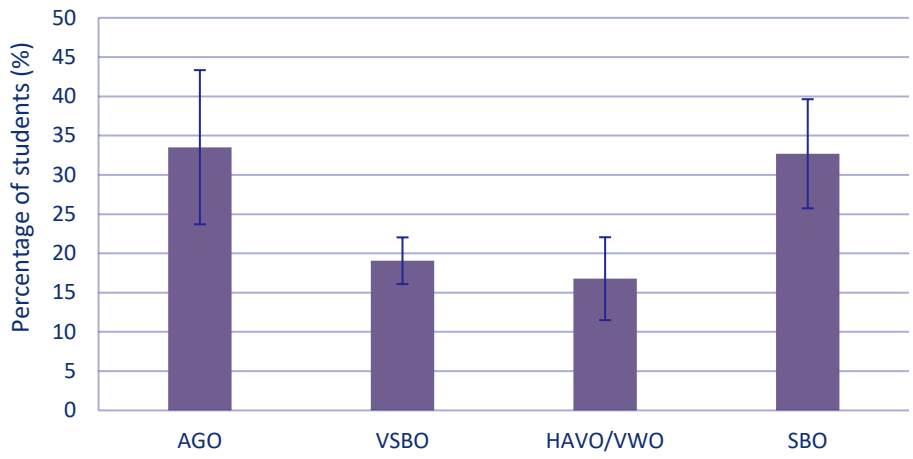
Problematic alcohol use

- *During your life, how many times did you drink so much alcohol that you were really drunk?*
- *During your life, how many times have you got into trouble with your family or friends, missed school, or got into fights, as a result of drinking alcohol?*

Overall, one-fifth (21.6%) of the students reported they drank so much alcohol that they were really drunk one or more times during their life. Differences between male and female students were not significant (23.3% vs. 20.1%). Students' report of experiencing drunkenness increased with age (5.8% of the 12-year olds or younger, 19.3% of the 13- to 17-year olds and 35.9% of the 18-year olds or older). AGO and SBO students were more likely to report they ever drank so much alcohol that they were really drunk than VSBO and HAVO/VWO students (figure 10.6).

Substance use

Figure 10.6: Students who drank so much that they were really drunk one or more times during their life



Overall, 6.2% of the students reported they ever got in trouble with their family or friends, missed school, or got into fights as a result of drink alcohol. The proportion of male students who reported they ever got in trouble as a result of drinking alcohol was not significantly different from female students (7.2% vs. 5.3%). No significant differences between the age-categories were found. Getting into trouble as a result of drinking alcohol was most commonly reported by AGO students (14.5%), followed by VSBO students (6.5%), SBO students (5.3%) and HAVO/VWO students (3.6%).

Drugs

Marijuana use

- *During your life, how many times have you used marijuana?*
- *During the past 30 days, how many times have you used marijuana*

One-tenth (10.9%) of the students reported they ever used marijuana during their life. Overall, 5.7% of the students reported to have used marijuana one or more times during the 30 days before the survey. Male students were more likely to report current marijuana use than female students (7.1% vs. 4.1%). For both genders, current marijuana use increased with age: 2.4% of the 12-year olds or younger, 5.4% of the 13- to 17-year olds and 8.0% of the 18-year olds or older). AGO students were most likely to report marijuana use during the 30 days before the survey (10.9%), followed by HAVO/VWO students (6.2%), SBO students (5.4%) and VSBO students (4.9%). Among students who used marijuana during the past 30 days, almost 13.2% did so 20 times or more (table 10.3). Differences among genders could not be determined due to a small number of observations.

Table 10.3 Frequency of marijuana use, among students who use marijuana during the past 30 days

	Total (%)
1 or 2 times	59.3
3 to 9 times	19.2
10 to 19 times	8.4
20 or more times	13.2

Hard drugs use

During your life, how many times have you used methamphetamine, cocaine, or XTC?

Overall, 1.7% of the students reported they used methamphetamine, cocaine, or XTC one or more times during their life. The proportion of male students who reported they ever used hard drugs was not significantly different from female students (1.8% vs. 1.5%). No significant differences were found across the age-categories. The proportion of hard drug use was highest among AGO students (3.8%) followed by VSBO students (1.8%), SBO students (1.5%) and HAVO/VWO students (1.1%).

Age at first drug use

How old were you when you first used drugs?

Among students who ever used drugs, 29.6% of the students reported they used drugs for the first time before the age of 14. Early onset of drug consumption (before age 14) was not significantly different between male and female students (32.9% vs. 24.9%). Differences across age-categories and school levels could not be determined due to small numbers of observations (less than 100 respondents).

Problematic drug use

During your life, how many times have you got into trouble with your family or friends, missed school, or got into fights, as a result of using drugs?

Overall, 3.9% of the students reported they ever got in trouble with their family or friends, missed school, or got into fights as a result of using drugs. The proportion of male students who reported they ever got in trouble as a result of using drugs was not significantly different from female students (4.5% vs. 3.2%). No significant differences between the age-categories were found. Students' reports of experiencing trouble as a result of their drug use was highest among AGO students (7.3%), followed by VSBO students (4.6%), SBO students (3.0%) and HAVO/VWO students (1.6%).

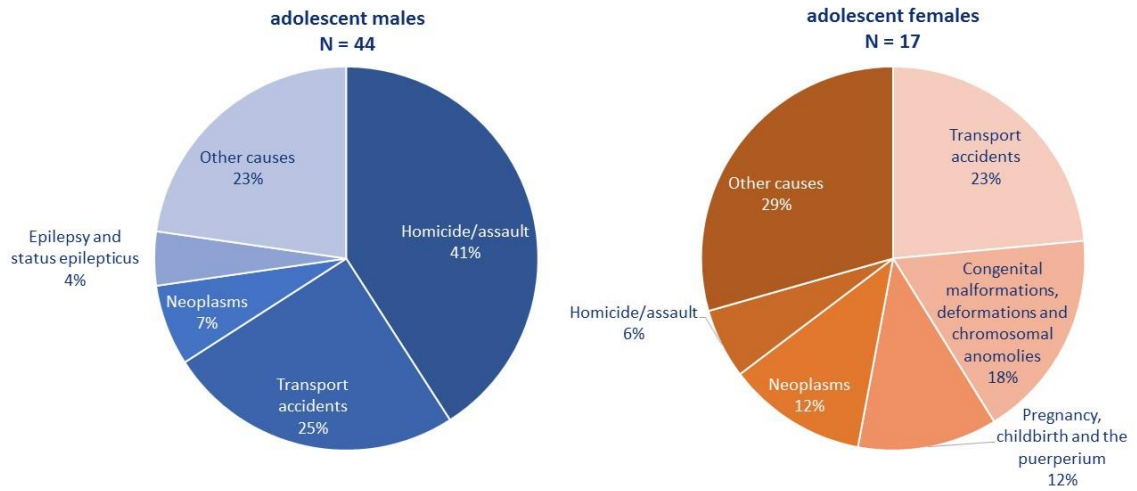
Chapter 11 Violence and Injuries

Introduction

Bullying is a common behaviour among adolescents across the world [53] and describes intentional harmful behaviours repeated over time, against weaker individuals who are unable to defend themselves [54]. Victims of bullying experience increased stress and a reduced ability to concentrate. Moreover, they have an increased risk for substance abuse, aggressive behaviour and suicide attempts [55].

With an average of 30 per 100,000 population, homicide rates are higher in the Caribbean than for any other region in the world. Homicide rates have been rapidly increasing in the past decades for many Caribbean countries. Increased crime rates were associated with worsening economic conditions Jamaica and Barbados [56,57]. However, economic conditions do not explain why homicide rates in Caribbean states are 34% higher than in non-Caribbean countries with comparable macroeconomic conditions [58]. The illicit drug trade is a main factor contributing to the high homicide rates in the region and has its most negative impact among the vulnerable and the marginalized. Homicide rates increase due to increased violence between criminal groups that fight for their share of a diminishing market [59]. From 2003 to 2007 (latest available data), homicide was the leading cause of death for adolescent (10- to 19-year olds) males in Curaçao, accounting for 4 in 10 of the lives lost in this age-category (figure 11.1).

Figure 11.1: Causes of death adolescents in Curacao, 2003-2007



The second leading cause of death for adolescent males and the leading cause for adolescent females from 2003 to 2007 (latest available data) were transport accidents. Serious injuries during transport accidents are largely preventable by safe traffic behaviour and more often than death lead to disability, brain damage, depression, substance abuse and suicide attempts [60].

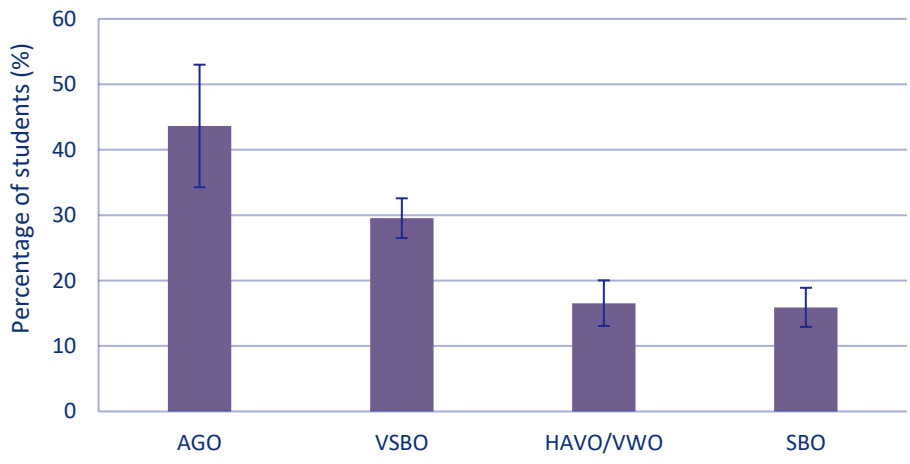
Bullying

- *During the past 30 days, on how many days were you bullied?*
- *During the past 30 days, how were you bullied most often?*

A quarter (25.4%) of the students reported being bullied on one or more days during the 30 days before the survey. The proportion of male students who reported they were bullied was not significantly different from female students (26.2% vs. 24.5%). Overall, reports of being bullied decreased in students of 18 years and older (28.7% of the 12-year olds or younger, 26.8% of the 13- to 17-year olds and 18.5% of the 18-year olds or older).

The proportion of students who reported being bullied on one or more days during the 30 days before the survey was lowest for HAVO/VWO and SBO students, and highest for AGO students (Figure 11.2).

Figure 11.2: Students who were bullied on one or more days during the past 30 days



Among students who were bullied on one or more days during the 30 days before the survey, 10.7% of the students was bullied daily (table 11.1).

Table 11.1 Frequency of bullying, among students who were bullied on one or more days

	Total (%)	Male (%)	Female (%)
1 or 2 days	58.2	56.1	60.3
3 to 5 days	17.8	19.1	16.5
6 to 9 days	7.0	7.6	6.5
10 to 19 days	4.8	4.6	5.0
20 to 29 days	1.3	2.2	0.7
All 30 days	10.7	10.4	11.0

Among students who reported being bullied one or more days during the 30 days before the survey, almost half (47.9%) of the students said they were so worried they could not sleep at night, in contrast to 11.4% of the total student population. Male students said they were most often bullied by being

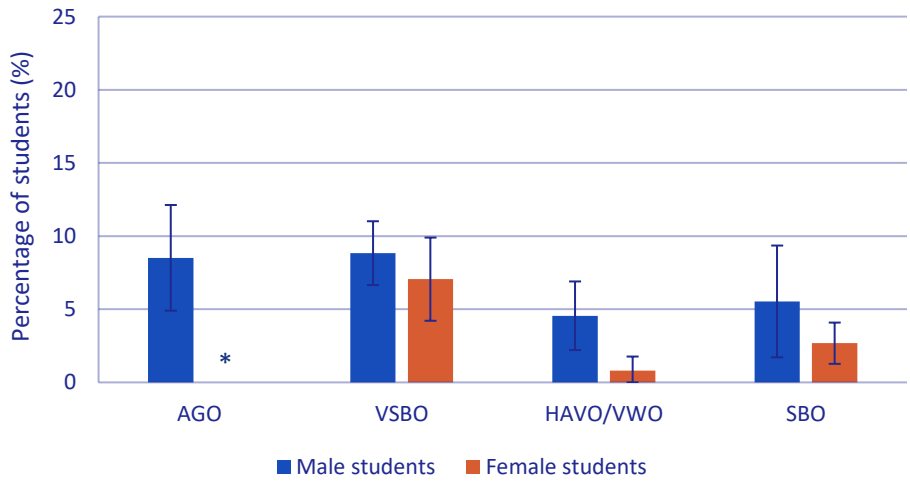
made fun of with sexual jokes, comments and gestures (20.1% of the male students who reported being bullied). Female students said they were most often bullied by being made fun of how their body or face looks (26.0% of the female students who reported being bullied). Among the students who were bullied during the 30 days before the survey, 3.8% of the students reported they were bullied most often by physical contact, such as being hit, pushed, shoved around or locked indoors.

Gangs and weapon carrying

- *Do you belong to any violent group?*
- *During the past 30 days, on how many days did you carry a weapon, such as a gun, knife, club or brass knuckles?*

Overall, 6.1% of the students reported they belong to a violent group or gang. This was more common among male students than among female students (7.6% vs. 4.4%). No significant differences were found across the age-categories. The proportion of male HAVO/VWO students who reported to belong to a gang was lower than students in other school levels, but this difference was not significant. Female students' reports of belonging to a gang was more common among VSBO students than among HAVO/VWO and SBO students (figure 11.3).

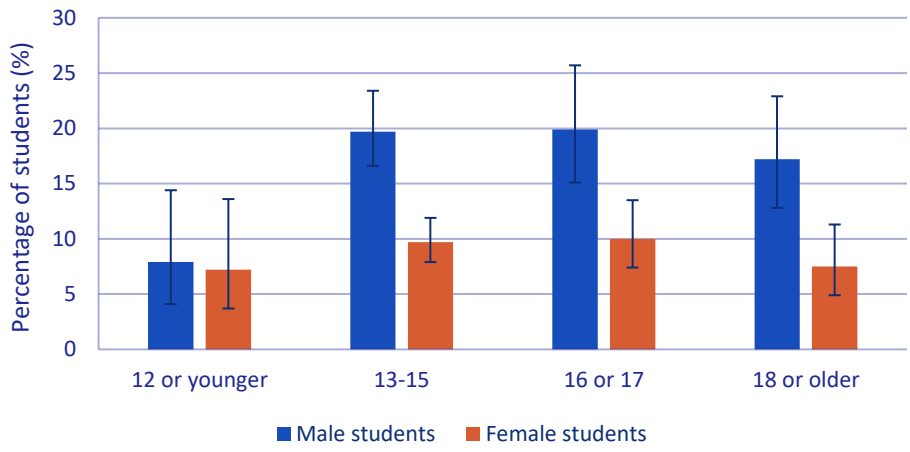
Figure 11.3: Students who belonged to a violent group



* Based on less than 100 observations and therefore not reported.

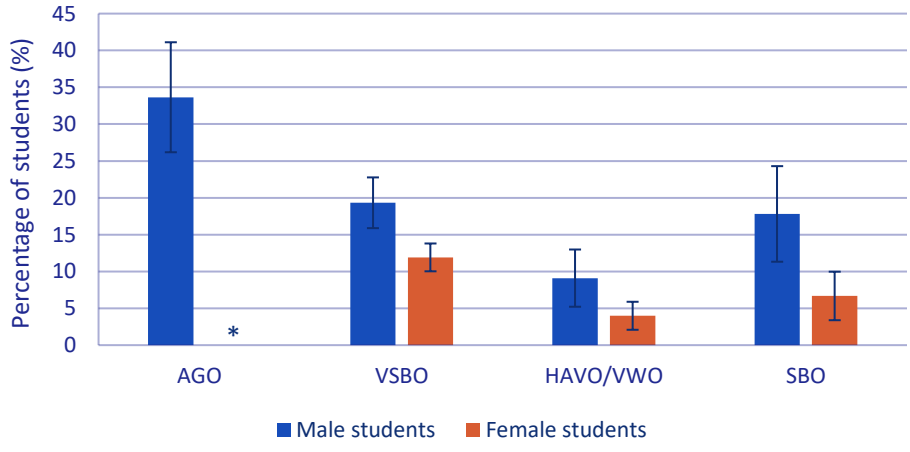
Overall, 13.9% of the students reported they carried a weapon, such as a knife, gun or club, on one or more days during the 30 days before the survey. Male students were twice as likely to report having carried a weapon than female students (18.5% vs. 9.1%). Male students' reports of carrying a weapon increased by more than twofold between the two youngest age groups (figure 11.4). For female students, reports of carrying a weapon showed minimal differences across the age-categories.

Figure 11.4: Students who carried a weapon, such as a knife, a gun or a club



Male students were more likely to report to have carried a weapon than female students across all school levels. Male AGO students were more likely to report they carried a weapon compared to male students in other school levels. Weapon carrying among female VSBO students was more common than among female HAVO/VWO and SBO students (figure 11.5).

Figure 11.5: Students who carried a weapon, such as a knife, a gun or a club



* Based on less than 100 observations and therefore not reported.

Violence and Injuries

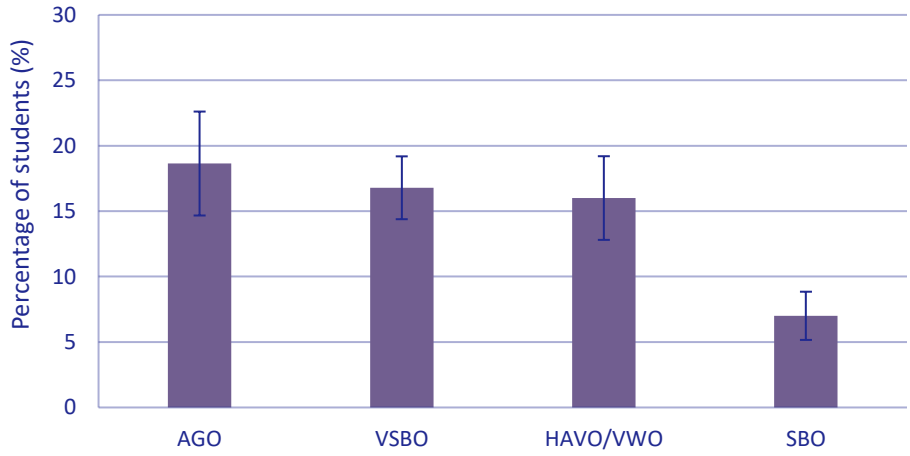
Physical violence in intimate and parental relationships

- *During the past 12 months, did your boyfriend or girlfriend ever hit, slap, or physically hurt you on purpose?*
- *During the past 12 months, did your parents or guardians ever hit, slap, or physically hurt you on purpose?*

16.7% of the students who said they were in a relationship reported they were hit, slapped or otherwise physically hurt by their boyfriend or girlfriend during the 12 months before the survey. Male students were more likely than female students to report they had experienced physical violence in their relationship during the past 12 months (18.9 vs. 14.6%). No significant differences were found across the age-categories and the school levels.

Overall, 15.2% of the students reported they were hit, slapped or otherwise physically hurt by their parents or guardians during the 12 months before the survey. Differences were between male and female students were not significant (14.4% vs. 15.8%). Younger students were more likely to report to have experienced physical violence from their parents than older students (23.3% of the 12-year olds or younger, 16.4% of the 13- to 17-year olds and 8.5% of the 18-year olds or older). SBO students were less likely to report they were physically hurt by their parents than students in other school levels (figure 11.6).

Figure 11.6: Students who were hit, slapped or physically hurt by their parents or guardians

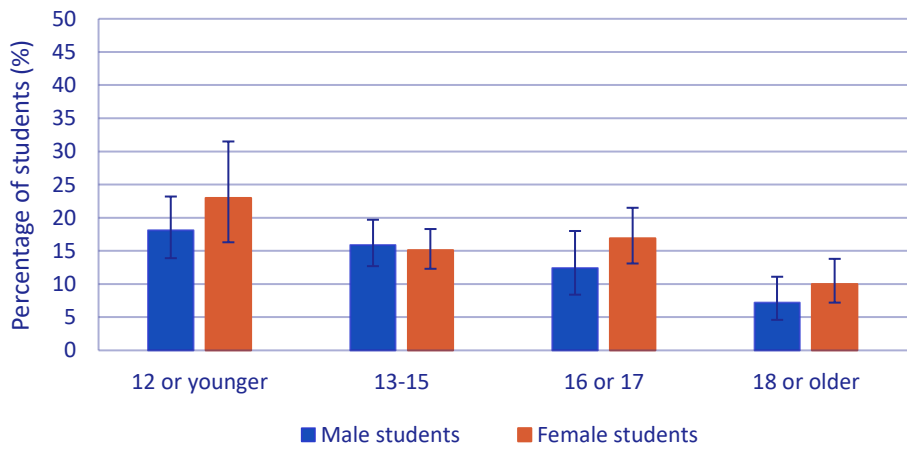


Attacks

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

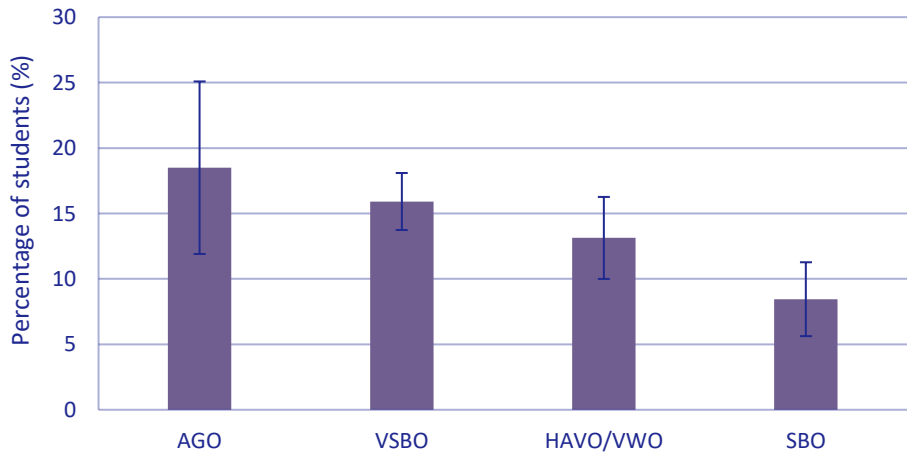
Physical attacks occur when one or more people hit or strike someone, or when one or more people hurt another person with a weapon, such as a stick, knife, or gun. Overall, 14.3% of the students reported they were physically attacked one or more times during the 12 months before the survey. Differences between male and female students were not significant (13.4% vs. 15.0%). Involvement in a physical attack decreased consistently with age for male students, but only decreased for female students in the age group of 18 years and older (figure 11.7).

Figure 11.7: Students involved in a physical attack one or more times during the past 12 months



Significant school level differences were present: AGO students were more than twice as likely as SBO students to report being attacked (figure 11.8).

Figure 11.8: Students involved in a physical attack one or more times during the past 12 months



Violence and Injuries

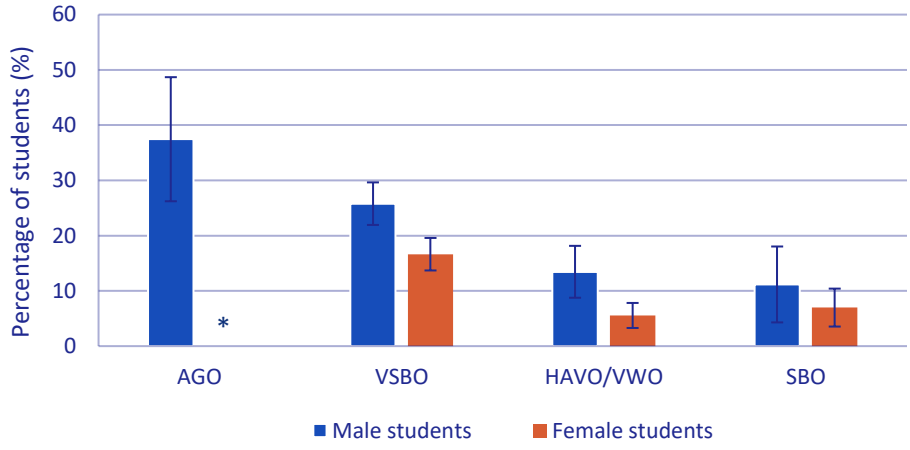
Fighting

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

Physical fights occur when two students of about the same strength or power choose to fight each other. Overall, 17.9% of the students reported they were involved in a fight one or more times during the 12 months before the survey. Male students were considerably more likely to report being involved in a fight than female students (22.6% vs. 13.2%).

For both genders, involvement in physical fights was lower in older students than in younger students (21.5% of the 12-year olds or younger, 20.6% of the 13- to 17-year olds and 6.8% of the 18-year olds or older). Male students' reports of involvement in a fight one or more times during the 12 months before the survey decreased with high school level. Female VSBO students were more likely to report they had been involved in (a) fight(s) compared to female HAVO/VWO and SBO students (figure 11.9).

Figure 11.9: Students involved in a physical fight one or more times during the past 12 months



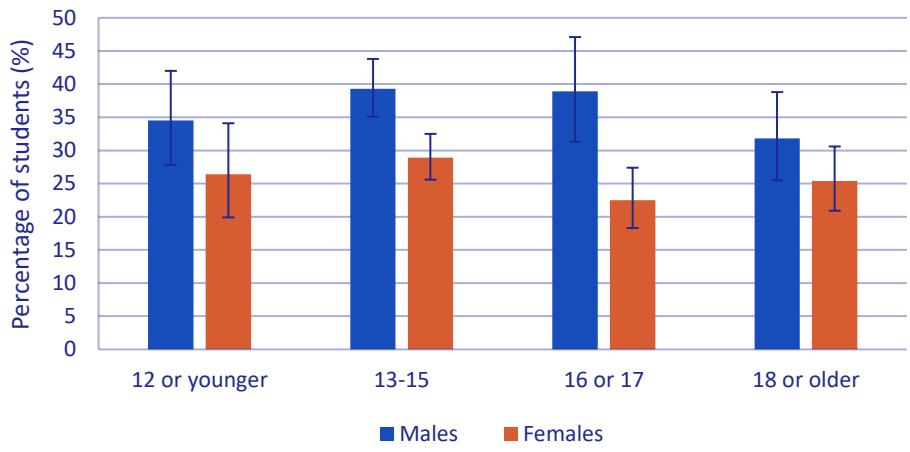
* Based on less than 100 observations and therefore not reported.

Injuries

- *During the past 12 months, how many times were you seriously injured?*
- *During the past 12 months, what was the most serious injury that happened to you?*
- *During the past 12 months, what was the major cause of the most serious injury that happened to you?*

Overall 31.7% of the students reported they had been seriously injured during the 12 months before the survey. Male students were more likely to report being seriously injured than female students (37.4% vs. 26.2%). This was found across all age-groups, except for students of 12 years or younger where the difference between genders was not significantly different (figure 11.10).

Figure 11.10: Students who were seriously injured one or more times during the past 12 months



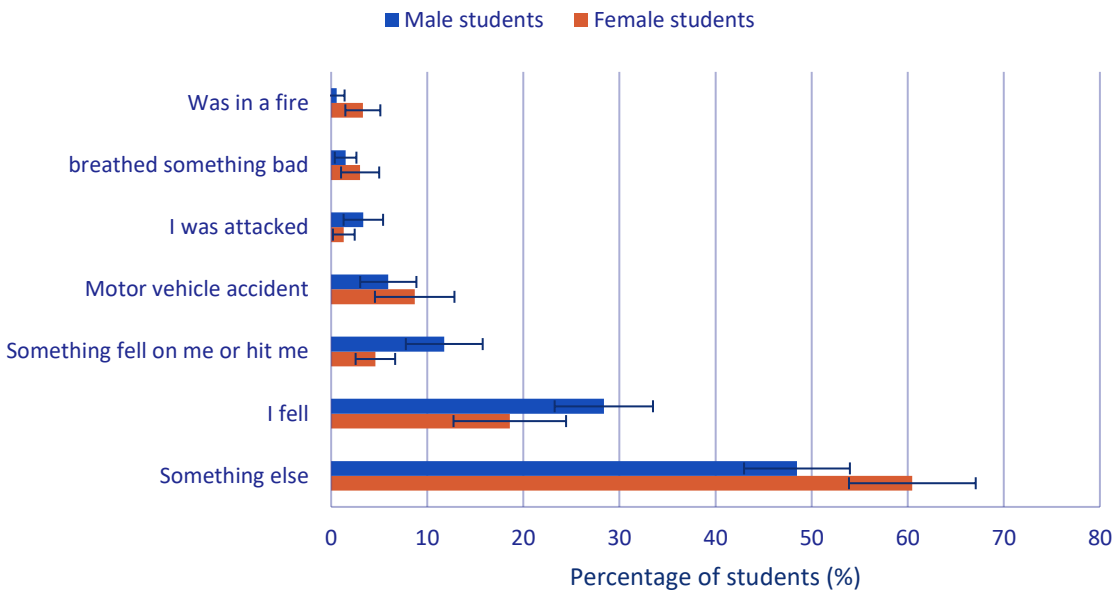
AGO students were more likely to report they were seriously injured one or more times during the 12 months before the survey compared to students in other school levels (43.6% of the AGO students, 32.7% of the VSBO students, 29.7% of the HAVO/VWO students and 26.0% of the SBO students).

Among the students who were seriously injured during the 12 months before the survey, the most commonly reported injury among both genders was a broken bone or dislocated joint (20.0% of the male students and 11.2% of the female students who were seriously injured). For both genders, this was followed by (a) cut or stab wound(s) (19.9% of the male students and 9.4% of the female students who were seriously injured).

The most commonly reported cause among students who were seriously injured during the 12 months before the survey were falls (figure 11.11). Motor vehicle accidents, which is one of the main causes of death among adolescents, was reported to be the major cause of injury by 7.2% of the students who were seriously injured.

Violence and Injuries

Figure 11.11: Reported causes among students who were seriously injured during the past 12 months

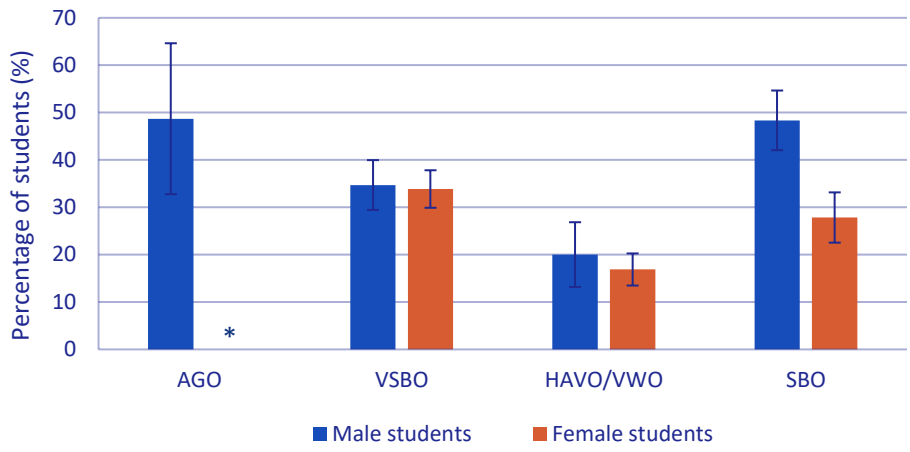


Traffic risk behaviour

- *During the past 30 days, how often did you use a seat belt when riding in a car or other motor vehicle driven by someone else?*
- *During the past 30 days, how often did you ride in a car or other motor vehicle driven by someone who had been drinking alcohol?*

Among students who rode in a motor vehicle driven by someone else during the 30 days before the survey, less than half (44.5%) of the students reported they used a seat belt always or most of the time, 24.3% of the students said sometimes and almost one-third (31.2%) of the students reported they never or rarely used a seat belt. Male students were more likely to report they never or rarely used a seat belt than female students (34.7% vs. 28.0%). No significant differences were found across the age categories. Never or rarely using a seat belt was less common among both male and female HAVO/VWO students compared to students in the other school levels (figure 11.12).

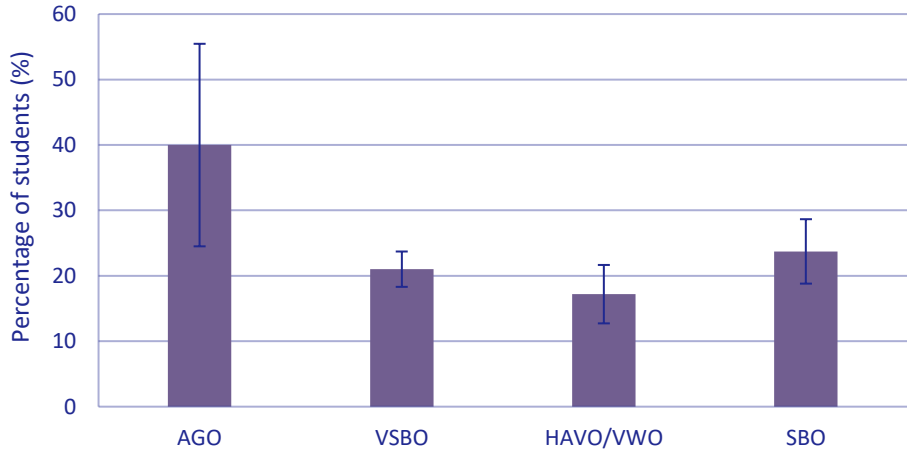
Figure 11.12: Students who never or rarely use a seat belt when riding in a car or other motor vehicle



* Based on less than 100 observations and therefore not reported.

Among students who rode in a motor vehicle driven by someone else during the 30 days before the survey, more than one in five students (21.8%) reported they were driven by someone who had been drinking alcohol. The proportion of male students who were driven by someone who had been drinking alcohol was not significantly different from female students (24.3% vs. 19.2%). Students' reports of riding a motor vehicle driven by someone that had been drinking alcohol increased with age (10.8% of 12-year olds or younger, 21.4% of 13- to 17-year olds and 26.8% of 18-year olds or older). AGO students were most likely to report they were in a vehicle driven by someone who had been drinking alcohol, but this was not significantly different compared to SBO students (figure 11.13).

Figure 11.13: Students who rode in a car driven by someone who had been drinking alcohol



Chapter 12 Comparison with Caribbean states

The Pan American Health Organization's (PAHO) definition of the Caribbean includes 30 states: 27 island states and 3 continental states in South America: French Guiana, Suriname and Guyana. The Caribbean states are relatively homogenous with their small populations, their histories of slavery and colonialism and their similar challenges in the current world economy. Sixteen of these states are currently independent, the majority of which were former British colonies. The remaining affiliated states, among which Curaçao, still have strong political, legal and (socio)-economic ties to their former imperial power. All affiliated Caribbean states currently have better economic and population health outcomes than the sovereign Caribbean states [61].

This chapter describes the results of students in Curaçao compared to the Caribbean average, which includes students in 18 Caribbean states as surveyed during previous country-specific GSHS Studies. To this end, the sample of the GSHS Curaçao was adjusted to enhance comparability. More specifically, only 13- to 15-year olds were considered in this analysis. The proportions presented here may therefore deviate from the estimates presented in the previous chapters and do not represent the complete student population in Curaçao.

Table 12.1 shows the proportions of 13- to 15-year old students by health indicator for questions that were comparable among the GSHS Curaçao and other Caribbean states, for the states for which data were available. The proportion of students who reported their parents really knew what they were doing with their free time and most of the time or always understood their problems during the past 30 days was the highest in Curaçao compared to other Caribbean states. In addition, the proportion of students who reported they had seriously considered suicide, were involved in a physical fight or had been seriously injured was among the lowest in Curaçao compared to students in other Caribbean states. 13- to 15-year old students in Curaçao were also less likely to report they ever had sexual intercourse, and if they did, were less likely to report an early onset of sexual activity (before age 14). The proportion of students that used a condom during the last sexual intercourse, however, was average.

Regarding substance use, students in Curaçao also perform relatively well: the proportion of students who reported smoking, drinking alcohol, experiencing drunkenness and using marijuana in Curaçao was lower than the Caribbean average. Also, among 13-to 15-year old students who ever drunk alcohol or used drugs, students in Curaçao were less likely to report an early onset of substance use (before age 14). In contrast, 13- to 15-year old students in Curaçao perform less favourable compared to their Caribbean peers for physical activity. Students in Curaçao were among the least physically active and the most sedentary compared to their Caribbean peers, although the proportion of students who attended physical education class was higher than the Caribbean average.

In comparison with the average Caribbean proportions, the overall health profile of 13- to 15-year old students in Curaçao is therefore more favourable for most of the health indicators. In other words, students in Curaçao have generally lower risks for the negative effects of most presented health behaviours compared to their Caribbean peers, with the large exception for the negative effects of insufficient physical activity.

Table 12.1 13- to 15-year old students by health indicator (%)

	Curaçao	Caribbean average	# of Caribbean states
Family life			
Had parents who really knew what they were doing with their free time during the past 30 days	65.8	41.7	16
Had parents who most of the time or always understood their problems during the past 30 days	56.6	37.6	11
Peer relationships			
Had no close friends	8.3	8.6	18
Mental Health			
Seriously considered attempting suicide during the past 12 months	11.6	18.0	17
Healthy behaviours			
Brushed their teeth less than one time per day during the past 30 days	3.8	3.7	14
Never or rarely washed their hands after using the toilet or latrine during the past 30 days	3.7	3.7	14
Skipped school without permission during the past 30 days	20.6	23.2	16
Physical activity			
Physically active for at least 60 minutes per day on five or more days during the past 7 days	19.3	25.4	11
Went to physical education class on three or more days each week during the school year	34.1	25.1	11
Spent three or more hours per day doing sitting activities during a typical day	59.8	50.6	15
Dietary behaviours			
Daily consumption of carbonated soft drinks during the past 30 days	62.4	67.1	13

Comparison with Caribbean states

Table 12.1 (continued) 13- to 15-year old students by health indicator (%)

	Curaçao	Caribbean average	# of Caribbean states
Sexual health			
Ever had sexual intercourse	20.8	30.1	16
Onset of sexual activity before age 14, among students who ever had sexual intercourse	50.6	68.9	11
Condom use during last sexual intercourse, among students who ever had sexual intercourse	62.9	63.3	16
Substance use			
Smoked cigarettes during the past 30 days	7.2	9.3	14
Drank alcohol during past 30 days	32.4	41.3	17
Onset of alcohol consumption before age 14, among students who ever had a drink of alcohol	72.2	83.1	12
Was ever drunk	13.9	25.8	17
Marijuana use during lifetime	6.5	11.0	6
Onset of drug consumption before age 14, among students who ever used drugs	22.7	73.3	9
Violence and injuries			
Bullied during the past 30 days	26.7	26.2	18
Involved in a physical fight during the past 12 months	22.9	37.9	18
Seriously injured during the past 12 months	28.9	38.1	18

Chapter 13 Comparison with the Netherlands

Considering that Curaçao is part of the Kingdom of the Netherlands, Curaçao's statistics are often compared to the Netherlands. This chapter describes the results of students in Curaçao compared to Dutch students as surveyed during the 2013 HBSC-study in the Netherlands [3]. To this end, the sample of the GSHS Curaçao was adjusted to enhance comparability with the HBSC students. More specifically, only the first four grades of VSBO (called VMBO in the Netherlands), HAVO and VWO school levels were considered in this analysis. The proportions presented here may therefore deviate from the estimates presented in the previous chapters and do not represent the complete public student population in Curaçao.

Other factors that need to be taken into account when comparing students' proportions between both countries are differences in gender and school level distribution. Table 13.1 shows the proportion of students divided by gender and school level. In Curaçao, the proportion of female students in the first four grades is considerably higher than the proportion of male students, while gender differences are almost absent in the Dutch high schools. Moreover, students in Curaçao are more likely than Dutch students to attend the VSBO(VMBO) and less likely to attend the higher school levels HAVO/VWO. In the previous chapters we saw that health behaviours and protective factors vary considerably by gender and school level, and these differences are likely to contribute to the observed differences between students in Curaçao and the Netherlands as well.

Table 13.1 VSBO, HAVO and VWO students (first four grades) by gender and school level

	Curaçao	The Netherlands
Gender		
Male	41	51
Female	59	49
School level		
VSBO or VMBO	79	49
HAVO/VWO	21	51

Table 13.2 shows the proportions for students in the first four grades of VSBO, HAVO and VWO by health indicator for questions that were comparable among the GSHS and HBSC Study. The proportion of students in Curaçao who lived with both parents and who experienced their classmates as friendly and helpful was lower compared to Dutch students. Students in Curaçao were also more than twice as likely to report skipping school without permission and more than three times as likely to report being bullied. Students in Curaçao also had fewer days of physical activity for at least 60 minutes. Daily carbonated soft drink consumption was more common among students in Curaçao compared to their Dutch peers, while daily breakfast consumption was less common among students in Curaçao.

Although the proportions of students who described their weight as 'about right' was similar for Curaçao and Dutch students, students in Curaçao were almost four times as likely to report that they were trying to lose weight. On a more positive note, the proportion of students in Curaçao who consumed fruit and vegetables daily was more favourable compared to Dutch students.

Comparison with the Netherlands

Considering sexual behaviour, the proportion of students who ever had sexual intercourse was higher in Curaçao compared to the Netherlands. Among students who ever had sexual intercourse, condom use during the last time they had sexual intercourse was more commonly reported among Dutch students than among students in Curaçao.

Considering substance use, the proportion of students who reported that they smoked daily was more favourable among students in Curaçao. Alcohol consumption during the past 30 days was more common among students in Curaçao, while students' reports of experiencing drunkenness and marijuana use were similar between Curaçao and the Netherlands.

Overall, the comparisons between students in Curaçao and the Netherlands show that risk factors for health and well-being were considerably less favourable for most health indicators for students in Curaçao. In other words, students in Curaçao have generally higher risks for the negative effects of most presented health behaviours compared to their Dutch peers, with the large exception for the negative effects of tobacco consumption.

Table 13.2 VSBO, HAVO and VWO students (first four grades) by health indicator

	Curaçao	The Netherlands
Family life		
Lives with both parents	50.7	74.0
Peer relationships		
Most classmates were friendly and helpful	45.7	85.9
Healthy behaviours		
Skipped school during the past 30 days	22.2	9.3
Physical activity		
Average number of days of physical activity for at least 60 minutes	2.3 days	4.3 days
Dietary behaviours		
Breakfast daily[1]	65.7	80.3
Daily consumption of fruit	60.8	29.9
Daily consumption of vegetables	71.6	45.6
Daily consumption of carbonated soft drinks	63.1	29.6
Described weight as 'about right'	57.0	51.3
Is trying to lose weight	36.9	9.3
Sexual health		
Ever had sexual intercourse	28.4	9.8
Condom use during last sexual intercourse, among students who ever had sexual intercourse	55.8	67.3
Substance use		
Daily smoking	0.4	4.4
Drank alcohol during past 30 days	35.3	26.7
Was ever drunk	16.9	15.3
Marijuana use past 30 days	4.6	4.6
Violence and injuries		
Bullied during past 30 days [2]	26.8	6.9

[1] The Dutch proportion depicts students who reported they ate breakfast daily during weekdays. The Curaçao proportion depicts students who reported they ate breakfast always or most of the time.

[2] The Dutch proportion depicts students who were bullied two or more times during the 30 days before the survey. The Curaçao proportion depicts students who were bullied at least once during the 30 days before the survey.

Chapter 14 Discussion and Conclusion

Instead of repeating the findings from previous chapters, this chapter will discuss the different risk groups by age, gender and school level within Curaçao and described the themes in which our students stand out in comparison with their peers from other countries.

Risk groups

The overall prevalence estimates of health behaviours and protective factors do not apply to all students in Curaçao. Our findings show that some groups of students have specific risks for unfavourable health outcomes and social well-being.

Male students vs. female students

In all countries that previously conducted a GSHS Study, it is seen that male and female students differ in their health behaviours. In line with these studies, we found that male students were more likely to report external problem behaviour, such as their involvement in violent groups and fights, weapon carrying and traffic risk behaviour. In contrast, female students were more likely to depict internal problem behaviour, such as feelings of loneliness, worrying and suicide ideation. Perhaps surprisingly, while marijuana use was more common among male than among female students, tobacco and alcohol use was similar among male and female students.

Male and female students also did not differ in their reports of sexual intercourse. Their sexual experiences, however, did differ. An early onset of sexual activity and having had sexual intercourse in exchange for something, such as a phone, jewellery or money, was more commonly reported among male students. In contrast, reports' of forced sexual intercourse were more common among female students. Female students were also less likely than male students to report they used contraception during their last sexual intercourse, which was in line with their more common reports of experience with pregnancy. Considering that the differences between male and female students were significant, this suggests that female students are having sex outside their peer group; if their partners were classmates, we would expect the proportions to be similar. A previous observation that corresponds to our finding is that 15- to 24-year olds are the only age-group in which HIV-infection is more common among young women than among young men. This is thought to reflect the tendency of young women to have relationships with older men, who are more likely to have contracted the virus [2].

Health behaviours change with age

That health behaviours get worse during the adolescent years, is consistently seen in all countries that previously conducted a GSHS Study. Positive health behaviours, such as sleeping 8 hours or more and daily consumption of fruits and vegetables were most common among younger students, and decrease with age. Experimentation with 'adult' behaviours increase with age. Older students are therefore at higher risk for the negative consequences of tobacco, alcohol and marijuana consumption and sexual intercourse. Experiences with violence, on the other hand, decrease with age. Younger students in Curaçao were more likely than older students to report being bullied, being involved in physical fights and attacks and experiencing physical violence from their parents.

Health behaviours are associated with high school level

In line with the findings of HBSC Study in the Netherlands [3], we found that students' health profile consistently gets better with an increase in high school level. In Curaçao, the overall health profile of AGO students is less favourable than that of VSBO students, which in turn is less favourable than that of HAVO/VWO students. We found that negative health behaviours and outcomes, such as skipping classes without permission, smoking, the use of alcohol and marijuana (and experiencing trouble as a result), weapon carrying, serious injuries, involvement in physical fights and unsafe traffic risk behaviour, were most common among AGO students. On the other hand, AGO students were more likely to have been physically active and less likely to have been sedentary on a typical day, which may be related to their usual mode of transport. Generally, health promotion programs and related programs are likely to be most effective for AGO and VSBO students, simply because more students have to gain from these programs.

The observed differences between health behaviours among the high school levels are partly the result of differences in the socio-economic environment of the students; socio-economic status is a strong determinant for health status and risk factors [3], and children from affluent families are more likely to attend higher school levels (HAVO or VWO) than children from poorer families. Another factor that contributes to the health profile gradient across school levels is the parenting style and the home and social environment: AGO students were less likely to live with both their parents, to be able to rely on adults when they have personal problems, to have parents that respect their personal space (by not going through their things without their approval) and provide for their necessities. Not having any close friends, experiences of hunger because there is no food in the house, and experiences of forced sexual intercourse were also more common among AGO students compared to students in VSBO or HAVO/VWO schools. Lastly, students in the lower levels of high school are thought to transition to 'adulthood' earlier, including the display of behaviour that is interpreted as 'adult behaviour, such as smoking, alcohol and drug consumption, and sexual activity [3].

Adolescent risk groups: note on methodology

The recruitment strategy of the GSHS Study excludes adolescents that were not attending a high school in the public education system, for example drop-outs and youth delinquents, and students in private schools. Since these groups are known to have distinctive characteristics, it is probable that their specific health profiles differ as well. For example, male adolescents who reside in residential care or the youth prison in Curaçao were previously found to be more likely to exhibit delinquent and traffic risk behaviour than their peers in high school [62]. In addition, pregnant teenagers need to (temporarily) cease their high school education according to school regulations [38]. Drop-outs represent a large proportion of Curaçao's youngsters: during the Census of 2011, the 15- to 24-year olds drop-out rate was estimated at 34.9% [1]. Finally, it is expected that the socio-economic circumstances of privately schooled students are more conducive for the adoption of healthy behaviours and an improved sense of well-being, which in turn leads to better health outcomes.

International comparisons

Chapters 12 and 13 showed that the health profile of students is largely positive in comparison with the Caribbean average, but less favourable in comparison with Dutch students. The reasons for these findings cannot be discerned from our cross-sectional study, and may partly reflect differences in age,

gender and school level distribution between the student populations, but also more distal factors such as socio-economic conditions, cultural preferences, the implementation of health and youth policies, and combinations thereof.

Socio-emotional development

The large majority of students in Curaçao consider themselves religious or spiritual, can rely on adults when they experience personal problems, and have close friendships. Living with both parents was less common among students in Curaçao compared to their Dutch peers. Parental involvement and support is, however, higher in Curaçao than the average of Caribbean states. The proportions of students who reported that their parents or guardians knew what they were doing with their free time and who understood their problems and worries was the highest in Curaçao. Parental involvement and support was previously associated with lower levels of depression and suicidal ideation [15]. This is in line with our finding that suicide ideation among students in Curaçao was relatively low compared to their Caribbean peers.

Healthy behaviours

Although a minimum of 8 hours per night is recommended for 13- to 17-year olds to promote optimal functioning [25], almost two-thirds of the students said they slept less than 8 hours on an average school night. Lack of sleep, or poor sleep, has not only been associated with poorer health and well-being, including an increased risk of obesity [21], but also has a detrimental effect on school performance [24] and memory skills [22]. The large majority of students in Curaçao frequently brushed their teeth, washed their hands before eating and after using the toilet and used soap when doing so. Hygiene behaviour of students in Curaçao was similar to the Caribbean average.

Substance use

Experimentation with tobacco, alcohol and drug consumption is relatively common among adolescents. In regional comparisons of tobacco, alcohol and marijuana consumption, students in Curaçao have a favourable position compared to the average of Caribbean students: the proportion of students who reported smoking, drinking alcohol, experiencing drunkenness and using marijuana in Curaçao was lower than the Caribbean average. Also, among 13-to 15-year old students who ever drunk alcohol or used drugs, students in Curaçao were less likely to report an early onset of substance use (before age 14).

Daily smoking among students was less common in students from Curaçao than in students in the Netherlands. The proportion of students who reported drinking alcohol, however, was higher in Curaçao, while similar proportions reported drinking so much that they were really drunk. This implies that while alcohol use among students in Curaçao was more common, they were less likely to drink large quantities at one time compared to their Dutch peers. Marijuana use was less common among students in Curaçao than among the Caribbean average and comparable to the level of Dutch students.

Physical activity and dietary behaviours

Relatively few students had been weighed or measured in the 12 months before the survey, indicating that many may not be aware of potential health risks related to their body mass index (BMI).

Unfortunately, Body Mass Index (BMI) calculations based on self-reported height and weight were therefore considered too unreliable to be reported here. Compared to Dutch students, students in Curaçao were however four times more likely to report that they were trying to lose weight, in spite of similar proportions of students that described their weight as 'about right'. Compared to students in other Caribbean countries and the Netherlands, students in Curaçao were among the least physically active. Sedentary behaviour was also more common among students in Curaçao than among their Caribbean peers, while the proportion of students who attended physical education class was higher than the Caribbean average.

The proportion of students in Curaçao who consumed carbonated soft drinks daily was average compared to students in other Caribbean countries, but higher compared to students in the Netherlands. Compared to their Dutch peers, daily breakfast consumption was also less common among students in Curaçao. For the consumption of fruits and vegetables the picture was a bit better: daily fruit and vegetable consumption is higher among students in Curaçao than among Dutch students. Considering that both the level of physical activity and unhealthy dietary behaviours are important predictors for obesity and related health problems, the risks for students in Curaçao to develop these disorders are relatively high.

Sexual behaviour

Sexual activity is a normative experience for students in Curaçao. The proportion of students in Curaçao who reported they had sexual intercourse is lower compared to their Caribbean peers, but higher than in Dutch students. Students in Curaçao were also less likely to report an early onset of sexual activity than other Caribbean students.

Among students who ever had sexual intercourse, a small majority reported they used reliable methods of birth control, such as condoms, birth control pills or an intra-uterine device, to prevent pregnancy. Condom use during the last sexual intercourse among students in Curaçao was average compared to other Caribbean students, but less common compared to Dutch students. Compared to their Dutch peers, this places a substantial proportion of students in Curaçao at risk for sexual transmitted diseases and pregnancy.

Our findings confirm previous studies results' of insufficient knowledge about the negative consequences of sexual behaviour and the ways to prevent them among adolescents in Curaçao [37–40]. This is further illustrated by our finding that among female students who ever had sexual intercourse, 1 in 10 reported they used the morning after pill as the main method to prevent pregnancy. Moreover, experiences with pregnancy were relatively common: among students who ever had sexual intercourse, 1 in 8 female students reported they had been pregnant and 1 in 11 male students reported they had gotten someone pregnant. Given that an estimated 40 to 54% of the total number of teen pregnancies in Curaçao ends in abortion, many of these pregnancies are unwanted [39].

Discussion and Conclusion

School environment

The proportion of students in Curaçao who reported they skipped school without permission was lower (for male students) or average (for female students) compared to their Caribbean peers. Compared to Dutch students, skipping school without permission was twice more common among students in Curaçao.

Less than half of the students in Curaçao said that their classmates were usually kind and helpful. Dutch students' reports of friendly and helpful classmates were almost twice as high. Since much of the bullying takes place within the school environment, this may relate to our finding that students in Curaçao were also more than three times as likely to report being bullied than their Dutch peers. The proportion of students in Curaçao who reported they were bullied during the past 30 days, however, was similar to the Caribbean average. Victims of bullying experience increased stress and a reduced ability to concentrate, which in turn is related to lower school achievement [63]. It is therefore probable that low school achievement among Curaçao's adolescents cannot be effectively addressed without considering bullying and the school environment.

Violence

Homicide was the leading cause of death in adolescent (10- to 19-year old) males in Curaçao from 2003 to 2007 (latest available data), accounting for 4 in 10 of the lives lost in this age-group. Our findings confirm the presence of a 'culture of violence' among students with the findings that 1 in 5 male students had carried a weapon during the past 30 days and 1 in 13 male students claimed that they belong to a violent group or gang. Moreover, experiences of physical violence in intimate relationships and parental relationships, and experiences of physical attacks were relatively common among students in Curaçao. Compared to their Caribbean peers, however, physical fights were less common among students in Curaçao.

Traffic risk behaviour

The second leading cause of death for adolescent (10- to 19-year old) males and the leading cause of death for adolescent females from 2003 to 2007 (latest available data) were transport accidents. Injuries due to transport accidents do not necessary lead to death, and more often lead to disability or mental health problems [60]. One of the main ways to prevent serious injuries during road traffic accidents is by employing safe traffic behaviours. Our findings show that safe traffic behaviour is compromised among students in Curaçao: one-third of the students who was driven by someone during the past 30 days reported they never or rarely used a seat belt, and one-fifth said they were driven by someone who had been drinking alcohol.

Conclusions

The GSHS Curaçao 2015 aimed to generate an overview of the current status of health and well-being among Curaçao's adolescents. This report presents the main findings of the study. It provides an up-to-date view of adolescent health behaviour and well-being in Curaçao, it compares our students' health to Caribbean states that previously participated in the GSHS Study and to a comparable survey among students in the Netherlands. The information in this report is strongly encouraged to be used for setting priorities, establishing programs, and advocating for resources for school health, youth health programs and related policies.

The GSHS Curaçao study will be repeated every four years. Successive study cycles will allow to establish trends in the prevalence of health behaviours and protective factors among Curaçao's adolescents for use in evaluation of health policies and health promotion programs. As part of the collaboration between Curaçao, the Pan American Health Organization (PAHO) and the Centers for Disease Control and Prevention (CDC), this report and the GSHS Curaçao 2015 dataset will also be published on WHO's website: http://www.who.int/chp/gshs/en/.

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Appendix A Public schools in Curaçao

Number	School	School level	School board
1	AGO Comanchestraat	AGO	DOS
2	AGO Montana	AGO	DOS
3	Marieta Alberto	AGO	DOS
4	SGO Joseph Civilis	AGO/VSBO	RKV
5	Juan Pablo Duarte	AGO/VSBO	DOS
6	St. Paulus	AGO/VSBO	RKV
7	Kolegio Erasmo	VSBO	FSH
8	Maria College	VSBO	RKV
9	Ancilla Domini	VSBO	RKV
10	Dr. Albert Schweitzer Parera	VSBO	VPCO
11	Maris Stella	VSBO	RKV
12	Marnix Cas Cora	VSBO	VPCO
13	Marnix Rio Canario (Mavo)	VSBO	VPCO
14	New Song College	VSBO	SCONS
15	Pierre Laufferschool	VSBO	RKV
16	Gouv. J.R. Laufferschool	VSBO	DOS
17	Regina Pacis	VSBO	RKV
18	SGO Goslinga	VSBO	DOS
19	SGO Jacques Ferrandi	VSBO	DOS
20	SGO Parera	VSBO	DOS
21	St. Jozef	VSBO	RKV
22	St. Ignatius College	VSBO	RKV
23	Stella Maris college	VSBO	RKV
24	Triniteit College	VSBO	RKV
25	Dr. Albert Schweitzer	HAVO/VWO	VCPO
26	Maria Immaculata Lyceum	HAVO/VWO	RKV
27	Kolegio Alejandro Paula	HAVO/VWO	DOS
28	Radulphus College	HAVO/VWO	RKV
29	Nilda Pinto 'Ban Bria'	SBO	DOS
30	Maris Stella SBO	SBO	RKV
31	Eligia Martir	SBO	RKV
32	Frater Aurelio	SBO	RKV
33	MTS	SBO	RKV
34	IFE	SBO	STIFE

Between October 20th and November 30th 2015, the Global School-Based Student Health Survey (GSHS) was conducted in 27 AGO, VSBO, HAVO/VWO and SBO (first two classes) schools in Curaçao. This report presents the findings of this study. It provides an up-to-date view of youth health and well-being among adolescent students who attend Curaçao's public education system. In addition, it compares our students to Caribbean states that previously participated in the GSHS study and to Dutch students who participated in a comparable survey in the Netherlands.

The Curaçao GSHS 2015 is a publication of the Public Health Institute of Curaçao (Volksgezondheid Instituut Curaçao, VIC), in collaboration with PAHO/WHO and the CDC. Survey administration was performed by the Central Bureau of Statistics. Digital versions of this and previous publications are available on the website of VIC: www.vic.cw.