

2024

Global school-based student health survey results

Lebanon



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Abbreviations and acronyms

BMI	Body Mass Index
CDC	Centers for Disease Control and Prevention
CSE	Comprehensive Sexuality Education
EMRO	World Health Organization Eastern Mediterranean Regional Office
GSHS	Global School-based Student Health Survey
HIV	Human Immunodeficiency Virus
HICs	High Income Countries
LICs	Low Income Countries
LMICs	Low Middle-Income Countries
MEHE	Ministry of Education and Higher Education
MENA	Middle East and North Africa
MOPH	Ministry of Public Health
MTF	Monitoring the Future
PYD	Positive Youth Development
ROI	Response of Interest
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infection
UNAIDS	Joint United Nations Program on HIV/AIDS
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
WHO	World Health Organization

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The survey was implemented under the joint leadership of His Excellency, former Minister Dr. Abbas Halabi, and the follow-up of Acting Director General Mr. Imad Al Achkar, as well as former Minister Dr Firas Abiad, facilitated by Dr Nadeen Hilal, advisor to the Minister.

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This survey was implemented with the technical backup of the GSHS Steering Committee composed of:

- **Chair:** Dr. Hilda El Khoury (MEHE, Director of the Counselling and Guidance Directorate)
- **Co Chair:** Mrs. Pamela Zgheib (MOPH, Head of the Mother and Child Department),
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Executive summary

The Global School-based Student Health Survey (GSHS) was initially developed by the World Health Organization (WHO) in collaboration with the United Nations Children's Fund (UNICEF), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the Joint United Nations Program on HIV/AIDS (UNAIDS) and with technical assistance from the Centers for Disease Control and Prevention (CDC). The goal of the GSHS is to gather epidemiological data from students to support school health and youth health programs as well as youth-relevant policies both nationally and globally. The survey is undertaken systematically across multiple countries in order to generate comparable estimates.

Following the first (2005), second (2011) and third round (2017), Lebanon implemented its fourth round of the GSHS in 2024. The purpose of the survey is to: 1) gather epidemiological data to set priorities, and establish evidence-informed programs, as well as to advocate for the resources necessary to ensure school health or youth health programs and policies; 2) monitor trends in terms of the prevalence of health behaviours and their associated factors by comparing 2024 survey data to previous data from 2017; and, 3) identify areas that need to be addressed via national policies or school-based programs.

The 2024 survey employed a two-stage sampling design. Sixty-four schools were sampled for the study. Out of the 64 targeted schools, only 51 schools were successfully recruited for participation in the survey despite the Ministry of Education and Higher Education's (MEHE) efforts to explain the importance and the objectives of the study. At the school level, 82.3% (51 of the 62) of the sampled schools participated. At the student level, 68.9% (3,750 of the 5,447) sampled students completed questionnaires. Finally, 3,750 questionnaires were usable after data editing. The overall response rate was $82.3\% \times 68.9\% = 56.7\%$.

A total of 5,447 students (Grades 7-12) were recruited from 64 schools, both public and private, from all over Lebanon. Out of those, 3,750 students completed the anonymous, self-administered 83-item questionnaire which included 10 core modules addressing leading causes of morbidity and mortality among children and adolescents worldwide. The core modules cover questions related to alcohol use, dietary behaviours, drug use, hygiene, mental health, physical activity, protective factors, sexual behaviours, tobacco use, as well as violence and unintentional injuries. Due to the extent of non-response, unweighted data is presented in this report.

Findings reveal that slightly more than 1 in 3 students (36%) were overweight or obese. Estimates of overweight and obesity were statistically significantly higher in males, lower grade levels, and public-school students (latter only obesity estimates). Healthy eating habits were more common among male students (for example, their vegetable and fruit intake during the 7 days before the survey), although males did report drinking carbonated soft drinks more often than females. Healthy eating habits were also more common in the lower grade levels. Physical activity (defined as a total of 60 minutes per day on all 7 days of the preceding week) was reported by 1 in 5 (20%) of the total sample; with a statistically significantly higher percentage in males, a decreasing trend within higher grades, and no school type differences. Close to half of the total sample had been in a physical fight one or more times in the preceding year – this was reported by twice as many males (62% vs. 33%), with the trend significantly decreased in higher grade levels, and there were no public-private school differences. Three-quarters of the total sample reported never or rarely wearing a seat belt when riding in a car or other motor vehicle driven by someone else (among students who rode in a car or other motor vehicle driven by someone else during the 30 days before the survey), with no differences by gender, grade or school type. More than one in four (28%) reported being bullied on school property during the 12 months prior to the survey, again there were no differences by gender, grade level or school type. Cyberbullying, however, was statistically significantly higher in the lower grade levels. A substantial proportion of the total sample reported feeling lonely most of the time or always (19%), often feeling anxious or worried (27%), and, worryingly, many reported suicide ideation (18%), planning (22%), as well as unsuccessful attempts (14%) during the 12 months prior to the survey. Suicidality was more common in females, but no differences were noted by grade level or school type. About a third of the grade 7 students had already experimented or tried cigarette smoking (and close to 50% of the

grade 12 students had), with statistically significantly higher percentages in males (46% vs. 37%). Early onset smoking was noted; about two thirds of the students who ever tried smoking a narghile or waterpipe had first tried it at aged 13 or younger. The dangers of smoking are inconsistently covered within the school curriculum or extracurricular activities for only 39% of the sample said they were taught about the dangers of tobacco use during their school year. Experience of being drunk was reported by about 6% of the sample (a similar percentage reported getting into trouble at home or school one or more times because of drinking alcohol); the percentages were higher in males. As with tobacco awareness/education, only a third reported being taught about the effects of alcohol on their decision-making in school. Cannabis use was reported by 3% of the sample. About 58% of the total sample reported that none of their friends had had a sexual relationship, there were no differences by grade level or school type. Finally, the percentage of students who used their mobile phone to access social media, for online communication, or to browse the internet three or more hours per day (among students who had a mobile phone during the 7 days before the survey) was 71%, this was higher in females and higher grade levels, but there were no differences between private and public school students.

This report adds to the existing literature on health risk behaviours and protective factors among youth and highlights the need for multilevel prevention strategies involving students, teachers, parents, and other stakeholders. Though the estimates are not weighted and do not necessarily represent the national situation in public and private schools, the findings do signal the urgent need for effective school-based interventions that are adapted and contextualized to school settings in Lebanon. Research is needed to investigate and address local barriers and enablers to the implementation of effective school interventions.

It is important to note and understand that adolescent issues do not occur in silos, and often the same adolescent is being bullied, feeling anxious, eating unhealthily, and having trouble discussing his/her issues with a close friend or parent. Therefore, a holistic and comprehensive approach to adolescent health must be adopted. Effective school interventions must be contextualized to the Lebanon context and be culturally adapted, age-appropriate, gender sensitive, and participatory in nature, engaging all primary stakeholders including parents, teachers, and students as active agents of change of their own wellbeing.

This report should serve as a platform for national researchers to investigate the underlying factors associated with adolescents' risk behaviours. It is also important to take a more positive approach and understand why the majority of youth do not engage in risky behaviours and perhaps learn both qualitatively and quantitatively how existing protective and risk factors can interplay to impact youth health. Evidence-based recommendations for future GSHS or other surveillance research are provided.

Results from the 2024 GSHS call for a national action plan for adolescent health – that could be advocated for by adolescents to ensure adoption, and, as a result, increase overall adolescent physical, social and mental health and wellbeing. Since GSHS is being repeated approximately every 5 years, the results of the current 2024 GSHS report should be disseminated to all governmental agencies, and schools, and other stakeholders, and a 5-year national strategy for adolescent health in Lebanon should be launched, monitored, and evaluated. This strategy should build on all the work that the MEHE (through the national school health program and other initiatives related to the school environment, such as the roll out of the Child Protection Policy in the School Environment, developed by MEHE and the Center for Educational Research and Development (CERD), the Psychosocial Support (PSS) program, the inclusive schools program and others) and other ministries, as well as academic institutions are involved in, to ensure overall adolescent physical, social and mental health and wellbeing and above and beyond ensuring the absence of disease. By fostering collaboration and strengthening existing programs, this strategy will further advance health promotion for children and adolescents, creating a supportive environment for their holistic development.

Part I: Introduction





I. Background

One in six people worldwide are between 10-19 years of age (WHO, 2024b). Adolescents, aged 10-19, are often considered to be healthy; yet over 1.5 million adolescents and young adults aged 10–24 years die yearly, about 4,500 every day, due to conditions that are preventable or treatable (WHO, 2024a). In the World Health Organization (WHO) report entitled “Adolescents: Health Risks and Solutions” (WHO, 2024a), we note that injuries, interpersonal violence, and self-harm are among the leading causes of death among adolescents and young adults. Early onset of mental health disorders, including substance use, are of course, associated with those adolescents facing significant burdens, particularly when/if left undetected or untreated. It is indisputable that promoting adolescent health is essential to save the lives of many young people and ensure successful transition to adulthood.

The Global School-based Student Health Survey (GSHS) is a surveillance project that collects data on health behaviours and protective factors among middle and high school students, the majority of whom are aged 13-17 years, in order to 1) help countries develop priorities, establish programs, and advocate for resources for school health and youth health programs and policies; 2) allow international agencies, countries, and others to make comparisons across countries regarding the prevalence of health behaviours and protective factors; and 3) monitor trends in the prevalence of health behaviours and protective factors by country for use in evaluating school health and youth health promotion programs. GSHS was developed by the WHO and the Centers for Disease Control and Prevention (CDC) in collaboration with the United Nations Children’s Fund (UNICEF), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the Joint United Nations Program on HIV/AIDS (UNAIDS).

The GSHS provides an open-access dataset on adolescent health behaviours and risk and protective factors from 104 countries from 2003 to 2018, with the majority of participating countries conducting surveys during this time period. In the Eastern Mediterranean Regional Office (EMRO), in addition to Lebanon, 19 countries completed the GSHS including: Afghanistan, Bahrain, Djibouti, Egypt, Iraq, Jordan, Kuwait, Libya, Morocco, the Occupied Palestine Territory, Oman, Pakistan, Qatar, Sudan, Syria, Tunisia, United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), United Arab Emirates, and Yemen. Figure 1 below (extracted as is from (Bischops et al., 2023)) gives an overview of the participating countries and global coverage.

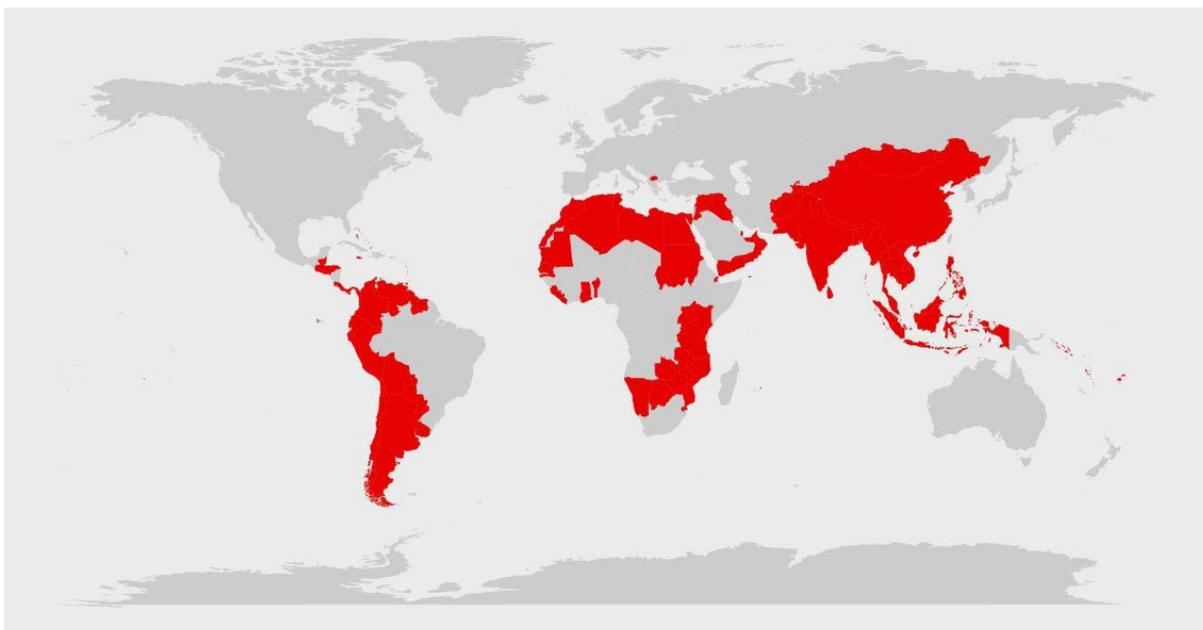


Figure 1 Overview of participating countries with available Global School-based Student Health Survey data worldwide. The figure was done using the Rmaps package (v3.4.0, Becker et al., 2021) based on Natural Earth data.

A standardized multistage cluster sampling technique is followed. The GSHS questionnaire is a self-administered, computer-scannable tool with core questionnaire modules, core-expanded questions, and country-specific questions. It is worth noting that the inclusion and coverage of questions/indicators across countries is not consistent, as shown in Figure 2 below (extracted as is from (Bischops et al., 2023)). Figure 2 further illustrates the number of GSHS publications emanating from different global regions.

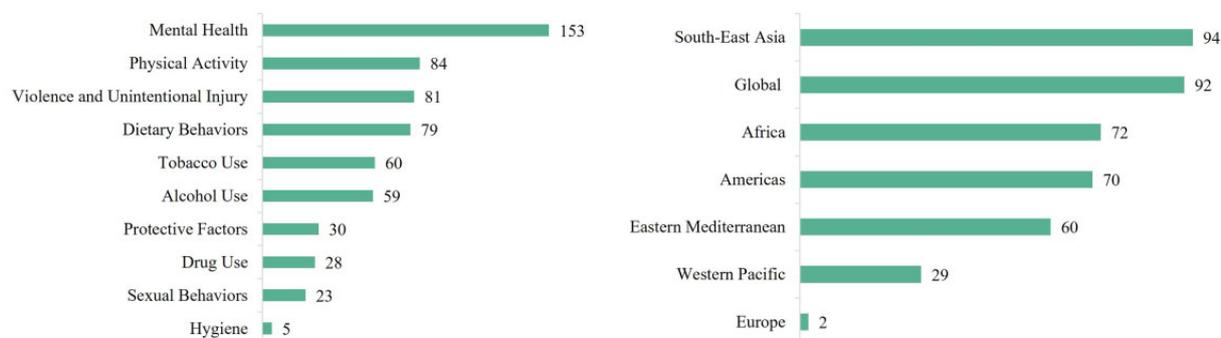


Figure 2 Coverage of behavioural health risk factors per categories (a) and World Health Organization regions (b) for Global School-based Student Health Survey publications, 'Global' defined as publications including at least four World Health Organization regions

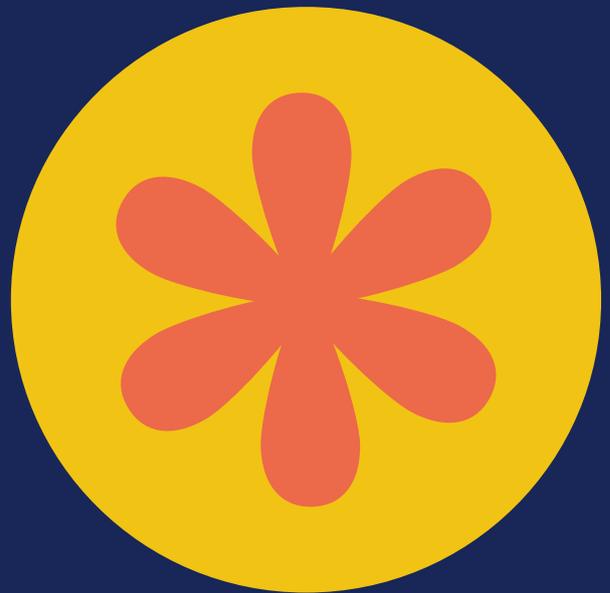
The GSHS country-specific datasets are freely available at the [WHO's noncommunicable disease microdata repository](#). For every survey, users can find a study description, questionnaires, fact sheets and codebook, as well as data descriptions and downloadable data files.



II. About 2024 GSHS Lebanon

Lebanon implemented its first three waves of GSHS in 2005, 2011 and 2017. As with earlier the earlier surveys, the latest 2024 GSHS was conducted collaboratively by the WHO, the Ministry of Education and Higher Education (MEHE) and the Ministry of Public Health in Lebanon and took place between February and May 2024. This latest wave was conducted among students in middle and high school students (grades 7-12) in an effort to monitor the prevalence of important health risk behaviours and protective factors, establish time trends, and direct decisions related to school health programs for a larger segment of youth. The kick-off meeting took place in February 2024 in the presence of representatives from MEHE and WHO. The aim of this meeting was to launch the GSHS survey, to develop the tool and plan the coordination and the collection of data. The current 2024 GSHS included the same modules that were previously part of the 2017 GSHS, and an additional module on social media and vaccines. It also further integrated additional detailed questions on students' food intake, tobacco use, oral hygiene, and health education. Ethical guidelines and protocols, as outlined by WHO and MEHE, were strictly adhered to during all stages of the survey. Informed consent procedures were followed (students with no signed parental consent did not partake in the study), and participant confidentiality and privacy were safeguarded at all times. The following report summarizes the findings from the 2024 GSHS conducted in Lebanon by MEHE in collaboration with MOPH and WHO Lebanon Office. The report aims to 1) describe the prevalence of adolescent behaviours and related protective factors among middle and high school students; 2) highlight the main differences by sex, school type and grade level; and 3) explore time trends between GSHS 2017 and GSHS 2024. Evidence-informed recommendations are also presented at the level of research or policy/practice.

Part II: Methods





I. Sampling procedures

The sample selection was undertaken by WHO HQ in Geneva. MEHE shared a list of private and public schools across Lebanon. The list specified the classes in each school and number of students registered. WHO HQ shared the final sample on 14 March 2024 that included 64 schools in total (32 public and 32 private). The sample was reviewed by WHO and the MEHE and it was determined that 4 schools in the South were in the danger zone. However, a new sample was not drawn due to time constraints, and it was decided that those four schools would be considered within the non-response rate.

The 2024 GSHS Lebanon, as in previous years, employed a two-stage cluster sampling approach. The first level of the GSHS sample selection process was schools. All schools containing Grade 7 - Grade 12 were included in the sampling frame; 64 schools were sampled with probability proportional to enrolment. The second level of the GSHS sample selection process was classrooms. All classes with the majority of students in Grade 7 - Grade 12 were included in the sampling frame. 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 classrooms were eligible to participate in the GSHS.

It is important to note that all the public and private school directors were invited by MEHE to attend an introductory session on the GSHS. The meeting was held online (and was recorded) on 22 April 2024 aiming to introduce GSHS, the sampling procedures used, the methodology of the data collection and how the results will be used. This was an opportunity to allow the directors to ask any questions that they might have about the survey.



II. GSHS questionnaire

The questionnaire development was discussed by a committee containing representatives of the MEHE, WHO, academic consultants and private associations. After thorough discussions, a final copy was shared on 21 April 2024 with EMRO and HQ for final feedback and coding. Once coding was complete, WHO HQ shared the draft answer sheets that were to be used.

The GSHS is self-administered, and for each theme/topic, a set of core questions, core-expanded questions and country specific questions may be included. The questionnaire collects data on the leading causes of morbidity and mortality among children and adults worldwide. Countries implementing the GSHS must include at least six of the ten core modules with no changes in their wording to enable comparison across different countries; the same applies for the three demographic questions. Additional core-expanded questions and country specific questions can be added as relevant to each country's needs. These questions share the same format characteristics as the core questions and can be used to collect more detailed and contextually relevant data. GSHS 2024 Lebanon survey is a mix of questions from the 10 modules (core, core-extended and country specific), however, as per the GSHS methodology, the 6 core modules that were chosen (each core module taken as it is, no changes to questions) are the following: dietary habits, hygiene, mental health, drugs, tobacco and alcohol.

The questionnaire was developed both in English (see Appendix A) and in Arabic (see Appendix B). All questions shared a common format to streamline the flow of the survey and enhance comprehension by the student. No skip patterns were allowed. The survey was administered in Arabic, and special answer sheets and pencils were distributed to students from WHO in order to answer the survey.



III. Core modules, themes and measures

The 2024 GSHS Lebanon surveyed the following main questionnaire modules: dietary behaviours, personal and oral hygiene, violence and unintentional injury, mental health, tobacco use, alcohol use, drug use, sexual and reproductive behaviours, physical activity, and protective factors. This year, and for the first time, questions on vaccine and social media use were also included. The original questions were dichotomized for the purpose of the report, and tables 2A-2L present the percentage of students in the total sample, and by sex, grade and school type. Below, we briefly describe the modules and corresponding themes assessed, as well as the binary measures included in the table and discussed in the report.

1. **Dietary behaviours:** (Q5-15) This module included a total of **11 questions** divided across several sections.

- a. **BMI and food security:** (Q5-7) This section constituted of **3 questions**. The first two were about self-reported height (cm) and weight (kg) which were then used, along with sex and age, to calculate body mass index (BMI) and subsequently as indicators regarding whether the respondent was underweight, overweight, or obese, based on the WHO Growth Reference Data. Height, weight, and BMI were reviewed to ensure that results were plausible before the indicators were calculated. Students were categorized as underweight if their BMI was $<-2SD$ from the median for age and sex; overweight if their BMI was $>+1SD$ from the median for age and sex; and obese if their BMI was $>+2SD$ from the median for age and sex. In addition, students were asked how often they went hungry because there was not enough food at home during the past 30 days (never/rarely/sometimes/most of the time/always). In this report, we describe the following indicators: (1) Percentage of students who were underweight ($<-2SD$ from median for BMI by age and sex); (2) Percentage of students who were overweight ($>+1SD$ from median for BMI by age and sex); (3) Percentage of students who were obese ($>+2SD$ from median for BMI by age and sex), and; (4) Percentage of students who most of the time or always went hungry (because there was not enough food in their home during the 30 days before the survey).
- b. **Eating habits:** (Q8-12) This section included **5 questions** assessing the frequency of intake of fruits, vegetables, carbonated soft drinks (excluding diet drinks), and sweetened beverages (along with a definition highlighting that the question included sports and energy drinks mentioning specific examples, fruit juices, sugar-sweetened flavoured milks and teas) in the preceding week. An additional question covered the number of days a student consumed food from a fast-food restaurant (dine-in or delivery) during the preceding week. In this report, we describe the following indicators: (1) Percentage of students who did not eat fruit (during the 7 days before the survey); (2) Percentage of students who ate fruit less than one time per day (during the 7 days before the survey); (3) Percentage of students who ate fruit one or more times per day (during the 7 days before the survey); (4) Percentage of students who usually ate fruit two or more times per day (during the 30 days before the survey); (5) Percentage of students who ate fruit three or more times per day (during the 7 days before the survey); (6) Percentage of students who did not eat vegetables (during the 7 days before the survey); (7) Percentage of students who ate vegetables less than one time per day (during the 7 days before the survey); (8) Percentage of students who ate vegetables one or more times per day (during the 7 days before the survey); (9) Percentage of students who usually ate vegetables two or more times per day (during the 30 days before the survey); (10) Percentage of students who usually ate vegetables three or more times per day (during the 30 days before the survey); (11) Percentage of students who did not drink carbonated soft drinks (excluding diet soft drinks, during the 7 days before the survey); (12) Percentage of students who drank carbonated soft drinks less than one time per day (excluding diet soft drinks, during the 7 days before the survey); (13) Percentage of students who drank carbonated soft drinks one or more times per day (excluding diet soft drinks, during the 7 days before the survey); (14) Percentage of students who drank carbonated soft drinks two or more times per day (excluding diet soft drinks, during the 7 days before the survey); (15)

Percentage of students who drank carbonated soft drinks three or more times per day (excluding diet soft drinks, during the 7 days before the survey); (16) Percentage of students who did not drink sugar-sweetened drinks (excluding carbonated soft drinks and diet or no calorie drinks, during the 7 days before the survey); (17) Percentage of students who drank sugar-sweetened drinks less than one time per day (excluding carbonated soft drinks and diet or no calorie drinks, during the 7 days before the survey); (18) Percentage of students who drank sugar-sweetened drinks one or more times per day (excluding carbonated soft drinks and diet or no calorie drinks, during the 7 days before the survey); (19) Percentage of students who drank sugar-sweetened drinks two or more times per day (excluding carbonated soft drinks and diet or no calorie drinks, during the 7 days before the survey); (20) Percentage of students who drank sugar-sweetened drinks three or more times per day (excluding carbonated soft drinks and diet or no calorie drinks, during the 7 days before the survey); (21) Percentage of students who did not drink any sugar-sweetened drink (during the 7 days before the survey); (22) Percentage of students who drank any sugar-sweetened drink less than one time per day (during the 7 days before the survey); (23) Percentage of students who drank any sugar-sweetened drink one or more times per day (during the 7 days before the survey); (24) Percentage of students who drank any sugar-sweetened drink two or more times per day (during the 7 days before the survey); (25) Percentage of students who drank any sugar-sweetened drink three or more times per day (during the 7 days before the survey), and; (26) Percentage of students who ate from a fast food restaurant 1 time or more (during the 7 days before the survey).

- c. **Weight perception and nutrition education:** (Q13-15) This section constituted of **3 questions** where students were asked whether they have taken any diet pills, powders, liquids, or injections without medical advice to lose weight or to keep from gaining weight (yes/no). Students' weight perception in relation to their statistically ideal weight (very underweight/ slightly underweight/ about the right weight/ slightly overweight/ very overweight) was also assessed. Students were asked if they were taught in class during the school year about the impact of frequently consuming food that was high in fat, sugar, and salt. In this report, we describe the following indicators: (1) Percentage of students who took any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight (during the 30 days before the survey); (2) Percentage of students who described themselves as slightly or very overweight, and; (3) Percentage of students who were taught in any of their classes about the risks related to eating too much food that was high in fat, sugar, or salt (during this school year).

2. Hygiene: (Q16-22) This module included a total of **7 questions** divided into two sections.

- a. **Oral hygiene behaviours:** (Q16-19) This section included **4 questions** on oral hygiene practices mainly the number of times students brushed their teeth every day, whether or not they used toothpaste, and if they missed school due to a problem with their mouth, teeth or gums in the past 30 days, as well as the main reason for visiting the dentist in the past 12 months preceding the survey. In this report, we describe the following indicators: (1) Percentage of students who did not clean or brush their teeth or usually cleaned or brushed their teeth less than 1 time per day (during the 30 days before the survey); (2) Percentage of students who usually used a toothpaste that contained fluoride (among students who cleaned or brushed their teeth during the past 30 days); (3) percentage of students who missed classes or school because of a problem with their mouth, teeth, or gums (during the past 30 days), and; (4) Percentage of students whose main reason for visiting the dentist was because something was wrong with their teeth or gums (among students who visited a dentist during the 12 months before the survey).
- b. **Handwashing practices:** (Q20-22) This section included **3 questions** assessing the number of times students reported washing hands before eating, after using the toilet, and whether they used soap while handwashing in the past 30 days. We describe in this report the following indicators: (1) Percentage of students who never or rarely washed their hands before eating (during the 30 days before the survey); (2) Percentage of students who never or rarely washed their hands after using the toilet or latrine (during the 30 days before the survey), and; (3) Percentage of students who never or rarely used soap when washing their hands (during the 30 days before the survey).

- 3. Violence and unintentional injury:** (Q23-32) This module included a total of **10 questions** asking about serious injuries, physical attacks, bullying, harassment, and road safety.
- a. Unintentional Injury:** (Q23-24 and Q32) This section included **3 questions** on the type of, and the main reason behind, a serious injury that occurred in the past 12 months. Serious injury was defined for the students as any injury that makes a student miss at least one full day of usual activities such as school, sports, or a job or that required treatment by a doctor or nurse. One additional question assessed road safety by inquiring about the number of times the student wore seatbelt in the last 30 days. We report here on 3 indicators of injury experience: (1) percentage of students who reported that their most serious injury was a broken bone, dislocated joint, or a broken or knocked out tooth (among students who were seriously injured during the 12 months before the survey); (2) percentage of students who reported that their most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle (among students who were seriously injured during the 12 months before the survey), and; (3) Percentage of students who never or rarely used a seat belt when riding in a car or other motor vehicle driven by someone else (during the 30 days before the survey, among students who rode in a motor vehicle driven by someone else).
 - b. Violence:** (Q25-26) This section began by highlighting the difference between a physical attack and a physical fight for the students. A physical attack occurs when one or more people hit or strike someone, or when one or more people hurt another person with a weapon (such as a stick, knife, or gun). Otherwise, an event where two students of about the same strength or size choose to fight each other is not considered a physical attack, but rather a physical fight. Then, it included **2 questions** on the occurrence of physical attacks in school (by a teacher, administrator, supervisor, or principal) and the number of times a student was involved in a physical fight in the past 12 months. We report here: (1) percentage of students who had been physically attacked on school property by a teacher, administrator, supervisor, or principal (during the 12 months before the survey), and; (2) percentage of students who were in a physical fight one or more times (during the 12 months before the survey).
 - c. Bullying:** (Q27-31) The section on bullying started with a definition/description of what constitutes bullying, highlighting the repetitive nature of the experience, and any power imbalance. A total of **5 questions** were included assessing the following: whether students were bullied in the past 12 months on school property, the type of bullying the students experienced (physical, verbal...), as well as a separate question on cyberbullying (on any of the social media platforms that were listed). Two additional questions assessed harassment in the past 30 days, and whether/who the student informed anyone when s/he experienced harassment (family, teachers, hotline, close friend...). In this report, we describe the following indicators: (1) percentage of students who reported to their family or a family member about being harassed (among students who have been harassed during the 30 days before the survey); (2) percentage of students who were harassed because of their religion or sect (among students who were harassed during the 30 days before the survey); (3) percentage of students who were bullied face-to-face, most often by being hit, kicked, pushed, shoved around, or locked indoors (among students who were bullied face-to-face during the 12 months before the survey); (4) percentage of students who were bullied on school property (during the 12 months before the survey), and; (5) percentage of students who were cyber bullied (during the 12 months before the survey).
- 4. Mental health:** (Q33-40 and Q77) a total of **9 questions** inquiring about mental wellbeing were asked in this module.
- a. Friendships and feelings:** (Q33-37) This section asked students **5 questions** about the number of close friends they have, how often they felt lonely during the past year, how often they had been so worried about something that they could not sleep at night, and how often they felt nervous or anxious and were unable to control it (Never/Rarely/Sometimes/Most of time/Always). An additional question asked students with whom they talked most often about a mental health problem they were having during the preceding year. In this report, we used the following indicators: (1) Percentage of students who have no

close friends; (2) Percentage of students who most of the time or always felt lonely (during the 12 months before the survey); (3) Percentage of students who most of the time or always were so worried about something that they could not sleep at night (during the 12 months before the survey); (4) Percentage of students who often felt nervous or anxious or were unable to stop or control worrying. For both questions, we describe the percentage who reported most of the time or always, and; (5) Percentage of students who talked most often with their parents or guardians about a mental health problem they were having (among students who had a mental health problem during the 12 months before the survey).

- b. **Suicide:** (Q38- Q40) This section included **3 questions** about attempted suicide. Students were asked whether during the past 12 months they had ever seriously considered attempting suicide, if they planned a suicide attempt, and whether they actually made an unsuccessful suicide attempt (Never/Rarely/Sometimes/Most of time/Always). Here, we present results for the following indicators: (1) Percentage of students who seriously considered attempting suicide (during the 12 months before the survey); (2) Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey), and; (3) Percentage of students who attempted suicide (one or more times during the 12 months before the survey).
 - c. **Sleep pattern:** (Q77) **One question** asked students about the number of hours of sleep they get on an average school night (4 or less...10 or more hours). Though this question is embedded in the physical activity module, it also relates to the individual's mental wellbeing, therefore we listed the findings in the mental health table. The indicator included in this report is: (1) Percentage of students who got eight to ten hours of sleep (on an average school night), and; (2) Percentage of students who got less than eight hours of sleep on an average school night.
- 5. Tobacco use:** (Q41-51) This module included **11 questions** that assessed students' use of tobacco (cigarettes, any form of smoked tobacco products other than cigarettes, waterpipes, electronic cigarettes, any form of smokeless tobacco). Cigarette smoking was assessed through asking students if they ever tried, or experimented with, cigarette smoking (even 1 or 2 puffs), the age when they first tried smoking a cigarette, and the number of days on which they smoked a cigarette in the past 30 days. Similarly, for tobacco products other than cigarette smoking (defined as pipes, cigars, mini cigars, cigarillos, waterpipes, hookah, shisha, narghile, hubble-bubble, bidis, and heated tobacco products) as well as smokeless tobacco (defined as snuff, chewing tobacco, dip, ...) and electronic cigarettes (defined as vapes, e-hookah, and e-cigarettes...), students were asked to report the number of days they smoked any of them in the past 30 days. More specifically, regarding waterpipe smoking, two questions about the age of initiation and the perception of the harms associated with smoking a waterpipe were asked. Two additional questions about second-hand smoking explored the number of days someone smoked in their presence in the past week, and whether they saw someone smoke inside the school. In this report, we analyse the following indicators: (1) Percentage of students who ever tried or experimented with cigarette smoking (even one or two puffs); (2) Percentage of students who first tried smoking a cigarette before the age of 14 (among students who ever tried smoking a cigarette); (3) Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey); (4) Percentage of students who currently used any form of smoked tobacco products other than cigarettes (on at least 1 day during the 30 days before the survey); (5) Percentage of students who currently use a tobacco product (on at least 1 day during the 30 days before the survey); (6) Percentage of students who first tried a narghile or waterpipe at aged 13 or younger (among students who ever tried smoking a narghile or waterpipe); (7) Percentage of students who thought that smoking a narghile or water pipe probably or definitely was harmful to their health; (8) Percentage of students who had someone smoke in their presence (on 1 or more days during the 7 days before the survey); (9) Percentage of students who currently used electronic cigarettes (on at least 1 day during the 30 days before the survey); (10) Percentage of students who currently used any form of smokeless tobacco products (on at least 1 day during the 30 days before the survey); (10) Percentage of students who saw someone smoke inside their school building or outside on school property (during the 30 days before the survey), and; (11) Percentage of students who were taught in any of their classes about the dangers of tobacco use (during this school year).

- 6. Alcohol use:** (Q52-61) This module started with defining what constituted an alcoholic drink (beer, arak, whiskey, wine, vodka, and juices that contain alcohol such Smirnoff, Buzz, Bacardi), specifying that drinking alcohol does not include drinking a few sips of wine for religious purposes. A total of **10 questions** inquired about the students' age when they had their first alcoholic drink other than a few sips, number of days they drank in past 30 days, the number of drinks they had in the days they drank, and the largest number of alcoholic beverages they had in a row. In addition, questions about the means of obtaining alcohol in the past 30 days, the place where they usually drink, and social pressure were explored. Furthermore, students were asked if they had ever got drunk and if they got into trouble at home, school, or work because of drinking. Also, students were asked if they were taught in class during the school year about the effects of drinking alcohol on decision making. Here, we report the following indicators: (1) Percentage of students who drank alcohol for the first time before age 14 years (other than a few sips, among students who ever had a drink of alcohol); (2) Percentage of students who drank alcohol during the 30 days before the survey; (3) Percentage of students who currently drank alcohol (at least one drink containing alcohol on at least 1 day during the 30 days before the survey); (4) Percentage of students who usually drank two or more drinks per day (on the days they drank alcohol among students who drank alcohol during the 30 days before the survey); (5) Percentage of students who drank six or more drinks in a row (during the 30 days before the survey, among students who drank alcohol during the 30 days before the survey); (6) Percentage of students who ever got into trouble at home, work, or school or got into fights as a result of drinking alcohol (one or more times during their life); (7) Percentage of students who probably or definitely would drink a drink of alcohol if one of their best friends offered it to them; (8) Percentage of students who usually got the alcohol they drank from friends (among students who drank alcohol during the 30 days before the survey); (9) Percentage of students who usually drank alcohol at their home or someone else's home (among students who drank alcohol during the 30 days before the survey); (10) Percentage of students who drank so much alcohol that they were very drunk (one or more times during their life), and; (11) Percentage of students who were taught in any of their classes about the effects of alcohol use on decision making (during this school year).
- 7. Drug use:** (Q62-68) This module contained **7 questions** that explored the use of several types of drugs which included cannabis, amphetamines, inhalants, and ecstasy, as well as psychoactive medications that should be only used with a doctor's prescription. Students were asked about age of initiation of drug use, the number of times in their life they used marijuana or amphetamines/methamphetamines for non-medical reasons, as well as how often they used cannabis (also known as hashish) in the past 30 days. In addition, students were asked if they used any psychoactive medications without a doctor's prescription in the past 12 months. Brand names of each drug type were included to enhance recall and reduce information bias such as "Xanax®, Rivotril®, Rivo, Lexotanil®, Lexo, Valium®, Dormicum®, Stilnox®, or Inductal®" for sedatives, tranquilizers, or sleeping pills; "Vicodin®, Tramal®, Dolosal®, Solpadeine®, or morphine" for pain relievers, "Ritalin® or Concerta®" for stimulants; and "Prozac®, Zoloft®, Seroxat®, Cipralax®, or Effexor®" for anti-depressants. Also, school education on the dangers of drug use was examined by asking students if they were taught in class during the school year about the problems associated with drug use. In this report, we mention the following indicators: (1) Percentage of students who used a drug without a doctor's prescription during the past 12 months; (2) Percentage of students who ever had a chance to try an illegal drug even if they did not try it; (3) Percentage of students who used a sedative, tranquilizer, or sleeping pills without a doctor's prescription (among students who used a drug without a doctor's prescription during the past 12 months); (4) Percentage of students who first used drugs before the age of 14 (among students who ever used drugs); (5) Percentage of students who had used cannabis (one or more times in their life); (6) Percentage of students who currently used cannabis (one or more times during the 30 days before the survey); (6) Percentage of students who ever used amphetamines or methamphetamines (one or more times in their life); and; (7) Percentage of students who were taught in any of their classes the problems associated with using drugs (during the 12 months before the survey).

- 8. Reproductive health:** (Q69-74) This module consisted of a total of **6 questions** that measured reproductive health related issues including puberty, pregnancy, sexually transmitted infections, and Human Immunodeficiency Virus (HIV) infection, or AIDS. The students' perceptions on when reproductive health education should start was assessed, in addition to whether they support being taught about reproductive health in school, and if they did, whether they felt that education about reproductive health should be taught in "boys only" or "girls only" classes or in mixed classes with boys and girls. The students' main source of information on HIV infection or AIDS was also examined. The students' perception of peer sexual practices was measured by asking the students about the number of peers who they believe have had an intimate physical relationship. In addition, school education on reproductive health issues in the preceding year was assessed via one question inquiring whether the students had been taught in any of their classes how to avoid an HIV infection or AIDS, or how to avoid pregnancy or sexually transmitted infections. In this report, we focus on the following indicators: (1) Percentage of students who thought education on reproductive health should start before and during the age of puberty; (2) Percentage of students who would support being taught about reproductive health in school; (3) Percentage of students who believed education about reproduction should be taught in boys only and girls only classes; (4) Percentage of students who would go to their parents or guardians to learn about HIV infection or AIDS or reproductive health; (5) Percentage of students who believe none of their friends have had sexual relationships, and; (6) Percentage of students who were taught in any of their classes how to avoid HIV infection or AIDS or sexually transmitted infections.
- 9. Physical activity:** (Q75-77) This module began with a definition of physical activity and what could be classed as physical activity, while providing examples. It consisted of **2 questions** that measured students' physical activity and sedentary behaviours by asking about the number of days they were physically active for a total of at least 60 minutes per day in the preceding week, followed by the time spend sitting and watching television during a typical day, or playing computer games, or doing other seated activities, such as playing with a PC or video games, playing on an iPad or other tablet, or chatting with friends on the phone. We describe in this report the following indicators: (1) Percentage of students who were physically active for a total of at least 60 minutes per day on all 7 days (during the 7 days before the survey); (2) Percentage of students who were not physically active for a total of at least 60 minutes per day on all 7 days (during the 7 days before the survey); (3) Percentage of students who were not physically active for a total of at least 60 minutes per day on any day (during the 7 days before the survey), and; (4) Percentage of students who spent three or more hours per day sitting or lying down (when they are not in school, or doing homework, or sleeping at night, during a typical or usual day).
- 10. Protective factors:** (Q78-81) This GSHS core module included **4 questions** on a number of established protective factors including perceived social support at school (how often were most of the students in school kind and helpful in the preceding month), and perceived levels of parental monitoring (checked homework, understood problems and worries, and frequency of embarrassing student in public or in front of friends). Here, we report on the following indicators: (1) Percentage of students who reported that most of the students in their school were most of the time or always kind and helpful (during the 30 days before the survey); (2) Percentage of students who reported that most of the students in their school were never or rarely kind and helpful (during the 30 days before the survey); (3) Percentage of students who 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); (4) Percentage of students who reported that their parents or guardians never or rarely checked to see if their homework was done (during the 30 days before the survey); (5) Percentage of students who reported that their parents or guardians most of the time or always understood their problems and worries (during the 30 days before the survey); (6) Percentage of students who reported that their parents or guardians never or rarely understood their problems and worries (during the 30 days before the survey), and; (7) Percentage of students who reported that their parents or guardians most of the time or always embarrassed them in public or in front of their friends (during the 30 days before the survey).

11. New module on social media and vaccines: (Q82-83) The final **2 questions** in the GSHS survey asked about two new themes related to vaccine acceptance and the number of hours spent using a mobile phone on a daily basis for checking social media applications, chatting, or browsing the internet. Here, we report the findings of two indicators: (1) Percentage of students who want to get the vaccines recommended to them by health authorities; (2) Percentage of students who had a mobile phone during the 7 days before the survey, and; (3) Percentage of students who used their mobile phone to be on social media, for online communication, or to browse the internet three or more hours per day (among students who had a mobile phone during the 7 days before the survey).



IV. Training and Data Collection

A survey implementation training was conducted on 27 and 28 March 2024 by the WHO EMRO GSHS trainer to the WHO Lebanon GSHS survey coordinator, the consultant and the MEHE representative. The aim of the training was to explain the GSHS method, including how to develop the tool, how to conduct the data collection and how to fill the forms and to make clear how the sample was developed. The training also included a section for data cleaning and reporting.

Another training was held for the field surveyors on 22 April 2024 at WHO Lebanon offices in the presence of WHO and MEHE). The surveyors were selected by the MEHE (mostly school health department teams and regional education teams) and assigned to the public and private schools. They received instructions on how to communicate with the target schools and how to gather the needed data. The data collection tools (e.g., the questionnaire) were also presented to all the surveyors alongside instructions on how to properly fill them. Moreover, a WhatsApp group was created containing all the surveyors plus the WHO and MEHE coordinators and the GSHS consultant for efficient and effective communication.

All the schools were first contacted via phone in order to request their participation. Upon agreement that they would participate, all schools were requested to share their student enrolment information for classes from grades 7-12. Once these were received, the survey teams were able to select the necessary samples and confirm the data collection appointment with each school. Survey teams were deployed to the selected schools between April and May 2024.

The self-administered GSHS questionnaire was administered and completed during one regular class period. Students were also informed about the survey and its content, their rights, and the voluntary nature of participation. Students recorded their answers on a computer scannable answer sheet. Survey procedures were designed to protect the student's privacy and allow for anonymous and voluntary participation. Surveyors collated the answer sheets; WHO Lebanon scanned the sheets and sent them to WHO HQ for processing.

Quality assurance mechanisms, including data validation and periodic quality checks, were implemented to uphold the reliability and validity of the survey data. Any discrepancies or inconsistencies identified during data collection were promptly addressed through corrective actions.



V. School Recruitment and Response Rate

Sixty-four schools were sampled for the study. Out of the 64 schools, only 51 schools were successfully engaged for participation in the survey despite MEHE efforts to explain the importance and the objectives of the study. Of the 12 schools that did not participate in the GSHS, it is worth noting that four schools (three public and one private) were excluded as they were located in conflict-affected areas of the south following the Israeli aggression against Lebanon. One additional school was excluded as it had been closed since the beginning of

the school year, and another did not participate as it only educated children in grades one to six and not grades 7-12 as required by the GSHS. Efforts have been made by MEHE to secure participation from the remaining six schools, but with no success. Table 1 summarizes the schools that did not participate in GSHS. At the school level, 82.3% (51 of the 62) of the sampled schools participated. At the student level, 68.9% (3745 of the 5436) sampled students completed questionnaires. Overall, 3,745 questionnaires were usable after data editing. The overall response rate was $82.3\% \times 68.9\% = 56.7\%$.

national	School Response Rate:	82.26%	Student Response Rate:	68.98%	Overall Response Rate:	56.75%
			Total Eligible Students	5436		
			Total Students Participated	3750		
public only	School Response Rate:	90.63%	Student Response Rate:	63.58%	Overall Response Rate:	57.62%
			Total Eligible Students	3188		
			Total Students Participated	2027		
private only	School Response Rate:	73.33%	Student Response Rate:	76.65%	Overall Response Rate:	56.21%
			Total Eligible Students	2248		
			Total Students Participated	1723		

The overall response rate – on the far right – is the product of the school and student response rates. The school response rate is calculated by dividing the number of responding schools by the total number of schools in the sample. The student response rate is calculated by dividing the total number of students that participated by the total number of eligible students (that is, the sum of the enrolment numbers of all the classes sampled – this information was taken from the class-level forms).



VI. Weighting

A weighting factor was not applied to the 2024 GSHS given the low response rate. Thus, the findings (while important) may be subject to selection bias and therefore not be representative of the entire middle and high school student population as in previous years. We urge readers to therefore interpret the estimates with caution, particularly when compared to previous weighted GSHS estimates.



VII. Data Analyses

Each core module question, core-expanded, and country specific question (except demographic questions and height and weight) have a corresponding dichotomized variable. Dichotomized variable values divide students into two groups: those who report a particular behaviour or knowledge and those who do not. Dichotomized variables are created by combining responses from the original question into the response of interest (ROI) which is how variables are most typically reported. Dichotomous variables are created during data processing at WHO HQ. Their presence makes it easier to conduct comparable analyses across countries. The original questions are always available, however, for additional country-level analyses that require different combinations of response options, or more detail.

The analysis was re-run using the svyset command to account for the complex survey design in order to generate the p-values and allow for comparison between genders, grade levels and school types. The critical alpha was set at 0.05; p-values in the tables are reported as $p < 0.05$, $p < 0.001$, and the actual p-value in case > 0.05 . The command is included below.

```
svyset psu, strata(stratum)
```

```
foreach var of varlist LBN_DE_B_NATIONALITY DB_UNDERWT DB_OVERWT DB_OBESE DB_B_HUNGRY
DB_B_FRUITNONE DB_B_FRUITLESS DB_B_FRUIT1 DB_B_FRUIT2 DB_B_FRUIT3 DB_B_VEGNONE
DB_B_VEGLESS DB_B_VEG1 DB_B_VEG2 DB_B_VEG3 DB_B_SODANONE DB_B_SODALESS DB_B_SODA1
DB_B_SODA2 DB_B_SODA3 DB_B_SSBNONE DB_B_SSBLESS DB_B_SSB1 DB_B_SSB2 DB_B_SSB3
DB_B_ALLSSBNONE DB_B_ALLSSBLESS DB_B_ALLSSB1 DB_B_ALLSSB2 DB_B_ALLSSB3
LBN_DB_B_FASTFOOD LBN_DB_B_DIETPILLS DB_B_DESCRIBEWGHT DB_B_TEACHRISKS HY_B_CLTEETH
HY_B_NOCLTEETH HY_B_FLUORIDE HY_B_ORALPROB LBN_HY_B_DENTALVISITHY_B_WASHEAT
HY_B_WASHTOILET HY_B_WASHSOAP IN_B_TYPEINJ IN_B_CAUSEINJ LBN_IN_B_TEACHERATTACK
IN_B_FIGHT IN_B_BULLSCH IN_B_HOWBULLIED IN_B_CYBERBULL LBN_IN_B_HARASSMENT
LBN_IN_B_HARASSMENTREPORTMOD IN_B_SEATBELTRIDING MH_B_FRIENDS MH_B_LONELY
MH_B_WORRY MH_B_NERVOUS LBN_MH_B_TALKWITH MH_B_CONSIDERSUI MH_B_PLANSUI
MH_B_ATTEMPTSUI TO_B_TRIEDCIG TO_B_AGE CIG TO_B_DAYS CIG TO_B_DAYSTOB
LBN_TO_B_NARGHILEAGE LBN_TO_B_NARGHILEHARMFUL TO_B_SECONDHANDSMOKE
TO_B_SMOKEATSCH TO_B_DAYSSMOKELESS TO_B_ANYTOB TO_B_TEACHTOBDANGER TO_B_DAYSECIG
AL_B_AGE AL_B_DAYS AL_B_DRINKS AL_B_INAROW AL_B_SOURCE AL_B_FRIENDOFFER AL_B_TROUBLE
AL_B_DRUNK AL_B_USUALPLACE AL_B_TEACHDECISIONMAKING DR_B_AGE DR_B_CANLIFE
DR_B_CAN30 DR_B_AMPLIFE LBN_DR_B_EVERCHANCETRY LBN_DR_B_RXMEDICINE
DR_B_TEACHDRPROB LBN_SX_B_EDUCREPRODUCTION LBN_SX_B_SUPPORTFOREduc
LBN_SX_B_SEXOFSTUDENT LBN_SX_B_LEARNSEX LBN_SX_B_FRIENDSEX LBN_SX_B_TEACHAVOIDHIVSTI
PA_B_DAYS7 PA_B_DAYSNOT7 PA_B_DAYSNONE PA_B_SEDENTARY PA_B_SLEEP PA_B_LITTLESLEEP
PF_B_STUDENTKIND PF_B_STUDENTNOTKIND PF_B_PARHWORK PF_B_PARNOHMWORK
PF_B_PARUNDERSTOOD PF_B_PARNOTUNDERSTOOD PA_B_EMBARRASS OT_B_VACCINERECOMMEND
OT_B_MOBILEHOURS {
```

```
di_n as input ".svy: tabulate DE_SEX `var', row"
svy: tabulate DE_SEX `var', row
```

```
di_n as input ".svy: tabulate DE_GRADE `var', row"
svy: tabulate DE_GRADE `var', row
```

```
di_n as input ".svy: tabulate category `var', row"
svy: tabulate category `var', row
}
```



VIII. Interpretation of Tabulated Results

The analysis was re-run using the `svyset` command to account for the complex survey design; p-values in the tables are reported as $p < 0.05$, $p < 0.001$, and the actual p-value in case > 0.05 . When comparing differences between estimates, readers are encouraged to reflect on the importance of this difference with regard to public health. Sometimes, differences may be statistically significant despite the small differences in estimates. In such cases, results must be interpreted with caution when considering public health or policy-relevant decisions. We urge readers to interpret findings across time with caution, given that the 2017 GSHS estimates were weighted, and the current 2024 GSHS estimates are unweighted.

Part III: Results





I. Sample characteristics

Table 1 below presents the unweighted demographic characteristics of the participating students. The 2024 GSHS was completed by 3,750 students (54% females and 46% males) from 51 schools across Lebanon. About 46% of the students were in private schools and 54% in public schools. The majority (87%) of the students were Lebanese and aged between 13-17 years old (88%). Students were distributed by grades as follows: 58% were in middle school (grades 7/9) and 42% in high school (grades 10/12).

Table 1. Demographic characteristics of 7th-12th graders in total sample, and by school type

Demographics		Total sample	Public Schools	Private Schools
		N (%)	N (%)	N (%)
Sex	Male	1723 (46.0)	963 (47.6)	760 (44.2)
	Female	2020 (54.0)	1059 (52.3)	961 (55.8)
Age	≤12	221 (5.9)	102 (5.1)	119 (6.9)
	13-15	2036 (54.6)	1,143 (56.8)	893 (52.0)
	16-17	1205 (32.3)	594 (29.5)	611 (35.6)
	≥18	266 (7.1)	172 (8.6)	94 (5.5)
Grade	7	850 (22.7)	541 (26.8)	309 (18.0)
	8	907 (24.2)	419 (20.7)	488 (28.4)
	9	414 (11.1)	332 (16.4)	82 (4.8)
	10	506 (13.5)	246 (12.2)	260 (15.1)
	11	666 (17.8)	267 (13.2)	399 (23.2)
	12	398 (10.6)	215 (10.6)	183 (10.6)
Nationality	Lebanese	3663 (87.1)	1970 (87.8)	1693 (86.3)



II. Main findings by sex, grade, and school type

This section presents the findings per theme. The valid percentage is presented for the total sample and stratified by gender¹ (male/female), grade (7th-12th), and school type (public/private). When present, statistically significant differences are highlighted through p-values.

¹ As per the request of the MEHE, in this analysis, gender refers to the sex a person is born with (male or female).

A. Dietary behaviours

i. BMI, and food security

Table 2Ai describes the students' recorded weight by sex, grade level, and school type. Around 4% of the students in the total sample were underweight [-2SD from median for BMI by age and sex], with a statistically significantly higher percentage of males (5.0%) than females (2.3%). Similarly, there were grade level differences, the percentage of underweight students decreased as the grade level increased (5.6% in grade 7 vs. 1.9% in grade 12). The study also examined the percentage of students who were overweight [$>+1$ SD from median for BMI by age and sex], and obese [$>+2$ SD from median for BMI by age and sex]. About 1 in 4 of the total sample (28%) were overweight. An additional 8% were obese (slightly more than a third of the sample was therefore overweight or obese). There were statistically significant differences by grade level, with higher percentages of overweight and obese students in the lower grade levels. About 4% of the total sample reported having gone hungry most of the time or always during the past 30 days because there was not enough food in their home, an indicator of food insecurity that did not vary by students' sex, or grade, but was significantly higher among public school students (4.3%) than private school students (3.0%).

ii. Eating habits

Table 2Aii describes the students' eating habits across the total sample, and then by sex, grade level and school type. With regards to their recommended levels of fruit and vegetable intake, about one in four (27.6%) of the students ate fruit twice or more daily during the preceding week. This percentage was statistically significantly higher in males than females (32% vs. 24%, respectively), and grade level, whereby an evident decreasing trend of consumption was seen as the grade levels increased (38% in grade 7 vs. only 14% in grade 12). No differences in fruit intake were seen between public and private-school students (27% and 28%, respectively). The percentage of students who ate vegetables (such as salads, spinach, eggplant, tomatoes, and cucumbers) two or more times per day, or at least three times per day during the preceding week, was 27% and 14%, respectively. As with fruit intake, levels of vegetable consumption were higher in males, and also higher in lower grade levels. About 30% of the total sample reported consuming carbonated soft drinks like Pepsi, Coca cola, Fanta and Seven-Up (not including diet soft drinks) once or more per day in the past week with a slightly, though statistically significant, higher percentage in males (31% versus 27%). The differences are more notable across grade levels; while 39% of grade 7 students reporting drinking carbonated drinks once or more per day in the past week, only 20% of grade 12 students reported the same). The differences were also marked and statistically significant between public and private students (32% vs. 25%, respectively). One question asked about fast-food intake, and 61% reported that they had eaten from a fast-food restaurant at least once in the past week. No differences were noted by sex, grade level, or school type.

iii. Weight perception and nutrition education

Table 2Aiii presents the students' perceived weight status, reported attempts to lose weight using diet pills, and nutrition education in school in the total sample, and then by sex, grade level and school type. 28.6% of students described themselves as slightly or very overweight, with a statistically significant difference between females (30.7%) and males (26.0%). The study also assessed whether students had taken any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight. Around 5% of the students of the total sample of students had taken a product, with a statistically significantly higher percentage among students in grade 7 (7%) compared those in grade 12 (2.3%). When it comes to education on the harmful effects of eating foods high in fat sugar or salt, 40% of students were taught about this topic in school, with females reporting learning about it more than males (42.3% vs 37.3%), and students in grade 12 more than those in grade 7 (54.7% vs 33.9%).

Table 2Ai. BMI and food security by sex, grade level, and school type among the total sample of 7th-12th graders

BMI and Food Security	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
	p-value			p-value						p-value	
Percentage of students who were underweight (<-2SD from median for BMI by age and sex)	3.5	5.0	2.3	5.6	3.8	3.3	3.4	1.7	1.9	4.1	2.7
		≤0.001		≤0.01						0.086	
Percentage of students who were overweight (>+1SD from median for BMI by age and sex)	28.1	33.8	23.3	33.6	28.5	28.5	25.8	24.7	24.9	28.5	27.7
		≤0.001		0.025						0.718	
Percentage of students who were obese (>+2SD from median for BMI by age and sex)	8	11.3	5.1	13.3	6.3	7.5	6.9	5.3	7.4	8.8	6.9
		≤0.001		≤0.001						≤0.05	
Percentage of students who most of the time or always went hungry (because there was not enough food in their home during the 30 days before the survey)	3.7	3.6	3.8	4.3	3.1	3.9	3.2	3.9	4.0	4.3	3.0
		0.849		0.884						≤0.05	

Table 2Aii. Dietary behaviours by sex, grade level, and school type among the total sample of 7th-12th graders

Dietary Behaviours	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
	p-value			p-value						p-value	
Percentage of students who did not eat fruit (during the 7 days before the survey)	11.5	10.5	12.4	9.3	9.9	10.5	12.3	12.0	19.0	12.6	10.2
		0.083		≤0.05						0.168	
Percentage of students who ate fruit less than one time per day (during the 7 days before the survey)	55.1	51.7	58.0	47.2	48.7	57.6	58.1	61.5	69.0	55.6	54.5
		≤0.05		≤0.001						0.751	
Percentage of students who ate fruit one or more times per day (during the 7 days before the survey)	44.9	48.3	42.0	52.8	51.3	42.4	41.9	38.5	31.0	44.4	45.5
		≤0.05		≤0.001						0.751	
Percentage of students who usually ate fruit two or more times per day (during the 7 days before the survey)	27.6	31.5	24.2	38.0	31.4	25.7	25.4	20.3	14.0	27.2	28.0
		≤0.001		≤0.001						0.792	
Percentage of students who ate fruit three or more times per day (during the 7 days before the survey)	13.9	16.5	11.6	22.2	16.1	11.8	11.5	8.0	6.1	13.8	13.9
		≤0.05		≤0.001						0.942	
Percentage of students who did not eat vegetables (during the 7 days before the survey)	5.0	5.3	4.6	6.1	4.8	5.4	4.6	5.2	2.8	5.1	4.8
		0.315		0.268						0.657	
Percentage of students who ate vegetables less than one time per day (during the 7 days before the survey)	50.1	48.6	51.4	45.3	47.5	55.4	56.2	49.3	54.2	50.6	49.5
		0.119		0.062						0.717	
Percentage of students who ate vegetables one or more times per day (during the 7 days before the survey)	49.9	51.4	48.6	54.7	52.5	44.6	43.8	50.7	45.8	49.4	50.5
		0.119		0.062						0.717	
Percentage of students who usually ate vegetables two or more times per day (during the 7 days before the survey)	27.2	29.5	25.3	30.3	30.2	22.2	22.8	27.7	23.4	27.1	27.3
		≤0.05		≤0.05						0.948	
Percentage of students who usually ate vegetables three or more times per day (during the 7 days before the survey)	13.8	15.1	12.6	18.9	14.1	13.7	11.3	10.8	10.3	14.4	13.1
		0.073		≤0.001						0.321	
Percentage of students who did not drink carbonated soft drinks (excluding diet soft drinks) , during the 7 days before the survey)	24.3	22.7	25.5	20	24	18.8	25.7	27.9	31.6	22.5	26.3
		≤0.05		≤0.01						0.178	
Percentage of students who drank carbonated soft drinks less than one time per day (excluding diet soft drinks) , during the 7 days before the survey)	71.1	68.6	73.1	61.5	70.3	68.2	74.7	77.4	80.5	68.0	74.7
		≤0.05		≤0.001						≤0.05	
Percentage of students who drank carbonated soft drinks one or more times per day (excluding diet soft drinks) , during the 7 days before the survey)	28.9	31.4	26.9	38.5	29.7	31.8	25.3	22.6	19.5	32.0	25.3
		≤0.05		≤0.001						≤0.05	
Percentage of students who drank carbonated soft drinks two or more times per day (excluding diet soft drinks) , during the 7 days before the survey)	13.2	16.2	10.6	17.8	14.7	14.4	10.4	9.4	8.6	14.6	11.4
		≤0.001		≤0.001						0.054	
Percentage of students who drank carbonated soft drinks three or more times per day (excluding diet soft drinks) , during the 7 days before the survey)	5.7	7.5	4.2	8.3	6.1	7.1	3.8	3.8	3.5	6.6	4.6
		≤0.01		≤0.01						0.079	

Table 2Aii. (Continued) Dietary behaviours by sex, grade level, and school type among the total sample of 7th-12th graders

Dietary Behaviours	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who did not drink sugar-sweetened drinks (excluding carbonated soft drinks and diet or no calorie drinks, during the 7 days before the survey)	23.5	22.8	24.1	23.0	24.7	23.2	22.0	22.2	26.4	24.0	22.8
		0.387		0.466						0.418	
Percentage of students who drank sugar-sweetened drinks less than one time per day (excluding carbonated soft drinks and diet or no calorie drinks, during the 7 days before the survey)	71.2	70.5	71.8	62.9	68.8	70.7	73.5	76.8	82.4	69.4	73.3
		0.492		≤0.001						0.191	
Percentage of students who drank sugar-sweetened drinks one or more times per day (excluding carbonated soft drinks and diet or no calorie drinks, during the 7 days before the survey)	28.8	29.5	28.2	37.1	31.2	29.3	26.5	23.2	17.6	30.6	26.7
		0.492		≤0.001						0.191	
Percentage of students who drank sugar-sweetened drinks two or more times per day (excluding carbonated soft drinks and diet or no calorie drinks, during the 7 days before the survey)	12.8	14.2	11.6	15.3	14.3	11.0	12.9	11.7	7.8	13.7	11.8
		0.100		≤0.05						0.311	
Percentage of students who drank sugar-sweetened drinks three or more times per day (excluding carbonated soft drinks and diet or no calorie drinks, during the 7 days before the survey)	5.3	6.8	4.1	6.6	5.5	3.9	5.9	4.9	3.8	6.1	4.5
		≤0.05		0.349						0.146	
Percentage of students who did not drink any sugar-sweetened drink (during the 7 days before the survey)	8.9	8.4	9.3	8.8	8.0	8.1	8.0	9.0	12.9	9.3	8.4
		0.286		0.180						0.506	
Percentage of students who drank any sugar-sweetened drink less than one time per day (during the 7 days before the survey)	57.8	55.7	59.6	47.1	55.7	55.9	62.2	63.5	71.9	55.1	61.1
		0.060		≤0.001						0.086	
Percentage of students who drank any sugar-sweetened drink one or more times per day (during the 7 days before the survey)	42.2	44.3	40.4	52.9	44.3	44.1	37.8	36.5	28.1	44.9	38.9
		0.060		≤0.001						0.086	
Percentage of students who drank any sugar-sweetened drink two or more times per day (during the 7 days before the survey)	20.9	24.44	18.0	27.1	22.8	19.7	17.9	18.2	13.7	22.7	18.9
		≤0.001		≤0.001						0.112	
Percentage of students who drank any sugar-sweetened drink three or more times per day (during the 7 days before the survey)	9.1	11.6	6.9	12.5	9.3	9.1	7.4	7.7	6.1	10.3	7.6
		≤0.01		≤0.05						0.058	
Percentage of students who ate from a fast-food restaurant 1 time or more (during the 7 days before the survey)	60.9	62.2	59.7	58.9	55.6	60.2	61.3	67.4	66.6	58.3	64.0
		0.072		0.056						0.152	

Table 2Aiii. Weight perception and nutrition education by sex, grade level, and school type among the total sample of 7th-12th graders

Weight Perception and Nutrition Education	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who described themselves as slightly or very overweight	28.6	26.0	30.7	27	27.7	30.2	28.9	30.6	28.8	27.4	30.0
		≤0.001		0.673						0.141	
Percentage of students who took any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight (during the 30 days before the survey)	4.7	4.6	4.8	7.0	5.1	4.4	2.8	4.2	2.3	4.8	4.6
		0.671		≤0.001						0.874	
Percentage of students who were taught in any of their classes about the risks related to eating too much food that was high in fat, sugar, or salt (during this school year)	40.0	37.3	42.3	33.9	37.0	52.7	35.7	38.4	54.7	39.4	40.7
		≤0.01		≤0.001						0.627	

B. Hygiene

i. Oral hygiene behaviours

Table 2Bi includes findings on oral hygiene. With regards to oral hygiene, the majority of students (89.4%) reported usually cleaning or brushing their teeth one or more times per day during the past 30 days, with females more likely to do so as compared to males (92.5% vs. 85.7%). Among the students who brushed their teeth, 21.1% used a toothpaste that had fluoride, with males using it more than females (23.8% vs. 18.9%). During the 30 days before the survey, 14.8% of students reported missing classes or school because of a problem with their mouth, teeth, or gums, with more females than males reporting this (15.9% vs 13.5%) and more grade 9 students compared to grade 10 (17.0% vs 11.1%). Overall, of the students who visited the dentist during the past 12 months, 24.8% went because something was wrong with their teeth or gums.

ii. Handwashing practices

Table 2Bii includes findings on handwashing practices. The percentage of students who reported never or rarely washing their hands before eating or after using the toilet during the past 30 days were 13.9% and 2.0% of the total sample, respectively. Grade 7 students more likely to never or rarely wash their hands before eating than grade 12 students (21.9% vs 7.3%), while males were more likely to never or rarely wash their hands after using the toilet or latrine when compared to females (3.1% vs 1.2%). Moreover, only 1.9% said they had “never or rarely used soap when washing their hands” during the past 30 days, a response that was more common in males (2.7%) than females (1.2%).

C. Violence and unintentional injury

i. Violence

Findings around violence are summarized in Table 2Ci. One in ten students reported being physically attacked on school property by a teacher, administrator, supervisor, or principal in the preceding 12 months. Nearly half of the sample (46.4%) were in a physical fight at least once during the preceding year. Males were more likely than females to be physically attacked on school property by school staff (15.0% vs. 6.0%) and to be in a physical fight (61.8% vs. 33.1%). Younger students, in grade 7, compared to those in grade 12 were more likely to report being physically attacked on school property by school staff (16.5% vs. 3.8%), and to have been in a physical fight over the past year (55.0% vs. 32.4%).

ii. Unintentional injuries

Students were also asked to report their experiences with regard to serious injuries. Results are presented in Table 2Cii. Overall, 44.9% of the students were seriously injured at least once during the past 12 months. Of the students who were seriously injured, 17.6% reported that their most serious injury was a broken bone or dislocated joint (22.8% in males vs. 12.4% in females and 20.8% in private schools vs. 14.8% in public schools), 7.8% mentioned that the injury was caused by a motor vehicle accident or by being hit by a motor vehicle (9.4% in males vs. 6.2% in females). Worryingly, among students who rode in a motor vehicle driven by someone else during the past 30 days, 72.7% of them never or rarely used a seat belt; the latter response did not differ by gender, grade level or school type.

iii. Bullying

Table 2Ciii presents findings on experiences of bullying. About a third (28%) of the total sample reported being bullied on school property during the preceding year, and 13.8% were cyber-bullied on one or more days during the preceding year. Among students who were bullied face to face at least once, 6.2% of students reported being physically bullied by being hit, kicked, pushed, shoved around, or locked indoors, with a higher percentage of males than females (9.8% vs. 3.3%) reporting this. Cyberbullying was statistically significantly more common in the lower grade levels (16%-17% in grades 7 through 9, vs. 9% of grade 12). Among students who reported being harassed in the preceding 30 days, 11% reported being harassed because of their religion; in contrast to cyberbullying, harassment due to religion was higher in the higher-grade levels (5% in grade 7 vs. 15%-19% in grades 10-12). Importantly, only 1 in 5 (20.9%) had informed their family or a family member about being harassed, and this did not differ by gender, grade level or school type.

Table 2Bi. Oral hygiene behaviours by sex, grade level, and school type among the total sample of 7th-12th graders

Oral Hygiene Behaviours	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who usually cleaned or brushed their teeth (one or more times per day during the 30 days before the survey)	89.4	85.7	92.5	89.5	86.2	87.7	90.5	92.2	91.9	89.5	89.2
		≤0.001		0.085						0.876	
Percentage of students who did not clean or brush their teeth or usually cleaned or brushed their teeth less than 1 time per day (during the 30 days before the survey)	10.6	14.3	7.5	10.5	13.8	12.3	9.5	7.8	8.1	10.5	10.8
		≤0.001		0.085						0.876	
Percentage of students who usually used a toothpaste that contained fluoride (among students who cleaned or brushed their teeth during the past 30 days)	21.1	23.8	18.9	21.6	19.4	19.2	20.7	21.3	25.4	20.6	21.6
		≤0.01		0.730						0.612	
Percentage of students who missed classes or school because of a problem with their mouth, teeth, or gums (during the 30 days before the survey)	14.8	13.5	15.9	16.8	15.8	17.0	11.1	13.8	12.6	15.9	13.6
		≤0.05		≤0.05						0.237	
Percent of students who visited the dentist during the past 12 months	53.5	48.8	57.4	46.7	49.7	51	62.3	60.8	54.7	53.2	53.8
Percent of students whose main reason for visiting the dentist was because something was wrong with their teeth or gums (among students who visited a dentist during the 12 months before the survey)	24.8	24.6	24.8	24.3	27.1	31.6	24.1	22.6	19.5	27.4	21.8
		0.928		0.289						0.096	

Table 2Bii. Handwashing practices by sex, grade level, and school type among the total sample of 7th-12th graders

Handwashing Practices	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who never or rarely washed their hands before eating (during the 30 days before the survey)	13.9	14.7	13.3	21.9	16.8	13.9	7.9	9.2	7.3	13.8	14.0
		0.266		≤0.001						0.954	
Percentage of students who never or rarely washed their hands after using the toilet or latrine (during the 30 days before the survey)	2.0	3.1	1.2	1.6	1.5	1.5	2.8	3.5	1.5	2.0	2.1
		≤0.01		0.056						0.939	
Percentage of students who never or rarely used soap when washing their hands (during the 30 days before the survey)	1.9	2.7	1.2	0.8	2.0	1.7	1.8	2.9	2.3	1.9	1.9
		≤0.01		0.082						0.983	

Table 2Ci. Violence by sex, grade level, and school type among the total sample of 7th-12th graders

Violence	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who had been physically attacked on school property by a teacher, administrator, supervisor, or principal (during the 12 months before the survey)	10.1	15.0	6.0	16.5	12.3	5.4	7.9	7.4	3.8	10.0	10.2
		≤0.001		≤0.001						0.951	
Percentage of students who were in a physical fight one or more times (during the 12 months before the survey)	46.4	61.8	33.1	55.0	53.9	49.3	42.2	35.2	32.4	46.0	46.8
		≤0.001		≤0.001						0.794	

Table 2Cii. Unintentional injury by sex, grade level, and school type among the total sample of 7th-12th graders

Unintentional Injury	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who were seriously injured during the 12 months before the survey	44.9	48.7	41.5	44	47.1	45.8	41.9	46.5	41.5	44.5	45.3
Percentage of students who reported that their most serious injury was a broken bone, dislocated joint, or a broken or knocked out tooth (among students who were seriously injured during the 12 months before the survey)	17.6	22.8	12.4	17.6	20.5	14.7	15.4	15.9	19.6	14.8	20.8
		≤0.001		0.374						≤0.01	
Percentage of students who reported that their most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle (among students who were seriously injured during the 12 months before the survey)	7.8	9.4	6.2	6.6	7.7	5.9	7.5	9.6	10.4	7.6	7.9
		≤0.05		0.488						0.822	
Percentage of students who rode in a car or other motor vehicle driven by someone else during the 30 days before the survey	90.9	89.1	92.4	89.6	88.9	91.7	94.5	93.6	88.7	90.5	91.4
Percentage of students who never or rarely wore a seat belt when riding in a car or other motor vehicle driven by someone else (among students who rode in a car or other motor vehicle driven by someone else during the 30 days before the survey)	72.7	72.7	72.7	68.8	74.2	70.9	75.4	76.1	69.9	74.7	70.4
		0.966		0.418						0.132	

Table 2Ciii. Bullying by sex, grade level, and school type among the total sample of 7th-12th graders

Bullying	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who were bullied face-to-face during the 12 months before the survey	32.5	31.2	33.5	34.8	33.8	32.7	30.5	29.8	30.9	44.5	32.1
Percentage of students who were bullied face-to-face most often by being hit, kicked, pushed, shoved around, or locked indoors (among students who were bullied face-to-face during the 12 months before the survey)	6.2	9.8	3.3	7.7	6.1	3.8	7.2	5.7	5	5.9	6.5
		≤0.001		0.634						0.708	
Percentage of students who were bullied on school property (during the 12 months before the survey)	28.0	27.9	27.9	30	30.5	29	24.7	24	27.7	29.0	26.8
		0.978		0.102						0.201	
Percentage of students who were cyber bullied (during the 12 months before the survey)	13.8	13.6	13.9	15.9	15.4	16.7	12.2	11.6	8.8	14.1	13.4
		0.737		≤0.05						0.637	
Percentage of students who were harassed during the past 30 days before the survey	20.7	19.9	21.3	19.5	23.4	23.0	20.0	19.0	18.7	20.0	21.5
Percentage of students who were harassed because of their religion or sect (among students who were harassed during the 30 days before the survey)	10.6	10.0	11.0	5.1	5.8	7.6	19.2	18.7	14.9	11.3	10.0
		0.67		≤0.05						0.76	
Percentage of students who reported to their family or a family member about being harassed (among students who have been harassed during the 30 days before the survey)	20.9	18.4	22.9	21.0	23.3	19.6	17.2	24.4	14.9	20.5	21.3
		0.177		0.577						0.805	

D. Mental health indicators

i. Friendships and feelings

Table 2Di presents findings related to several questions that assessed students' overall mental health wellbeing. Almost one in five (19%) of students felt lonely most of the time or always during the 12 months preceding the survey. Females were more likely than males to experience loneliness (23.9% vs. 13.2%), but no differences were noted by grade level or school type. In addition, one in four (24.5%) students felt so worried about something most of the time or always that they could not sleep at night during the past 12 months. Differences by sex were observed as well as differences by grade and school type, where females were more likely than males to be worried (31.8% vs. 15.7%) and students in grade 12 (30.1%), and grade 9 (29.9%) were more likely to be worried, in contrast to grade 7 students (20.0%). Slightly more than one in four (27.2%) often felt nervous or anxious or not able to stop or control worrying, this was more common among females than males (37.5% vs. 15.1%), and grade 12 (35.5%) and 11 (34.6%) vs. grade 7 (20.1%).

When asked about social support, 4.6% of the sample mentioned having no close friends; this percentage was slightly higher in public than private school students (5.5% vs. 3.6%, respectively) and among higher grade levels (8.4% in grade 12 vs. 2.8% in grade 7). Among students who had a mental health problem during the past 12 months, almost 1 in 4 (23.1%) talked most often with their parents or guardians about it, but grade 12 students were less likely to disclose their mental health problem compared to grade 7 students (18.4% vs. 27.7%, respectively).

ii. Suicide

Table 2Dii shows the suicide indicators during the past 12 months. In the total sample, 17.8% of students seriously considered attempting suicide during the past year, with more among females than males (20.8% vs. 14.1%) reporting this. Further, 1 in 5 (21.6%) students planned about how they would attempt suicide, again, this was more common among females than males (24.5% vs. 18.0%). 13.8% reported an unsuccessful attempt one or more times in the preceding year, again this was more common among females (15.6% vs. 11.5% in males).

iii. Sleeping patterns

Table 2Diii presents the two indicators for the sleeping patterns of students. Only about a third (31.9%) of students slept 8 hours or more on an average school night, with students in grade 7 sleeping more than those in grade 12 (41.7% vs. 12.3%).

Table 2Di. Friendship and feelings indicators by sex, grade level and school type among the total sample of 7th-12th graders

Friendship and Feelings	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who most of the time or always felt lonely (during the 12 months before the survey)	19.0	13.2	23.9	18.4	19.2	18.9	19.2	18.3	20.8	20.4	17.3
		≤0.001		0.953						0.120	
Percentage of students who most of the time or always were so worried about something that they could not sleep at night (during the 12 months before the survey)	24.5	15.7	31.8	20.0	22.5	29.9	24.2	26.2	30.1	26.2	22.5
		≤0.001		≤0.01						0.094	
Percentage of students who often felt nervous or anxious or were not able to stop or control worrying	27.2	15.1	37.5	20.1	23.7	29.4	27.4	34.6	35.5	26.7	27.9
		≤0.001		≤0.001						0.691	
Percentage of students who have no close friends	4.6	4.4	4.7	2.8	3.8	5.6	5.1	5.0	8.4	5.5	3.6
		0.677		≤0.01						≤0.05	
Percentage of students who had a mental health problem during the 12 months before the survey	62.4	50.2	72.7	49.9	57.4	66.8	66.3	72.0	75.1	60.0	65.4
Percentage of students who talked most often with their parents or guardians about a mental health problem they were having (among students who had a mental health problem during the 12 months before the survey)	23.1	21.5	24.1	27.7	22.2	19.4	25.0	23.9	18.4	22.2	24.1
		0.266		≤0.05						0.262	

Table 2Dii. Suicide indicators by sex, grade level and school type among the total sample of 7th-12th graders

Suicide	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who seriously considered attempting suicide (during the 12 months before the survey)	17.8	14.1	20.8	17.5	20.2	18.6	20.2	14.2	15.3	16.9	18.9
		≤0.001		0.130						0.331	
Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)	21.6	18.0	24.5	19.1	21.9	21.6	25.0	22.4	20.5	20.1	23.3
		≤0.001		0.498						0.177	
Percentage of students who attempted suicide (one or more times during the 12 months before the survey)	13.8	11.5	15.6	15.8	14.4	14.5	13.4	12.3	10.3	13.5	14.2
		≤0.001		0.323						0.723	

Table 2Diii. Sleeping Patterns by sex, grade level and school type among the total sample of 7th-12th graders

Sleeping Patterns	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
	(95 % CI)	p-value		p-value						p-value	
Percentage of students who got eight to ten hours of sleep (on an average school night)	31.9	34.4	29.9	41.7	39.0	36.8	32.0	19.1	12.3	32.8	30.9
		0.058		≤0.001						0.561	
Percentage of students who got less than eight hours of sleep on an average school night	63.3	60.4	65.6	47.5	56.2	58.7	64.9	79.1	87.4	62.4	64.3
		≤0.05		≤0.001						0.607	

E. Substance use: Tobacco use

Substance use questions assessed the use of tobacco products (cigarettes, any form of smoked tobacco products other than cigarettes, waterpipes, electronic cigarettes, any form of smokeless tobacco), alcohol drinking, and illegal drug use. In the GSHS, they were described as separate modules. Findings are summarized in Tables 2E, 2F, 2G, respectively.

In Table 2E, the first 3 indicators measured lifetime use and age of onset of use among those who had tried cigarettes and waterpipes. About 41% of the students reported ever trying cigarettes (or experimenting through one or two puffs), higher among males than females (45.8% vs. 36.7%), and higher grades compared to lower grades (47.6% in grade 12 vs. 32.1% in grade 7). Among students who had smoked cigarettes, 62.2% tried their first cigarette before the age of 14, with students in grade 7 being more likely to report so compared to students in grade 12 (92.2% vs. 30.0%), indicating a decreasing age of onset. In fact, an alarming trend is observed whereby a larger percentage of students reported having their first cigarette before age 14 in the lower grade levels (92.2%, 81.3%, 62.0%, 54.1%, 45.3% and 30.0% in the 7th, 8th, 9th, 10th, 11th, and 12th grade respectively). About two thirds (66.3%) of students who had ever tried smoking a narghile or waterpipe reported first trying it before the age of 13.

Questions on current use, defined as use on at least 1 day during the 30 days preceding the survey, were also included. Close to 30% were currently using a tobacco product (on one or more days in the past 30 days). Estimates of past 30-day (i.e. current) use was as follows: cigarettes (16.4%), any form of smoked tobacco product other than cigarettes (24.1%), e-cigarettes (24%), and any form of smokeless tobacco product (14.3%). Generally, current tobacco use was higher in males (except for any form of smoked tobacco products other than cigarettes). Use of any tobacco product was also lowest in grade 7 (20.5%) and ranging towards 30% in high school.

Second-hand smoking was also evident. More than three quarters (82.7%) of the students had someone smoke in their presence at least once during the past week. Students in grade 9 were more likely to report exposure to second-hand smoking as compared to students in grade 7 (88.2% vs. 74.0%). Almost half of the students (47.0%) saw someone smoke inside their school building or outside on school property in the month before the survey. With regards to health education on the dangers of tobacco use, 38.4% reported being taught about this matter during this school year. The majority, however, probably or definitely, thought that smoking a narghile or water pipe was harmful to their health; the latter was more common in females than males (90% vs. 84.7%) and least among grade 7 (85%).

F. Substance use: Alcohol use

As shown in Table 2F, about 2 in 3 (64.6%) of those who had drunk alcohol reported having their first drink prior to the age of 14, and about 6% reported getting drunk one or more times in their lifetime, a percentage that was higher in male students, as well as older students (in higher grade levels). While borderline statistically significant, it is worth noting that lifetime drunkenness was reported by 4% of public-school students in contrast to 8% of private school students. Also, 6% of the sample had gotten into trouble at home, work, or school or got into fights as a result of drinking alcohol (one or more times during their life), this was also higher in male students, and private school students.

Of the total sample, 10.8% were currently alcohol drinkers, or had had one or more alcoholic drinks at least once during the month preceding the survey, a percentage more common in males (15.5% vs 6.9%) and grade 12 (18.1%) versus grade 7 (6.1%) students. Among the current drinkers, 41.5% usually drank two or more drinks per day on the days they drank, and 14.1% drank six or more drinks in a row.

Current drinkers were also asked about how they obtained alcohol; 13.5% reported that they usually got it from friends, and more than half of the students (55.8%) reported usually drinking alcohol at their home or someone else's home. Also, overall, about 8.0% of students reported that they "would probably or definitely drink if one of their best friends offered them a drink of alcohol"; males (10.7%) more so than females (5.6%), and grade 12 (14.4%) students more than grade 7 (4.1%).

With regards to health education, only a third (33.9%) of students reported being taught in any of their classes about the effects of alcohol use on decision making during the school year, more so in grade 11 (45.1%) and 12 (42.1%) students than grade 7 (23.4%) students.

G. Substance use: Illegal drugs

The students' opportunities to use drugs was assessed, and 13% reported having had a chance to try an illegal drug even if they did not try it. Opportunities to try illegal drugs were more likely to occur among males (17.7% vs. 9.3% in females), as well as among private school students (14.9% vs. 11.6% of public school students). Among those who reported ever using any illegal drugs, more than 3 in 4 (78.5%) students reported that they were younger than 14 years of age when they first used drugs (statistical differences by sex, grade or school type could not be calculated due to the low numbers in some cells, see Table 2G).

The GSHS assessed the use of specific illegal substances, mainly cannabis, amphetamines, sedatives, tranquilizers, or sleeping pills, without a medical prescription. Overall, about 3% of students reported lifetime (and current cannabis use) with across more males than females (4.8% vs. 1.6% lifetime users and 4.8% vs. 1.8% current users). In addition, 3.2% of students used amphetamines or methamphetamines at least once during their lifetime, and similarly males were more likely to be users than females (5.1% vs. 1.6%). About 1 in 4 (25%) of the sample used a psychoactive drug without a doctor's prescription during the past 12 months, and of those, 16.7% reported using a sedative, tranquilizer, or sleeping pills. With regards to health education, 33.9% reported being taught during the 12 months before the survey about the problems associated with using drugs in any of their classes, with more students in grade 11 mentioning this than those in grade 7 (52.4% vs. 15.6%).

Table 2E. Tobacco use by sex, grade level, and school type among the total sample of 7th-12th graders

Tobacco Use	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who ever tried or experimented with cigarette smoking (even one or two puffs)	40.9	45.8	36.7	32.1	37.7	43.8	46.4	45.9	47.6	42.2	39.2
		≤0.01		≤0.001						0.295	
Percentage of students who first tried smoking a cigarette before age 14 (among students who ever tried smoking a cigarette)	62.2	63.9	60.3	92.2	81.3	62.0	54.1	45.3	30.0	61.6	63.0
		0.308		≤0.001						0.792	
Percentage of students who ever tried smoking a narghile or waterpipe	42.4	42.7	42.1	32.5	42.4	48.5	47.2	45.2	46.1	44.1	40.4
Percentage of students who first tried a narghile or waterpipe at age 13 or younger (among students who ever tried smoking a narghile or waterpipe)	66.3	70.0	63.2	90.4	80.7	65.7	55.3	54.9	33.5	63.1	70.4
		No p-value*		No p-value*						No p-value*	
Percentage of students who currently use a tobacco product (on at least 1 day during the 30 days before the survey)	28.9	31.3	26.9	20.5	27.6	38.8	30.5	30.0	35.3	31.3	26.1
		≤0.05		≤0.01						0.074	
Percentage of students who currently smoke cigarettes (on at least 1 day during the 30 days before the survey)	16.4	21.6	12.1	12.2	13.9	20.1	18.5	18.3	21.3	17.1	15.6
		≤0.001		≤0.05						0.529	
Percentage of students who currently use any form of smoked tobacco products other than cigarettes (on at least 1 day during the 30 days before the survey)	24.1	25.7	22.7	18.1	22.3	32.3	24.9	25.7	28.4	27.1	20.6
		0.067		≤0.01						≤0.01	
Percentage of students who currently use electronic cigarettes (on at least 1 day during the 30 days before the survey)	23.9	29.0	19.7	18.2	26.4	18.8	22.5	23.5	27.9	24.8	22.9
		≤0.001		0.110						0.549	
Percentage of students who currently use any form of smokeless tobacco products (on at least 1 day during the 30 days before the survey)	14.3	18.9	10.4	11.2	15.9	16.6	13.6	13.3	17.3	14.1	14.5
		≤0.001		0.172						0.872	
Percentage of students who thought that smoking a narghile or water pipe was probably or definitely harmful to their health	87.6	84.7	90.0	85.1	84.6	90.5	88.3	90.6	90.6	87.7	87.5
		≤0.001		≤0.05						0.905	
Percentage of students who had someone smoke in their presence (on 1 or more days during the 7 days before the survey)	82.7	81.8	83.4	74.0	80.5	88.2	87.7	87.1	86.6	83.5	81.8
		0.324		≤0.001						0.385	
Percentage of students who saw someone smoke inside their school building or outside on school property (during the 30 days before the survey)	47.0	50.2	44.4	43.0	43.2	46.6	46.1	55.0	52.4	50.6	42.8
		≤0.01		0.101						0.058	
Percentage of students who were taught in any of their classes about the dangers of tobacco use (during this school year)	38.4	36.0	40.3	24.2	32.9	50.5	47.9	45.7	42.8	35.7	41.5
		0.055		≤0.001						0.118	

*N=1559 observations, no p-value because of stratum with single sampling unit

Table 2F. Alcohol use by sex, grade level, and school type among the total sample of 7th-12th graders

Alcohol Use	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who drank alcohol other than few sips	21.4	27.9	15.8	12.0	22.0	12.5	27.9	27.1	31.1	15.9	28.0
Percentage of students who had their first drink of alcohol before age 14 (other than a few sips, among students who ever had a drink of alcohol)	64.6	68.1	59.2	92.7	85.0	59.1	52.1	54.6	42.1	66.4	63.3
		No p-value*		No p-value*						No p-value*	
Percentage of students who drank so much alcohol that they were drunk (one or more times during their life)	5.7	8.9	3.1	1.9	6.6	2.5	8.7	7.4	9.1	4.2	7.6
		≤0.001		≤0.01						0.058	
Percentage of students who ever got into trouble at home, work, or school or got into fights as a result of drinking alcohol (one or more times during their life)	6.1	9.3	3.5	4.9	7.9	2.9	7.3	6.0	7.3	4.5	8.0
		≤0.001		0.215						≤0.05	
Percentage of students who currently drank alcohol (at least one drink containing alcohol on at least 1 day during the 30 days before the survey)	10.8	15.5	6.9	6.1	11.0	5.1	14.9	12.9	18.1	8.7	13.3
		≤0.001		≤0.05						0.109	
Percentage of students who usually drank two or more drinks per day (on the days they drank alcohol among students who drank alcohol during the 30 days before the survey)	41.5	44.4	35.9	34.9	30.7	38.1	39.7	50.6	50.7	46.3	38.1
		No p-value**		No p-value**						No p-value**	
Percentage of students who drank six or more drinks in a row (during the 30 days before the survey, among students who drank alcohol during the 30 days before the survey)	14.1	15.1	12.1	12.8	13.1	5.0	15.1	17.4	13.8	18.9	10.5
		No p-value***		No p-value***						No p-value***	
Percentage of students who probably or definitely would drink alcohol if one of their best friends offered it to them	8.0	10.7	5.6	4.1	6.9	4.4	11.1	10.4	14.4	6.5	9.6
		≤0.001		≤0.001						0.122	
Percentage of students who usually got the alcohol they drank from friends (among students who drank alcohol during the 30 days before the survey)	13.5	12.7	15.1	18.6	15.0	15.00	8.2	12.8	13.4	14.4	12.9
		No p-value****		No p-value****						No p-value****	
Percentage of students who usually drank alcohol at their home or someone else's home (among students who drank alcohol during the 30 days before the survey)	55.8	53.0	60.9	57.1	50.5	72.0	59.7	59.8	47.9	56.1	55.6
		No p-value*****		No p-value*****						No p-value*****	
Percentage of students who were taught in any of their classes about the effects of alcohol use on decision making (during this school year)	33.9	32.1	35.4	23.4	27.2	31.8	43.7	45.1	42.1	31.5	36.7
		0.133		≤0.001						0.177	

*N=666 observations, no p-value because of stratum with single sampling unit

**N=378 observations, no p-value because of stratum with single sampling unit

***N=368 observations, no p-value because of stratum with single sampling unit

****N=362 observations, no p-value because of stratum with single sampling unit

*****N=389 observations, no p-value because of stratum with single sampling unit

Table 2G. Illegal drug use by sex, grade level, and school type among the total sample of 7th-12th graders

Illegal Drug Use	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
	p-value		p-value						p-value		
Percentage of students who ever had a chance to try an illegal drug even if they did not try it	13.1	17.7	9.3	11.2	14.2	14.5	11.1	13.8	15	11.6	14.9
		≤0.001		0.412						≤0.05	
Percentage of students who first used drugs before age 14 (among students who ever used drugs)	78.5	76.4	82.7	90.5	81.5	66.7	89.5	66.7	77.8	81.9	74.7
		No p-value*		No p-value*						No p-value*	
Percentage of students who used cannabis (one or more times during their life)	3	4.8	1.6	1.4	4.5	1.5	3.1	3.5	4.2	2.7	3.4
		≤0.001		0.191						0.580	
Percentage of students who ever used amphetamines or methamphetamines (one or more times in their life)	3.2	5.1	1.6	1.8	5.5	1.1	2.7	3.1	3.3	2.6	3.8
		≤0.001		0.195						0.407	
Percentage of students who used a drug without a doctor's prescription during the past 12 months	25	20.8	28.6	18.6	28.2	25.4	28.1	27	23.5	23.3	27
Percentage of students who used a sedative, tranquilizer, or sleeping pills without a doctor's prescription (among students who used a drug without a doctor's prescription during the past 12 months)	16.7	23.8	12.5	20.0	19.9	15.2	14.0	11.2	18.9	16.7	16.8
		No p-value**		No p-value**						No p-value**	
Percentage of students who currently used cannabis (one or more times during the 30 days before the survey)	3.2	4.8	1.8	1.6	5.8	1.5	2.1	3.3	3.4	2.4	4.0
		≤0.001		0.130						0.238	
Percentage of students who were taught in any of their classes the problems associated with using drugs (during the 12 months before the survey)	33.9	32.1	35.3	15.6	21.9	29.8	51.7	52.4	48.7	29.9	38.6
		0.104		≤0.001						0.077	

*N=158 observations, no p-value because of stratum with single sampling unit

**N=878 observations, no p-value because of stratum with single sampling unit

H. Reproductive health

Table 2H presents findings related to questions on reproductive health issues and attitudes towards sexual health education. Around 58% of students reported that they believe that none of their friends have had a sexual relationship, an estimate more prevalent in females than males (61.1% vs. 53.5%). About half of the students (45.4%) said they would support being taught about reproductive health in school; a similar percentage believed that “education about reproduction should be taught separately in boys only and girls only classes.” About 1 in 4 students (24.5%) thought that “reproductive health education should start before and during the age of puberty”.

The percentage of students who supported reproductive health being taught at school was increasingly higher with higher grade levels. In terms of differences by gender, slightly more females believed that reproductive health education should be taught in boys only and girls only classes (47.5% vs. 42.7% for males), and fewer females thought education on reproductive health should start before and during the age of puberty (20.3% vs. 29.5% for males).

More than half of the students (53.4%) reported that they would go to their parents or guardians to learn about HIV infection or AIDS. Parental communication about HIV/AIDS was more likely to occur among students in grades 7 as compared to those in grade 12 (65.8% vs. 33.5%). While 29.9% of students reported being taught in any of their classes how to avoid HIV infection or AIDS or sexually transmitted infections, this was more likely to occur for grade 10 students than grade 7 (45.3% vs. 17.2%).

I. Physical activity

Table 2I presents the indicators related to physical activity and sedentary lifestyle. On the one hand, about 1 in 4 students (23.8%) were not physically active for at least 60 minutes per day on any day during the past 7 days. Being physically inactive was more common in females (28.7% vs. 17.8), and among students in grade 12 versus grade 7 and 8 (32.6% vs. 20.1% for both grades 7 and 8 respectively). More specifically, 79.9% of students reported not being physically active for at least 60 minutes per day on all 7 days in the preceding week. Similarly, females were more inactive than males (85.4% vs 73.2%), and students in grade 12 were more inactive compared to grade 7 (92.5% vs 66.6%).

On the other hand, overall, around 1 in 5 (20.1%) students were physically active for a total of at least 60 minutes per day on all 7 days during the past week. Males were more likely than females to be physically active (26.8% vs. 14.6%), as well as grade 7 students compared to grade 12 (33.4% vs 7.5%). Around 62.5% of students reported spending three or more hours per day “sitting or lying down when sleeping at night during a typical or usual day.” Females (66.1%) were more likely to do so compared to males (58.2%), and grade 11 students (73.0%) were more likely to when compared to grade 7 (47.7%).

J. Protective factors

Protective factors, including school attendance, perceived social support at school and parental monitoring, are presented in Table 2J by sex, school type and grade level. About 50.3% of the students reported that “most of the students in their school were most of the time or always kind and helpful during the past 30 days”. Regarding parental regulation and monitoring, about 48.2% of students reported that during the past 30 days their parents or guardians checked their homework most of the time or always to see if it was done. This was more common for males than females (52.4% vs. 44.8%), and grade 7 students than grade 12 (61.9% vs. 25.7%). About half of the students (47.6%) reported that during the past 30 days their parents or guardians most of the time or always understood their problems and worries. In addition, 6.3% of students reported that their parents/guardians most of the time or always embarrassed them in public or in front of friends during the past month, more frequently so for females than males (7.4% vs. 5.0%).

K. New module on social media and vaccines

The final two questions in the survey asked about two new themes related to vaccine acceptance and the number of hours spent using a mobile phone on a daily basis for checking social media applications, chatting, or browsing the internet. These indicators are presented in Table 2K by sex, school type and grade level. With regards to vaccine acceptance, only 1 in 3 students (33.1%) reported wanting to get the vaccines recommended to them by health authorities. In regards to mobile phone use, almost all students (91.9%) had used a mobile phone during the 7 days before the survey, and among them 70.6% used their mobile phone to be on social media, for online communication, or to browse the internet three or more hours per day. This was more common among females than males (73.6%, vs. 66.9%) and grade 11 students compared to grade 7 students (81% vs. 58.5%).

Table 2H. Reproductive health by sex, grade level, and school type among the total sample of 7th-12th graders

Reproductive health	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who believe none of their friends have had sexual relationships	57.6	53.5	61.1	59.7	59.1	64.0	58.9	51.7	51.3	59.4	55.7
		≤0.01		0.076						0.282	
Percentage of students who would support being taught about reproductive health in school	45.4	44.9	45.7	29.2	35.7	41.9	49.7	63.9	67.7	43.5	47.6
		0.705		≤0.001						0.297	
Percentage of students who thought education on reproductive health should start before and during the age of puberty	24.5	29.5	20.3	24.7	22.1	23.3	26.5	24.4	28.3	23.2	26.1
		≤0.001		0.470						0.149	
Percentage of students who believed education about reproduction should be taught in boys only and girls only classes	45.4	42.7	47.5	40.9	47.4	55.1	47.2	41.5	43.7	47.6	42.7
		≤0.01		≤0.05						0.062	
Percentage of students who would go to their parents or guardians to learn about HIV infection or AIDS or reproductive health	53.4	54.5	52.5	65.8	60.2	56.0	47.7	44.5	33.5	54.0	52.8
		0.339		≤0.001						0.685	
Percentage of students who were taught in any of their classes how to avoid HIV infection or AIDS or sexually transmitted infections	29.9	31.7	28.3	17.2	30.4	29.8	45.3	28.5	37.4	26.7	33.7
		0.059		≤0.05						0.072	

Table 2I. Physical activity by sex, grade level, and school type among the total sample of 7th-12th graders

Physical activity	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who were not physically active for a total of at least 60 minutes per day on any day (during the 7 days before the survey)	23.8	17.8	28.7	20.1	20.1	21.4	27.3	26.5	32.6	25.3	22.1
		≤0.001		≤0.05						0.204	
Percentage of students who were not physically active for a total of at least 60 minutes per day on all 7 days (during the 7 days before the survey)	79.9	73.2	85.4	66.6	77.4	77.8	85.1	89.0	92.5	79.2	80.7
		≤0.001		≤0.001						0.566	
Percentage of students who were physically active for a total of at least 60 minutes per day on all 7 days (during the 7 days before the survey)	20.1	26.8	14.6	33.4	22.6	22.2	14.9	11	7.5	20.8	19.3
		≤0.001		≤0.001						0.566	
Percentage of students who spent three or more hours per day sitting or lying down (when they are not in school or doing homework or sleeping at night during a typical or usual day)	62.5	58.2	66.1	47.7	59.4	62.7	71.5	73	71.3	61.9	63.2
		≤0.01		≤0.001						0.742	

Table 2J. Protective factors by sex, grade level and school type among the total sample of 7th-12th graders

Protective factors	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who reported that most of the students in their school were most of the time or always kind and helpful (during the 30 days before the survey)	50.3	48.3	51.8	49.6	47.4	47.7	50.8	53.0	55.2	48.4	52.5
		0.096		0.296						0.121	
Percentage of students who reported that most of the students in their school were never or rarely kind and helpful (during the 30 days before the survey)	29.3	32.2	27.0	34.5	34.5	30.9	25.7	22.9	21.5	31.5	26.8
		≤0.001		≤0.001						0.089	
Percentage of students who 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)	48.2	52.4	44.8	61.9	55.2	54.2	44.0	35.3	25.7	47.8	48.7
		≤0.001		≤0.001						0.785	
Percentage of students who reported that their parents or guardians never or rarely checked to see if their homework was done (during the 30 days before the survey)	35.9	31.9	39.1	26.7	31.2	31.1	38	45.4	51.0	36.9	34.7
		≤0.001		≤0.001						0.431	
Percentage of students who reported that their parents or guardians most of the time or always understood their problems and worries (during the 30 days before the survey)	47.6	47.8	47.5	50.6	46.4	49.1	48.2	46.1	44.7	46.8	48.5
		0.862		0.456						0.291	
Percentage of students who reported that their parents or guardians never or rarely understood their problems and worries (during the 30 days before the survey)	35.4	36.7	34.4	36.9	39.3	37.6	31.4	31.5	32.9	36.4	34.3
		0.269		0.060						0.394	
Percentage of students who reported that their parents or guardians most of the time or always embarrassed them in public or in front of their friends (during the 30 days before the survey)	6.3	5.0	7.4	5.6	7.5	8.8	5.2	5.6	5.2	6.5	6.2
		≤0.01		0.095						0.763	

Table 2K. Indicators on social media use and vaccine acceptance by sex, grade level, and school type among the total sample of 7th-12th graders

Indicators on social media and vaccines	Total	By Sex		By Grade						By School Type	
	All	Male	Female	7	8	9	10	11	12	Public	Private
	%	%	%	%	%	%	%	%	%	%	%
		p-value		p-value						p-value	
Percentage of students who want to get the vaccines recommended to them by health authorities	33.1	32.8	33.5	32.6	35.4	32.5	31.4	30.7	35.9	31.5	35.1
		0.747		0.6253						0.217	
Percentage of students who had a mobile phone during the 7 days before the survey	91.9	90.6	92.9	84.8	89.2	94.1	96.5	96.2	96.6	91.9	91.8
Percentage of students who used their mobile phone to be on social media, for online communication, or to browse the internet three or more hours per day (among students who had a mobile phone during the 7 days before the survey)	70.6	66.9	73.6	58.5	67.1	69.3	75.2	81.0	78.0	72.7	68.2
		≤0.01		≤0.001						0.293	



III.

General time trends: Unweighted 2024 vs. weighted 2017 findings

Typically, one of the aims of GSHS is monitoring trends. In this section we give a general sense of how the estimates may have changed between two survey years (2017 and 2024); the reason for the underlying uncertainty behind any observed changes is the fact that 2024 estimates are unweighted, which precludes a proper comparison with previously weighted estimates. To give readers a sense of how estimates may or may not have changed, we calculated the relative change within the total sample, and within each stratum (gender, grade and school type) highlighting in the tables whether there is an upward or downward trend using ▲ ▼ for any change of 10% or more/less. We urge all readers to review the tables 3.1 - 3.3 below with caution. In the text, we report on any change of more 50%, marking a 1.5-fold increase or more in the estimates between 2017/2024.

There are three important points to note while interpreting the estimates from the two GSHS waves: (1) only estimates of variables measured similarly across the two waves (including similar wording and/or timeframes) are compared; (2) these are crude comparisons of prevalence within each stratum (i.e., females only or males only) and do not represent age-sex standardized estimates; and (3) only relative change was computed; statistical significance was not calculated due to the weighted/unweighted estimates in 2017/2024, respectively.

In the total sample, while prevalence estimates generally varied between the 2017 and 2024 surveys across all GSHS modules, we noted a substantial increase of 50% or more (equivalent to 1.5-fold or more) in specific modules related to hygiene, mental health, and substance use. A substantial increase (+178%) among students who never or rarely washed their hands before eating was noted, and this behaviour was equally reflected in both boys/girls and public/private schools, but was more pronounced in the younger grades.

Examining mental health indicators, we noted a considerable increase between the two waves, particularly the percentage of students who reported feeling lonely most of the time or always (+60%), an increase that is likely being driven by the younger grades. We also note an increase of +79% in students who reported feeling so worried about something that they could not sleep at night, being slightly more pronounced in females (+85% vs. +65% in males) as well as grade 8 (+110%). Also, we noted a substantial increase in suicide planning (154%), more likely to be found in private vs. public schools (203% vs. 103%) and in grade 11 (+229%). As for substance use, a higher percentage (+57%) reported friends as a source of alcohol in 2024 than 2017. Estimates of current cannabis use also increased (+60%), mostly driven by females (+157% vs. +33% in males) and students in private schools (+122% vs. no change at all-in public-school students). Similarly, lifetime amphetamine or methamphetamine use was notably higher in 2024 (+113%), again significantly higher in private school students (+245% vs. +13% in public school students), and grade 9 students (+267%).

However, a decline of 50% or more between the two waves was noted in modules related to alcohol use and reproductive health. Specifically, we noted a drop in the estimates of students who reported that they got into trouble at home, work, or school or got into fights as a result of drinking alcohol (-56%), as well as lifetime drunkenness (-54%), and those who thought education on reproductive health should start before and during the age of puberty (-63%) – all being equally observed among boys/girls, grade levels, and school type.

Table 3.1. Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by gender

	Total			Males			Females		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
Dietary Behaviours									
Percentage of students who most of the time or always went hungry (because there was not enough food in their home during the 30 days before the survey)	3.3	3.7	12% ▲	3.5	3.6	3%	3.2	3.8	19% ▲
Percentage of students who ate from a fast-food restaurant 1 time or more (during the 7 days before the survey)	77.7	60.9	-22% ▼	80.4	62.2	-23% ▼	75.3	59.7	-21% ▼
Percentage of students who were underweight (<-2SD from median for BMI by age and sex)	4.3	3.5	-19% ▼	5.1	5	-2%	3.5	2.3	-34% ▼
Percentage of students who were overweight (>+1SD from median for BMI by age and sex)	25.7	28.1	9%	31.1	33.8	9%	20.9	23.3	11% ▲
Percentage of students who were obese (>+2SD from median for BMI by age and sex)	6.4	8	25% ▲	8.7	11.3	30% ▲	4.3	5.1	19% ▲
Percentage of students who took any diet pills, powders, liquids, or injections without consulting a doctor to lose weight or to keep from gaining weight (during the 30 days before the survey)	5.3	4.7	-11% ▼	5.1	4.6	-10% ▼	5.4	4.8	-11% ▼
Percentage of students who described themselves as slightly or very overweight	24.3	28.6	18% ▲	25.2	26	3%	23.4	30.7	31% ▲
Personal and Oral Hygiene									
Percentage of students who did not clean or brush their teeth or usually cleaned or brushed their teeth less than 1 time per day (during the 30 days before the survey)	8.6	10.6	23% ▲	11.7	14.3	22% ▲	5.8	7.5	29% ▲
Percent of students whose main reason for visiting the dentist was because something was wrong with their teeth or gums (among students who visited a dentist during the 12 months before the survey)	22.1	24.8	12% ▲	23.8	24.6	3%	21	24.8	18% ▲
Percentage of students who never or rarely washed their hands before eating (during the 30 days before the survey)	5	13.9	178% ▲	5.5	14.7	167% ▲	4.5	13.3	196% ▲
Percentage of students who never or rarely washed their hands after using the toilet or latrine (during the 30 days before the survey)	1.7	2	18% ▲	2.2	3.1	41% ▲	1.3	1.2	-8%
Percentage of students who never or rarely used soap when washing their hands (during the 30 days before the survey)	2.3	1.9	-17% ▼	3.4	2.7	-21% ▼	1.4	1.2	-14% ▼
Violence									
Percentage of students who had been physically attacked on school property by a teacher, administrator, supervisor, or principal (during the 12 months before the survey)	10.8	10.1	-6%	16.4	15	-9%	5.9	6	2%
Percentage of students who were in a physical fight (one or more times during the 12 months before the survey)	38.3	46.4	21% ▲	55.1	61.8	12% ▲	23.5	33.1	41% ▲

Table 3.1. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by gender

	Total			Males			Females		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
Injuries									
Percentage of students who reported that they were seriously injured (during the 12 months before the survey)	37.1	42.5	15% ▲	43.5	47.3	9%	31.5	38.3	22% ▲
Percentage of students who reported that their most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle (among students who were seriously injured during the 12 months before the survey)	11.4	7.8	-32% ▼	15.9	9.4	-41% ▼	5.7	6.2	9%
Percentage of students who never or rarely used a seat belt when riding in a car or other motor vehicle driven by someone else (during the 30 days before the survey, among students who rode in a motor vehicle driven by someone else)	52.9	72.7	37% ▲	53.8	72.7	35% ▲	52.2	72.7	39% ▲
Mental Health									
Percentage of students who have no close friends	4.1	4.6	12% ▲	3.5	4.4	26% ▲	4.6	4.7	2%
Percentage of students who most of the time or always felt lonely (during the 12 months before the survey)	11.9	19	60% ▲	8.2	13.2	61% ▲	15.2	23.9	57% ▲
Percentage of students who most of the time or always were so worried about something that they could not sleep at night (during the 12 months before the survey)	13.7	24.5	79% ▲	9.6	15.7	64% ▲	17.2	31.8	85% ▲
Percentage of students who talked most often with their parents or guardians about a mental health problem they were having (among students who had a mental health problem during the 12 months before the survey)	20.7	23.1	12% ▲	21.4	21.5	0%	20.3	24.1	19% ▲
Percentage of students who seriously considered attempting suicide (during the 12 months before the survey)	13.5	17.8	32% ▲	12.7	14.1	11% ▲	14.1	20.8	48% ▲
Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)	8.5	21.6	154% ▲	7.8	18	131% ▲	9.1	24.5	169% ▲
Percentage of students who attempted suicide (one or more times during the 12 months before the survey)	9.7	13.8	42% ▲	9.3	11.5	24% ▲	10.1	15.6	54% ▲

Table 3.1. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by gender

	Total			Males			Females		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
Tobacco Use									
Percentage of students who first tried smoking a cigarette before age 14 (among students who ever tried smoking a cigarette)	65.6	62.2	-5%	67.5	63.9	-5%	62.4	60.3	-3%
Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey)	13.1	16.4	25% ▲	20.1	21.6	7%	7.1	12.1	70% ▲
Percentage of students who currently used any form of smoked tobacco products other than cigarettes (on at least 1 day during the 30 days before the survey)	31.3	24.1	-23% ▼	33.7	25.7	-24% ▼	29.2	22.7	-22% ▼
Percentage of students who currently used a tobacco product (on at least 1 day during the 30 days before the survey)	34.5	28.9	-16% ▼	38.6	31.3	-19% ▼	31.1	26.9	-14% ▼
Percentage of students who thought smoking a narghile or waterpipe was probably or definitely harmful to their health	87.7	87.6	0%	84.2	84.7	1%	90.8	90	-1%
Percentage of students who had someone smoke in their presence (on 1 or more days during the 7 days before the survey)	70.2	82.7	18% ▲	68.5	81.8	19% ▲	71.7	83.4	16% ▲
Alcohol Use									
Percentage of students who drank alcohol for the first time before age 14 (other than a few sips, among students who ever had a drink of alcohol)	72.3	64.6	-11% ▼	75.7	68.1	-10% ▼	67.2	59.2	-12% ▼
Percentage of students who currently drank alcohol (at least one drink of alcohol on at least 1 day during the 30 days before the survey)	17.5	10.8	-38% ▼	22.9	15.5	-32% ▼	12.8	6.9	-46% ▼
Percentage of students who usually drank two or more drinks per day (on the days they drank alcohol among students who drank alcohol during the 30 days before the survey)	45.1	41.5	-8%	53.3	44.4	-17% ▼	33	35.9	9%
Percentage of students who usually got the alcohol they drank from their friends (during the 30 days before the survey, among students who drank alcohol during the 30 days before the survey)	8.6	13.5	57% ▲	9.5	12.7	34% ▲	7.3	15.1	107% ▲
Percentage of students who probably or definitely would drink alcohol if one of their best friends offered it to them	10.8	8	-26% ▼	15.6	10.7	-31% ▼	6.6	5.6	-15% ▼
Percentage of students who ever got into trouble at home, work, or school or got into fights as a result of drinking alcohol (one or more times during their life)	13.9	6.1	-56% ▼	19.3	9.3	-52% ▼	9.6	3.5	-64% ▼
Percentage of students who ever drank so much alcohol that they were drunk (one or more times during their life)	12.4	5.7	-54% ▼	17.4	8.9	-49% ▼	8.1	3.1	-62% ▼

Table 3.1. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by gender

	Total			Males			Females		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
Illegal Drug Use									
Percentage of students who first used drugs before age 14 (among students who ever used drugs)	73.5	78.5	7%	73.5	76.4	4%	-	(-)	#VALUE!
Percentage of students who used cannabis (one or more times during their life)	2.4	3	25% ▲	4	4.8	20% ▲	1	1.6	60% ▲
Percentage of students who currently used cannabis (one or more times during the 30 days before the survey)	2	3.2	60% ▲	3.6	4.8	33% ▲	0.7	1.8	157% ▲
Percentage of students who had used amphetamines or methamphetamines for non-medical purposes (one or more times during their life)	1.5	3.2	113% ▲	2.4	5.1	113% ▲	0.8	1.6	100% ▲
Percentage of students who ever had a chance to try an illegal drug even if they did not try it	11.9	13.1	10% ▲	14.8	17.7	20% ▲	9.3	9.3	0%
Reproductive Health									
Percentage of students who thought education on reproductive health should start before and during the age of puberty	65.4	24.5	-63% ▼	71.1	29.5	-59% ▼	60.5	20.3	-66% ▼
Percentage of students who would support being taught about reproductive health in school	50.9	45.4	-11% ▼	55.2	44.9	-19% ▼	47.3	45.7	-3%
Percentage of students who believed education about reproduction should be taught in boys only and girls only classes	47.4	45.4	-4%	43.8	42.7	-3%	50.4	47.5	-6%
Percentage of students who were taught in any of their classes how to avoid HIV infection or AIDS or sexually transmitted infections	29.2	29.9	2%	30.5	31.7	4%	28.2	28.3	0%
Physical Activity									
Percentage of students who were physically active for a total of at least 60 minutes per day on all 7 days (during the 7 days before the survey)	14.4	20.1	40% ▲	20	26.8	34% ▲	9.6	14.6	52% ▲
Percentage of students who spent three or more hours per day sitting or lying down (when they are not in school or doing homework or sleeping at night during a typical or usual day)	44.8	62.5	40% ▲	44.1	58.2	32% ▲	45.5	66.1	45% ▲

Table 3.2a. Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by middle school grade level

	Total			7 th grade			8 th grade			9 th grade		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
Dietary Behaviours												
Percentage of students who most of the time or always went hungry (because there was not enough food in their home during the 30 days before the survey)	3.3	3.7	12% ▲	3.3	4.3	30% ▲	2.3	3.1	35% ▲	4.7	3.9	-17% ▼
Percentage of students who ate from a fast-food restaurant 1 time or more (during the 7 days before the survey)	77.7	60.9	-22% ▼	74	58.9	-20% ▼	75.2	55.6	-26% ▼	80.7	60.2	-25% ▼
Percentage of students who were underweight (<-2SD from median for BMI by age and sex)	4.3	3.5	-19% ▼	7.7	5.6	-27% ▼	4	3.8	-5%	5.8	3.3	-43% ▼
Percentage of students who were overweight (>+1SD from median for BMI by age and sex)	25.7	28.1	9%	32.3	33.6	4%	25.9	28.5	10% ▲	22.8	28.5	25% ▲
Percentage of students who were obese (>+2SD from median for BMI by age and sex)	6.4	8	25% ▲	10.3	13.3	29% ▲	6.1	6.3	3%	4.6	7.5	63% ▲
Percentage of students who took any diet pills, powders, liquids, or injections without consulting a doctor to lose weight or to keep from gaining weight (during the 30 days before the survey)	5.3	4.7	-11% ▼	6.5	7	8%	5.9	5.1	-14% ▼	5.6	4.4	-21% ▼
Percentage of students who described themselves as slightly or very overweight	24.3	28.6	18% ▲	20.2	27	34% ▲	24.6	27.7	13% ▲	24.3	30.2	24% ▲

Table 3.2a. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by middle school grade level

	Total			7 th grade			8 th grade			9 th grade		
	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change
	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017
Personal and Oral Hygiene												
Percentage of students who did not clean or brush their teeth or usually cleaned or brushed their teeth less than 1 time per day (during the 30 days before the survey)	8.6	10.6	23% ▲	7.9	10.5	33% ▲	7.6	13.8	82% ▲	9.8	12.3	26% ▲
Percentage of students whose main reason for visiting the dentist was because something was wrong with their teeth or gums (among students who visited a dentist during the 12 months before the survey)	22.1	24.8	12% ▲	20.4	24.3	19% ▲	14.7	27.1	84% ▲	21.6	31.6	46% ▲
Percentage of students who never or rarely washed their hands before eating (during the 30 days before the survey)	5	13.9	178% ▲	3.2	21.9	584% ▲	4.6	16.8	265% ▲	5.4	13.9	157% ▲
Percentage of students who never or rarely washed their hands after using the toilet or latrine (during the 30 days before the survey)	1.7	2	18% ▲	1.8	1.6	-11% ▼	1.5	1.5	0%	2.4	1.5	-38% ▼
Percentage of students who never or rarely used soap when washing their hands (during the 30 days before the survey)	2.3	1.9	-17% ▼	3.1	0.8	-74% ▼	2.1	2	-5%	2.2	1.7	-23% ▼
Violence												
Percentage of students who had been physically attacked on school property by a teacher, administrator, supervisor, or principal (during the 12 months before the survey)	10.8	10.1	-6%	14.7	16.5	12% ▲	12.7	12.3	-3%	11.5	5.4	-53% ▼
Percentage of students who were in a physical fight (one or more times during the 12 months before the survey)	38.3	46.4	21% ▲	41	55	34% ▲	38.4	53.9	40% ▲	39.7	49.3	24% ▲

Table 3.2a. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by middle school grade level

	Total			7 th grade			8 th grade			9 th grade		
	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change
	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017
Injuries												
Percentage of students who reported that they were seriously injured (during the 12 months before the survey)	37.1	42.5	15% ▲	37.3	44	18% ▲	37.2	42.3	14% ▲	40.1	45.3	13% ▲
Percentage of students who reported that their most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle (among students who were seriously injured during the 12 months before the survey)	11.4	7.8	-32% ▼	12.7	6.6	-48% ▼	13.7	7.7	-44% ▼	9.3	5.9	-37% ▼
Percentage of students who never or rarely used a seat belt when riding in a car or other motor vehicle driven by someone else (during the 30 days before the survey, among students who rode in a motor vehicle driven by someone else)	52.9	72.7	37% ▲	47.5	68.8	45% ▲	47.3	74.2	57% ▲	54.4	70.9	30% ▲
Mental Health												
Percentage of students who have no close friends	4.1	4.6	12% ▲	3.4	2.8	-18% ▼	2.7	3.8	41% ▲	3.6	5.6	56% ▲
Percentage of students who most of the time or always felt lonely (during the 12 months before the survey)	11.9	19	60% ▲	9.1	18.4	102% ▲	9.3	19.2	106% ▲	11.9	18.9	59% ▲
Percentage of students who most of the time or always were so worried about something that they could not sleep at night (during the 12 months before the survey)	13.7	24.5	79% ▲	10.3	20	94% ▲	10.7	22.5	110% ▲	16.5	29.9	81% ▲
Percentage of students who talked most often with their parents or guardians about a mental health problem they were having (among students who had a mental health problem during the 12 months before the survey)	20.7	23.1	12% ▲	26.6	27.7	4%	23.7	22.2	-6%	18.4	19.4	5%
Percentage of students who seriously considered attempting suicide (during the 12 months before the survey)	13.5	17.8	32% ▲	11.6	17.5	51% ▲	15.2	20.2	33% ▲	14.9	18.6	25% ▲
Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)	8.5	21.6	154% ▲	8.1	19.1	136% ▲	8.1	21.9	170% ▲	9.8	21.6	120% ▲
Percentage of students who attempted suicide (one or more times during the 12 months before the survey)	9.7	13.8	42% ▲	9.4	15.8	68% ▲	9.5	14.4	52% ▲	11.9	14.5	22% ▲

Table 3.2a. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by middle school grade level

	Total			7 th grade			8 th grade			9 th grade		
	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change
	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017
Tobacco Use												
Percentage of students who first tried smoking a cigarette before age 14 (among students who ever tried smoking a cigarette)	65.6	62.2	-5%	94.4	92.2	-2%	83.1	81.3	-2%	75.7	62	-18% ▼
Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey)	13.1	16.4	25% ▲	9.6	12.2	27% ▲	10.1	13.9	38% ▲	13	20.1	55% ▲
Percentage of students who currently used any form of smoked tobacco products other than cigarettes (on at least 1 day during the 30 days before the survey)	31.3	24.1	-23% ▼	20	18.1	-9%	27.7	22.3	-19% ▼	32.6	32.3	-1%
Percentage of students who currently used a tobacco product (on at least 1 day during the 30 days before the survey)	34.5	28.9	-16% ▼	22.3	20.5	-8%	30.2	27.6	-9%	36.3	38.8	7%
Percentage of students who probably or definitely thought smoking a narghile or waterpipe was harmful to their health	87.7	87.6	0%	84.4	85.1	1%	85.3	84.6	-1%	87.5	90.5	3%
Percentage of students who had someone smoke in their presence (on 1 or more days during the 7 days before the survey)	70.2	82.7	18% ▲	58.1	74	27% ▲	64.5	80.5	25% ▲	71.7	88.2	23% ▲

Table 3.2a. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by middle school grade level

	Total			7 th grade			8 th grade			9 th grade		
	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change
	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017
Alcohol Use												
Percentage of students who drank alcohol for the first time before age 14 (other than a few sips, among students who ever had a drink of alcohol)	72.3	64.6	-11% ▼	94.8		-100% ▼	90.1	85	-6%	75.6		-100% ▼
Percentage of students who currently drank alcohol (at least one drink of alcohol on at least 1 day during the 30 days before the survey)	17.5	10.8	-38% ▼	10.9	6.1	-44% ▼	15.5	11	-29% ▼	17.6	5.1	-71% ▼
Percentage of students who usually drank two or more drinks per day (on the days they drank alcohol among students who drank alcohol during the 30 days before the survey)	45.1	41.5	-8%	26.5	(-)	-----	36.3	(-)	-----	47.4	(-)	-----
Percentage of students who usually got the alcohol they drank from their friends (during the 30 days before the survey, among students who drank alcohol during the 30 days before the survey)	8.6	13.5	57% ▲	8.1	(-)	-----	8.8	(-)	-----	10.5	(-)	-----
Percentage of students who probably or definitely would drink alcohol if one of their best friends offered it to them	10.8	8	-26% ▼	5.5	4.1	-25% ▼	7	6.9	-1%	10.4	4.4	-58% ▼
Percentage of students who ever got into trouble at home, work, or school or got into fights as a result of drinking alcohol (one or more times during their life)	13.9	6.1	-56% ▼	8.9	4.9	-45% ▼	10.2	7.9	-23% ▼	14.6	2.9	-80% ▼
Percentage of students who ever drank so much alcohol that they were drunk (one or more times during their life)	12.4	5.7	-54% ▼	6.9	1.9	-72% ▼	9.4	6.6	-30% ▼	12.3	2.5	-80% ▼

Table 3.2a. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by middle school grade level

	Total			7 th grade			8 th grade			9 th grade		
	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change
	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017	Weighted %	Unweighted %	GSHS 2024 vs. GSHS 2017
Illegal Drug Use												
Percentage of students who first used drugs before age 14 (among students who ever used drugs)	73.5	78.5	7%	-	(-)	#VALUE!	-	(-)	#VALUE!	-	(-)	#VALUE!
Percentage of students who used cannabis (one or more times during their life)	2.4	3	25% ▲	2.1	1.4	-33% ▼	2.1	4.5	114% ▲	1.2	1.5	25% ▲
Percentage of students who currently use cannabis (one or more times during the 30 days before the survey)	2	3.2	60% ▲	1.5	1.6	7%	1.9	5.8	205% ▲	2.6	1.5	-42% ▼
Percentage of students who used amphetamines or methamphetamines for non-medical purposes (one or more times during their life)	1.5	3.2	113% ▲	1.3	1.8	38% ▲	2.6	5.5	112% ▲	0.3	1.1	267% ▲
Percentage of students who ever had a chance to try an illegal drug even if they did not try it	11.9	13.1	10% ▲	10	11.2	12% ▲	10.7	14.2	33% ▲	12.9	14.5	12% ▲
Reproductive Health												
Percentage of students who thought education on reproductive health should start before and during the age of puberty	65.4	24.5	-63% ▼	54.2	24.7	-54% ▼	59.5	22.1	-63% ▼	61.4	23.3	-62% ▼
Percentage of students who would support being taught about reproductive health in school	50.9	45.4	-11% ▼	32.5	29.2	-10% ▼	44.9	35.7	-20% ▼	51.7	41.9	-19% ▼
Percentage of students who believed education about reproduction should be taught in boys only and girls only classes	47.4	45.4	-4%	45.4	40.9	-10% ▼	45.3	47.4	5%	47.1	55.1	17% ▲
Percentage of students who were taught in any of their classes how to avoid HIV infection or AIDS or sexually transmitted infections	29.2	29.9	2%	15.1	17.2	14% ▲	33.3	30.4	-9%	31.6	29.8	-6%
Physical Activity												
Percentage of students who were physically active for a total of at least 60 minutes per day on all 7 days (during the 7 days before the survey)	14.4	20.1	40% ▲	20.7	33.4	61% ▲	18.4	22.6	23% ▲	14.3	22.2	55% ▲
Percentage of students who spent three or more hours per day sitting or lying down (when they are not in school or doing homework or sleeping at night during a typical or usual day)	44.8	62.5	40% ▲	29.9	47.7	60% ▲	37.1	59.4	60% ▲	45.7	62.7	37% ▲

Table 3.2b. Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by high school grade level

	Total			10 th grade			11 th grade			12 th grade		
	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change
	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017
<i>Dietary Behaviours</i>												
Percentage of students who most of the time or always went hungry (because there was not enough food in their home during the 30 days before the survey)	3.3	3.7	12% ▲	3.8	3.2	-16% ▼	3	3.9	30% ▲	2.9	4	38% ▲
Percentage of students who ate from a fast-food restaurant 1 time or more (during the 7 days before the survey)	77.7	60.9	-22% ▼	81.9	61.3	-25% ▼	76.7	67.4	-12% ▼	81	66.6	-18% ▼
Percentage of students who were underweight (<-2SD from median for BMI by age and sex)	4.3	3.5	-19% ▼	3	3.4	13% ▲	2	1.7	-15% ▼	1.8	1.9	6%
Percentage of students who were overweight (>+1SD from median for BMI by age and sex)	25.7	28.1	9%	24.5	25.8	5%	22.9	24.7	8%	23.9	24.9	4%
Percentage of students who were obese (>+2SD from median for BMI by age and sex)	6.4	8	25% ▲	5.5	6.9	25% ▲	5.6	5.3	-5%	5.2	7.4	42% ▲
Percentage of students who took any diet pills, powders, liquids, or injections without consulting a doctor to lose weight or to keep from gaining weight (during the 30 days before the survey)	5.3	4.7	-11% ▼	5.2	2.8	-46% ▼	2.3	4.2	83% ▲	4.9	2.3	-53% ▼
Percentage of students who described themselves as slightly or very overweight	24.3	28.6	18% ▲	25.7	28.9	12% ▲	26.1	30.6	17% ▲	28	28.8	3%

Table 3.2b. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by high school grade level

	Total			10 th grade			11 th grade			12 th grade		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
Personal and Oral Hygiene												
Percentage of students who did not clean or brush their teeth or usually cleaned or brushed their teeth less than 1 time per day (during the 30 days before the survey)	8.6	10.6	23% ▲	8.3	9.5	14% ▲	9.9	7.8	-21% ▼	8.8	8.1	-8%
Percent of students whose main reason for visiting the dentist was because something was wrong with their teeth or gums (among students who visited a dentist during the 12 months before the survey)	22.1	24.8	12% ▲	25.7	24.1	-6%	24.9	22.6	-9%	21.4	19.5	-9%
Percentage of students who never or rarely washed their hands before eating (during the 30 days before the survey)	5	13.9	178% ▲	5.5	7.9	44% ▲	6.5	9.2	42% ▲	6.4	7.3	14% ▲
Percentage of students who never or rarely washed their hands after using the toilet or latrine (during the 30 days before the survey)	1.7	2	18% ▲	1.3	2.8	115% ▲	1.7	3.5	106% ▲	1.6	1.5	-6%
Percentage of students who never or rarely used soap when washing their hands (during the 30 days before the survey)	2.3	1.9	-17% ▼	2.6	1.8	-31% ▼	1.7	2.9	71% ▲	1.4	2.3	64% ▲
Violence												
Percentage of students who had been physically attacked on school property by a teacher, administrator, supervisor, or principal (during the 12 months before the survey)	10.8	10.1	-6%	7.4	7.9	7%	7.4	7.4	0%	6.4	3.8	-41% ▼
Percentage of students who were in a physical fight (one or more times during the 12 months before the survey)	38.3	46.4	21% ▲	37.6	42.2	12% ▲	36.2	35.2	-3%	33.7	32.4	-4%

Table 3.2b. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by high school grade level

	Total			10 th grade			11 th grade			12 th grade		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
Injuries												
Percentage of students who reported that they were seriously injured (during the 12 months before the survey)	37.1	42.5	15% ▲	34.6	40.5	17% ▲	36.7	44.1	20% ▲	35.9	36.5	2%
Percentage of students who reported that their most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle (among students who were seriously injured during the 12 months before the survey)	11.4	7.8	-32% ▼	6.7	7.5	12% ▲	13.7	9.6	-30% ▼	12.2	10.4	-15% ▼
Percentage of students who never or rarely used a seat belt when riding in a car or other motor vehicle driven by someone else (during the 30 days before the survey, among students who rode in a motor vehicle driven by someone else)	52.9	72.7	37% ▲	55.2	75.4	37% ▲	57.5	76.1	32% ▲	62.4	69.9	12% ▲
Mental Health												
Percentage of students who have no close friends	4.1	4.6	12% ▲	5.3	5.1	-4%	5.4	5	-7%	5.5	8.4	53% ▲
Percentage of students who most of the time or always felt lonely (during the 12 months before the survey)	11.9	19	60% ▲	13.2	19.2	45% ▲	14.6	18.3	25% ▲	17.2	20.8	21% ▲
Percentage of students who most of the time or always were so worried about something that they could not sleep at night (during the 12 months before the survey)	13.7	24.5	79% ▲	14.5	24.2	67% ▲	17.1	26.2	53% ▲	16	30.1	88% ▲
Percentage of students who talked most often with their parents or guardians about a mental health problem they were having (among students who had a mental health problem during the 12 months before the survey)	20.7	23.1	12% ▲	18.8	25	33% ▲	19.3	23.9	24% ▲	18	18.4	2%
Percentage of students who seriously considered attempting suicide (during the 12 months before the survey)	13.5	17.8	32% ▲	13.6	20.2	49% ▲	12.9	14.2	10% ▲	12.7	15.3	20% ▲
Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)	8.5	21.6	154% ▲	9.4	25	166% ▲	6.8	22.4	229% ▲	8.3	20.5	147% ▲
Percentage of students who attempted suicide (one or more times during the 12 months before the survey)	9.7	13.8	42% ▲	10	13.4	34% ▲	9.4	12.3	31% ▲	7.7	10.3	34% ▲

Table 3.2b. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by high school grade level

	Total			10 th grade			11 th grade			12 th grade		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
Tobacco Use												
Percentage of students who first tried smoking a cigarette before age 14 (among students who ever tried smoking a cigarette)	65.6	62.2	-5%	55.3	54.1	-2%	53.7	45.3	-16% ▼	42.8	30	-30% ▼
Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey)	13.1	16.4	25% ▲	14	18.5	32% ▲	16	18.3	14% ▲	21.4	21.3	0%
Percentage of students who currently used any form of smoked tobacco products other than cigarettes (on at least 1 day during the 30 days before the survey)	31.3	24.1	-23% ▼	34	24.9	-27% ▼	37	25.7	-31% ▼	49.3	28.4	-42% ▼
Percentage of students who currently used a tobacco product (on at least 1 day during the 30 days before the survey)	34.5	28.9	-16% ▼	37.4	30.5	-18% ▼	40.1	30	-25% ▼	54.7	35.3	-35% ▼
Percentage of students who thought probably or definitely smoking a narghile or waterpipe was harmful to their health	87.7	87.6	0%	91.5	88.3	-3%	90.7	90.6	0%	90.7	90.6	0%
Percentage of students who had someone smoke in their presence (on 1 or more days during the 7 days before the survey)	70.2	82.7	18% ▲	77.8	87.7	13% ▲	79.3	87.1	10% ▲	83.1	86.6	4%

Table 3.2b. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by high school grade level

	Total			10 th grade			11 th grade			12 th grade		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
Alcohol Use												
Percentage of students who drank alcohol for the first time before age 14 (other than a few sips, among students who ever had a drink of alcohol)	72.3	64.6	-11% ▼	66.3	52.1	-21% ▼	51.1	54.6	7%	53	42.1	-21% ▼
Percentage of students who currently drank alcohol (at least one drink of alcohol on at least 1 day during the 30 days before the survey)	17.5	10.8	-38% ▼	27.1	14.9	-45% ▼	20.3	12.9	-36% ▼	18.3	18.1	-1%
Percentage of students who usually drank two or more drinks per day (on the days they drank alcohol among students who drank alcohol during the 30 days before the survey)	45.1	41.5	-8%	56	(-)	#VALUE!	38.3	(-)	#VALUE!	64.8	(-)	#VALUE!
Percentage of students who usually got the alcohol they drank from their friends (during the 30 days before the survey, among students who drank alcohol during the 30 days before the survey)	8.6	13.5	57% ▲	7.7	(-)	#VALUE!	7.8	(-)	#VALUE!	9.4	(-)	#VALUE!
Percentage of students who probably or definitely would drink alcohol if one of their best friends offered it to them	10.8	8	-26% ▼	17.3	11.1	-36% ▼	13.6	10.4	-24% ▼	17	14.4	-15% ▼
Percentage of students who ever got into trouble at home, work, or school or got into fights as a result of drinking alcohol (one or more times during their life)	13.9	6.1	-56% ▼	21.8	7.3	-67% ▼	17	6	-65% ▼	14.9	7.3	-51% ▼
Percentage of students who ever drank so much alcohol that they were drunk (one or more times during their life)	12.4	5.7	-54% ▼	20.1	8.7	-57% ▼	15.1	7.4	-51% ▼	16.5	9.1	-45% ▼

Table 3.2b. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by high school grade level

	Total			10 th grade			11 th grade			12 th grade		
	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change
	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017
Illegal Drug Use												
Percentage of students who first used drugs before age 14 (among students who ever used drugs)	73.5	78.5	7%	-	(-)	#VALUE!	-	(-)	#VALUE!	-	(-)	#VALUE!
Percentage of students who used cannabis (one or more times during their life)	2.4	3	25% ▲	2.2	3.1	41% ▲	2.3	3.5	52% ▲	5.4	4.2	-22% ▼
Percentage of students who currently used cannabis (one or more times during the 30 days before the survey)	2	3.2	60% ▲	1.3	2.1	62% ▲	1.2	3.3	175% ▲	4.4	3.4	-23% ▼
Percentage of students who used amphetamines or methamphetamines for non-medical purposes (one or more times during their life)	1.5	3.2	113% ▲	1.4	2.7	93% ▲	1.6	3.1	94% ▲	2	3.3	65% ▲
Percentage of students who ever had a chance to try an illegal drug even if they did not try it	11.9	13.1	10% ▲	11.5	11.1	-3%	11.4	13.8	21% ▲	17.4	15	-14% ▼
Reproductive Health												
Percentage of students who thought education on reproductive health should start before and during the age of puberty	65.4	24.5	-63% ▼	73.7	26.5	-64% ▼	77.2	24.4	-68% ▼	80.5	28.3	-65% ▼
Percentage of students who would support being taught about reproductive health in school	50.9	45.4	-11% ▼	58.7	49.7	-15% ▼	66.9	63.9	-4%	68.9	67.7	-2%
Percentage of students who believed education about reproduction should be taught in boys only and girls only classes	47.4	45.4	-4%	49.6	47.2	-5%	47.8	41.5	-13% ▼	51.9	43.7	-16% ▼
Percentage of students who were taught in any of their classes how to avoid HIV infection or AIDS or sexually transmitted infections	29.2	29.9	2%	27.4	45.3	65% ▲	40.6	28.5	-30% ▼	37.3	37.4	0%
Physical Activity												
Percentage of students who were physically active for a total of at least 60 minutes per day on all 7 days (during the 7 days before the survey)	14.4	20.1	40% ▲	8.9	14.9	67% ▲	9.6	11	15% ▲	7.4	7.5	1%
Percentage of students who spent three or more hours per day sitting or lying down (when they are not in school or doing homework or sleeping at night during a typical or usual day)	44.8	62.5	40% ▲	57.8	71.5	24% ▲	60.5	73	21% ▲	51.2	71.3	39% ▲

Table 3.3. Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by school type

	Total			Public schools			Private schools		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
<i>Dietary Behaviours</i>									
Percentage of students who most of the time or always went hungry (because there was not enough food in their home during the 30 days before the survey)	3.3	3.7	12% ▲	2.5	4.3	72% ▲	3.8	3	-21% ▼
Percentage of students who ate from a fast-food restaurant 1 time or more (during the 7 days before the survey)	77.7	60.9	-22% ▼	74.6	58.3	-22% ▼	79.5	64	-19% ▼
Percentage of students who were underweight (<-2SD from median for BMI by age and sex)	4.3	3.5	-19% ▼	3.9	4.1	5%	4.5	2.7	-40% ▼
Percentage of students who were overweight (>+1SD from median for BMI by age and sex)	25.7	28.1	9%	27.8	28.5	3%	24.1	20.1	-17% ▼
Percentage of students who were obese (>+2SD from median for BMI by age and sex)	6.4	8	25% ▲	7.8	8.8	13% ▲	5.3	6.9	30% ▲
Percentage of students who took any diet pills, powders, liquids, or injections without consulting a doctor to lose weight or to keep from gaining weight (during the 30 days before the survey)	5.3	4.7	-11% ▼	4.8	4.8	0%	5.6	4.6	-18% ▼
Percentage of students who described themselves as slightly or very overweight	24.3	28.6	18% ▲	21.3	27.4	29% ▲	25.9	30	16% ▲
<i>Personal and Oral Hygiene</i>									
Percentage of students who did not clean or brush their teeth or usually cleaned or brushed their teeth less than 1 time per day (during the 30 days before the survey)	8.6	10.6	23% ▲	10.9	10.5	-4%	7.3	10.8	48% ▲
Percent of students whose main reason for visiting the dentist was because something was wrong with their teeth or gums (among students who visited a dentist during the 12 months before the survey)	22.1	24.8	12% ▲	24.2	27.4	13% ▲	18.6	21.8	17% ▲
Percentage of students who never or rarely washed their hands before eating (during the 30 days before the survey)	5	13.9	178% ▲	5.1	13.8	171% ▲	4.9	14	186% ▲
Percentage of students who never or rarely washed their hands after using the toilet or latrine (during the 30 days before the survey)	1.7	2	18% ▲	1.7	2	18% ▲	1.7	2.1	24% ▲
Percentage of students who never or rarely used soap when washing their hands (during the 30 days before the survey)	2.3	1.9	-17% ▼	2.9	1.9	-34% ▼	1.9	1.9	0%

Table 3.3. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by school type

	Total			Public schools			Private schools		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
Violence									
Percentage of students who had been physically attacked on school property by a teacher, administrator, supervisor, or principal (during the 12 months before the survey)	10.8	10.1	-6%	12	10	-17% ▼	10.1	10.2	1%
Percentage of students who were in a physical fight (one or more times during the 12 months before the survey)	38.3	46.4	21% ▲	33.5	46	37% ▲	41	46.8	14% ▲
Injuries									
Percentage of students who reported that they were seriously injured (during the 12 months before the survey)	37.1	42.5	15% ▲	33.1	42	27% ▲	39.4	43.1	9%
Percentage of students who reported that their most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle (among students who were seriously injured during the 12 months before the survey)	11.4	7.8	-32% ▼	10.1	7.6	-25% ▼	12	7.9	-34% ▼
Percentage of students who never or rarely used a seat belt when riding in a car or other motor vehicle driven by someone else (during the 30 days before the survey, among students who rode in a motor vehicle driven by someone else)	52.9	72.7	37% ▲	60.8	74.7	23% ▲	48.7	70.4	45% ▲
Mental Health									
Percentage of students who have no close friends	4.1	4.6	12% ▲	5.8	5.5	-5%	3.1	3.6	16% ▲
Percentage of students who most of the time or always felt lonely (during the 12 months before the survey)	11.9	19	60% ▲	14.2	20.4	44% ▲	10.6	17.3	63% ▲
Percentage of students who most of the time or always were so worried about something that they could not sleep at night (during the 12 months before the survey)	13.7	24.5	79% ▲	15.8	26.2	66% ▲	12.4	22.5	81% ▲
Percentage of students who talked most often with their parents or guardians about a mental health problem they were having (among students who had a mental health problem during the 12 months before the survey)	20.7	23.1	12% ▲	19.1	22.2	16% ▲		24.1	#DIV/0!
Percentage of students who seriously considered attempting suicide (during the 12 months before the survey)	13.5	17.8	32% ▲	14.4	16.9	17% ▲	12.9	18.9	47% ▲
Percentage of students who made a plan about how they would attempt suicide (during the 12 months before the survey)	8.5	21.6	154% ▲	9.9	20.1	103% ▲	7.7	23.3	203% ▲
Percentage of students who attempted suicide (one or more times during the 12 months before the survey)	9.7	13.8	42% ▲	10.8	13.5	25% ▲	9.1	14.2	56% ▲

Table 3.3. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by school type

	Total			Public schools			Private schools		
	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change	GSHS 2017	GSHS 2024	% relative change
	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017	Weighted % (95 % CI)	Unweighted % (95 % CI)	GSHS 2024 vs. GSHS 2017
Tobacco Use									
Percentage of students who first tried smoking a cigarette before age 14 (among students who ever tried smoking a cigarette)	65.6	62.2	-5%	63.4	61.6	-3%	66.7	63	-6%
Percentage of students who currently smoked cigarettes (on at least 1 day during the 30 days before the survey)	13.1	16.4	25% ▲	12.9	17.1	33% ▲	13.2	15.6	18% ▲
Percentage of students who currently used any form of smoked tobacco products other than cigarettes (on at least 1 day during the 30 days before the survey)	31.3	24.1	-23% ▼	34.7	27.1	-22% ▼	29.4	20.6	-30% ▼
Percentage of students who currently used a tobacco product (on at least 1 day during the 30 days before the survey)	34.5	28.9	-16% ▼	37.1	31.3	-16% ▼	33.1	26.1	-21% ▼
Percentage of students who thought that smoking a narghile or waterpipe was probably or definitely harmful to their health	87.7	87.6	0%	86.9	87.7	1%	88.2	87.5	-1%
Percentage of students who had someone smoke in their presence (on 1 or more days during the 7 days before the survey)	70.2	82.7	18% ▲	72.9	83.5	15% ▲	68.7	81.8	19% ▲
Alcohol Use									
Percentage of students who drank alcohol for the first time before age 14 years (other than a few sips, among students who ever had a drink of alcohol)	72.3	64.6	-11% ▼	70.7	66.4	-6%	72.8	63.3	-13% ▼
Percentage of students who currently drank alcohol (at least one drink of alcohol on at least 1 day during the 30 days before the survey)	17.5	10.8	-38% ▼	11.4	8.7	-24% ▼	20.9	13.3	-36% ▼
Percentage of students who usually drank two or more drinks per day (on the days they drank alcohol among students who drank alcohol during the 30 days before the survey)	45.1	41.5	-8%	48.5	46.3	-5%	44.1	38.1	-14% ▼
Percentage of students who usually got the alcohol they drank from their friends (during the 30 days before the survey, among students who drank alcohol during the 30 days before the survey)	8.6	13.5	57% ▲	11.4	14.4	26% ▲	7.8	12.9	65% ▲
Percentage of students who probably or definitely would drink a drink of alcohol if one of their best friends offered it to them	10.8	8	-26% ▼	7.3	6.5	-11% ▼	12.8	9.6	-25% ▼
Percentage of students who ever got into trouble at home, work, or school or got into fights as a result of drinking alcohol (one or more times during their life)	13.9	6.1	-56% ▼	10.3	4.5	-56% ▼	16.2	8	-51% ▼
Percentage of students who ever drank so much alcohol that they were drunk (one or more times during their life)	12.4	5.7	-54% ▼	8.7	4.2	-52% ▼	14.6	7.6	-48% ▼

Table 3.3. (Continued) Time trends: Comparing 2017 and 2024 Lebanon Data in the total sample and by school type

	Total			Public schools			Private schools		
	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017	GSHS 2017	GSHS 2024	% relative change GSHS 2024 vs. GSHS 2017
	Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)		Weighted % (95 % CI)	Unweighted % (95 % CI)	
Illegal Drug Use									
Percentage of students who first used drugs before age 14 (among students who ever used drugs)	73.5	78.5	7% ▲	80.9	(-)	#VALUE!	-	(-)	#VALUE!
Percentage of students who used cannabis (one or more times during their life)	2.4	3	25% ▲	3	2.7	-10% ▼	2	3.4	70% ▲
Percentage of students who currently used cannabis (one or more times during the 30 days before the survey)	2	3.2	60% ▲	2.4	2.4	0%	1.8	4	122% ▲
Percentage of students who used amphetamines or methamphetamines for non-medical purposes (one or more times during their life)	1.5	3.2	113% ▲	2.3	2.6	13% ▲	1.1	3.8	245% ▲
Percentage of students who ever had a chance to try an illegal drug even if they did not try it	11.9	13.1	10% ▲	11.2	11.6	4%	12.2	14.9	22% ▲
Reproductive Health									
Percentage of students who thought education on reproductive health should start before and during the age of puberty	65.4	24.5	-63% ▼	65.7	23.2	-65% ▼	65.2	26.1	-60% ▼
Percentage of students who would support being taught about reproductive health in school	50.9	45.4	-11% ▼	50.6	43.5	-14% ▼	51.1	47.6	-7%
Percentage of students who believed education about reproduction should be taught in boys only and girls only classes	47.4	45.4	-4%	53.7	47.6	-11% ▼	43.8	42.7	-3%
Percentage of students who were taught in any of their classes how to avoid HIV infection or AIDS or sexually transmitted infections	29.2	29.9	2%	32.6	54	66% ▲	27.3	33.7	23% ▲
Physical Activity									
Percentage of students who were physically active for a total of at least 60 minutes per day on all 7 days (during the 7 days before the survey)	14.4	20.1	40% ▲	12.4	20.8	68% ▲	15.5	19.3	25% ▲
Percentage of students who spent three or more hours per day sitting or lying down (when they are not in school or doing homework or sleeping at night during a typical or usual day)	44.8	62.5	40% ▲	42.3	61.9	46% ▲	46.3	63.2	37% ▲

**Part IV:
Discussion and
evidence-informed
recommendations**



Adolescence, defined by WHO as the period between the ages of 10 to 19 years, is recognized as a critical period characterized by pubertal maturation (Patton et al., 2016). Often perceived as the healthiest phase in life, it is a time of transitions, when young people begin to acquire social, economic, cognitive, and other important resources needed for achieving human potential. It is therefore a phase where young people may experience physical and mental health issues due to emerging interests in sexual exploration or substance use or generally unhealthy lifestyles, or be exposed to violence or bullying.

The 2024 GSHS, as in previous surveys, has allowed us to address two epidemiological questions: (1) “how much?” – or what is the current extent of the surveyed behaviours based on GSHS 2024 findings; and (2) “where?” – which typically explores the public health issue by person, place time, here we checked for differences by students’ personal characteristics (biological sex and grade level), and by place (public or private school); we also make an attempt to compare the estimates by time (2017 vs. 2025) though valid comparisons by time are precluded by the fact that 2017 GSHS estimates are weighted data where 2024 GSHS findings represent unweighted findings.

Given the 2024 findings, and despite the selection bias incurred by the lower-than-expected response rate, we discuss below the findings vis-à-vis published literature, and present few evidence-based recommendations to address one additional question, “What can be done?” at the research, policy, and/or practice levels. Some of the recommendations made in the 2017 report continue to apply and may be restated below.



I. Dietary behaviours and physical activity

Children and adolescents who are obese can suffer from psychological issues including depression, anxiety, poor self-esteem, poor body image and difficult peer relationships, as well as eating disorders (Rankin et al., 2016; Topçu et al., 2016). Childhood obesity is associated with cardiometabolic comorbidities, as well as premature mortality (Horesh et al., 2021; Jebeile et al., 2021; Pulgarón, 2013). The global age-standardized prevalence of obesity in school-aged children and adolescents increased from 1.7% (1.5–2.0) in 1990 to 6.9% (6.3–7.6) in 2022 among girls and from 2.1% (1.9–2.3) to 9.3% (8.5–10.2) among boys (Phelps et al., 2024). Since 2000, the mean BMI has plateaued at high levels in many high-income countries, but has continued to rise in Low Middle-Income Countries (LMICs) (Abarca-Gómez et al., 2017). This rise has been occurring at a faster pace in economically developed countries and in urbanized populations, including Arab countries within the Middle East region, whereby the prevalence of obesity, among 5-19 years old children and adolescent is 11.9%, higher than the global average of 8.2%, as reported by WHO (WHO, 2024c). Compared to other countries in the Eastern Mediterranean Region, the reported obesity prevalence in children and adolescents (age 5-19) in Lebanon is 18.6%, much higher than the average in the region (11.9%) and the world (8.2%).

In this 2024 Lebanon GSHS survey, about 1 in 3 students were overweight or obese, mostly among males and younger students. This is similar to an estimate from the U.S. obtained from the 2016 National Survey of Children’s Health, where the national estimate for overweight and obesity was 31% (in a sample of 24,162 children aged 10-17 years) (Zgodic et al., 2021). In a recent study from Lebanon, 22% of school children aged 9-13 years old were obese (Nasreddine et al., 2022).

In terms of dietary habits, half the surveyed sample reported eating fruits or vegetables less than once per day, with only 14% eating fruits three or more times per day. These good eating behaviours were reported more by males and younger students, possibly because they are paying attention to their nutrition since males and younger participants were also more likely to be overweight or obese. Substantial proportions of young people were drinking sugar sweetened drinks more than one time per day or eating once or more times at a fast-food restaurant food during the week before the survey. These behaviours were generally more common among male students, who were more likely to be overweight/obese, but also more likely to eat healthily and stay physically active. The 2024 GSHS findings on dietary behaviours are in line with previous findings from a sample

of representative school children aged 4-13 years old, whereby their main estimated sources of energy intake were sweets, sweetened beverages and desserts, followed by grains and mixed dishes, with the lowest rating for vegetables (Nasreddine et al., 2022).

Sedentary behaviours were prevalent, with more than half the sample spending three or more hours doing sitting activities (such as sitting and watching television, playing computer games, talking with friends when not in school or doing homework during a typical or usual day). This finding is in line with other research findings from the Eastern Mediterranean Region, where inactivity is high (60%) among youth (Fazah et al., 2010; Sharara et al., 2018).

Overall, the lack of a healthy diet (too few fruits and vegetables, having daily sugary drinks, frequent consumption of fast food), coupled with little or no physical activity and a sedentary lifestyle perhaps partially explains the levels of overweight and obese individuals. Studies show that obesity and physical inactivity in childhood and adolescence are drivers of risk for numerous adult onset cancers (Sung et al., 2019), early onset diabetes type 2 (Twig et al., 2020), and vascular health problems at a young age (Shah et al., 2011; Short et al., 2009; Urbina et al., 2010).

Below are some practical evidence-informed recommendations at the research, policy, and practice levels.

Recommendations for future research:

- Future GSHS or school-based surveys could include questions to assess if students skipped meals, and the consumption of specific food groups to capture the implications of food insecurity and the possible impact of ongoing crises on child and adolescent nutrition. In addition, linkages between online gaming, social media, and the odds of obesity could be investigated.
- Future research could examine the role of an enabling environment and include questions on the provision of healthy food items and snacks in school canteens; such findings could directly translate to school-based health initiatives (Story et al., 2009). Surveys could assess the role of school-based physical activity initiatives (e.g., active recess, PE classes), the availability of vending machines, fast food, and school gardens, among others.
- Intervention research is also encouraged. Previously, a school-based intervention showed that a combination of class activities, family involvement, and food service using interactive fun learning activities achieved an increase in students' nutritional knowledge and self-efficacy, and a decrease in their purchase and consumption of high energy, dense snacks and beverages (Habib-Mourad & Ghandour, 2015).

Recommendations for practice:

- Healthy School Meals Policy – Implement mandatory nutrition standards for all school-provided meals, ensuring access to balanced, minimally processed foods with adequate fruits, vegetables, and whole grains.
- School-based interventions delivered by either trained teachers or health educators/school nurses- are recommended. The recommendation is to either adapt effective programs to local contexts, or roll-out other locally adapted interventions based on life skills and that have been shown to be effective, specifically Health-E-PALS: **Promoting healthy eating and physical activity** is one such example of a culturally appropriate, interactive, fun intervention to promote healthy eating habits and physical activity in Lebanese school children with the potential to be scaled up, replicated and sustained. Initiatives that bring about social behaviour change (SBC) through skills-based extracurricular education are encouraged to address the complex contributing factors and drivers that influence individual and community behaviour. School-based interventions can enhance students' nutritional knowledge and self-efficacy, decrease their purchase and consumption of high energy, dense snacks and beverages (Habib-Mourad et al., 2014; Said et al., 2022; Sharara et al., 2018), as well as increase their levels of exercise outside school hours (Habib-Mourad et al., 2023).
- At the level of the MEHE, the school feeding program is currently being implemented in collaboration with the World Food Programme (WFP), alongside related initiatives and extracurricular activities focused on life skills, in partnership with the American University of Beirut (AUB). Additionally CERD is working on updating the

curriculum, with a strong focus on health. (Healthy Generations), with competency-based health education integrated across all learning domains. Extracurricular activities could be designed to consolidate the learning and enable behaviour change while allowing schools to develop ownership of the program (Habib-Mourad, Ghandour, Maliha, Dagher, et al., 2020; Habib-Mourad & Ghandour, 2015) and to promote it. Trained school teachers can have a positive impact on students' dietary behaviours with the appropriate training (Habib-Mourad, Ghandour, Maliha, Awada, et al., 2020).

- At the level of the MEHE, reinstate a regular school hour allocated for health and environmental extracurricular education activities on different topics (nutrition, hygiene, road safety, avoiding harmful behaviours like smoking, drug abuse or excessive alcohol consumption, reproductive health, etc.) based around life skills

Recommendations for policy:

- Relevant ministries (Ministry of Youth & Sports, Ministry of Environment....) must work collectively with local municipalities and communities to ensure the presence of more public spaces where young people can be physically active (skate parks, outdoor gyms, basketball courts, etc.).
- Physical education in schools should be provided by qualified instructors, and 2-3 times per week, so students perceive it as an important subject that has social, psychological, and physical benefits. PE sessions in schools should be fun and varied.
- Control of marketing materials aimed at children, as well as regulations around vendors and retail stores located near schools could be addressed by the issuing of laws.



II. Hygiene related behaviours

Handwashing

The COVID-19 pandemic shed light on the importance of proper handwashing as a primary preventive measure in stopping the spread of the infection (CDC, 2024). It is widely known that handwashing with soap, especially after using the toilet and before eating is a cost-effective practice (United Nations Children's Fund & World Health Organization, 2021, 2022) that significantly reduces the incidence of gastrointestinal illnesses including diarrhoea (Ejemot et al., 2009), as well as respiratory tract infections, and absences from school (Willmott et al., 2016). Nonetheless, the hygiene practices of adolescents remain among the research areas that are understudied in Arab nations (Barakat & Yousufzai, 2021).

In school settings, one of the goals and targets of the 2030 Agenda for Sustainable Development is the provision of a universal access (>99%) to basic Water, Sanitation & Hygiene (WASH) in schools, however the world is not on track to achieve this by 2030, according to the progress report on drinking water, sanitation and hygiene in schools (United Nations Children's Fund & World Health Organization, 2022). For the hygiene component specifically, global figures show that hygiene service levels in schools vary widely between countries. Out of 121 countries that had estimates on the coverage of basic hygiene services in schools in 2021, 26 countries remained below 50%, including Lebanon, Syria, and the

Occupied Palestinian Territories (United Nations Children's Fund & World Health Organization, 2022), with Sub-Saharan countries making up more than half of the remainder (United Nations Children's Fund & World Health Organization, 2022). Also, Lebanon, the occupied Palestinian Territories and Libya were among the countries where more than half of schools had a limited hygiene service (handwashing facilities with water but no soap available) (United Nations Children's Fund & World Health Organization, 2022). The lack of access to adequate hygiene in schools facilitates the spread of preventable diseases and increases absence from school.

In the current 2024 GSHS, the prevalence of poor handwashing practices, as reported by students, was found to be suboptimal at one critical time in particular, "before eating": never/rarely washing hands for before eating

(14%), after using the toilet or latrine (2%), and with soap (1.9%). Further research is needed to understand the factors influencing hand washing behaviours in this age group, as during the Covid 19 pandemic, students began focusing more on handwashing and the importance of hygiene. Studies have revealed that structural factors such as a lack of water and soap, unattractive facilities and time constraints influence consistent handwashing behaviour (Chittleborough et al., 2012).

When compared to global figures, the prevalence in Lebanon of never/rarely washing hands before eating is higher than the average (Han et al., 2020; Smith et al., 2021). For instance, in an analysis of GSHS data (2003-2017) of adolescents aged 12 to 15 across 80 countries, the prevalence of never/rarely washing hands before eating was 6.4% (Smith et al., 2021). However, the prevalence of handwashing never/rarely after using the toilet (2% vs. 5.9%) and with soap (1.9% vs. 9%) are slightly higher when compared to LMICs (Han et al., 2020). Moreover, findings from the present report support previous literature that poor handwashing before eating among adolescents in grades 7-12 is high particularly in upper middle-income countries and HICs (vs. LICs) (Smith et al., 2021).

In terms of differences by gender and grade level, previous GSHS data collected between 2007 and 2016 from 17 Middle East and North Africa (MENA) countries indicated that girls consistently exhibit superior hand hygiene practices on the three handwashing elements compared to boys across all the countries examined (Achak et al., 2024). In the current 2024 GSHS, boys reported washing hands slightly less frequently than girls. Furthermore, the prevalence of never/rarely washing hands before eating was shown to be most problematic among the younger grades particularly grades 7 followed by 8 and 9. Indeed, research examining handwashing behaviours among students reveals variations by grade level, with older students generally demonstrating a higher awareness of hand hygiene practices than younger ones and supports age as significant factor influencing handwashing practices (Almoslem et al., 2021).

According to UNICEF, there are five critical handwashing moments for children: When hands are visibly dirty; Before and after eating; After using the toilet; After touching animals and pets, and; After blowing their nose, coughing or sneezing (UNICEF, 2025). While very few students report never/rarely washing hands after using the toilet and the vast majority report using soap, the higher prevalence of never handwashing before eating is concerning. Within closed school environments where most surfaces are shared, even a small percentage of 2%-5% can be detrimental for the transmission of viruses using the faecal-oral route.

Recommendations for practice:

- Reminder (booster) health education sessions particularly in middle school grades on (1) the benefits of washing hands and using soap and (2) the critical handwashing times and the importance of proper hand washing technique, supported with demonstrations, can be useful to avoid the transmission of infectious diseases (Vujcic & Ram, 2013).
- Nudge-based interventions may be useful in improving handwashing with soap among school-aged children. Nudges are environmental cues engaging unconscious decision-making processes to prompt behaviour change (Dreibelbis et al., 2016).
- Visual aids, like posters and step-by-step guides, near handwashing stations to remind and educate students about proper techniques (UNICEF, 2025).
- Structured handwashing schedules in schools, particularly before meals and after using the restroom, and during other critical times (Center for Disease Control, 2024).
- Regular training sessions for educators, healthcare workers, and food handlers to reinforce proper hand hygiene practices and their importance (Center for Disease Control, 2024).
- The primary data sources for WASH in schools are routine administrative reporting through education management information system and periodic censuses or surveys of school facilities (United Nations Children's Fund & World Health Organization, 2021).

Recommendations for future research:

- Specific studies focusing solely on school-aged adolescents in Lebanon.
- More research on the cultural, socioeconomic, and infrastructural barriers that hinder effective hand hygiene practices in various communities and school settings across Lebanon.
- The effectiveness of implemented hand hygiene programs and policies to determine their impact on reducing disease transmission and improving public health outcomes.

Recommendations for policy:

- There is a need to prioritize the enabling environment required to practice safe health habits at the level of public schools, such as ensuring clean water and soap for hand hygiene, coupled with targeted educational programs especially among younger students.
- Public health policies need to be targeted at not only providing health education but at increasing parent-child bonding and shared time in order to promote hand hygiene practices among adolescents (Achak et al., 2024; Jatrana et al., 2021).
- Having standardized hand hygiene protocols in schools to promote consistent practices and prevent the spread of infectious diseases (Center for Disease Control, 2024), and to disseminate them among all non-governmental organizations that implement hygiene interventions in public schools.
- Regular monitoring of school toilets and handwashing stations to ensure availability of well-maintained handwashing facilities with soap, clean water, and hand drying options (Center for Disease Control, 2024).

Oral hygiene

With respect to oral hygiene, low-cost but effective hygiene practices can decrease the incidence of oral diseases. Yet, the economic burden of dental caries is high, with global oral health care expenditures reaching nearly \$390 billion annually (Benzian et al., 2022). In Lebanon, oral disease-related economic losses were estimated at \$183 million in 2019 (Daou et al., 2024). A study assessing the oral health of 7,902 Lebanese schoolchildren aged 12 and 15 years found that 89.5% of participants are experiencing dental caries, with the prevalence being higher among students attending public vs private schools and in rural vs. urban regions (Malak et al., 2021). In the present 2024 GSHS report, the majority of students reported usually cleaning or brushing their teeth one or more times per day during the past 30 days (only 10.6% do not), with females more likely to do so as compared to males (7.5% of the females do not versus 14.3% of the males). When comparing current results to global GSHS figures, the prevalence of daily toothbrushing is close (89.4% vs. 96%), and is better than countries in Eastern Mediterranean region (89.4% vs. 68.2%) (Han et al., 2020).

However, only 1 in 4 students who visited the dentist in the past 12 months did so because something was wrong with their teeth or gums. In a study conducted in Beirut among the parents of children in grades 2-6 (aged 7-12 years), economic factors were the primary barriers to dental service utilizations beside parental age, awareness of affordable dental care centres, and family size (Karam et al., 2020). Dental caries is a major oral health problem in most developed countries and considering that 1 in 2 of the students surveyed drank sugary carbonated drinks, and 1 in 3 used tobacco products, oral health warrants closer attention among school children despite the high percentage of students who reported brushing their teeth. Schools are a key component of a national oral health program. Schools can both provide education as early as possible in the curriculum, as well as providing a supportive environment by ensuring that the safe water and sanitation facilities essential for oral health are available.

Recommendations for practice:

- Nudge-based interventions may be useful in improving the frequency and technique of teeth brushing.
- School-based preventive campaigns encouraging a healthier lifestyle (reducing sugar intake, promoting

proper oral hygiene, and increasing the use of fluoride) for those at high risk and regular dental follow-ups should be supported and conducted for Lebanese school children (Malak et al., 2021).

- Oral health days where dental care providers offer free consultations and guidance on maintaining oral hygiene at home.
- Parental involvement in oral health education programs by providing oral health education sessions, involving parents in delivery of interventions to children or providing reports on oral health status (Akeru et al., 2022).
- In 2024, the MEHE reactivated the school medical screening program, jointly with the MOPH and with funding support from UNICEF. It is imperative to include dental check-ups for all students, and linkages to referral PHCs for dental care at subsidized costs.

Recommendations for future research:

- The effectiveness of school-based oral health education programs in improving oral hygiene practices, reducing dental caries, and enhancing students' knowledge about proper oral care.
- Study the relationship between dietary habits, including sugar intake, and oral health among Lebanese adolescents. Focus on how diet contributes to caries and periodontal diseases.

Recommendations for policy:

- The MEHE to reintegrate free dental exams for school children. Education about teeth brushing should be enhanced to increase the proportion of children brushing at least twice per day.
- Private schools could also consider offering free dental check-ups, which can be incorporated as part of a health package on World Health Day, for example.



III. Violence, bullying and injuries

Violence in schools has been described as a common and significant public health issue warranting close attention from educators, policy makers, and researchers (Eisenbraun, 2007). Globally, past-year prevalence of physical violence among students was estimated at about 50% in boys and 40% in girls aged 8-11 years old; among boys, starting age 12, the prevalence declines slightly with increasing age, while it remains more constant in girls (Devries et al., 2018). Very few studies provided age-specific and sex-specific prevalence estimates for physical violence perpetrated by teachers, and other adults. Bullying, whether physical or cyber, is in itself an international problem and a public health concern, as well as an established risk factor for the physical and mental health of adolescents (Carney & Merrell, 2001; Li et al., 2024). A recent meta-analysis summarized the deleterious consequences of bullying on mental health, which included depression, suicide-related issues, and self-harm (Li et al., 2024): With the constant evolution of communication technology, more children and adolescents have been exposed to smartphones in recent years, with some researchers arguing that this increases the risk of cyberbullying, which in turn may lead to adverse psychological and social outcomes (Hamm et al., 2015). A recent meta-analysis looked at both traditional bullying and cyberbullying, and noted important findings: (1) high-income countries appear to have lower prevalence of both forms of bullying, (2) victims of cyber bullying (vs. traditional bullying) were more likely to engage in suicidal ideations, suicide attempts, and self-harm; and (3) finally victims who experienced both types of bullying had a substantial increase in both suicide-related and depression risks (Li et al., 2024).

In Lebanon, in a population-based study on children and adolescents, 6.9% of those aged 11-18 years old were frequently involved in bullying as both bullies and victims, 14.4% as bullies only, and 8.5% as victims only, so a third of the sample was frequently involved in at least one form of bullying as either perpetrators, victims or both (Halabi et al., 2018). The study highlighted the complexity of the association between psychiatric disorders and bullying in settings like Lebanon (Halabi et al., 2018). A more recent study among school students showed

that 49.1% had bullied other people, and revealed that bullying is significantly associated with parental status, child abuse, internet addiction, and social fear (Awad et al., 2021). Epidemiological evidence of the prevalence of cyberbullying among adolescents is lacking in Lebanon. In the 2024 GSHS survey, a vast majority (70.6%) of students were online for more than 3 hours per day, and about 1 in 10 students reported experiencing cyberbullying. Bullying in schools was more common in this sample, with about a third of students reporting being bullied on school property. These disparities show that reporting bullying is still somewhat of a taboo subject, but also that there is no clear definition for it, as each national study and the GSHS define it differently.

As for physical violence at schools, the prevalence was high in the 2024 Lebanon GSHS, being “hit, slapped, or physically hurt by their teacher on purpose” was reported by 1 in 10 students when in 2024 one would expect zero tolerance for such violence. Corporal punishment, regardless of the underlying reason, has been shown to lead to a cycle of violence in schools, and alternative disciplinary strategies or direct interventions must be sought (Choi, 2021). About half of the sample reported that they were in a physical fight one or more times in the preceding year. This is somewhat similar to another, much older study, from Lebanon that reported an estimate of 42% of secondary school students having fought during the school year (Sibai et al., 2009). Little has changed when it comes to the political ecology of Lebanon which may contribute to a culture that perpetrates violent behaviour.

In students who reported being seriously injured in the preceding year, almost one in 10 (8%) reported that their most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle. This is in addition to a vast majority (73%) reporting never or rarely wearing a seat belt when riding in a car or other motor vehicle driven by someone else (among students who rode in a car or other motor vehicle driven by someone else during the 30 days before the survey). Road traffic injuries are the leading cause of child deaths and disabilities in the Eastern Mediterranean region, including Lebanon (Al-Hajj et al., 2020; Khalil et al., 2018). In a recent systematic review, it has been shown that the risk of any major injury was significantly lower (50% reduction) in belted passengers compared to unbelted passengers (Fouda Mbarga et al., 2018). Seatbelt use, while not protective against the risk of head or neck or thoracic or upper/lower limb injuries, was shown to significantly reduce the risk of facial, abdominal, and spinal injuries (Fouda Mbarga et al., 2018). According to the WHO 2023 Global status report on road safety, efforts must be stepped up if the goal of halving road traffic deaths and injuries by 2030 is to be achieved. Enacting WHO best practices to mitigate the risk of death and injury have advanced modestly, with only seven countries having achieved legislation on five risk factors – speeding, drink driving, motorcycle helmet use, and seat-belts and child restraint systems (World Health Organization, 2023b). The safe system approach – which puts people and safety at the core of mobility systems – addresses five important elements (safe road users, safe vehicles, safe speeds, safe roads and post-crash care) for a more holistic approach and effective reduction in fatality (US Department of Transportation, 2025).

Recommendations for practice:

- Bullying and violence prevention sessions (including internet safety sessions (Himaya et al., 2021)) should be included in school’s curriculum in early years (prior to 7th grade). Ideally, such education can be integrated into lesson plans and classroom activities, allowing students to reflect on ways to prevent bullying in school.
- Training teachers on problem solving skills and non-violent discipline is also critical, as students should not be physically attacked by their teachers. Hitting and slapping by teachers should not be tolerated and should be grounds for expulsion. Teacher training should be rolled out as part of the national Child Protection Policy in the School Environment.
- Reinforce the use of MEHE’s referral pathway for children who are victims of violence in schools, whereby the established hotline at MEHE can receive calls and address them effectively.
- Providing skills sessions to parents via school programs to ensure that they can recognize perpetrators and victims of bullying (UNICEF, 2024).
- Close supervision of students during recess; locations in schools without adult supervision should be limited; school officials must take quick and appropriate action against perpetrators, and victims should be offered the necessary attentiveness and care.

- Bullying prevention strategies should be practical and multilevel, involving students, teachers, parents and other stakeholders, and must target individuals, classrooms, and schools (Carney & Merrell, 2001; Whitted & Dupper, 2005)
- Through school counselling, provision of psychosocial support sessions to children who are victims of bullying and violence in schools, as well as perpetrators, must be offered.
- Expand the existing PSS program targeting 7-12 year olds to include 12-17 year olds.

Recommendations for future research:

- Qualitative research would be insightful to better understand the problem of bullying and cyberbullying from both the perspective of those who bully and those who are bullied.
- Qualitative research to investigate correlations of violence among students and school administration and students in schools.

Recommendations for policy:

- Reinforce and expand the capacities of the MEHE hotline and relevant follow up interventions.
- Work towards the establishment of a surveillance system for injuries to enable researchers and policy implementers and other interest holders to monitor trends and evaluate interventions.
- The government should work towards achieving SDGs related to road traffic injuries by adopting a safe system approach and implementing WHO best practices.
- The MEHE, along with ministries such as MOSA, MOPH, the Ministry of Justice, and others, should work together to establish a stronger protection system. Each ministry should play its role within a coordinated framework.



IV. Mental health wellbeing

Adolescence is a critical age in the development of psychiatric disorders. Global mental health surveys (Costello et al., 2003; Kessler et al., 2005, 2007) point toward an early age of onset of psychiatric disorders, with a substantial percentage of people developing at least one psychiatric disorder before late adolescence. In Lebanon, the latest nationally representative survey on 1,517 children and adolescents recruited between February 2018 and November 2018 confirmed the early onset observed in international surveys; about one-third of the surveyed children and adolescents screened positive for at least one psychiatric disorder, of whom only 5% reported ever seeking professional mental health help (Maalouf, Alrojolah, et al., 2022). Study findings also shed light on the high prevalence and associated factors of suicide (Baroud et al., 2019) and bullying (Halabi et al., 2018).

Regardless of whether the 2024 GSHS findings are nationally representative or not – the fact that a quarter or a fifth of this sample reported symptoms of depression (worrying most of the time/always leading to disruption of sleep, suicide ideation and planning) is a call for help and an opportunity to translate this data to effective school-based interventions targeting these issues and overall mental wellbeing. A school-based randomized controlled trial of the FRIENDS intervention was implemented in 10 schools in Beirut, and the findings revealed that the intervention had significantly reduced general emotional and depressive symptoms among middle school students three months post-intervention (Maalouf et al., 2020). Given the multiple crises that the country has experienced since the last GSHS in 2017 – beginning with the revolution in 2019, followed by the financial crises, the complex crisis that peaked with the Beirut Port explosion and recently the Israeli war on Lebanon since October 2023, has resulted in intense stress, displacement and abrupt changes in routine life, especially affecting children and adolescents. The education system was severely affected, with schools closed and

damaged and students needing to be transferred to other schools. The Mental health and well being of students was significantly impacted. There is a need for proactive measures, and ideally a sustainable program in schools, addressing and improving the mental health and wellbeing of students in schools. One study that examined the mental health toll of the 2020 Beirut port blast on children and adolescents highlighted the critical need for an emergency mental health response, prioritizing communities experiencing disadvantages and children with prior mental health problems (Maalouf, Haidar, et al., 2022).

Recommendation for research:

- Implementation research is needed to understand the barriers and enablers to implementing effective school-based mental health interventions.
- Monitoring and Evaluation of all new and existing mental health interventions (school-based, community-based, or facility-based) is critical for the delivery of effective programs and services and to ensure continued adaptation to the population needs.

Recommendation for policy and practice:

- Challenges to mental health research have been identified (Maalouf et al., 2019), and efforts to create actionable objectives to address those challenges are needed for a more research-oriented culture.
- School-based primary prevention programs remain one of the key entry points for early detection and management of mental health symptoms, and prevention of psychiatric disorders. Given the success of FRIENDS, there is a need for a national commitment, involving all stakeholders including the MEHE, MOPH and others, to promote mental health in Lebanese schools and to bridge the gap in mental health care using effective and contextualized interventions.
- Youth-friendly mental health care should be made available, in and outside school-settings, to allow adolescents to seek care and talk comfortably and confidentially with a health professional about their mental health problems. This could be done through drafting an MOU between both MOPH and MEHE for the referral of mental health cases. Additionally, integrating mental health in primary health care settings ensures greater access for young people who may not be able to afford costly services in private health care settings.
- School administrators are encouraged to develop a profile for their psycho-social environment, which largely depends on the school's policies and attitudes of the school staff and the way schools are organized. The Personal and Social Education (PSE) Profile is a good opportunity for schools to address gaps and raise awareness among their teachers and staff. We reference here a 2003 WHO report on "Creating an Environment for Emotional and Social Well-Being" – referring to the collective responsibility to ensure that our schools are health promoting (World Health Organization, 2003). The report states that: "A school's environment can enhance social and emotional well-being, and learning when it: (i) is warm, friendly and rewards learning, (ii) promotes cooperation rather than competition; (iii) facilitates supportive, open communications' (iv) views the provision of creative opportunities as important; (v) prevents physical punishment, bullying, harassment and violence, by encouraging the development of procedures and policies that do not support physical punishment and that promote non-violent interaction on the playground, in class and among staff and students; and (vi) promotes the rights of boys and girls through equal opportunities and democratic procedures."
- School-based surveillance systems could be beneficial in identifying students who may be struggling with mental health issues and connecting them with necessary support services. Early identification and intervention can improve mental health outcomes and prevent more serious problems from developing. Such data could also allow for a better understanding of the variations by regions, socioeconomic backgrounds, and other personal characteristics to ensure proper allocation of resources. However, drawbacks and potential concerns including privacy issues, stigmatization, accuracy, and reliability of the data, among others must be carefully considered.



V.

Substance use: Tobacco, alcohol, and illegal drugs

Alcohol, tobacco and other drug use continue to pose serious public health concerns among youth, and continue to warrant further monitoring and intervention (Patton et al., 2016). Alcohol consumption has been demonstrated to have a causal relationship with more than 200 diseases, injuries and other health conditions (World Health Organization, 2024). Early onset alcohol drinking is a public health concern because it has long been linked with alcohol-related harms including road traffic crashes (World Health Organization, 2024), physical fights (Hingson et al., 2001) among other risky behaviours, in addition to developing alcohol and other substance use disorders later in adulthood (Grant & Dawson, 1997).

The [Monitoring the Future \(MTF\) survey](#) provides valuable insights into substance use trends among middle and high school students in the United States, and recent 2024 data has shown a decline in cigarette smoking, and alcohol and cannabis use, in parallel with a sharp increase in e-cigarette use, particularly among the younger adolescents (Miech et al., 2024). The GSHS 2024 findings indeed do shed light on the early onset of tobacco and alcohol use; the fact that 30% of the student sample has used a tobacco product in the preceding 30 days, and 14% of the alcohol drinkers have got in trouble due to their drinking, stresses the need for not just psychoeducation in schools (which was reported by only a third of the sample) but also, and more importantly, the implementation of substance use policies that protect our youth. Selling of tobacco and alcohol products to youth should be a crime. The level of alcohol consumption among young people in Lebanon is not surprising in light of the fact that alcoholic beverages are extremely accessible, affordable, and heavily marketed to Lebanon's young population. Young drinkers themselves confirmed through qualitative research that underage drinking is pervasive and facilitated by lax alcohol policies (Yassin et al., 2018). GIS mapping of alcohol outlets in Beirut has affirmed the high alcohol-outlet density particularly around schools, universities, and places of worship (R. Nakkash et al., 2018). When it comes to tobacco and alcohol, we need the WHO Best Buys to be effectively implemented including increased taxation on these products to make them less affordable, particularly to young people. Econometric analyses of local alcohol data have confirmed the impact of increased alcohol taxation (Chalak et al., 2020) as well as minimum unit pricing (MUP) on reduced ethanol consumption in young drinkers (Chaaban et al., 2022). In-depth discussions with over 30 governmental and non-governmental stakeholders from health and non-health sectors in Lebanon have identified important challenges to address for more effective national alcohol policy, including weak governance and disregard for rule of law; diversion of responsibility towards 'other' stakeholders; and clear industry resistance to change (R. T. Nakkash et al., 2019). The GSHS is an opportunity to re-ignite these important discussions and strive for the effective implementation of substance use policies, as per the [national substance use strategy](#), if not at a national level, then at a local municipality level (Ministry of Public Health et al., 2016). A recent [WHO release](#) stresses the need to address all factors creating alcogenic environments to young people – starting with main drivers such as alcohol availability, affordability and advertising/marketing (World Health Organization, 2023a, p. 12).

The home environment can play a key role in either preventing or encouraging substance use. More than half of the young drinkers reported drinking alcohol at their own home or someone's else's home. This behaviour may increase the normalcy of early drinking. Similarly, 80% had someone smoke in their presence in the preceding week. Alcohol and other substance use interfere with normal adolescent brain development, which typically continues to grow till the age of 25. Parents and adults must be therefore sensitized to this overlooked fact (Witt, 2010). There is no doubt, and the evidence transcends epidemiological studies to include neuroimaging methods (Squeglia & Gray, 2016).

More recently, evidence linking alcohol intake to cancer has been established and widely communicated by the scientific community. Alcohol is an established carcinogen and alcohol consumption increases the risk of several cancers, including breast, liver, head and neck, oesophageal and colorectal cancers (World Health Organization, 2024), this is notably exacerbated with early life exposures (Hur et al., 2021; Liu et al., 2013). Earlier this year, U.S. Surgeon General Vivek Murthy called for a new health warning label on alcoholic beverages, and issued an advisory on how alcohol increases cancer risk (US Department of Health and Human Services, 2024).

More than one in ten students in the 2024 GSHS reported ever having had the chance to try an illegal drug, and about 3% were current cannabis users. Evidence has shown that increasing opportunity to try an illegal drug is positively associated with the initiation of drug use among adolescents (Cox et al., 2016). Quite concerning is the percentage reporting trying drugs before the age of 14 being higher in the lower grades (91% of grade 7 students). Lebanon remains one of the major sources of cannabis worldwide, and in 2020, the Lebanese government passed legislation enabling the cultivation of local medicinal cannabis. A recent study on youth from Lebanon has shed light on the prevalence of cannabis use for medicinal and recreational purposes and, importantly, highlighted that dual users (use cannabis for both recreational and medicinal purposes) may have a more at-risk profile than experimental users only; the authors called for policymakers and implementers to be sensitized to the emerging evidence on cannabis for more data-informed policy changes (L. Ghandour et al., 2024).

While a United Nations (UN) panel in 2008 had warned that prescription drug abuse could soon exceed that of illegal drug use, much of the existing evidence on rising prescription opioids use was from the U.S. (and Canada). Nonmedical prescription drug use, generally defined as use without a prescription or use for reasons other than what the medication is intended for, is a global concern, primarily driven by the high and rising phenomenon of nonmedical use of prescription opioids in young populations (Martins & Ghandour, 2017). Prescription drugs are legal and hence tend to be more easily available than most illegal drugs. Nonmedical use of stimulants and prescription opioids among adolescents and young adults has also been linked to increased harmful use of other substances (Zahlan et al., 2014), reporting of psychiatric symptoms, psychiatric disorders and suicidal ideation (Kuramoto et al., 2012). In this 2024 GSHS study, the use of sedatives, tranquilizers or sleeping pills was reported by 17% of those who had used a drug without a doctor's prescription. There is a collective responsibility towards restricting youth access to such medications. Pharmacists are only one piece of the puzzle; other pieces include the parents (who may leave such drugs unlocked in cabinets), family doctors (who may be prescribing such medications too readily), peers (who may be diverting their prescribed medications), society at large (for misperceiving that such medications are harmless compared to other substances), and finally the system (for not centralizing the dispensing of prescriptions so that they be tracked across all pharmacies in the country).

Recommendation for policy and practice:

- Through classroom and extracurricular activities, educating students and parents alike about the harms of tobacco, alcohol, and use of any psychoactive drug (medicinal or illegal) at a noticeably young age (<14 years), remains crucial, especially as students in lower grade levels are reporting earlier ages of onset of multiple substances. Besides the evident harms, parents must be sensitized to certain comparatively little-known facts such that substance use interferes with normal brain development. Parents must also be educated about the dangers of being exposed to second-hand smoking or leaving medicines in unlocked medicine cabinets. Parents/guardians may be misled to believe that it is permissible and harmless for adolescents to drink even if occasionally or to use prescription medication without medical supervision.
- Media literacy is an important subject to integrate in the school curriculum so that youth are equipped with skills that can help them critically dissect and analyse the direct and indirect marketing strategies of the industry.
- Educational approaches at the individual and/or family or community levels are among the most common approaches to preventing and reducing substance use among youth, despite limited effectiveness in the absence of more effective public policy level strategies such as pricing policies, marketing restrictions, and law enforcement initiatives among others. An effective strategy requires a comprehensive approach.
- National harm reduction policies are a **fundamental need** and should involve and engage all stakeholders (schools, parents, pharmacists, vendors, policymakers and implementers, and young people themselves); such policies must be frequently evaluated and adapted to ensure that the social and policy environment continues to discourage young people's use of harmful substances.
- Strict enforcement of the law 174 restricting smoking in all places, including educational institutions must take place.



VI. Sexual and reproductive health

Maintaining and improving adolescent sexual and reproductive health (SRH) continues to be of global public health importance, particularly since over a sixth of the world's population are aged 10–19 (World Health Organization, 2025). Proper sexual education during childhood and adolescence is especially important for holistic growth and the development of healthy self-concepts (Future of Sex Education Initiative, 2020). Individuals establish independence and autonomy within the context of social and cultural environments at their adolescent stage, during which they are expected to develop major aspects such as the formation of an identity and the evolution of appropriate intimate sexual relationships with peers (Christie & Viner, 2005). Sexual problems among children and adolescents vary in severity and prevalence worldwide (Widman et al., 2019). This phenomenon can be influenced by myriad factors, including socio-economic status, cultural and familial norms, and high social media usage, among others (Gazendam et al., 2020). In more industrialized countries, sexual initiation is increasingly occurring at early ages (Molina & Tejada, 2018). In low- and middle-income countries, different indicators come to light for SRH, such as domestic sexual violence, age at first marriage, female genital mutilation, and sexually transmitted infections (Liang et al., 2019).

The GSHS does not assess explicitly sexual behaviours among middle and school students, but over half of the students (57.6%) believe that none of their friends have had sexual relationships, which means that about 40% believe they have (and are therefore in need of SRH education). Also, around half of the students also supported learning about reproductive health in schools and think should be done in separate classes for boy and girls. Indeed, having mixed-gender classrooms could influence students' comfort level during the sexual education lessons (Rose et al., 2019). In this study, only 1 in 4 of the students believed it should start before and during the age of puberty. Sexual health education should start early, but must be age appropriate. Both WHO and the UNESCO International Technical Guidance on Sexuality Education (2018) recommend introducing sexual health education as early as age 5, but by focusing on topics like body awareness, consent, and respect for others (United Nations Educational, Scientific and Cultural Organization et al., 2018). For students aged 9–12, one would address puberty, for example emotional changes, and only adolescents aged 13 or older should be exposed to topics such as contraception, STIs, etc.

In Lebanon, and the Arab region, the sexual practices of young people are not often investigated given the social taboo associated with sexuality and sexual health among unmarried youth (L. A. Ghandour et al., 2014). In a survey among university students, the mean age of sexual debut was around 17 years old, with 10% reported having had consumed alcohol or taken drugs during their sexual debut. A more recent study among university students in Lebanon, showed that a majority had a first sexual experience at 17–19 years old, with males being more likely to experience a first sexual relation at less than 17 years (Bouclaous et al., 2021). The mean age of first marriages in Lebanon has become younger for the years 2018–19 compared to 2004, standing at 26.9 years old among women and 32.5 years old among males (UNDP, 2021). This is important to note as it amplifies the biosocial gap and correlates with the higher chance of pre-marital sex in the country.

Effective parent-adolescent SRH communication is associated with delayed onset of a first sexual experience and the prevention of STIs, HIV, child sexual abuse, and teenage pregnancy (Grossman et al., 2019; United Nations Educational, Scientific and Cultural Organization et al., 2018). About half of the students in the GSHS would go to their parents or guardians to learn about HIV infection or AIDS or reproductive health. This does not fully concur with studies reporting that parents seldom communicate effectively with their adolescents regarding SRH matters (United Nations Educational, Scientific and Cultural Organization et al., 2018). In a recent study among university students, the reported main sources of information for sexuality education were teachers, mothers, the internet, and friends. A positive relation was found between school classes on reproductive health and the adoption of protective behaviour (Bouclaous et al., 2021). In conclusion, a combination of factors determined individuals' sexual beliefs index and their degree of sexual permissiveness, namely their sex, religiosity, lifestyle, sexual orientation, and exposure to different formal and informal sources of information. Independently,

reproductive health education in school did not predict early sexual activity. Thus, sexual health may be included in school curricula without the fear of inducing early sexual activity and in the comfort of knowing that the first sexual experience would likely involve the adoption of protective behaviours (Bouclaous et al., 2021).

The Ministry of Education issued a curriculum related to reproductive health in 2012, which needs to be reactivated. Additionally, the MEHE, through the Health and Environmental Education Unit within the Department of Guidance and Counselling (DOPS), in collaboration with UNFPA and WHO, has developed awareness materials on reproductive health for third-cycle grade and in collaboration with UNESCO and AUB for (secondary level). The health counsellors were trained for the roll out.

Recommendation for practice:

- Integrate age-appropriate sexual and reproductive health topics within the school curriculum/extracurricular activities and direct students to sites and resources that offer accurate and age-appropriate material.
- Implement reproductive health education programs that are scientifically proven and culturally appropriate such as the Comprehensive Sexuality Education (CSE) (United Nations Educational, Scientific and Cultural Organization et al., 2018). It was designed by UN agencies and has been implemented worldwide in developing and developed countries, showing significant positive effects on abstinence and cognition (Kim et al., 2023).
- Train school health counsellors and educators to deliver correct and age-appropriate information to students when solicited.
- Intra-familial communication around sexual and reproductive health issues should be also enhanced by involving both parents and youth. Parents should be trained by schools regarding sexual and reproductive health communication so that they are able to deliver appropriate and timely information to their children.
- Youth-friendly services for sexual and reproductive health are necessary to also allow the young to seek information and care from health professionals in a safe and confidential setting, when unable to have such discussions with parents (although latter is encouraged pending making sure the parents are equipped with the correct knowledge and skills to transmit age-appropriate messages).
- Intensify advocacy and sensitization to expand the roll out of the skills-based activities to all schools.

Recommendation for research:

- Quantitative research to look into risky sexual habits and behaviours among adolescents that could propagate sexual-related infections. Future GSHS surveys can also include questions on sexual violence (a link between two themes, SRH and violence).
- Qualitative research to investigate opposition to sexual health education in schools and among parents and students and other interest holders.

Recommendation for policy:

- Expand the MEHE helpline to provide a safe space for youth safely discuss their concerns and views on sexual orientation, pleasure, sexual violence, contraception, STIs and abortion (Soweid, 2017).
- MEHE to integrate sexual health education in the school curriculum/extracurricular activities.
- Introduce additional courses and trainings on sexual health for medical professionals as this has been expressed as a need by Lebanese obstetricians and gynaecologists have expressed a need for training and curricular change to encompass more sexual health topics (El-Kak et al., 2004).



VII. Protective factors

Schools are key settings for health promotion, and the concept of a health promoting school has been supported globally (World Health Organization, 2017). This holistic approach includes having a school environment and ethos that is conducive to health and wellbeing, besides the health education via the school curriculum. This also involves a wider approach, engaging with families and the wider community to support children and young people's health. Studies have not only shown a positive impact on students' health and wellbeing but also on their academic performance (Jessiman et al., 2022). Studies on school cultures in Lebanon are lacking; the current 2024 GSHS shows that only 50% of participants reported that most of the students in their school were recently kind and helpful at least most of the time. This can indicate complex social settings in schools, and potentially underline loneliness issues among students who are increasingly addicted to online social networks (Tarabay et al., 2023). Kindness-oriented schools have been shown to affect mental health positively and increase belonging (Datu et al., 2023).

From an ecological perspective, parents—being a part of the immediate or microenvironment of adolescents—can have a strong influence on their children's outcomes and development of behaviours (Bronfenbrenner, 2000; McLeroy et al., 1988). Families are a main protective factor for children's health and wellbeing. About half of students reported that their parents or guardians checked to see if their homework was done and understood their problems and worries, at least most of the time. This shows a rather consistent, secure, and supportive relationship with parents, yet this is not applicable to all children. Difficulties in parent-child interactions can indeed lead to decreased monitoring, decreased family cohesion, and greater conflict (Van Loon et al., 2014), which in turn is associated with multiple risk factors for children's physical, emotional and mental health (Marmorstein & Iacono, 2004; Schwartz et al., 2012). This has been demonstrated in Lebanon among a representative sample of adolescents, whereby conflicts in parent-child relationship increased the odds for screening positive for a psychiatric disorder (Maalouf, Alrojolah, et al., 2022). Another study found that parenting style was a significant predictor of eating behaviours and alcohol intake of Lebanese adolescents (Hayek et al., 2021). Within the country's cultural context, parents must encourage and respect the adolescent's autonomy, while continuously monitoring their whereabouts, acquaintances, social media, academic performance, and other critical areas of an adolescent's life.

Recommendation for practice:

- Through empowering the school administration to implement school health programs, schools can play a role in fostering positive child-parent relationships by encouraging parent involvement in school activities, and engaging parents as stakeholders via parental and school health committees (that could potentially invite students to attend and provide feedback as primary stakeholders). This could be achieved through ensuring coordination and collaboration between both the administrative and educational bodies and the health educator or nurse.
- School-based education must focus not only on raising awareness, but on changing attitudes and providing skills through participatory – rather than didactic – forms of education.
- Schools must go beyond the traditional way in which they have previously addressed adolescent issues such as violence, substance use and sexual health risks via 'health education' – this should be delivered in classrooms under the umbrella of the school health program. The most effective school-based interventions, however, are those that are participatory in nature, integrated with curriculum elements, but also targeting the physical environment, collaborating with parents and families, and the community.
- Educators, health counsellors and school nurses must focus on building skills and changing attitudes in addition to providing information. This is contingent on the educators being skilled themselves and empowered to perceive youth as positive assets (not a risk population) that should be active players in ensuring their own health and wellbeing.

- Students should have access to psychosocial support in schools, through social workers, counsellors, or psychologists.

Recommendation for research:

- Parenting-related research is encouraged. A recent scoping review highlights the main gaps in evidence in the Arab region, including Lebanon, that could be the topic of future research (L. A. Ghandour et al., 2024).

Recommendation for policy:

- All schools should have social-health counsellors, nurses, and psychologists at hand to support students, teachers, and the administration in fostering a positive school culture.



VIII. New module on social media and vaccines

Vaccine hesitancy is a complex and context-specific issue that varies according to time, place, and vaccine types (MacDonald, 2015). A broad range of factors contribute to vaccine hesitancy, including the compulsory nature of vaccines, their coincidental temporal relationships to adverse health outcomes, unfamiliarity with vaccine-preventable diseases, and lack of trust in corporations and public health agencies (Salmon et al., 2015). This soared mostly recently with the COVID-19 pandemic and the infodemics that followed the vaccination campaigns (Dror et al., 2020). Social media plays an important role in the increasing sentiment around vaccine hesitancy (Puri et al., 2020).

Social media, as a means of communication and a space to socialize and interact, has become a common place for people to look for health information. However, excessive social media use has been linked to several negative consequences, including substance use and mental health problems, and reduced sleep quality. Social networking systems have been shown to normalize and promote a culture of alcohol consumption in young people through user-generated alcohol-related content, such as photos of individuals consuming alcohol or getting drunk on their personal profiles. Social media has also exacerbated myths about vaccination since young people are often exposed to information about vaccinations online without necessarily looking for it (ECDC, 2020). The GSHS finding could reflect parents being vaccine hesitant, or a lack of trust in the state institutions and authority institutions in Lebanon due to the multiple past crises. Further research would need to evaluate these hypotheses. Meanwhile efforts should ensure herd immunity and that an adequate proportion of the young population are vaccinated. If these students are not vaccinated, this could turn into a public health emergency with vaccine preventable diseases returning in the forms of recurrent outbreaks and epidemics such as measles, pertussis, or varicella (Salmon et al., 2015), this in turn would be devastating for the an already weakened healthcare system.

Recommendations for practice:

- Early in the school year, school-based nurses could hold information sessions for students and parents focused on sharing the evidence on vaccine-preventable diseases and their confidence in vaccine effectiveness.
- Reinforcing the existing school immunization program as part of the school health program managed by the Health and Environmental Education Unit within the Department of Guidance and Counseling to enhance the implementation of vaccination in schools, especially in public schools and vulnerable areas. Special focus should be on the parents' education to improve their compliance with the national vaccination calendar, and regular vaccination awareness campaigns jointly with MOPH.

Recommendations for future research:

- Additional questions in the future GSHS to unpack vaccine hesitancy among school children.

- More qualitative research exploring vaccine hesitancy among youth and the link between social media exposure and vaccine hesitancy.

Recommendations for policy:

- Enhance the capacity of the vaccine program at schools for vaccine surveillance in schools and close monitoring of the vaccination of defaulting students in coordination with the MoPH network of PHCC.
- Create a clear communication strategy on routine vaccinations by the Ministry of Public Health.
- Issuance of a law by the Lebanese state or decree by MOPH mandating routine vaccinations.

Study limitations and suggestions for response improvement

The 2024 GSHS was conducted within a complex context, and while the data is cross-sectional, surveying students at one point in time, we cannot overlook that context. Grade 12 students in 2024 would have been in grade 8 in 2020 – and the situation has definitely shaped their behaviours and lifestyles. Due to safety concerns, some schools could not participate in the 2024 GSHS, resulting in a suboptimal response rate. In participating schools, some students opted out given the survey was administered during an exam period, and others were absent on the day of the survey. Previously, three waves of GSHS Lebanon were implemented, and student-level response rates have always been high: 96% in 2005, 99% in 2011, and 93% in 2017, in contrast to 60.9% in 2024. The lower-than-expected response rate, in addition to the item-level non-response (i.e., the number of missing responses for each question) from the beginning to the end of the survey, should be investigated, and addressed before the next GSHS wave.

Below we suggest a few strategies to increase school and student response rates. A combination of these strategies can collectively increase response rates and gather more accurate and valuable data from school-based surveys.

- Sampling with replacements may be one potential solution to replacing non-participating schools.
- Innovative approaches could be used, including gamification (turning surveys into games), or augmented reality (to enhance the survey experience) or creating a friendly competition between schools on which achieves the highest response rate.
- Engaging students in the process and providing feedback is also important; a commitment to share the results of the survey with the school community or show how their input has made a difference is important. Knowledge-sharing is also important. Students are main stakeholders, and GSHS findings should be shared with the school community to showcase the fruits of their time and effort.
- The scantron answer sheets reduce data entry error but may be complex for adolescents to fill; future surveys should consider using tablets with an interface that could be youth- and user-friendly.
- The timing of data collection is also crucial, and it is recommended to always consider key learning cycle milestones (e.g., exams in February and long seasonal breaks – e.g., Christmas) as they directly affect participant availability and therefore data gathering.
- Qualitative studies with non-participating schools are encouraged to better understand and address barriers to implementing GSHS and other school-based surveys.

Part V: Overall discussion and way forward



The GSHS comprehensively assesses several adolescent behaviours that may put adolescents at risk for serious health problems in the short run as well as later in their adult life. The findings tell the story of young people starting to smoke, drink, and possibly have intimate relationships at a very early age. They report “home/parents” as a source of exposure to second-hand smoke, and drinking, while few feel comfortable talking about their problems to their parents. Structural determinants are also highlighted, whereby the surrounding ‘environment’ and ‘policy systems’ are not supportive, with bullying taking place in some schools while not adequately addressing important topics such as sexual and reproductive health or substance in their curriculum and extracurricular activities, or as early as they should. Regardless of the numbers and percentages, adolescents should not be drinking or smoking or engaging in an unhealthy dietary lifestyle, or riding in vehicles with adults without having a seatbelt on, or being physically attacked by teachers. It is particularly important to note and understand that these issues do not happen in silos, and often the same adolescent is being bullied, feeling anxious, eating unhealthily, and having trouble discussing his/her issues with a close friend or parent. Therefore, a holistic and comprehensive approach to adolescent health must be adopted, contextualized to the Lebanese environment, and involving youth as active agents of change in their own wellbeing.

This year, the GSHS 2024 took place following a series of crises that Lebanon and its people have been experiencing since late 2019. Youth in Lebanon have endured directly and indirectly the repercussions of multiple crises over the past four years that have had unprecedented consequences on the country’s human capital and stability (Hamde et al., 2020). Prior to COVID-19 pandemic, there was the 2019 revolution and a financial crisis that eroded people’s ability to access basic goods (Hamde et al., 2020). The crisis was described as “likely to rank in the top ten, possibly top three, most severe crises episodes globally since the mid-nineteenth century” (World Bank, 2021). These simultaneous crises were further compounded by the 4th of August 2020 Beirut port blast, the world’s most powerful non-nuclear explosion of the 21st century (Amos & Rincon, 2020). Additionally, since October 8, 2023, the war between Israel and Lebanon has been ongoing, reaching a peak with daily aerial bombings and a ground invasion in September-November 2024. All these occurred over a span of 4 years, in a country with already suboptimum social welfare networks, poor infrastructure, insufficient public and mental health services, that has suffered from decades of war, increased unemployment, mass exodus, a weakened government and public sector, and a presidential vacuum.

The lower-than-expected overall response rate in 2024 precluded valid time trend comparisons and analyses, given the weighted and unweighted estimates in 2017 and 2024, respectively. Perhaps another round of GSHS in two years rather than 5 years, should the country context become more stable and enabling, could allow for validating time trends. Another suggestion is to conduct sensitization and introductory sessions for school principals, public and private, and engage the alliance of private schools in the early preparations to facilitate the implementation of the GSHS, as early as the beginning of the academic year (September of each year), provided the processing of the student’s data is completed by the MEHE. Studies have shown that weighted and unweighted estimators can be quite different due to several underlying factors (Korn & Graubard, 1995). Still, and in the absence of much needed adolescent health surveillance systems in Lebanon and other neighbouring countries (AlBuhairan et al., 2015), the GSHS remains an asset for informing future research, policy and practice, even if it portrays in 2024 only the tip, or one part, of the iceberg. In other words, while estimates may be mildly, or severely biased, the fact remains: a substantial (possibly non-representative) sample of children and adolescents are consuming psychoactive substances, experiencing bullying and violence, reporting interrupted parental support, receiving very little to no health education in schools, and more - all of which should not be occurring at all.

The results of the current 2024 GSHS report should therefore be disseminated to all governmental agencies, schools, and other stakeholders, to set a 5-year strategy and establish priority areas to address within the next five years. The MEHE and other line ministries could collaborate to enhance enabling environments (such as municipalities, ministries of Sports and Youth) in order to integrate youth health across their policies and strategic interventions. The strategy should build on all the work that the MEHE (through the national school health program) and other ministries and institutions, such as the CERD as well as academic institutions and

researchers, have undertaken in order to ensure overall adolescent physical, social and mental health wellbeing and not just the absence of disease. By fostering collaboration and strengthening existing programs, this strategy will further advance health promotion for children and adolescents, creating a supportive environment for their holistic development

Another point worth mentioning is that this current 2024 GSHS report summarizes the main findings descriptively, mainly for policy and practice. Further analyses investigating the correlation between the various behaviours, while controlling for potential confounders, as well as perhaps identifying classes of adolescents with variable risk profiles, will be useful to help guide future research. There are strong links between the various risk behaviours, and it is important to remember that these behaviours do not occur in silos.

In conclusion, we hope that this report will inform the MEHE and CERD in the already initiated updating and revision of the school curricula, whereby health and health education is considered a cross cutting issue across all educational domains, and guide the selection of the competencies a student should develop for a healthy lifestyle adoption and retention. This document could also serve as a technical paper to initiate national dialogue related to Youth Health in particular, with a multidisciplinary, multi-ministerial approach to manage youth health risk exposure and behaviour modifications. This study could also serve as a platform for national researchers to begin investigating underlying factors associated with the surveyed adolescents' risk behaviours, and support the adoption of a more positive approach to adolescent behaviours and investigations into why the majority of youth do not engage in risky behaviours; this could perhaps lead to understanding both qualitatively and quantitatively how existing protective and risk factors can interplay to impact youth health.

In a dynamic and rapidly changing country, regional and global context, along with the fast development of artificial intelligence, schools can act as a stable environment where skills, competencies and an enabling environment, both curricular and extra-curricular, could shape children and adolescent health, leading towards a healthier generation.

References

- Abarca-Gómez, L., Abdeen, Z. A., Hamid, Z. A., Abu-Rmeileh, N. M., Acosta-Cazares, B., Acuin, C., Adams, R. J., Aekplakorn, W., Afsana, K., & Aguilar-Salinas, C. A. (2017). Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: A pooled analysis of 2416 population-based measurement studies in 128·9 million children, adolescents, and adults. *The Lancet*, 390(10113), 2,627–2,642.
- Achak, D., Azizi, A., El-Ammari, A., Marfak, I. Y., Saad, E., Nejjari, C., Hilali, A., Peltzer, K., & Marfak, A. (2024). The health behaviors differences among male and female school-age adolescents in the Middle East and North Africa region countries: A meta-analysis of the Global School-based Student Health Survey data. *Frontiers in Public Health*, 12, 1448386.
- Akera, P., Kennedy, S. E., Lingam, R., Obwolo, M. J., Schutte, A. E., & Richmond, R. (2022). Effectiveness of primary school-based interventions in improving oral health of children in low-and middle-income countries: A systematic review and meta-analysis. *BMC Oral Health*, 22(1), 264.
- AlBuhairan, F. S., Tamim, H., Al Dubayee, M., AlDhukair, S., Al Shehri, S., Tamimi, W., El Bcheraoui, C., Magzoub, M. E., de Vries, N., & Al Alwan, I. (2015). Time for an Adolescent Health Surveillance System in Saudi Arabia: Findings From “Jeeluna.” *Journal of Adolescent Health*, 57(3), 263–269. <https://doi.org/10.1016/j.jadohealth.2015.06.009>
- Al-Hajj, S., El Bcheraoui, C., Daoud, F., Khalil, I., Moradi-Lakeh, M., Abu-Raddad, L. J., Hamadeh, R. R., & Mokdad, A. (2020). Child and adolescent injury burden in the eastern mediterranean region: Findings from the Global Burden of Disease 1990-2017. *BMC Public Health*, 20, 1–10.
- Almoslem, M. M., Alshehri, T. A., Althumairi, A. A., Aljassim, M. T., Hassan, M. E., & Berekaa, M. M. (2021). Handwashing knowledge, attitudes, and practices among students in Eastern Province schools, Saudi Arabia. *Journal of Environmental and Public Health*, 2021(1), 6638443.
- Awad, E., Haddad, C., Sacre, H., Hallit, R., Soufia, M., Salameh, P., Obeid, S., & Hallit, S. (2021). Correlates of bullying perpetration among Lebanese adolescents: A national study. *BMC Pediatrics*, 21(1), 204.
- Barakat, C., & Yousufzai, S. (2021). Health-Risk Behaviors of Adolescents from Arab Nations. *Handbook of Healthcare in the Arab World*, 651–676.
- Baroud, E., Ghandour, L. A., Alrojolah, L., Zeinoun, P., & Maalouf, F. T. (2019). Suicidality among Lebanese adolescents: Prevalence, predictors and service utilization. *Psychiatry Research*, 275, 338–344.
- Benzian, H., Watt, R., Makino, Y., Stauf, N., & Varenne, B. (2022). WHO calls to end the global crisis of oral health. *The Lancet*, 400(10367), 1909–1910.
- Bischops, A. C., Radev, S. T., Köthe, U., Chen, S., Geldsetzer, P., Sarker, M., Su, T. T., Mohamed, F. A., Darwish, N., & Ahmad, N. A. (2023). Data resource profile: The global school-based student health survey—Behavioural risk and protective factors among adolescents. *International Journal of Epidemiology*, 52(2), e102–e109.
- Bouclaous, C. H., Alrazim, A., Chababi, J., Jamaledine, W., Nassar, E., Maalouf, A., Dakour Aridy, S., Naccache, M., Abboud, D. M., & Assi, M. (2021). Association between sources of sexuality education, sexual beliefs and behaviours in Lebanese young adults: A university-based cross-sectional study. *Sex Education*, 21(1), 1–12.
- Bronfenbrenner, U. (2000). *Ecological systems theory*. American Psychological Association.
- Brown, F. L., Aoun, M., Taha, K., Steen, F., Hansen, P., Bird, M., Dawson, K. S., Watts, S., Chammay, R. el, & Sijbrandij, M. (2020). The cultural and contextual adaptation process of an intervention to reduce psychological distress in young adolescents living in Lebanon. *Frontiers in Psychiatry*, 11, 212.
- Carney, A. G., & Merrell, K. W. (2001). Bullying in Schools. *School Psychology International*, 22(3), 364–382. <https://doi.org/10.1177/0143034301223011>
- Center for Disease Control. (2024). Hand Hygiene Frequently Asked Questions. Clean Hands. <https://www.cdc.gov/clean-hands/faq/index.html>
- Center for Disease Control. (2024). About Handwashing. CDC Clean Hands.
- Chaaban, J., Haddad, J., Ghandour, L., & Chalak, A. (2022). Impact of minimum unit pricing on youth alcohol consumption: Insights from Lebanon. *Health Policy and Planning*, 37(6), 760–770.
- Chalak, A., Ghandour, L., Anouti, S., Nakkash, R., Yassin, N., & Afifi, R. (2020). The impact of broad-based vs targeted taxation on youth alcohol consumption in Lebanon. *Health Policy and Planning*, 35(6), 625–634.
- Chittleborough, C. R., Nicholson, A. L., Basker, E., Bell, S., & Campbell, R. (2012). Factors influencing hand washing behaviour in primary schools: Process evaluation within a randomized controlled trial. *Health Education Research*, 27(6), 1,055–1,068.
- Choi, B. (2021). Cycle of violence in schools: Longitudinal reciprocal relationship between student’s aggression and teacher’s use of corporal punishment. *Journal of Interpersonal Violence*, 36(3–4), 1,168–1,188.
- Christie, D., & Viner, R. (2005). Adolescent development. *Bmj*, 330(7486), 301–304.
- Costello, E. J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Prevalence and Development of Psychiatric Disorders in Childhood and Adolescence. *Archives of General Psychiatry*, 60(8), 837. <https://doi.org/10.1001/archpsyc.60.8.837>

- Cox, R. B., Croff, J. M., Washburn, I. J., & Liu, C. (2016). Opportunities to use drugs and the transition to drug use among adolescents from Caracas, Venezuela. *Journal of Ethnicity in Substance Abuse*, 16(2), 246–260. <https://doi.org/10.1080/15332640.2015.1133363>
- Daou, D., Saliba, C., & Josseran, L. (2024). Prevalence and socioeconomic factors associated with non-utilization of dental care in Lebanon: A nationwide cross-sectional survey. *Community Dentistry and Oral Epidemiology*, 52(6), 880–888.
- Datu, J. A. D., Mateo, N. J., & Natale, S. (2023). The mental health benefits of kindness-oriented schools: School kindness is associated with increased belongingness and well-being in Filipino high school students. *Child Psychiatry & Human Development*, 54(4), 1,075–1,084.
- Devries, K., Knight, L., Petzold, M., Merrill, K. G., Maxwell, L., Williams, A., Cappa, C., Chan, K. L., Garcia-Moreno, C., & Hollis, N. (2018). Who perpetrates violence against children? A systematic analysis of age-specific and sex-specific data. *BMJ Paediatrics Open*, 2(1).
- Dreibelbis, R., Kroeger, A., Hossain, K., Venkatesh, M., & Ram, P. K. (2016). Behavior change without behavior change communication: Nudging handwashing among primary school students in Bangladesh. *International Journal of Environmental Research and Public Health*, 13(1), 129.
- Dror, A. A., Eisenbach, N., Taiber, S., Morozov, N. G., Mizrahi, M., Zigran, A., Srouji, S., & Sela, E. (2020). Vaccine hesitancy: The next challenge in the fight against COVID-19. *European Journal of Epidemiology*, 35(8), 775–779.
- ECDC. (2020). Systematic scoping review on social media monitoring methods and interventions relating to vaccine hesitancy. <https://www.ecdc.europa.eu/en/publications-data/systematic-scoping-review-social-media-monitoring-methods-and-interventions>
- Eisenbraun, K. D. (2007). Violence in schools: Prevalence, prediction, and prevention. *Aggression and Violent Behavior*, 12(4), 459–469. <https://doi.org/10.1016/j.avb.2006.09.008>
- Ejemot, R. I., Ehiri, J. E., Meremikwu, M. M., & Critchley, J. A. (2009). Cochrane review: Hand washing for preventing diarrhoea. *Evidence-Based Child Health: A Cochrane Review Journal*, 4(2), 893–939. <https://doi.org/10.1002/ebch.373>
- El-Kak, F., Jurdi, R., Kaddour, A., & Zurayk, H. (2004). Gender and sexual health in clinical practice in Lebanon. *International Journal of Gynecology & Obstetrics*, 87(3), 260–266.
- Fazah, A., Jacob, C., Moussa, E., El-Hage, R., Youssef, H., & Delamarche, P. (2010). Activity, inactivity and quality of life among Lebanese adolescents. *Pediatrics International*, 52(4), 573–578. <https://doi.org/10.1111/j.1442-200x.2009.03021.x>
- Fouda Mbarga, N., Abubakari, A.-R., Aminde, L. N., & Morgan, A. R. (2018). Seatbelt use and risk of major injuries sustained by vehicle occupants during motor-vehicle crashes: A systematic review and meta-analysis of cohort studies. *BMC Public Health*, 18, 1–11.
- Future of Sex Education Initiative. (2020). National sex education standards: Core content and skills, K-12. <https://siecus.org/wp-content/uploads/2020/03/NSES-2020-web-updated-1.pdf>
- Gazendam, N., Cleverley, K., King, N., Pickett, W., & Phillips, S. P. (2020). Individual and social determinants of early sexual activity: A study of gender-based differences using the 2018 Canadian Health Behaviour in School-aged Children Study (HBSC). *Plos One*, 15(9), e0238515.
- Ghandour, L. A., Anouti, S., Lotfi, T., Meho, L., Kashash, R., Al-Akkawi, A., Majed, A., Akl, E., & Afifi, R. A. (2024). Parenting a high and growing population of youth in the Arab region: A scoping review for an evidence-informed research agenda. *Journal of Adolescent Health*.
- Ghandour, L. A., Mouhanna, F., Yasmine, R., & El Kak, F. (2014). Factors associated with alcohol and/or drug use at sexual debut among sexually active university students: Cross-sectional findings from Lebanon. *BMC Public Health*, 14, 1–10.
- Ghandour, L., Slim, A., Abbas, N., & El-Khoury, J. (2024). Patterns of cannabis use, perception of harm, and perceived impact of legislative change in an online sample of young adults from Lebanon: Insight on recreational users versus dual motive users. *Harm Reduction Journal*, 21(1), 41.
- Grant, B. F., & Dawson, D. A. (1997). Age at onset of alcohol use and its association with DSM-IV alcohol abuse and dependence: Results from the national longitudinal alcohol epidemiologic survey. *Journal of Substance Abuse*, 9, 103–110. [https://doi.org/10.1016/s0899-3289\(97\)90009-2](https://doi.org/10.1016/s0899-3289(97)90009-2)
- Grossman, J. M., Black, A. C., Richer, A. M., & Lynch, A. D. (2019). Parenting practices and emerging adult sexual health: The role of residential fathers. *The Journal of Primary Prevention*, 40(5), 505–528.
- Habib-Mourad, C., & Ghandour, L. A. (2015). Time to act: Lessons learnt from the first pilot school-based intervention study from Lebanon to prevent and reduce childhood obesity. *Frontiers in Public Health*, 3, 56.
- Habib-Mourad, C., Ghandour, L. A., Maliha, C., Awada, N., Dagher, M., & Hwalla, N. (2020). Impact of a one-year school-based teacher-implemented nutrition and physical activity intervention: Main findings and future recommendations. *BMC Public Health*, 20(1), 256. PubMed. <https://doi.org/10.1186/s12889-020-8351-3>
- Habib-Mourad, C., Ghandour, L. A., Maliha, C., Dagher, M., Kharroubi, S., & Hwalla, N. (2020). Impact of a three-year obesity prevention study on healthy behaviors and BMI among Lebanese schoolchildren: Findings from ayal salima program. *Nutrients*, 12(9), 2,687.

- Habib-Mourad, C., Ghandour, L. A., Moore, H. J., Nabhani-Zeidan, M., Adetayo, K., Hwalla, N., & Summerbell, C. (2014). Promoting healthy eating and physical activity among school children: Findings from Health-E-PALS, the first pilot intervention from Lebanon. *BMC Public Health*, 14, 1–11.
- Habib-Mourad, C., Maliha, C., Kassis, A., Nguyen, A. T., Ammar, D., Haji, E., AlTarazi, L., Totah, S., & Hwalla, N. (2023). A randomised controlled school-based nutritional intervention in five Middle Eastern countries: Ajjal Salima improved students' dietary and physical activity habits. *Public Health Nutrition*, 26(10), 2,036–2,047.
- Halabi, F., Ghandour, L., Dib, R., Zeinoun, P., & Maalouf, F. T. (2018). Correlates of bullying and its relationship with psychiatric disorders in Lebanese adolescents. *Psychiatry Research*, 261, 94–101.
- Hamm, M. P., Newton, A. S., Chisholm, A., Shulhan, J., Milne, A., Sundar, P., Ennis, H., Scott, S. D., & Hartling, L. (2015). Prevalence and effect of cyberbullying on children and young people: A scoping review of social media studies. *JAMA Pediatrics*, 169(8), 770–777.
- Han, L., Gao, X., Liao, M., Yu, X., Zhang, R., Liu, S., & Zeng, F. (2020). Hygiene practices among young adolescents aged 12–15 years in low-and middle-income countries: A population-based study. *Journal of Global Health*, 10(2).
- Hayek, J., Tueni, M., Schneider, F., & de Vries, H. (2021). Parenting style as longitudinal predictor of adolescents' health behaviors in Lebanon. *Health Education Research*, 36(1), 100–115.
- Himaya. (2025). What is e-helpline. Himaya. <https://www.himaya.org/content/what-e-helpline>
- Himaya, United Nations Children's Fund, & CRDP. (2021). Internet Safety Booklet. Himaya. <https://www.himaya.org/content/internet-safety-booklet>
- Hingson, R., Heeren, T., & Zakocs, R. (2001). Age of Drinking Onset and Involvement in Physical Fights After Drinking. *Pediatrics*, 108(4), 872–877. <https://doi.org/10.1542/peds.108.4.872>
- Horesh, A., Tsur, A. M., Bardugo, A., & Twig, G. (2021). Adolescent and childhood obesity and excess morbidity and mortality in young adulthood—A systematic review. *Current Obesity Reports*, 10(3), 301–310.
- Hur, J., Smith-Warner, S. A., Rimm, E. B., Willett, W. C., Wu, K., Cao, Y., & Giovannucci, E. (2021). Alcohol intake in early adulthood and risk of colorectal cancer: Three large prospective cohort studies of men and women in the United States. *European Journal of Epidemiology*, 36, 325–333.
- Jatrana, S., Hasan, M. M., Mamun, A. A., & Fatima, Y. (2021). Global variation in hand hygiene practices among adolescents: The role of family and school-level factors. *International Journal of Environmental Research and Public Health*, 18(9), 4,984.
- Jebeile, H., Cardel, M. I., Kyle, T. K., & Jastreboff, A. M. (2021). Addressing psychosocial health in the treatment and care of adolescents with obesity. *Obesity*, 29(9), 1,413–1,422.
- Jessiman, P., Kidger, J., Spencer, L., Geijer-Simpson, E., Kaluzeviciute, G., Burn, A., Leonard, N., & Limmer, M. (2022). School culture and student mental health: A qualitative study in UK secondary schools. *BMC Public Health*, 22(1), 619.
- Karam, I. A., Jaffa, M. A., & Ghafari, J. G. (2020). Barriers to the use of dental services by children in Lebanon and association with parental perception of oral health care.
- Kessler, R. C., Angermeyer, M., Anthony, J. C., De Graaf, R., Demyttenaere, K., Gasquet, I., De Girolamo, G., Gluzman, S., Gureje, O., & Haro, J. M. (2007). Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization's World Mental Health Survey Initiative. *World Psychiatry*, 6(3), 168.
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62(6), 593. <https://doi.org/10.1001/archpsyc.62.6.593>
- Khalil, I., El Bcheraoui, C., Charara, R., Moradi-Lakeh, M., Afshin, A., Kassebaum, N. J., Collison, M., Daoud, F., Chew, A., Krohn, K. J., Colombara, D., Cornaby, L., Ehrenkranz, R., Graetz, N., Kutz, M., Troeger, C., Wang, H., Abate, K. H., Abd-Allah, F., ... GBD 2015 Eastern Mediterranean Region Transportation Injuries Collaborators. (2018). Transport injuries and deaths in the Eastern Mediterranean Region: Findings from the Global Burden of Disease 2015 Study. *International Journal of Public Health*, 63(1), 187–198. <https://doi.org/10.1007/s00038-017-0987-0>
- Kim, E. J., Park, B., Kim, S. K., Park, M. J., Lee, J. Y., Jo, A. R., Kim, M. J., & Shin, H. N. (2023). A Meta-Analysis of the Effects of Comprehensive Sexuality Education Programs on Children and Adolescents. 11(18), 2,511.
- Korn, E. L., & Graubard, B. I. (1995). Examples of differing weighted and unweighted estimates from a sample survey. *The American Statistician*, 49(3), 291–295.
- Kuramoto, S. J., Chilcoat, H. D., Ko, J., & Martins, S. S. (2012). Suicidal ideation and suicide attempt across stages of nonmedical prescription opioid use and presence of prescription opioid disorders among US adults. *Journal of Studies on Alcohol and Drugs*, 73(2), 178–184.
- Li, C., Wang, P., Martin-Moratinos, M., Bella-Fernández, M., & Blasco-Fontecilla, H. (2024). Traditional bullying and cyberbullying in the digital age and its associated mental health problems in children and adolescents: A meta-analysis. *European Child & Adolescent Psychiatry*, 33(9), 2,895–2,909.
- Liang, M., Simelane, S., Fillo, G. F., Chalasani, S., Weny, K., Canelos, P. S., Jenkins, L., Moller, A.-B., Chandra-Mouli, V., & Say, L. (2019). The state of adolescent sexual and reproductive health. *Journal of Adolescent Health*, 65(6), S3–S15.

- Liu, Y., Colditz, G. A., Rosner, B., Berkey, C. S., Collins, L. C., Schnitt, S. J., Connolly, J. L., Chen, W. Y., Willett, W. C., & Tamimi, R. M. (2013). Alcohol intake between menarche and first pregnancy: A prospective study of breast cancer risk. *Journal of the National Cancer Institute*, 105(20), 1,571–1,578.
- Maalouf, F. T., Alamiri, B., Atweh, S., Becker, A. E., Cheour, M., Darwish, H., Ghandour, L. A., Ghuloum, S., Hamze, M., & Karam, E. (2019). Mental health research in the Arab region: Challenges and call for action. *The Lancet Psychiatry*, 6(11), 961–966.
- Maalouf, F. T., Alrojolah, L., Akoury-Dirani, L., Barakat, M., Brent, D., Elbejjani, M., Shamseddeen, W., & Ghandour, L. A. (2022). Psychopathology in Children and Adolescents in Lebanon Study (PALS): A national household survey. *Social Psychiatry and Psychiatric Epidemiology*, 57(4), 761–774.
- Maalouf, F. T., Alrojolah, L., Ghandour, L., Afifi, R., Dirani, L. A., Barrett, P., Nakkash, R., Shamseddeen, W., Tabaja, F., & Yuen, C. M. (2020). Building emotional resilience in youth in Lebanon: A school-based randomized controlled trial of the FRIENDS intervention. *Prevention Science*, 21, 650–660.
- Maalouf, F. T., Haidar, R., Mansour, F., Elbejjani, M., El Khoury, J., Khoury, B., & Ghandour, L. A. (2022). Anxiety, depression and PTSD in children and adolescents following the Beirut port explosion. *Journal of Affective Disorders*, 302, 58–65.
- MacDonald, N. E. (2015). Vaccine hesitancy: Definition, scope and determinants. *Vaccine*, 33(34), 4,161–4,164.
- Malak, C. A., Chakar, C., Romanos, A., & Rachidi, S. (2021). Oral health status of 12-and 15-year-old Lebanese school children. *Eastern Mediterranean Health Journal*, 27(6), 595–604.
- Marmorstein, N. R., & Iacono, W. G. (2004). Major depression and conduct disorder in youth: Associations with parental psychopathology and parent-child conflict. *Journal of Child Psychology and Psychiatry*, 45(2), 377–386.
- Martins, S. S., & Ghandour, L. A. (2017). Nonmedical use of prescription drugs in adolescents and young adults: Not just a Western phenomenon. *World Psychiatry*, 16(1), 102.
- McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly*, 15(4), 351–377.
- Miech, R. A., Johnston, L. D., Patrick, M. E., & O'Malley, P. M. (2024). National Survey Results on Drug Use, 1975–2024: Overview and key findings for secondary school students (Monitoring the Future Monograph Series). University of Michigan Institute for Social Research. <https://monitoringthefuture.org/wp-content/uploads/2024/12/mtf2025.pdf>
- Ministry of Public Health, Ministry of Education and Higher Education, Ministry of Interior and Municipalities, Ministry of Justice, & Ministry of Social Affairs. (2016). Inter-Ministerial Substance Use Response Strategy For Lebanon 2016 – 2021. <https://www.moph.gov.lb/userfiles/files/Inter-ministerial%20Substance%20Use%20Response%20Strategy%20for%20Lebanon%202016-2021-English.pdf>
- Molina, A. B., & Tejada, A. J. R. (2018). Uso del preservativo, número de parejas y debut sexual en jóvenes en coito vaginal, sexo oral y sexo anal. *Revista Internacional de Andrología*, 16(1), 8–14.
- Nakkash, R., Ghandour, L. A., Anouti, S., Nicolas, J., Chalak, A., Yassin, N., & Afifi, R. (2018). Surveying alcohol outlet density in four neighborhoods of Beirut Lebanon: Implications for future research and national policy. *International Journal of Environmental Research and Public Health*, 15(9), 2006.
- Nakkash, R. T., Ghandour, L. A., Yassin, N., Anouti, S., Chalak, A., Chehab, S., El-Aily, A., & Afifi, R. A. (2019). “Everyone has the right to drink beer”: A stakeholder analysis of challenges to youth alcohol harm-reduction policies in Lebanon. *International Journal of Environmental Research and Public Health*, 16(16), 2,874.
- Nasreddine, L., Hwalla, N., Al Zahraa Chokor, F., Naja, F., O'Neill, L., & Jomaa, L. (2022). Food and nutrient intake of school-aged children in Lebanon and their adherence to dietary guidelines and recommendations. *BMC Public Health*, 22(1), 922. <https://doi.org/10.1186/s12889-022-13186-w>
- NYC Department of Youth and Community Development. (2025). Positive Youth Development. https://jashar62.dreamhosters.com/cb_resources/wp-content/uploads/2019/06/DYCD_PYD_Framework.pdf
- Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., Arora, M., Azzopardi, P., Baldwin, W., Bonell, C., Kakuma, R., Kennedy, E., Mahon, J., McGovern, T., Mokdad, A. H., Patel, V., Petroni, S., Reavley, N., Taiwo, K., ... Viner, R. M. (2016). Our future: A Lancet commission on adolescent health and wellbeing. *The Lancet*, 387(10036), 2,423–2,478. [https://doi.org/10.1016/s0140-6736\(16\)00579-1](https://doi.org/10.1016/s0140-6736(16)00579-1)
- Phelps, N. H., Singleton, R. K., Zhou, B., Heap, R. A., Mishra, A., Bennett, J. E., Paciorek, C. J., Lhoste, V. P., Carrillo-Larco, R. M., & Stevens, G. A. (2024). Worldwide trends in underweight and obesity from 1990 to 2022: A pooled analysis of 3663 population-representative studies with 222 million children, adolescents, and adults. *The Lancet*, 403(10431), 1,027–1,050.
- Pulgarón, E. R. (2013). Childhood obesity: A review of increased risk for physical and psychological comorbidities. *Clinical Therapeutics*, 35(1), A18–A32.
- Puri, N., Coomes, E. A., Haghbayan, H., & Gunaratne, K. (2020). Social media and vaccine hesitancy: New updates for the era of COVID-19 and globalized infectious diseases. *Human Vaccines & Immunotherapeutics*, 16(11), 2,586–2,593.

- Rankin, J., Matthews, L., Cobley, S., Han, A., Sanders, R., Wiltshire, H. D., & Baker, J. S. (2016). Psychological consequences of childhood obesity: Psychiatric comorbidity and prevention. *Adolescent Health, Medicine and Therapeutics*, 125–146.
- Rose, I. D., Boyce, L., Murray, C. C., Lesesne, C. A., Szucs, L. E., Rasberry, C. N., Parker, J. T., & Roberts, G. (2019). Key factors influencing comfort in delivering and receiving sexual health education: Middle school student and teacher perspectives. *American Journal of Sexuality Education*, 14(4), 466–489.
- Said, L., Gubbels, J. S., & Kremers, S. P. (2022). Effect evaluation of Sahtak Bi Sahnak, a Lebanese secondary school-based nutrition intervention: A cluster randomised trial. *Frontiers in Nutrition*, 9, 824020.
- Salmon, D. A., Dudley, M. Z., Glanz, J. M., & Omer, S. B. (2015). Vaccine hesitancy: Causes, consequences, and a call to action. *Vaccine*, 33, D66–D71. <https://doi.org/10.1016/j.vaccine.2015.09.035>
- Schwartz, O. S., Dudgeon, P., Sheeber, L. B., Yap, M. B., Simmons, J. G., & Allen, N. B. (2012). Parental behaviors during family interactions predict changes in depression and anxiety symptoms during adolescence. *Journal of Abnormal Child Psychology*, 40(1), 59–71.
- Shah, A., Khoury, P., Dolan, L., Ippisch, H., Urbina, E., Daniels, S., & Kimball, T. (2011). The effects of obesity and type 2 diabetes mellitus on cardiac structure and function in adolescents and young adults. *Diabetologia*, 54, 722–730.
- Sharara, E., Akik, C., Ghattas, H., & Makhlof Obermeyer, C. (2018). Physical inactivity, gender and culture in Arab countries: A systematic assessment of the literature. *BMC Public Health*, 18, 1–19.
- Short, K. R., Blackett, P. R., Gardner, A. W., & Copeland, K. C. (2009). Vascular health in children and adolescents: Effects of obesity and diabetes. *Vascular Health and Risk Management*, 973–990.
- Sibai, T., Tohme, R. A., Beydoun, H. A., Kanaan, N., & Sibai, A. M. (2009). Violent behavior among adolescents in post-war Lebanon: The role of personal factors and correlation with other problem behaviors. *Journal of Public Health*, 31(1), 39–46.
- Smith, L., Butler, L., Tully, M. A., Jacob, L., Barnett, Y., López-Sánchez, G. F., López-Bueno, R., Shin, J. I., McDermott, D., & Pfeifer, B. A. (2021). Hand-washing practices among adolescents aged 12–15 years from 80 countries. *International Journal of Environmental Research and Public Health*, 18(1), 138.
- Soweid, L. (2017). In Search of Sex-ed. *Public Health Post*. <https://www.publichealthpost.org/research/search-sex-ed/>
- Squeglia, L. M., & Gray, K. M. (2016). Alcohol and drug use and the developing brain. *Current Psychiatry Reports*, 18, 1–10.
- Story, M., Nannery, M. S., & Schwartz, M. B. (2009). Schools and obesity prevention: Creating school environments and policies to promote healthy eating and physical activity. *The Milbank Quarterly*, 87(1), 71–100.
- Sung, H., Siegel, R. L., Rosenberg, P. S., & Jemal, A. (2019). Emerging cancer trends among young adults in the USA: analysis of a population-based cancer registry. *The Lancet Public Health*, 4(3), e137–e147.
- Tarabay, R., Gerges, S., Sarray El Dine, A., Malaeb, D., Obeid, S., Hallit, S., & Soufia, M. (2023). Exploring the indirect effect of loneliness in the association between problematic use of social networks and cognitive function in Lebanese adolescents. *BMC Psychology*, 11(1), 152.
- Topçu, S., Orhon, F. Ş., Tayfun, M., Uçaktürk, S. A., & Demirel, F. (2016). Anxiety, depression and self-esteem levels in obese children: A case-control study. *Journal of Pediatric Endocrinology and Metabolism*, 29(3), 357–361.
- Twig, G., Zucker, I., Afek, A., Cukierman-Yaffe, T., Bendor, C. D., Derazne, E., Lutski, M., Shohat, T., Mosenzon, O., & Tzur, D. (2020). Adolescent obesity and early-onset type 2 diabetes. *Diabetes Care*, 43(7), 1,487–1,495.
- UNDP. (2021). *The Life of Women and Men in Lebanon: A Statistical Portrait*. <https://www.undp.org/lebanon/publications/life-women-and-men-lebanon-statistical-portrait>
- UNICEF. (2024). *Parenting: Protecting Your Child From Cyberbullying*. <https://www.unicefusa.org/what-unicef-does/parenting/protect-children-cyberbullying>
- UNICEF. (2025). *How to teach your kids handwashing: Tips on how to make handwashing a habit for children*. UNICEF Parenting. <https://www.unicef.org/parenting/health/how-to-teach-your-kids-handwashing>
- United Nations Children’s Fund, & World Health Organization. (2021). *State of the world’s hand hygiene: A global call to action to make hand hygiene a priority in policy and practice [Global Report]*. UNICEF. <https://iris.who.int/bitstream/handle/10665/350184/9789240036444-eng.pdf?sequence=1>
- United Nations Children’s Fund, & World Health Organization. (2022). *Progress on drinking-water, sanitation and hygiene in schools: 2000-2021 data update*. https://cdn.who.int/media/docs/default-source/wash-documents/wash-in-schools_21june_launch.pdf?sfvrsn=565e89cd_3&download=true
- United Nations Educational, Scientific and Cultural Organization, Joint United Nations Programme on HIV/AIDS [, United Nations Population Fund, United Nations Children’s Fund, United Nations Entity for Gender Equality and the Empowerment of Women, & World Health Organization. (2018). *International technical guidance on sexuality education: An evidence-informed approach*. <https://unesdoc.unesco.org/ark:/48223/pf0000260770>
- Urbina, E. M., Kimball, T. R., Khoury, P. R., Daniels, S. R., & Dolan, L. M. (2010). Increased arterial stiffness is found in adolescents with obesity or obesity-related type 2 diabetes mellitus. *Journal of Hypertension*, 28(8), 1,692–1,698.
- US Department of Health and Human Services. (2024, December 19). *Alcohol and Cancer Risk*. Office of the Surgeon General. <https://www.hhs.gov/surgeongeneral/reports-and-publications/alcohol-cancer/index.html>

- US Department of Transportation. (2025). The Safe System (Safe Roads for a Safer Future). US Department of Transportation, federal Highway Administration. https://safety.fhwa.dot.gov/zerodeaths/docs/fhwa_safesystem_brochure_v9_508_200717.pdf
- Van Loon, L. M., Van de Ven, M. O., Van Doesum, K. T., Witteman, C. L., & Hosman, C. M. (2014). The relation between parental mental illness and adolescent mental health: The role of family factors. *Journal of Child and Family Studies*, 23, 1,201–1,214.
- Vujcic, J., & Ram, P. K. (2013). Handwashing Promotion: Monitoring and Evaluation Module. UNICEF. <https://www.unicef.org/media/91326/file/Handwashing-MandE-Module.pdf>
- Whitted, K. S., & Dupper, D. R. (2005). Best Practices for Preventing or Reducing Bullying in Schools. *Children & Schools*, 27(3), 167–175. <https://doi.org/10.1093/cs/27.3.167>
- WHO. (2024a). Adolescent and young adult health. <https://www.who.int/news-room/fact-sheets/detail/adolescents-health-risks-and-solutions>
- WHO. (2024b). Adolescent health. <https://www.who.int/health-topics/adolescent-health>
- WHO. (2024c). Prevalence of obesity among children and adolescents aged 5 to 19 years. Datadot. <https://data.who.int/indicators/i/C6262EC/EF93DDB>
- Widman, L., Evans, R., Javidi, H., & Choukas-Bradley, S. (2019). Assessment of parent-based interventions for adolescent sexual health: A systematic review and meta-analysis. *JAMA Pediatrics*, 173(9), 866–877.
- Willmott, M., Nicholson, A., Busse, H., MacArthur, G. J., Brookes, S., & Campbell, R. (2016). Effectiveness of hand hygiene interventions in reducing illness absence among children in educational settings: A systematic review and meta-analysis. *Archives of Disease in Childhood*, 101(1), 42–50.
- Witt, E. D. (2010). Research on alcohol and adolescent brain development: Opportunities and future directions. *Alcohol*, 44(1), 119–124.
- World Health Organization. (2003). Creating an environment for emotional and social well-being: An important responsibility of a health promoting and child-friendly school. World Health Organization.
- World Health Organization. (2017). Global school health initiatives: Achieving health and education outcomes. <https://www.who.int/publications/i/item/global-school-health-initiatives-achieving-health-and-education-outcomes>
- World Health Organization. (2023a). A health promotion approach for reducing youth exposure to alcogenic environments. Snapshot series on alcohol policies and practice -Brief 12. World Health Organization.
- World Health Organization. (2023b). Global status report on road safety 2023. World Health Organization; <https://iris.who.int/bitstream/handle/10665/375016/9789240086517-eng.pdf?sequence=1>
- World Health Organization. (2024). Alcohol. <https://www.who.int/news-room/fact-sheets/detail/alcohol>
- World Health Organization. (2025). Adolescent health. https://www.who.int/health-topics/adolescent-health/#tab=tab_1
- Yassin, N., Afifi, R., Singh, N., Saad, R., & Ghandour, L. (2018). “There is zero regulation on the selling of alcohol”: The voice of the youth on the context and determinants of alcohol drinking in Lebanon. *Qualitative Health Research*, 28(5), 733–744.
- Zahlan, L., Ghandour, L., Yassin, N., Afifi, R., & Martins, S. S. (2014). Double trouble: Exploring the association between waterpipe tobacco smoking and the nonmedical use of psychoactive prescription drugs among adolescents. *Drug and Alcohol Dependence*, 145, 217–223. <https://doi.org/10.1016/j.drugalcdep.2014.10.020>
- Zgodic, A., Eberth, J. M., Breneman, C. B., Wende, M. E., Kaczynski, A. T., Liese, A. D., & McLain, A. C. (2021). Estimates of childhood overweight and obesity at the region, state, and county levels: A multilevel small-area estimation approach. *American Journal of Epidemiology*, 190(12), 2,618–2,629.

Appendix:

GSHS 2024 questionnaire in Arabic

المسح الصحي العالمي المرتكز على تلامذة المدارس

لبنان -2024

ان محور هذه الدراسة هو صحتك لذا نسأل عن المعارف والمعلومات التي تمتلكها والمواقف والتصرفات التي قد تقوم بها والتي قد تؤثر عليها.
ان عدد كبير من التلامذة على كل الأراضي اللبنانية يشاركون بهذه الدراسة، كما ان تلامذة من بلدان اخرى يشاركون بها.

ان المعلومات التي ستقدمها سوف تستخدم لتطوير البرامج الصحية المتعلقة بالشباب الذين في عمرك والمعلومات التي تتعلق بك شخصيا ستبقى سرية ولن يسمح لأحد بالاطلاع عليها وانما ستستخدم فقط لأهداف هذا المسح. والمطلوب فقط هو الاجابة عن ماذا تعرف بالفعل، وكيف تتصرف فعليا، كذلك ليس هناك أجوبة صحيحة وأخرى غير صحيحة.

ان المشاركة بهذا المسح هي طوعية ولن تتأثر علاماتك في الصف اذا أجبت او لم تجب عن الأسئلة. اذا اردت عدم الإجابة عن اي سؤال اترك مكان الإجابة فارغا.

اتبع تعليمات المشرف على تنفيذ هذا المسح:

- 1- لا تذكر اسمك على وثيقة الأسئلة ولا على بطاقة الاجابة.
- 2- تأكد من قراءة كل سؤال بدقة
- 3- ضع اجاباتك على الورقة المخصصة خلال الوقت المحدد.
- 4- استعمل القلم الرصاص الذي اعطي لك للإجابة على بطاقة الاجابة
- 5- املأ خانات الإجابات هكذا وليس هكذا او

مثال

سؤال:

1. هل يعيش السمك في الماء:

A. نعم

B. لا

على بطاقة الإجابة:

1. B C D E F G H

نحن نشكركم ونقدر لك هذه المشاركة

تستفسر الأسئلة الخمسة التالية عن طولك ووزنك وشعورك بالجوع.

5. كم يبلغ طولك بدون ارتداء حذاءك؟ اكتب طولك في المستطيل المظلل في أعلى الجدول، ثم املأ الأشكال البيضاوية تحت كل رقم. مثال: إذا كان طولك 153 سم، اكتب الرقم واملأ الدوائر كالتالي:

الطول (سم)		
1	5	3
⊙	⊙	⊙
●	①	①
②	②	②
③	③	●
④	④	
⑤	⑤	
⑥	⑥	
⑦	⑦	
⑧	⑧	
⑨	⑨	
⑩	لا أعرف	

6. كم يبلغ وزنك بدون ارتداء حذاءك؟ اكتب وزنك في المستطيل المظلل في أعلى الجدول، ثم املأ الأشكال البيضاوية تحت كل رقم. مثال: إذا كان وزنك 52 كيلوغرام (كجم)، اكتب الرقم واملأ الدوائر كالتالي:

الوزن (كجم)		
0	5	2
●	⊙	⊙
①	①	①
②	②	●
③	③	
④	④	
⑤	⑤	
⑥	⑥	
⑦	⑦	
⑧	⑧	
⑨	⑨	
⑩	لا أعرف	

7. خلال الثلاثين يوماً الماضية، كم مرة شعرت بالجوع بسبب عدم وجود طعام كافٍ في منزلك؟

- A. أبداً ولا مرة
B. نادراً (قليلاً جداً)
C. أحياناً (في بعض الأوقات)
D. في أكثر الأحيان
E. دائماً

3

1. كم عمرك؟

- A. 11 سنة أو أقل
B. 12 سنة
C. 13 سنة
D. 14 سنة
E. 15 سنة
F. 16 سنة
G. 17 سنة
H. 18 سنة أو أكثر

2. ما جنسك؟

- A. ذكر
B. أنثى

3. في أي صف أنت؟

- A. السابع الأساسي
B. الثامن الأساسي
C. التاسع الأساسي
D. أول ثانوي
E. ثاني ثانوي
F. ثالث ثانوي

4. ما هي جنسيتك؟

- A. لبناني
B. غيره

2

الأسئلة الخمسة التالية تصال عن أنواع المأكولات والمشروبات التي يمكن أن تتناولها.

8. خلال السبعة أيام الماضية، كم مرة تناولت الفاكهة، مثل التفاح والموز والبرتقال؟

- A. لم أتناول الفاكهة خلال السبعة أيام الماضية
B. مرة واحدة إلى 3 مرات خلال السبعة أيام الماضية
C. 4 إلى 6 مرات خلال السبعة أيام الماضية
D. مرة واحدة في اليوم
E. مرتين في اليوم
F. 3 مرات في اليوم
G. 4 مرات أو أكثر في اليوم

9. خلال السبعة أيام الماضية، كم مرة تناولت الخضار، مثل السلطات والخبز والبنجر والبندورة والخيار؟

- A. لم أتناول الخضروات خلال السبعة أيام الماضية
B. مرة واحدة إلى 3 مرات خلال السبعة أيام الماضية
C. 4 إلى 6 مرات خلال السبعة أيام الماضية
D. مرة واحدة في اليوم
E. مرتين في اليوم
F. 3 مرات في اليوم
G. 4 مرات أو أكثر في اليوم

10. خلال السبعة أيام الماضية، كم مرة شربت علباً، أو زجاجاً، أو كوباً من المشروبات الغازية، مثل بيبسي أو كوكا كولا أو فانتا أو ميندا أو سفن أب أو سيراييت؟ (لا تشمل المشروبات الغازية الدايت)

- A. لم أشرب أي مشروبات غازية خلال السبعة أيام الماضية
B. مرة واحدة إلى 3 مرات خلال السبعة أيام الماضية
C. 4 إلى 6 مرات خلال السبعة أيام الماضية
D. مرة واحدة في اليوم
E. مرتين في اليوم
F. 3 مرات في اليوم
G. 4 مرات أو أكثر في اليوم

4

بالنسبة لهذا السؤال، تتضمن المشروبات المحلاة بالسكر المشروبات الرياضية ومشروبات الطاقة (Gatorade, Monster, Amp, Boom Boom, Red Bull, XXL...) وعصائر الفاكهة بنسبة 100% (عصير البرتقال الطازج وعصير التفاح الطازج) ومشروبات الفاكهة التي لا تحتوي على عصير الفاكهة بنسبة 100% (Top, Extra, Bonus, Mr. Juicy...), ومشروبات الألبان المنكهة المحلاة بالسكر (Chocolate Milkshake...), ومشروبات الشاي والقهوة المحلاة بالسكر، أو المياه المنكهة.

لا تحسب المشروبات الغازية التي قيست في السؤال السابق، أو مشروبات الحمية، أو المشروبات الخالية من السعرات الحرارية.

11. خلال السبعة أيام الماضية، كم مرة شربت علباً، أو زجاجاً، أو كوباً من مشروب محلى بالسكر؟

- A. لم أشرب أي مشروبات محلاة بالسكر خلال السبعة أيام الماضية
B. مرة واحدة إلى 3 مرات خلال السبعة أيام الماضية
C. 4 إلى 6 مرات خلال السبعة أيام الماضية
D. مرة واحدة في اليوم
E. مرتين في اليوم
F. 3 مرات في اليوم
G. 4 مرات أو أكثر في اليوم

12. خلال السبعة أيام الماضية، ما هو عدد الأيام التي تناولت فيها طعامك من مطعم يقدم وجبات سريعة مثل الهمبرغر أو البطاطس المقلية أو الفروج المقلية أو nuggets... (سواء طلبت توصيله إلى البيت أو ذهبت إلى المطعم)؟

- A. لم أتناول أطعمة من مطعم يقدم وجبات سريعة
B. مرة واحدة إلى 3 مرات خلال السبعة أيام الماضية
C. 4 إلى 6 مرات خلال السبعة أيام الماضية
D. مرة واحدة في اليوم
E. مرتين في اليوم
F. 3 مرات في اليوم
G. 4 مرات أو أكثر في اليوم

السؤالان التاليان يسألان عن وزنك.

13. خلال الثلاثين يوماً الماضية، هل تناولت أي نوع من الأنوية المخففة للوزن مثال: الحبوب أو البودرة أو السوائل أو الحظن (saxenda...), للتخفيف أو لعدم زيادة وزنك بدون استشارة الطبيب؟

- A. نعم
B. لا

14. كيف تصف وزنك؟

- A. أقل كثيراً من الوزن المناسب
B. أقل قليلاً من الوزن المناسب
C. مقارب للوزن المناسب
D. أكثر قليلاً من الوزن المناسب
E. أكثر كثيراً من الوزن المناسب

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31. حين تعرضت للتوتر والاستياء، من بلغت؟

A. لم أبلغ أحد
B. أهلي في البيت أم أحد أفراد العائلة
C. معلمي أو معلمي أو الناظر أو الناظرة الذين أتق فيهم
D. الحظ الساخن التابع لوزارة التربية والتعليم 01 772 000
E. صديق مقرب
F. غيره

السؤال التالي يسأل عن استخدام حزام الأمان

32. خلال الثلاثين يوماً الماضية، كم مرة ارتديت حزام أمان أثناء ركوب سيارة أو مركبة يقودها شخص آخر؟

A. لم أركب في سيارة أو مركبة آلية يقودها شخص آخر خلال الثلاثين يوماً الماضية
B. أبدأ ولا مرة
C. نادراً (قليلاً جداً)
D. أحياناً (في بعض الأوقات)
E. في أكثر الأحيان
F. دائماً

تدور الأسئلة السبعة التالية حول صداقتك ومشاعرك.

33. ما عدد أصدقائك المقربين؟

A. ليس لدي أصدقاء
B. صديق واحد
C. صديقان
D. 3 أصدقاء أو أكثر

34. خلال الاثني عشر شهراً الماضية، كم مرة شعرت بالوحدة؟

A. أبداً ولا مرة
B. نادراً (قليلاً جداً)
C. أحياناً (في بعض الأوقات)
D. في أكثر الأحيان
E. دائماً

35. خلال الاثني عشر شهراً الماضية، كم مرة شعرت بالقلق حيال شيء ما لدرجة أنك لم تستطع النوم ليلاً؟

A. أبداً ولا مرة
B. نادراً (قليلاً جداً)
C. أحياناً (في بعض الأوقات)
D. في أكثر الأحيان
E. دائماً

36. خلال الاثني عشر شهراً الماضية، كم مرة شعرت بالتوتر أو القلق أو عدم القدرة على إنهاء الشعور بالقلق أو التحكم فيه؟

A. أبداً ولا مرة
B. نادراً (قليلاً جداً)
C. أحياناً (في بعض الأوقات)
D. في أكثر الأحيان
E. دائماً

37. خلال الاثني عشر شهراً الماضية، مع من تحدثت في أكثر الأحيان عن مشكلة نفسية كنت تواجهها؟ (اختر جواباً واحداً)

A. لم يكن لدي مشكلة نفسية خلال الـ 12 شهراً الماضية
B. لم أتحدث إلى أي شخص عن مشكلة نفسية كنت أعاني منها خلال الـ 12 شهراً الماضية
C. أصدقائي
D. أهلي
E. رجال الدين
F. عامل صحي اجتماعي، مرشد صحي أو طبيب نفسي أو معالج نفسي
G. طبيب أو ممرض (ة)
H. غيره

أحياناً، يشعر الناس بالانتساب الشديد تجاه المستقبل لدرجة أنهم قد يفكرون في محاولة الانتحار، أي القيام بأمر ما لإنهاء حياتهم. تدور الأسئلة الثلاثة التالية حول محاولة الانتحار.

38. خلال الاثني عشر شهراً الماضية، هل فكرت جدياً في محاولة الانتحار؟

A. نعم
B. لا

39. خلال الاثني عشر شهراً الماضية، هل خطر ببالك طريقة معينة للانتحار؟

A. نعم
B. لا

40. خلال الاثني عشر شهراً الماضية، كم مرة حاولت الانتحار؟

A. أبداً ولا مرة
B. مرة واحدة
C. 2 أو 3 مرات
D. 4 أو 5 مرات
E. 6 مرات أو أكثر

تدور الأسئلة التالية حول تخزين السجائر. وتشمل السجائر كلاً من السجائر المصنعة، أو السجائر الملفوفة باليد، أو السجائر الكرفيتيك.

41. هل سبق أن جربت تخزين السجائر من قبل، حتى ولو بقلعة واحدة أو بفتنتين؟

A. نعم
B. لا

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42. كم كان عمرك عندما جربت تخزين السجائر لأول مرة؟

A. لم أأخذ السجائر أبداً
B. 7 سنوات أو أقل
C. 8-9 سنوات
D. 10-11 سنة
E. 12-13 سنة
F. 14-15 سنة
G. 16-17 سنة
H. 18 سنة أو أكثر

43. خلال الثلاثين يوماً الماضية، كم يوماً دخنت فيه السجائر؟

A. لم أأخذ السجائر في أي يوم خلال الشهر الماضي
B. يوم أو يومين
C. 3 إلى 5 أيام
D. 6 إلى 9 أيام
E. 10 إلى 19 يوماً
F. 20 إلى 29 يوماً
G. طيلة الثلاثين يوماً

بدور السؤال التالي حول أنواع أخرى من منتجات التبغ المدخن، بخلاف السجائر. ويشمل ذلك النليون، والسيجار، والسجائر الصغيرة الحجم، والسجائر لوس، والثرجية، والشيشة، والأرجيلة، والأركيلة والبيبيس (سجائر ملفوفة)، ومنتجات التبغ المدخن.

44. خلال الثلاثين يوماً الماضية، كم يوماً دخنت فيه أي أنواع أخرى من منتجات التبغ المدخن، بخلاف السجائر؟

A. لم أأخذ النرجيلة في أي يوم خلال الشهر الماضي
B. يوم أو يومين
C. 3 إلى 5 أيام
D. 6 إلى 9 أيام
E. 10 إلى 19 يوماً
F. 20 إلى 29 يوماً
G. 30 يوماً بكاملها

السؤالان التاليان يتعلقان بتدخين النرجيلة أو الثرجيلة.

45. كم كان عمرك عندما حاولت تدخين النرجيلة للمرة الأولى؟

A. لم أأخذ النرجيلة أبداً
B. 7 سنوات أو أقل
C. 8-9 سنوات
D. 10-11 سنة
E. 12-13 سنة
F. 14-15 سنة
G. 16-17 سنة
H. 18 سنة أو أكثر

46. هل تعتقد بأن تدخين النرجيلة يضر بصحتك؟

A. لا بدون شك
B. أظن لا
C. أظن نعم
D. نعم بدون شك

السؤالان التاليان يدوران حول التعرض للتدخين السلبي/للتدخين غير المباشر.

47. خلال السبعة أيام الماضية، كم يوماً قام فيه شخص بالتدخين في حضورك؟

A. لم يدخن أحد في أي يوم
B. يوماً واحداً
C. يومين
D. 3 أيام
E. 4 أيام
F. 5 أيام
G. 6 أيام
H. 7 أيام

48. خلال الثلاثين يوماً الماضية، هل رأيت أي شخص يدخن داخل مبنى المدرسة أو خارجه داخل حدود المدرسة؟

A. نعم
B. لا

بدور السؤال التالي حول منتجات التبغ عديم الدخان. ويشمل ذلك النشوق، وتبغ المضغ، والتبغ، وأوراق التبغ المعضوة.

49. خلال الثلاثين يوماً الماضية، كم يوماً دخنت فيه أي نوع من منتجات التبغ عديم الدخان؟

A. لم أأخذ السجائر في أي يوم خلال الشهر الماضي
B. يوم أو يومين
C. 3 إلى 5 أيام
D. 6 إلى 9 أيام
E. 10 إلى 19 يوماً
F. 20 إلى 29 يوماً
G. طيلة الثلاثين يوماً

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46. هل تعتقد بأن تدخين النرجيلة يضر بصحتك؟

A. لا بدون شك
B. أظن لا
C. أظن نعم
D. نعم بدون شك

السؤالان التاليان يدوران حول التعرض للتدخين السلبي/للتدخين غير المباشر.

47. خلال السبعة أيام الماضية، كم يوماً قام فيه شخص بالتدخين في حضورك؟

A. لم يدخن أحد في أي يوم
B. يوماً واحداً
C. يومين
D. 3 أيام
E. 4 أيام
F. 5 أيام
G. 6 أيام
H. 7 أيام

48. خلال الثلاثين يوماً الماضية، هل رأيت أي شخص يدخن داخل مبنى المدرسة أو خارجه داخل حدود المدرسة؟

A. نعم
B. لا

بدور السؤال التالي حول منتجات التبغ عديم الدخان. ويشمل ذلك النشوق، وتبغ المضغ، والتبغ، وأوراق التبغ المعضوة.

49. خلال الثلاثين يوماً الماضية، كم يوماً دخنت فيه أي نوع من منتجات التبغ عديم الدخان؟

A. لم أأخذ السجائر في أي يوم خلال الشهر الماضي
B. يوم أو يومين
C. 3 إلى 5 أيام
D. 6 إلى 9 أيام
E. 10 إلى 19 يوماً
F. 20 إلى 29 يوماً
G. طيلة الثلاثين يوماً

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42. كم كان عمرك عندما جربت تخزين السجائر لأول مرة؟

A. لم أأخذ السجائر أبداً
B. 7 سنوات أو أقل
C. 8-9 سنوات
D. 10-11 سنة
E. 12-13 سنة
F. 14-15 سنة
G. 16-17 سنة
H. 18 سنة أو أكثر

43. خلال الثلاثين يوماً الماضية، كم يوماً دخنت فيه السجائر؟

A. لم أأخذ السجائر في أي يوم خلال الشهر الماضي
B. يوم أو يومين
C. 3 إلى 5 أيام
D. 6 إلى 9 أيام
E. 10 إلى 19 يوماً
F. 20 إلى 29 يوماً
G. طيلة الثلاثين يوماً

بدور السؤال التالي حول أنواع أخرى من منتجات التبغ المدخن، بخلاف السجائر. ويشمل ذلك النليون، والسيجار، والسجائر الصغيرة الحجم، والسجائر لوس، والثرجية، والشيشة، والأرجيلة، والأركيلة والبيبيس (سجائر ملفوفة)، ومنتجات التبغ المدخن.

44. خلال الثلاثين يوماً الماضية، كم يوماً دخنت فيه أي أنواع أخرى من منتجات التبغ المدخن، بخلاف السجائر؟

A. لم أأخذ النرجيلة في أي يوم خلال الشهر الماضي
B. يوم أو يومين
C. 3 إلى 5 أيام
D. 6 إلى 9 أيام
E. 10 إلى 19 يوماً
F. 20 إلى 29 يوماً
G. 30 يوماً بكاملها

السؤالان التاليان يتعلقان بتدخين النرجيلة أو الثرجيلة.

45. كم كان عمرك عندما حاولت تدخين النرجيلة للمرة الأولى؟

A. لم أأخذ النرجيلة أبداً
B. 7 سنوات أو أقل
C. 8-9 سنوات
D. 10-11 سنة
E. 12-13 سنة
F. 14-15 سنة
G. 16-17 سنة
H. 18 سنة أو أكثر

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53. خلال الثلاثين يوماً الماضية، كم يوماً تناولت فيه مشروباً واحداً على الأقل يحتوي على الكحول؟

A. لم أتناول مشروباً كحولياً
B. يوم أو يومين
C. 3 إلى 5 أيام
D. 6 إلى 9 أيام
E. 10 إلى 19 يوماً
F. 20 إلى 29 يوماً
G. 30 يوماً بكاملها

54. في الأيام التي تناولت فيها مشروباً كحولياً خلال الثلاثين يوماً الماضية، كم كأساً من الشراب كنت تتناول عادةً يومياً؟

A. لم أتناول اي كحول في الأيام الثلاثين الماضية
B. أقل من كأس واحد
C. كأس واحد
D. كأسين
E. 3 كؤوس
F. 4 كؤوس
G. 5 كؤوس أو أكثر

55. خلال الثلاثين يوماً الماضية، ما هو أكبر عدد من المشروبات الكحولية التي تناولتها على التوالي، أي، خلال بضعة ساعات؟

A. لم أتناول اي كحول في الأيام الثلاثين الماضية
B. كأساً واحدة أو اثنتين
C. 3 كؤوس
D. 4 كؤوس
E. 5 كؤوس
F. 6 أو 7 كؤوس
G. 8 أو 9 كؤوس
H. 10 كؤوس أو أكثر

56. خلال الثلاثين يوماً الماضية، كيف كنت تحصل عادةً على المشروبات الكحولية التي تناولتها؟ اختر إجابة واحدة فقط؟ (اختر جواباً واحداً)

A. لم أتناول اي كحول في الأيام الثلاثين الماضية
B. اشتريتها من أحد المتاجر، أو من أحد الباعة في الشارع
C. أعطيت شخصاً آخر المال كي يشتريها لي
D. حصلت عليها من صديق
E. حصلت عليها من عائلتي
F. سرقتها أو حصلت عليها دون إذن
G. حصلت عليها بطرق أخرى

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السؤال التالي يسألك عما تعلمته في المدرسة.

50. خلال هذه السنة الدراسية، هل تعلمت في أي من صفوفك الدراسية مخاطر تعاطي التبغ؟

A. نعم
B. لا
C. لا أعرف

يدور السؤال التالي حول السجائر الإلكترونية. السجائر الإلكترونية هي أجهزة إلكترونية تحتوي عادةً على سائل يحتوي على النيكوتين، يُغذى ثم يستنشق. وأحياناً تُعرف باسم هبم (Vape)، أو شيشة هبم، أو شيشة إلكترونية (e-hookah)، أو سيجار إلكتروني (e-cigarettes)، أو غلايين إلكترونية، أو مبخرات إلكترونية. ويبدو بعضها مثل السجائر، بينما يبدو البعض الآخر مثل الأقلام أو الشيشة الصغيرة الحجم. وهي أجهزة تعمل بالبطارية ويخرج منها بخار بدلاً من الدخان. ولا تحتوي على التبغ.

51. خلال الثلاثين يوماً الماضية، كم يوماً استخدمت فيه سجائر إلكترونية؟

A. لم أأخذ سجائر إلكترونية في أي يوم خلال الشهر الماضي
B. يوم أو يومين
C. 3 إلى 5 أيام
D. 6 إلى 9 أيام
E. 10 إلى 19 يوماً
F. 20 إلى 29 يوماً
G. 30 يوماً بكاملها

نسألك في الأسئلة التالية عن تناول الكحول مثل البيرة، والعرق والويسكي والنيبيذ والفودكا، والعصائر التي تحتوي على الكحول (Smirnoff, Buzz, Bacardi...).

ملاحظة: لا يشمل تناول الكحوليات شرب بضعة رشقات من الخمر في الطقوس الدينية مثل المتأولة في الكنيسة، كما نعتي بكأس واحد أي كوب واحد من أي من هذه المشروبات.

52. كم كان عورك عندما تناولت أول مشروب كحولي باستثناء رشقات قليلة؟

A. لم يسعدني إطلاقاً تناول مشروب كحولي باستثناء رشقات قليلة
B. 7 سنوات أو أصغر
C. 8 أو 9 سنوات
D. 10 أو 11 سنة
E. 12 أو 13 سنة
F. 14 أو 15 سنة
G. 16 أو 17 سنة
H. 18 سنة أو أكبر

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تدور الأسئلة التالية حول موضوع المخدرات التي تشمل الحشيشة Marijuana، أمفيتامين Amphetamines، الكوكايين، والمستنشقات (inhalants)، الهيروين، الإكستازي Ecstasy، وكافة الأدوية المهدنة والمنشطة للأعصاب دون وصفة طبية.

62. كم كان عورك عندما تناولت أي نوع من المخدرات لأول مرة؟

A. لم أتناول المخدرات ابداً
B. 7 سنوات أو أقل
C. 8 أو 9 سنوات
D. 10 أو 11 سنة
E. 12 أو 13 سنة
F. 14 أو 15 سنة
G. 16 أو 17 سنة
H. 18 سنة أو أكثر

63. في حياتك ما هو عدد المرات التي تناولت فيها الحشيشة (marijuana, hash or hashish)؟

A. لم أتناول الحشيشة ابداً
B. مرة أو مرتين
C. من 3 إلى 5 مرات
D. من 6 إلى 9 مرات
E. 10 مرات إلى 19 مرة
F. 20 مرة أو أكثر

64. خلال الثلاثين يوماً الماضية، كم مرة تعاطيت القنب (المعروف أيضاً باسم الحشيشة)؟

A. لم أتناول الحشيشة ابداً
B. مرة أو مرتين
C. من 3 إلى 5 مرات
D. من 6 إلى 9 مرات
E. 10 مرات إلى 19 مرة
F. 20 مرة أو أكثر

65. في حياتك كم مرة تناولت فيها الأمفيتامينات أو الميثامفيتامين (Captagon, MDMA (Ecstasy) Ephedrine, Bupropion, or Pseudoephedrine) لأغراض غير طبية؟

A. لم أتناول الأمفيتامينات أو الميثامفيتامين ابداً
B. مرة أو مرتين
C. من 3 إلى 5 مرات
D. من 6 إلى 9 مرات
E. 10 مرات إلى 19 مرة
F. 20 مرة أو أكثر

66. خلال الثلاثين يوماً الماضية، هل كان لديك فرصة لتجربة المخدرات (شخص قدمها لك أو كنت في صحبة أشخاص يستخدمون المخدرات)، حتى لو لم تقم بتجربتها؟

A. نعم
B. لا
C. لا أعرف

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57. في حال عرض عليك واحد من أفضل أصدقائك الكحول، هل تتناوله؟

A. أكيد لن أتناوله
B. على الأرجح لن أتناوله (تردد في تناوله)
C. على الأرجح سأتناوله
D. أكيد سأتناوله

السؤالان التاليان يتناولان حالة التمثالة (السكر يُعتبر الترنح أثناء المشي، وعدم القدرة على التحذد بطريقة سليمة، والتقيؤ، والإغماء من بعض علامات السكر البين).

58. في حياتك كلها، كم مرة تورطت في مشكلة في المنزل أو العمل أو المدرسة، أو دخلت في شجار، نتيجة شرب الكحول؟

A. لم يحدث
B. مرة واحدة أو اثنتين
C. 3 إلى 5 مرات
D. 6 إلى 9 مرات
E. 10 مرات إلى 19 مرة
F. 20 مرة أو أكثر

59. في حياتك كلها، كم مرة شربت الكثير من الكحول لدرجة أنك أصبحت تملأ تماماً (سكران)؟

A. لم يحدث
B. مرة واحدة أو اثنتين
C. 3 إلى 5 مرات
D. 6 إلى 9 مرات
E. 10 مرات إلى 19 مرة
F. 20 مرة أو أكثر

60. خلال الثلاثين يوماً الماضية، أين كنت تشرب الكحول عادةً؟ اختر إجابة واحدة فقط.

A. لم أشرب الكحول خلال الثلاثين يوماً الماضية
B. في منزلي أو منزل شخص آخر
C. في المدرسة
D. أثناء ركوب أو قيادة السيارة أو غيرها من المركبات
E. في مطعم، أو حانة، أو نادي
F. في مكان عام، مثل الشارع، أو موقف سيارات، أو متنزه، أو أي مساحة مفتوحة
G. في فعالية عامة، مثل حفل موسيقي، أو حدث رياضي
H. مكان آخر

السؤال التالي يسألك عما تعلمته في المدرسة.

61. خلال هذه السنة الدراسية، هل تعلمت في أي من صفوفك الدراسية آثار تعاطي الكحول على اتخاذ القرارات؟

A. نعم
B. لا
C. لا أعرف

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72. إذا كنت ترغب في معرفة معلومات عن العدوى بفيروس العوز المناعي البشري أو الإيدز أو الصحة الإنجابية، فإلى من/أين ستوجه؟ اختر إجابة واحدة فقط.

- إلى والدي أو أولياء امري
- إلى أحد المدرسين أو غيرهم من البالغين في مدرستي
- إلى طبيب أو ممرضة
- إلى إخوتي أو أخواتي
- إلى أصدقائي
- إلى الإنترنت أو وسائل التواصل الاجتماعي
- رجال الدين
- مصدر آخر

73. هل انت على علم بأن أحد أصدقائك قام بعلاقة جنسية؟

- لا أحد
- عدد قليل منهم
- معظمهم
- جميعهم
- لا أعرف

السؤال التالي يسألك عما تعلمته في المدرسة.

74. خلال هذه السنة الدراسية، هل تعلمت في أي من صفوفك الدراسية كيفية تجنب العدوى بفيروس العوز المناعي البشري أو الإيدز أو الأمراض المنقولة بالاتصال الجنسي؟

- نعم
- لا
- لا أعرف

الأسئلة التالية تسمّل عن النشاط البدني. النشاط البدني هو أي نشاط يرفع وتيرة نبضات قلبك ويجعلك تلهث إن تنفيذ النشاط البدني يمكن أن يتم خلال حصص الرياضة، أو اللعب مع الأصدقاء أو خلال المشي قديماً إلى المدرسة أو خلال أي نشاط بدني خارج المدرسة. بعض الأمثلة عن النشاط البدني: الرقص، الهرولة (المشي السريع)، ركوب دراجة، الرقص، لعب كرة القدم، لعب كرة السلة.

75. خلال السبعة أيام الماضية، كم يوماً مارست فيه نشاطاً بدنياً لمدة (6) دقيقة كاملة على الأقل في اليوم؟ مثل: كرة الطائرة، كرة السلة، كرة القدم، الرقص، الهرولة، السباحة، الرقص، الحركات الرياضية؟
إجمع الوقت الذي قضيته في أي نوع من النشاط الرياضي كل يوم.

- ولا يوم
- يوم واحد
- يومين
- 3 أيام
- 4 أيام
- 5 أيام
- 6 أيام
- 7 أيام

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67. خلال الاثني عشر شهرا الماضية، أي من هذه الأدوية استخدمتها معظم الوقت بدون وصفة طبية من الطبيب؟ (اختر جواباً واحداً)

- لم استخدم الأدوية بدون وصفة طبية أو بشكل مختلف عن وصفة الطبيب خلال الـ 12 شهرا الماضية.
- المهدئات / الحبوب المنومة (مثل Xanax®، Rivotril / Rivo®، Valium®، Lexotanil / Lexo® وغيرها)
- مسكنات الألم (مثل Vicodin®، Tramal®، Dolosal®، Antalvic®، Solpadeine®، Morphine® أو غيرها)
- المنشطات (مثل Concerta®، Ritalin® وغيرها)
- المضادات للكتئاب (مثل Prozac®، Zolof®، Seroxat®، Cipralax®، Effexor® أو غيرها)
- غيرها

السؤال التالي يسألك عما تعلمته في المدرسة.

68. خلال هذه السنة الدراسية، هل تعلمت في أي من صفوفك الدراسية المشاكل المرتبطة بتعاطي المخدرات؟

- نعم
- لا
- لا أعرف

الأسئلة الخمسة التالية تتعلق بالصحة الإنجابية.

69. برأيك متى يجب أن تبدأ التربية حول الصحة الإنجابية؟

- قبل سن البلوغ
- عند سن البلوغ
- عند التحضير للزواج
- عند الزواج
- لا أعرف

70. هل تود أن تتم مناقشة مواضيع الصحة الإنجابية خلال الحصص المدرسية؟

- نعم
- لا
- لا أعرف

71. هل تفضل أن تتم مناقشة مواضيع الصحة الإنجابية عندما يكون التلامذة مقسمين في مجموعات "للشبان فقط" أو "للبنات فقط" (أي غير مختلطة) أو خلال مجموعات مختلطة؟

- أفضل أن تتم المناقشة خلال مجموعات للشبان أو للشابات فقط
- أفضل أن تتم المناقشة خلال مجموعات مختلطة
- لا أعرف

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80. خلال الثلاثين يوماً الماضية، كم مرة تقريباً شعرت بتقهم والديك أو أولياء امرك لمشاكلهم ومخاوفهم؟

- أبداً ولا مرة
- نادراً (قليلاً جداً)
- أحياناً (في بعض الأوقات)
- في أكثر الأحيان
- دائماً

81. خلال الثلاثين يوماً الماضية، كم مرة تقريباً أخرجك والدك أو أولياء امرك امام الجميع أو الأصدقاء؟

- أبداً ولا مرة
- نادراً (قليلاً جداً)
- أحياناً (في بعض الأوقات)
- في أكثر الأحيان
- دائماً

السؤالان التاليان يطرحان أسئلة أخرى متعلقة بالصحة.

82. توصي السلطات الصحية بلقاحات معينة لمن هم في مثل عمرك. هل تريد الحصول على هذه اللقاحات؟

- نعم
- لا
- لا أعرف

تشمل وسائل التواصل الاجتماعي WhatsApp، TikTok، Facebook و Snapchat و Twitter و Instagram ومنصات الوسائط الاجتماعية الأخرى. يشمل الاتصال عبر الإنترنت الرسائل النصية والبريد الإلكتروني.

83. خلال السبعة أيام الماضية، كم ساعة استخدمت هاتفك المحمول يومياً للدخول على وسائل التواصل الاجتماعي، أو للاتصال عبر الإنترنت، أو تصفح الإنترنت؟

- لم يكن معي هاتف محمول خلال السبعة أيام الماضية
- أقل من ساعة يومياً
- ساعة واحدة إلى ساعتين يومياً
- 3 إلى 4 ساعات يومياً
- 5 إلى 6 ساعات يومياً
- 7 إلى 8 ساعات يومياً
- أكثر من 8 ساعات يومياً

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السؤال التالي يتطرق بالوقت الذي غالباً ما تعضيه في وضعية الجلوس عندما لا تكون في المدرسة أو عندما تنهي فروضك.

76. خلال يوم عادي، كم تعضني من الوقت تقريباً جالساً تشاهد التلفاز أو تلهو بالعباب الكمبيوتر، أو تتحدث مع الأصدقاء أو تفعل أي شيء آخر من الأنشطة التي لا تتطلب الحركة الجسدية مثل: لعب ورق، لعب طاوله، الألعاب الإلكترونية والهواتف الذكية، PlayStation، iPhone، iPad؟

- أقل من ساعة واحدة في اليوم
- من ساعة إلى ساعتين في اليوم
- من 3 ساعات إلى 4 ساعات في اليوم
- من 5 ساعات إلى 6 ساعات في اليوم
- من 7 ساعات إلى 8 ساعات في اليوم
- أكثر من 8 ساعات في اليوم

السؤال التالي يسأل عن نمط نومك

77. خلال ليلة يوم مدرسي عادي، كم ساعة تنامها؟

- 4 ساعات أو أقل
- 5 ساعات
- 6 ساعات
- 7 ساعات
- 8 ساعات
- 9 ساعات
- 10 ساعات
- 11 ساعة أو أكثر

الاسئلة الثمانية التالية تسمّل عن امورك في المدرسة وفي المنزل.

78. خلال الثلاثين يوماً الماضية، الى اي مدى كان فيها تلامذة مدرستك لطفاء وساعورك؟

- أبداً ولا مرة
- نادراً (قليلاً جداً)
- أحياناً (في بعض الأوقات)
- في أكثر الأحيان
- دائماً

79. خلال الثلاثين يوماً الماضية، كم مرة تقريباً قام والدك أو أولياء امرك بالتأكد من انك قمت بداء واجبتك المدرسية؟

- أبداً ولا مرة
- نادراً (قليلاً جداً)
- أحياناً (في بعض الأوقات)
- في أكثر الأحيان
- دائماً

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