



MINISTRY OF HEALTH



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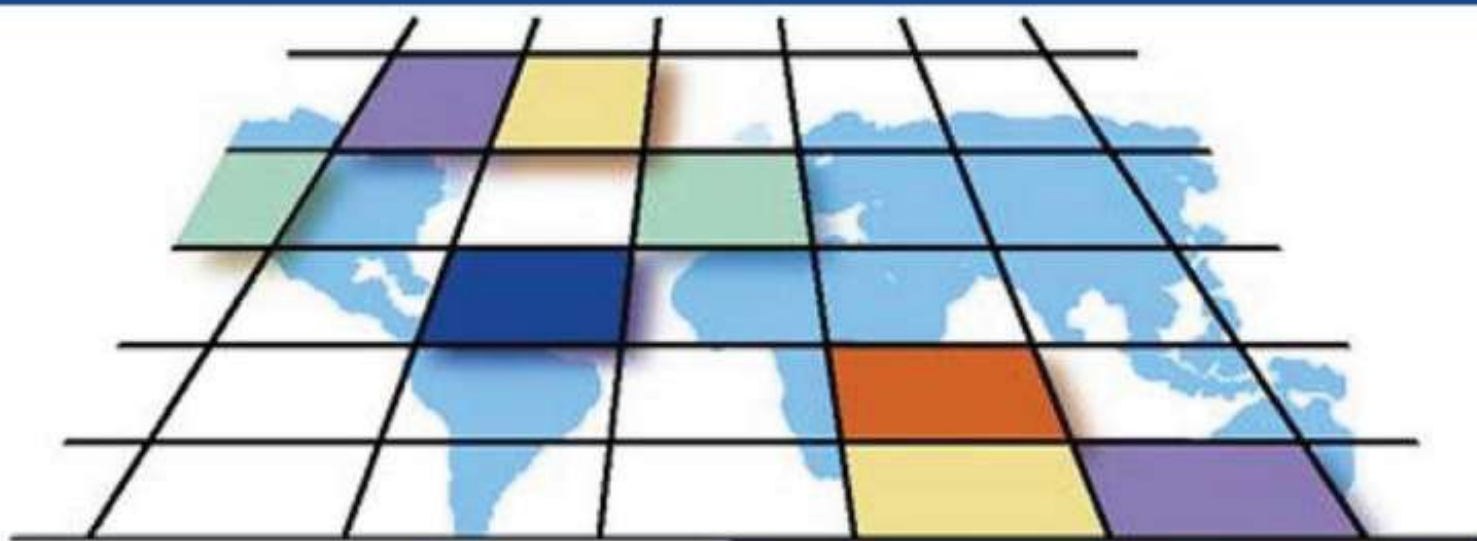


for every child



World Health
Organization

GLOBAL SCHOOL BASED STUDENT HEALTH SURVEY, MONGOLIA 2023



YOUTH'S HEALTH BEHAVIOR AMONG
SECONDARY SCHOOL CHILDREN, GSHS-2023

ULAANBAATAR, 2024

YOUTH'S HEALTH BEHAVIOR AMONG SECONDARY SCHOOL CHILDREN, GSHS-2023



CONTENTS

LIST OF TABLES	3
LIST OF FIGURES	4
FOREWORD.....	5
ACKNOWLEDGEMENTS.....	6
ABBREVIATIONS	9
EXECUTIVE SUMMARY.....	10
CHAPTER 1. RATIONALE AND BACKGROUND	20
1.1 Introduction	20
1.2 Adolescents health status in the world	20
1.3 Adolescents health status in mongolia	21
1.4 Survey goal and objectives	21
1.5 Survey novelty	21
1.6 Literatures	22
CHAPTER 2. SURVEY METHODS	24
2.1. Survey population and scope	24
2.2. Sample size and sampling	24
2.3. Survey questionnaire	24
2.4. Data processing, weighting, and analysis	25
2.5. Training of researchers and pilot study	25
2.6. Data collection.....	25
2.7. Ethical considerations.....	26
2.8. Inclusion and exclusion criteria	26
2.9. Survey limitations.....	26
CHAPTER 3. SURVEY RESULTS	27
3.1. Demographic profile	27
3.2. Dietary behaviors.....	28
3.3. Hygiene	31
3.4. Unintentional injuries and violence	33
3.5. Mental health.....	38
3.6. Tobacco use	41
3.7. Alcohol use.....	44
3.8. Reproductive health.....	46
3.9. Protective factors	49
CHAPTER 4. CONCLUSION AND RECOMMENDATIONS.....	54
RECOMMENDATIONS	56
LIST OF REFERENCES	59
ANNEXES	61

LIST OF TABLES

- Table 1.** Percentage of survey participants by age and gender
- Table 2.** Percentage of students by gender and grades
- Table 3.** Percentage of underweight, overweight, and obese students by gender and location
- Table 4.** Fruit consumption by gender (past seven days)
- Table 5.** Vegetable consumption by gender (past seven days)
- Table 6.** Carbonated soft drinks consumption by gender (past seven days)
- Table 7.** Sugar-sweetened drinks consumption by gender (past seven days)
- Table 8.** Percentage of students who were injured, physical fights and bullied at school, comparison of some countries in the Western Pacific region
- Table 9.** Students' mental health by gender (past 12 months)
- Table 10.** Percentage of students who smoked cigarettes at least once by gender and age group (past 30 days)
- Table 11.** Percentage of students who ever tried an e-cigarette before the age of 14 by gender, age group, grades, and location
- Table 12.** Percentage of students who used alcohol during the past 30 days by gender
- Table 13.** Percentage of students who got "really drunk" one or more times by age group, location and gender
- Table 14.** Percentage of students who had their parents or guardians touch their belongings without their permission by age group, gender and location
- Table 15.** Percentage of students who answered the questions regarding protective factors by gender (past 30 days)



LIST OF FIGURES

- Figure 1.** Percentage of students who were hungry due to insufficient food at home in the past 30 days by gender and location
- Figure 2.** Percentage of students who usually cleaned or brushed their teeth less than one time per day, by gender and location (past 30 days)
- Figure 3.** Percentage of students who had improper handwashing practices by location (past 30 days)
- Figure 4.** Percentage of students who were injured by location and gender (past 12 months)
- Figure 5.** Percentage of serious injuries among students by location and gender
- Figure 6.** Percentage of students who were involved in road traffic accident by location and gender (past 12 months)
- Figure 7.** Percentage of students who were in a physical fight by location and gender (past 12 months)
- Figure 8.** Percentage of students who were bullied at school by location and gender (past 30 days)
- Figure 9.** Percentage of students who were cyberbullied by gender (past 12 months)
- Figure 10.** Percentage of students who were bullied face-to-face by type (past 12 months)
- Figure 11.** Percentage of students who were seriously considered attempting suicide and attempted suicide by location (past 12 months)
- Figure 12.** Percentage of students who ever tried or experimented with cigarettes and smoked cigarettes before the age of 14 years by gender
- Figure 13.** Percentage of students who were exposed to second-hand smoking by location and gender (past seven days)
- Figure 14.** Percentage of students who currently used electronic cigarettes by location and gender (past 30 days)
- Figure 15.** Percentage of students who had ever consumed alcohol before the age of 14 years, by location and gender
- Figure 16.** Percentage of students who drunk two and more than six drinks of alcohol by location
- Figure 17.** Percentage of students who ever had sexual intercourse by location and gender
- Figure 18.** Percentage of students who had sexual intercourse with two or more persons by location and gender
- Figure 19.** Percentage of students who had sexual intercourse with two or more persons by age group
- Figure 20.** Percentage of students who used condom or contraceptive pills to prevent pregnancy and tools used in their last sexual intercourse by gender
- Figure 21.** Percentage of students who missed classes or school without permission by location and gender (past 30 days)
- Figure 22.** Percentage of students who reported that their parents or guardians most of the time checked their homework by location and gender
- Figure 23.** Percentage of students who reported that their parents or guardians were never or rarely knew what they were doing with their free time by gender and location

FOREWORD



Investing in children and adolescents' growth, health, and education is a wise and impactful endeavor that lays the foundation for lifelong well-being and benefits during the critical period of human development. Addressing the multifaceted needs for health, nutrition, care, development, and protection of children through a unified, holistic approach is a top priority in Mongolia and globally.

Aligned with the vision of the "Sustainable Development Goals-2030" and "Mongolia's Sustainable Development Concept-2030," each of the 17 goals, tightly interwoven with policies, strives to establish a harmonious equilibrium among society, economy, and the environment, where advancements in one sector have direct ramifications on others. The quality and accessibility of government-provided services in these domains profoundly impact children's upbringing, socialization, education, health, and social protection.

Hence, the Ministry of Labour and Social Protection, the Ministry of Health, and the Ministry of Education and Science jointly conducted the "Youth's Health Behaviour Among Secondary School Children, GSHS-2023" survey among 3311 children in grades 8 to 12 across 51 urban and rural secondary schools nationwide from 2022 to 2023. The findings of this successful initiative are being presented delightfully.

This successful collaborative effort assessed Mongolian students' rights to safe living, development, and protection, as well as their nutritional status, health-risk behaviors, injuries, violence, mental health, alcohol and tobacco use, reproductive health, and hygiene practices. The comprehensive analysis by population location, age, and gender was completed, and the results were compared to those of the previous surveys in 2010 and 2013.

The findings reveal concerning trends, illustrating that 1 in 6 students are overweight or obese, 1 in 4 use e-cigarettes, 1 in 10 smoke cigarettes, and 1 in 6 experience online bullying. These results underscore the critical need for intensified interdisciplinary collaboration, robust regulatory measures, and evidence-based policies grounded in scientific knowledge to enhance health education and promote positive health outcomes.

Empowering individuals with health literacy, fostering awareness of personal responsibilities, and encouraging prudent life planning are essential pathways through which every single member of society can actively contribute to the prosperity and development of the nation.

Let us unite to prioritize the health and well-being of our population!

**MEMBER OF THE STATE GREAT HURAL OF MONGOLIA,
MEMBER OF THE PARLIAMENT, MINISTER FOR HEALTH
SODNOM CHINZORIG**

ACKNOWLEDGEMENTS



Since 2003, the Global School-Based Health Survey (GSHS) has been implemented in numerous countries worldwide, in partnership with health and educational institutions, to assess and monitor the prevalence of health-risk behaviors and protective factors among students.

In Mongolia, the school-based health survey was successfully conducted nationwide previously in 2010 and 2013, with technical and financial assistance from the United States Centers for Disease Control and Prevention, the Mongolian Millennium Challenge Fund Health Project, and the World Health Organization.

In order to further evaluate the current status of adolescent rights, protection, and health behaviors, assess the effectiveness of government policies and programs, and establish baseline data, a collaborative study titled “ Youth’s Health Behaviour Among Secondary School Children, GSHS-2023” was conducted from 2022 to 2023. Led by the Training, Assessment, and Research Institute for Labor and Social Protection, the National Center for Public Health, and the National Institute for Educational Research, the survey results are ready to present with financial and technical support provided by UNICEF and the World Health Organization.

On behalf of the national research team, we extend our sincere appreciation to the technical working group at the Ministry of Labour and Social Protection, who initiated and coordinated the nationwide study, as well as to the Scientific Council of the National Center for Public Health, Medical ethics committee at the Ministry of Health, Technical advisory committee and the Standing Committee of the National Statistics Office for their invaluable contributions.

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ABBREVIATIONS

AIDS	Acquired immunodeficiency syndrome
BMI	Body Mass Index
CDC	Centers for Disease Control and Prevention
CI	Confidence Interval
FCYDA	Family, Child and Youth Development Agency
GSHS	Global School-based Student Health Survey
HIV	Human Immunodeficiency Virus
ILO	International Labour Organization
NCD	Noncommunicable diseases
MES	Ministry of Education and Science
MED	Metropolitan Education Department
MOH	Ministry of Health
MLSP	Ministry of Labour and Social Protection
MNIER	Mongolian National Institute for Educational Research
NEMA	National Emergency Management Agency
NCPH	National Center for Public Health
NHRCM	National Human Rights Commission of Mongolia
NTORC	National Trauma and Orthopaedic Research Center
NSO	National Statistics Office
SD	Standard Deviation
SDG	Sustainable Development Goals
STI	Sexually Transmitted Infection
STD	Sexually Transmitted Disease
TARILSP	Training, Assessment and Research Institute for Labor and Social Protection
WHO	World Health Organization
WHO HQ	World Health Organization Headquarters
WPRO	Western Pacific Regional Office
UN	United Nations
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
USA	United States of America



EXECUTIVE SUMMARY

The current state of adolescent rights, protection, and health behaviors in Mongolia was assessed through a collaborative study employing the “Global School-based Student Health Survey” methods developed in 2001 by the WHO, UNICEF, UNESCO, and the Centers for Disease Control and Prevention. In 2022-2023, the UNICEF, WHO, Training, Assessment and Research Institute for Labor and Social Protection, National Center for Public Health, and Mongolian National Institute for Educational Research jointly conducted the “Youth’s Health Behaviour Among Secondary School Children” survey with a purpose to evaluate the outcomes of existing programs and generate an evidence-based foundation for policymaking.

Methods: This nationwide study was conducted during the fourth quarter of the 2022-2023 school year, targeting students in grades 8 through 12 attending day schools in both urban and rural areas. A total of 3,857 children from 51 secondary schools (26 urban, 25 rural) were selected to participate; of those, 3,311 students completed this survey.

The Research Sampling Team of the NCD Surveillance, Monitoring and Reporting Unit, WHO in Geneva, carried out the initial sampling. Using a proportional probability method, 51 schools were selected for the study according to a standardized approach. In the next step, the classes and grades were randomly selected based on the number of classes, groups, and children in the chosen provinces and districts. All students in the selected classes were eligible and included in the sample size.

The results of this two-stage random sampling process were determined with a 95% probability and a margin of error not exceeding 5%.

Prior to the study, parents and guardians of all students in the selected classes were asked to participate voluntarily, and informed consent was obtained through a consent form.

The primary objectives of this study were to determine the prevalence of health and behavioral risk factors among school-aged children and adolescents and to use the findings to inform the direction of future policy measures and interventions.

The Mongolian GSHS questionnaire contained 74 questions from 9 groups (Annex 1).

1. Demographic profile
2. Dietary behaviors
3. Hygiene
4. Unintentional injuries and violence
5. Mental health
6. Tobacco use
7. Alcohol use
8. Protective factors
9. Reproductive health

The survey instrument used in this study was based on the 10-module questionnaire developed for the WHO’s Global School-Based Health Survey (GSHS). This standardized tool, jointly created by WHO, UNDP, UNESCO, and US CDC experts, has been used in more than 104 countries. For this national-level study in Mongolia, the modules were adjusted to the country context, consisting of 8 modules with a total of 74 questionnaire items.

The data was collected between April 17 and May 13, 2023, across selected schools in provinces and districts nationwide by research teams of 16 members in four teams. Each team included a leader and three primary researchers, who collaborated with locally appointed assistant experts to collect the survey data.

Results. A total of 3,311 students in grades 8-12 from 26 urban and 25 rural public and private secondary schools participated in the study. Of these, 47.9% were male and 52.1% were female.

Dietary behaviors

The students' weight and height were measured, as well as their physical growth and development. Their BMI was assessed using the growth curve issued by the WHO. Accordingly, 3.2% of all students were underweight, 14.6% were overweight, and 3.0% were obese.

In the past month, 3.1% (95% CI 2.1-4.5) of the students reported hunger due to inadequate food at home. In the last seven days, 32.0% of all students did not consume fruits, while 89.0% had eaten fruit at least once. Additionally, 2.9% (95% CI 2.1-3.9) of the students did not consume any vegetables, which was higher among students from rural areas (5.7%, 95% CI 4.8-6.7) and increasing with grade level.

Carbonated beverage consumption did not differ significantly by location or gender, but there was a positive trend of decreased consumption as the grade level increased.

Hygiene

In the past month, 6.5% (95% CI 5.1-8.1) of students had either not brushed their teeth or brushed less than once a day. A decreasing trend was observed as the grade level progressed. Regarding fluoride toothpaste usage, 34.0% (95% CI 30.0-38.3) of all students reported using it when brushing their teeth; no significant difference was observed between urban and rural areas.

Students who missed school due to oral health reasons in the last month accounted for 8.0% (95% CI 6.3-10.0), which was reported to be 7.7% (95% CI 5.6-10.5) in urban areas and 8.9% (95% CI 7.0-11.1) in rural areas. This indicator did not differ significantly by gender but was two percentage points higher among students aged 16-17 compared to the 13-15 age group.

Furthermore, 4.2% (95% CI 3.1-5.7) of students reported never or rarely washing their hands after using the toilet in the last month (Figure 3). A decreasing trend was observed as the grade level progressed, four percentage points higher in rural areas than urban areas.

Unintentional injuries and violence

Overall, 39.6% of all students (95% CI 36.4-42.8) reported sustaining an injury in the past year, with a higher percentage among male students (41.7%, 95% CI 37.6-45.9). No statistically significant differences were observed across age groups. This indicator was higher in urban areas (41.3%, 95% CI 37.1-45.6) compared to rural areas (33.9%, 95% CI 29.5-38.7).

Regarding serious injuries, such as broken bones, dislocated joints, and broken teeth, 24.9% (95% CI 20.6-29.7) of all students reported experiencing them, with a higher percentage among male students (31.5%, 95% CI 25.7-38.0).

In the past year, 5.4% (95% CI 3.9-7.4) of students were injured in a traffic accident due to being hit by a vehicle, decreased from the 2013 survey results.

Over 23.3% (95% CI 21.2-25.6) of the students reported being beaten by others in the past year, with a higher percentage among male students. However, the rate of students who engaged in physical fights with others was 28.3% (95% CI 26.1-30.6), decreasing as grade level increased. There was no significant difference in the percentage of male students who fought with others in the urban (37.2%, 95% CI 33.1-41.5) and rural (38.8%, 95% CI 34.8-42.8) areas.

The prevalence of cyberbullying among students was 17.7% (95% CI 16.4-19.0), with female students experiencing more likely to be exposed to it compared to male students.

Additionally, 2-3 out of every ten students reported feeling punishment and pressure from teachers, and this indicator was similar in urban and rural areas.

Mental health

This survey found that 24.3% of students (95% CI 22.2-26.4) often felt lonely. The percentage of female students who reported often feeling lonely was almost twice as high as that of male students.

Additionally, 12.5% (95% CI 10.8-14.5) of students did not sleep well at night because they worried about something. This figure was twice as high among female students (16.4%, 95% CI 14.0-19.1) compared to their male counterparts.



In the past year, 39.0% (95% CI 36.3-41.8) of students had thought of suicide, 22.2% (95% CI 20.0-24.6) had made a plan for it, and 15.8% (95% CI 13.8-18.0) had attempted suicide.

The percentage of students who reported not having a close friend was higher among female students at 9.9% (95% CI 7.7-12.5) compared to 6.6% (95% CI 5.3-8.2) for male students.

Tobacco use

About 19.9% of students reported having tried smoking. Of those who tried smoking, 38.4% (95% CI 35.2-41.6) had smoked cigarettes once or twice, and 56.5% (95% CI 51.1-61.7) had tried smoking before the age of 14. By gender, male students (58.7%, 95% CI 51.8-65.2) were likelier than female students (52.4%, 95% CI 44.9-59.7) to have tried smoking before age 14.

The proportion of students exposed to secondhand smoke was 64.4% (95% CI 59.4-69.1) in urban areas and 58.7% (95% CI 53.6-63.6) in rural areas. According to the results, urban students were more exposed to secondhand smoke. However, regardless of location, male high school students were more exposed to secondhand smoke in urban and rural areas.

Overall, 24.8% (95% CI 20.9-29.2) of all students had used e-cigarettes in the past 30 days. E-cigarette use was more prevalent among male high school students.

Alcohol use

In the study, 42.3% (95% CI 34.4-50.5) of all secondary school students had tried alcohol before the age of 14, with a slightly higher percentage among female students. Additionally, 39.2% (95% CI 31.8-47.0) of students consumed two or more alcoholic drinks. By age group, students aged 16-17 years (43.8%, 95% CI 32.5-55.5) were higher than other age groups.

Furthermore, 50.4% (95% CI 39.8-61.0) of minors had tried to buy alcohol, 66.1% (95% CI 60.8-71.1) had consumed alcohol at home, and 3.8% (95% CI 2.8-5.2) had gotten into trouble or fights after drinking alcohol, with higher rates among male students aged 16-17, regardless of location.

Sexual behavior

Overall, 18.9% (95%CI, 16.4-21.8) of all students, or approximately 1 in 5 students, had engaged in sex. Sexual intercourse was 19.5% (95%CI, 16.2-23.3) in urban areas and 16.6% (95%CI, 13.5-20.2) in rural areas.

About 4.0% of male students (95%CI, 2.1-7.8) and 2.6% of female students (95%CI, 0.8-7.7) explained that the main reason why they were engaged in sexual intercourse was "because all my friends have had sex".

One in 4 students, or 24.3% (95%CI, 15.8-35.5), had their first sexual experience before the age of 14. By gender, it was 19.4% (95%CI, 11.2-31.4) for male students and 30.4% (95%CI, 20.2-43.0) for female students.

Over 5.7% (95%CI, 4.2-7.7) of students had sex with two or more partners. This figure was slightly higher in urban areas, 6.0% (95%CI, 4.1-8.8), compared to rural areas, 4.7% (95%CI, 3.2-6.9), while 1 in 10 male students have had sex with two or more people.

Of those who engaged in sexual intercourse, 63.9% (95%CI, 55.8-71.3) had used a condom the last time they had sex, of which 70.8% (95%CI, 63.9-76.9) were male students and 55.1% (95%CI, 43.3-66.4) were female.

Additionally, 3.4% (95%CI, 2.1-5.5) of students used contraceptives other than condoms during their last sexual intercourse.

Protective factors

Among the students, 26.5% (male-27.8%, 95% CI 23.8-32.1; female-25.2%, 95% CI 20.5-30.7) reported missing classes without any permission in the past month. Male students had a higher rate of unexcused absences compared to female students.

When analyzed by location and age group, rural students (32.2%, 95% CI 29.3-35.3) and male students aged 16-17 (44.5%, 95% CI 37.3-51.9) had a higher rate of unexcused absences.

Around 21.5% (95% CI 19.8-23.3) of students reported that their parents or guardians regularly checked their homework in the past month. This parental monitoring decreased as the student's age and grade level increased.

Furthermore, 57.3% (95% CI 54.4-60.2) of students felt that their parents and guardians did not understand and support their problems, with a higher percentage among male students (60.6%, 95% CI 57.1-64.0).

Lastly, 25.9% of students reported that their parents or guardians do not pay attention to how they spend their free time.

SUMMARY OF RESULTS AND KEY FINDINGS

(Students by gender)

YOUTH'S HEALTH BEHAVIOUR AMONG SECONDARY SCHOOL CHILDREN, GSHS-2023

The data collection for the “Youth’s Health Behaviour Among Secondary School Children, GSHS-2023” survey was conducted nationwide from April 17 to May 13, 2023, following the standard methodology developed by the WHO. A total of 51 secondary schools, comprising students from grades 8 to 12 in both urban and rural areas, were selected for the study using a two-stage random sampling method. The parents and guardians of the students in the selected classes provided informed consent for their children’s participation in the study by signing a consent form. The school participation rate in the survey was 100%, and the student participation rate was 85.9%.

Among 13-17-year-old secondary school students	Total %, (95% CI)	Male %, (95% CI)	Female %, (95% CI)
Dietary behaviours			
Percentage of underweight students (Average BMI <-2SD)	3.2 (2.4-4.4)	4.2 (3.0-5.9)	2.3 (1.5-3.6)
Percentage of overweight students (Average BMI >+1SD)	14.6 (12.1-17.4)	13.3 (10.2-17.1)	15.7 (13.3-18.5)
Percentage of obese students (Average BMI >+2SD)	3.0 (2.2-4.2)	3.6 (2.3-5.5)	2.5 (1.7-3.6)
Percentage of students who consumed sugary beverages one or more times a day in the past seven days	10.1 (8.4-12.2)	8.5 (6.5-10.9)	11.4 (8.9-14.5)
Hygiene, past 30 days			
Students who did not brush or brushed their teeth less than once a day	6.5 (5.1-8.1)	8.3 (6.4-10.7)	4.8 (3.6-6.4)
Students who never or rarely wash their hands after using the restroom	4.2 (3.1-5.7)	4.1 (2.8-5.9)	4.0 (2.9-5.6)
Unintentional injuries and violence, past 12 months			
Students who sustained an injury	39.6 (36.4-42.8)	41.7 (37.6-45.9)	37.5 (32.8-42.4)
Students who engaged in fights	28.3 (26.1-30.6)	37.8 (35.0-40.7)	19.2 (16.8-21.9)
Students who experienced violence in the school environment	26.9 (25.2-28.6)	28.6 (26.1-31.2)	25.1 (22.5-27.9)
Students who experienced cyberbullying	17.9 (16.5-19.3)	14.1 (12.3-16.0)	21.3 (19.2-23.6)
Mental health, past 12 months			
Percentage of students who do not have close friends	8.2 (6.8-10.0)	6.6 (5.3-8.2)	9.9 (7.7-12.5)
Students who considered attempting suicide	39.0 (36.3-41.8)	28.3 (24.6-32.3)	49.1 (45.1-53.2)
Students who attempted suicide one or more times	15.8 (13.8-18.0)	10.2 (8.0-12.9)	21.0 (18.1-24.1)
Tobacco use			
Students who smoked at least once in the past 30 days	11.1 (9.0-13.5)	17.2 (14.0-20.8)	5.3 (4.0-7.1)

Percentage of students who tried smoking	19.9 (17.7 - 22.2)	28.6 (25.4 - 32.1)	11.7 (10.0 - 13.6)
Students who used e-cigarettes at least once in the past 30 days	24.8 (20.9-29.2)	29.9 (25.5-34.6)	20.0 (15.7-25.2)
Alcohol use			
Students who drank alcohol at least "ONE DRINK" at least one day in the past 30 days	10.8 (8.3 - 14.0)	11.2 (8.2 - 15.1)	10.5 (7.7 - 14.0)
Students who had gotten drunk at least once or more	14.5 (12.2-17.2)	16.4 (13.7-19.5)	12.7 (9.8-16.2)
Reproductive health			
Students who engaged in sexual intercourse	18.9 (16.4-21.8)	21.7 (17.9-26.1)	16.4 (14.3-18.8)
Student who used a condom during their most recent sexual intercourse	63.9 (55.8-71.3)	70.8 (63.9-76.9)	55.1 (43.3-66.4)
Protective factors, past 30 days			
Students who had unexcused absences once or more days	26.5 (22.7-30.7)	27.8 (23.8-32.1)	25.2 (20.5-30.7)
Students who had parents and guardians who did not understand their problems or support	57.3 (54.4-60.2)	60.6 (57.1-64.0)	54.5 (49.9-58.9)
Students who had parents not aware of their activities during leisure time	25.9 (23.4-28.6)	26.1 (23.2-29.2)	25.6 (22.5-28.9)

SUMMARY OF RESULTS AND KEY FINDINGS

(Students in the urban area)

YOUTH'S HEALTH BEHAVIOUR AMONG SECONDARY SCHOOL CHILDREN, GSHS-2023

The data collection for the “Youth’s Health Behaviour Among Secondary School Children, GSHS-2023” survey was conducted nationwide from April 17 to May 13, 2023, following the standard methodology developed by the WHO. A total of 51 secondary schools, comprising students from grades 8 to 12 in both urban and rural areas, were selected for the study using a two-stage random sampling method. The parents and guardians of the students in the selected classes provided informed consent for their children’s participation in the study by signing a consent form. The school participation rate in the survey was 100%, and the student participation rate was 85.9%.

Among 13-17-year-old secondary school students	Total %, (95% CI)	Male %, (95% CI)	Female %, (95% CI)
Dietary behaviours			
Percentage of underweight students (Average BMI <-2SD)	3.1 (2.3 - 4.0)	3.9 (2.9 - 5.4)	2.2 (1.3 - 3.8)
Percentage of overweight students (Average BMI >+1SD)	14.5 (11.3 - 18.5)	14.3 (10.2 - 19.6)	14.7 (11.6 - 18.5)
Percentage of obese students (Average BMI >+2SD)	3.0 (2.0 - 4.5)	3.7 (2.2 - 6.3)	2.3 (1.3 - 4.1)
Percentage of students who consumed sugary beverages one or more times a day in the past seven days	10.2 (8.0 - 13.0)	8.1 (5.8 - 11.3)	11.9 (8.7-16.1)
Hygiene, past 30 days			
Students who did not brush or brushed their teeth less than once a day	6.7 (5.0 - 8.9)	8.5 (6.1 - 11.8)	5.1 (3.5 - 7.3)
Students who never or rarely wash their hands after using the restroom	3.3 (2.0 - 5.5)	3.3 (1.7 - 6.2)	3.0 (1.7 - 5.2)
Unintentional injuries and violence, past 12 months			
Students who sustained an injury	41.3 (37.1 - 45.6)	43.0 (37.5 - 48.6)	39.6 (33.3 - 46.3)
Students who engaged in fights	27.8 (24.9 - 30.9)	37.2 (33.1 - 41.5)	18.8 (16.0 - 22.1)
Students who experienced violence in the school environment	26.7 (24.5 - 29.1)	27.5 (24.7 - 30.5)	25.8 (22.1 - 29.9)
Students who experienced cyberbullying	18.5 (16.7 - 20.4)	14.4 (12.0 - 17.3)	22.1 (19.4 - 24.9)
Mental health, past 12 months			
Percentage of students who do not have close friends	8.8 (6.8 - 11.3)	7.2 (5.5 - 9.5)	10.3 (7.6 - 14.0)
Students who considered attempting suicide	41.7 (38.0 - 45.4)	30.3 (25.2 - 35.9)	52.3 (47.2 - 57.4)
Students who attempted suicide one or more times	16.5 (13.8 - 19.6)	10.1 (7.4 - 13.7)	22.4 (18.4 - 27.0)
Tobacco use			
Students who smoked at least once in the past 30 days	10.9 (8.3 - 14.2)	16.6 (12.7 - 21.5)	5.5 (3.8 - 8.0)

Percentage of students who tried smoking	20.0 (17.2 - 23.0)	28.6 (24.4 - 33.2)	12.0 (10.0 - 14.3)
Students who used e-cigarettes at least once in the past 30 days	27.4 (22.5 - 32.9)	32.8 (27.8 - 38.2)	22.3 (16.7 - 29.1)
Alcohol use			
Students who drank alcohol at least "ONE DRINK" at least one day in the past 30 days	12.0 (8.7 - 16.3)	12.2 (8.3 - 17.4)	11.8 (8.2 - 16.6)
Students who had gotten drunk at least once or more	15.3 (12.3 - 18.9)	17.0 (13.6 - 20.9)	13.6 (9.9 - 18.4)
Reproductive health			
Students who engaged in sexual intercourse	19.5 (16.2 - 23.3)	22.4 (17.5 - 28.2)	17.0 (14.3 - 20.0)
Student who used a condom during their most recent sexual intercourse	63.2 (52.7 - 72.5)	-	-
Protective factors, past 30 days			
Students who had unexcused absences once or more days	24.9 (20.1 - 30.4)	25.1 (20.4 - 30.5)	24.7 (18.6 - 32.0)
Students who had parents and guardians who did not understand their problems or support	57.1 (52.9 - 61.3)	60.6 (56.0 - 65.0)	54.1 (47.5 - 60.6)
Students who had parents not aware of their activities during leisure time	24.3 (21.0 - 28.0)	25.4 (21.5 - 29.8)	23.1 (19.1 - 27.7)

SUMMARY OF RESULTS AND KEY FINDINGS

(Students in the rural area)

YOUTH'S HEALTH BEHAVIOUR AMONG SECONDARY SCHOOL CHILDREN, GSHS-2023

The data collection for the “Youth’s Health Behaviour Among Secondary School Children, GSHS-2023” survey was conducted nationwide from April 17 to May 13, 2023, following the standard methodology developed by the WHO. A total of 51 secondary schools, comprising students from grades 8 to 12 in both urban and rural areas, were selected for the study using a two-stage random sampling method. The parents and guardians of the students in the selected classes provided informed consent for their children’s participation in the study by signing a consent form. The school participation rate in the survey was 100%, and the student participation rate was 85.9%.

Among 13-17-year-old secondary school students	Total %, (95% CI)	Male %, (95% CI)	Female %, (95% CI)
Dietary behaviours			
Percentage of underweight students (Average BMI <-2SD)	3.8 (1.5 - 9.6)	5.0 (2.0 - 11.8)	2.7 (0.9 - 7.8)
Percentage of overweight students (Average BMI >+1SD)	15.0 (12.5 - 18.0)	11.0 (8.5 - 14.1)	19.0 (15.0 - 23.6)
Percentage of obese students (Average BMI >+2SD)	3.1 (1.9 - 5.0)	3.0 (1.5 - 6.0)	3.2 (2.0 - 5.0)
Percentage of students who consumed sugary beverages one or more times a day in the past seven days	9.0 (6.9 - 11.5)	8.9 (6.1 - 12.9)	8.9 (6.8 - 11.7)
Hygiene, past 30 days			
Students who did not brush or brushed their teeth less than once a day	5.3 (4.3 - 6.6)	7.4 (5.1 - 10.5)	3.3 (2.3 - 4.9)
Students who never or rarely wash their hands after using the restroom	7.3 (5.1 - 10.4)	7.0 (4.4 - 10.9)	7.5 (5.1 - 11.0)
Unintentional injuries and violence, past 12 months			
Students who sustained an injury	33.9 (29.5 - 38.7)	38.0 (33.5 - 42.8)	29.9 (24.6 - 35.9)
Students who engaged in fights	29.5 (26.3 - 32.8)	38.8 (34.8 - 42.8)	20.5 (16.6 - 25.1)
Students who experienced violence in the school environment	27.3 (25.1 - 29.6)	31.7 (27.4 - 36.4)	22.9 (20.1 - 26.1)
Students who experienced cyberbullying	15.6 (13.3 - 18.3)	13.3 (10.2 - 17.1)	18.0 (14.0 - 22.7)
Mental health, past 12 months			
Percentage of students who do not have close friends	6.7 (5.1 - 8.8)	5.1 (3.7 - 7.0)	8.3 (5.8 - 11.8)
Students who considered attempting suicide	29.5 (26.2 - 33.1)	21.6 (17.4 - 26.4)	37.3 (32.0 - 43.1)
Students who attempted suicide one or more times	12.9 (10.1 - 16.3)	9.8 (6.3 - 15.0)	15.7 (13.3 - 18.6)
Tobacco use			
Students who smoked at least once in the past 30 days	12.2 (9.6 - 15.4)	20.5 (16.4 - 25.3)	4.2 (3.0 - 5.9)

Percentage of students who tried smoking	20.2 (16.6 - 24.2)	30.7 (26.4 - 35.5)	9.9 (6.8 - 14.2)
Students who used e-cigarettes at least once in the past 30 days	16.5 (11.6 - 22.9)	22.0 (14.8 - 31.3)	11.3 (7.5 - 16.6)
Alcohol use			
Students who drank alcohol at least "ONE DRINK" at least one day in the past 30 days	6.7 (4.8 - 9.1)	7.8 (5.3 - 11.4)	5.5 (3.3 - 9.0)
Students who had gotten drunk at least once or more	11.7 (8.5 - 15.8)	15.0 (10.4 - 21.1)	8.5 (5.5 - 12.9)
Reproductive health			
Students who engaged in sexual intercourse	16.6 (13.5 - 20.2)	19.3 (14.9 - 24.6)	14.0 (10.6 - 18.3)
Student who used a condom during their most recent sexual intercourse	70.1 (62.2 - 76.9)	-	-
Protective factors, past 30 days			
Students who had unexcused absences once or more days	32.2 (29.3 - 35.3)	37.5 (32.1 - 43.2)	27.2 (23.6 - 31.1)
Students who had parents and guardians who did not understand their problems or support	57.0 (54.0 - 60.0)	59.5 (54.9 - 63.8)	54.7 (51.1 - 58.4)
Students who had parents not aware of their activities during leisure time	30.7 (27.7 - 33.8)	28.0 (23.9 - 32.6)	33.4 (30.5 - 36.4)



CHAPTER 1. RATIONALE AND BACKGROUND

1.1 INTRODUCTION

The Global School-based Student Health Survey (GSHS) was collaboratively developed by the World Health Organization (WHO) with technical support from the Joint United Nations Programme on HIV/AIDS (UNAIDS), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Children's Fund (UNICEF), and the Centers for Disease Control and Prevention (CDC) in 2001 [1]. Since 2003, governments, health, and educational institutions worldwide have adopted this methodology to conduct a comprehensive survey, assessing students' health behaviors, risks, and protective factors. The survey outcomes inform the formulation and implementation of public health policies.

In Mongolia, the School-based Health Survey was conducted nationwide twice in 2010 and 2013, led by the Public Health Institute (formerly known as), in collaboration with other specialized organizations. Subsequently, in 2022-2023, the National Center for Public Health, the Training, Assessment and Research Institute for Labor and Social Protection, and the Mongolian National Institute for Educational Research jointly implemented the "Youth's Health Behaviour Among Secondary School Children, GSHS-2023." This survey aimed to assess the current status of adolescent rights, protection, and health behaviors using internationally recognized methodologies, with financial support from UNICEF and technical assistance from WHO.

Prior to the nationwide survey implementation, research methodology approvals were obtained from the Scientific Committee at the National Center for Public Health (NCPH), the Medical Ethics Review Committee at the Ministry of Health (MOH), and the Standing Council on Methodology and the Chairman's Council of the National Statistics Office (NSO).

Each of the 17 Global Goals of the 2030 Agenda for Sustainable Development and Mongolia's Sustainable Development Vision 2030 were reflected through multisector coordination and policy integration. This survey seeks to establish baseline statistics and evidence for evaluating government-implemented adolescent health policies and programs.

1.2 ADOLESCENTS HEALTH STATUS IN THE WORLD

Lately, the prevalence of Non-Communicable Diseases (NCDs) is rapidly emerging as the leading cause of morbidity and mortality within populations, persisting as one of the world's pressing challenges [2]. Scientists have identified NCDs as stemming from unhealthy lifestyles and behaviors, often associated with preventable risk factors. This phenomenon is also pertinent to teenagers, as detrimental behaviors and habits established in childhood tend to endure into adulthood, perpetuating adverse health outcomes.

As of today, 1 in 10 children aged 13 to 15 worldwide have started smoking during adolescence [2]. A survey conducted in 2023 by the U.S. CDC reported that 10.0% of high school students and 4.6% of middle school students had used e-cigarettes within the past month [3].

Every year, 3 million people die from alcohol-related causes worldwide, accounting for 5.3% of all deaths [2].

According to the WHO report from 2023, over 155 million adolescents aged 15-19 consume alcohol, with 13.6% of them engaging in excessive consumption [2].

As of 2018, 4.7% of 15-16-year-olds globally have experimented with psychoactive drugs at least once. Adolescent mental health challenges, such as depression, behavioral changes, and suicidal tendencies, mainly start around the age of 14 [2].

Engaging in early sexual activity heightens the risks of early pregnancy and contraction of HIV and STIs. A 2019 study revealed that approximately 21 million teenage girls aged 15-19 in low- and middle-income countries became pregnant, with only over 12 million delivering safely. According to the study, adolescent mothers are twice as likely to experience postpartum depression compared to 25-year-old women and face a higher risk of suicide compared to their counterparts who have never experienced motherhood [2].

Another study conducted in 2016 reported that one in six children aged 10-19 is overweight, with rates at 18% for girls and 19% for boys. Adolescent overweight and obesity have been steadily increasing since 1975 [2].

1.3 ADOLESCENTS HEALTH STATUS IN MONGOLIA

In 2022, the population of Mongolia was projected to reach 3,457.5 thousand, marking an increase of 47.6 thousand individuals or 1.4% compared to the previous year. Adolescents aged 10-19 constitute 16.6% of the total population [4].

In recent years, there has been a noticeable rise in deaths attributed to circulatory system diseases and tumors within the population. In 2022, 6,885 new cases of cancer were registered, with liver cancer accounting for 33.2%, stomach cancer at 17.1%, lung and bronchial cancer at 7.6%, esophagus cancer for 5.0%, and cervical cancer at 4.6%, collectively representing 67.5% of all reported cases. Additionally, in 2022, 26,347 individuals are under cancer monitoring, of which 525 are children aged 0-19 (2.0%) [5].

Scientists have confirmed that behaviors adopted during adolescence significantly contribute to mortality rates in adults. Incidents such as accidents, suicides, violence, and pregnancy-related complications continue to pose significant morbidity and mortality risks among adolescents. For instance, the incidence of different forms of suicide among children aged 10-14 has surged fivefold since 2013. In 2022, suicide claimed the lives of 23.9% of individuals aged 15-19, equating to approximately one in four adolescents [6]. Youth aged 15-24 accounted for 39% of all reported cases of sexually transmitted diseases in 2017 [6]. The results from Youth's health behavior among secondary school children survey 2013 [8]:

Dietary behaviors. Among teenagers, 10.6% are overweight and 1.5% are obese. Only one in five students adhere to consuming fruits and vegetables at least five times a day for a healthy diet. Moreover, 33.6% of students consume carbonated and sugary drinks daily, while the same percentage regularly patronizes fast food restaurants and school cafeterias.

Alcohol and tobacco use. Research indicates that approximately 10% of all students are smokers, and one out of four children has experimented with alcoholic beverages. Within the last month, 8.9% of students have consumed alcoholic beverages.

Sexual behavior. Among all students, 15.3% have engaged in sexual intercourse. This places them at risk of contracting STIs, mainly as the majority did not use condoms during their last sexual encounter and had multiple sexual partners.

Mental health and substance abuse. One in 4 students reported having suicidal thoughts within the past year, while one in 7 students admitted to planning suicide, and one in 10 students has attempted suicide one or more times. Furthermore, one out of 9 students has experimented with drugs, with a higher prevalence observed among male students.

1.4 SURVEY GOAL AND OBJECTIVES

This study aimed to assess the prevalence of non-communicable disease risk factors and health behaviors among students in the educational environment, with the following specific objectives:

1. Assess students' growth and nutritional status within the school setting.
2. Identify the risk and protective factors associated with students' health behavior in the school environment.
3. Generate evidence to inform the development of future policies and decisions to enhance healthy behaviors among students in the school environment and mitigate the risk factors.

1.5 SURVEY NOVELTY

This study significantly contributes to understanding adolescent health behavior by generating quantitative data, mainly focusing on secondary school students, the scope of the issue, and the factors



affecting it. It aims to establish a comprehensive database through rigorous analysis as a foundational source for future intervention strategies. Furthermore, the study lays the groundwork for developing and implementing projects and programs tailored to students, specifically focusing on enhancing the health curriculum within schools. Additionally, it serves as a comparative reference against existing research conducted on adolescents' and students' health in both international settings and neighboring country contexts.

1.6 LITERATURES

Over the past decade, our country has extensively explored children's health, rights, and protection. Key initiatives include:

Global School-Based Health Surveys, 2010 and 2013

Collaborating with the Ministry of Health and the WHO, this survey investigated children's healthy behaviors and safety across Mongolia. It covered ten modules, such as food consumption, exercise, tobacco and alcohol use, peer bullying, violence, and protection of children aged 13-17 [7,8].

Child Abuse Survey, 2014

Conducted by the Metropolitan Department of Child and Family Development, this study examined the prevalence of child abuse—physical, psychological, and sexual—in children aged 11-17 and their parents in the capital city [9].

Current Status of Joint Children's Teams, 2015

This study, a joint effort by the Center for Development Initiatives and Policy Studies and the National University of Mongolia, focused on protecting children from abuse, neglect, and exploitation. It also aimed to strengthen child protection services at government facilities and local units, create laws on the prevention and creation of a legal environment, and enhance the public's understanding of child protection mechanisms [10].

Child Rights and Protection Survey, 2017

This study, conducted by the National Human Rights Commission and "Good Neighbors," an international non-governmental organization, aimed to identify violations of children's rights, underlying causes, the state of child protection, and commonly occurring issues. According to the results, an increasing trend of neglecting children and abusing them under disguise as educating children has become an issue that must be taken into account [11].

Youth Voice-2, 2018

A collaborative effort between Save the Children, youth representatives, and Transparency International, this study explored how educational and family environments and societal factors affect children's justice and personal development [12].

Mongolian Children and Youth Development Survey, 2018

Led by the Ministry of Education and Science of Mongolia, this survey examined the physical, cognitive, and social development characteristics of children and youth aged 2-21, providing valuable insights into each age group [13].

Social Indicators Sample Survey, 2018

Organized by the NSO, the "Child Education" section of the study investigated physical and emotional abuse faced by children aged 1-14 during their growth [14].

Ending Violence and Bullying in the School Environment, 2019

UNESCO's analysis focused on global and regional prevalence, trends, and national responses to bullying and violence in schools across 144 countries [15].

Children's Socio-Psychological Problems Research, 2021

Conducted by UNICEF, this study examined the socio-psychological impact of COVID-19 on children, parents, and teachers. It identified associated risks to psychological well-being [16].

Child Protection System Mapping of Mongolia, 2021

This initiative, implemented jointly by the Department of Family, Child and Youth Development Agency - the Government implementing agency, and World Vision Mongolia, under the “Child Protection Partnership Compact Agreement,” reviewed the legal framework, services, capabilities, cooperation, and mechanisms of child protection services in Mongolia [17].

Adolescent Health Risk Factors and Prevention Issues, 2018-2021

Commissioned by Science and Technology, this study identified prevalent health risk factors among young people. It offered guidelines and recommendations for promoting healthy behavior and disease prevention, informing decision-making processes [18].



CHAPTER 2. SURVEY METHODS

2.1. SURVEY POPULATION AND SCOPE

In this survey, the study population comprised 237,521 students studying in grades 8 to 12 from 773 secondary schools nationwide during the 2022-2023 academic year. The analysis of the study results was nationally representative and reflective of both urban and rural contexts.

2.2. SAMPLE SIZE AND SAMPLING

A total of 3,857 children from 51 secondary schools (26 urban and 25 rural secondary schools) were selected for survey enrollment using a two-stage random sampling method. The school participation rate was 100%, while student participation was 85.9%, resulting in 3,311 participating students.

At the school level, the first-stage sampling was conducted by the Research Sampling Team of the NCD Surveillance, Monitoring and Reporting Unit, WHO, in Geneva. In the first stage, 51 schools across grades 8-12 were selected systematically using a standardized approach, with probability proportional to enrollment size.

At the class level: In the second stage, classes were randomly selected from the chosen schools based on the number of grades, classes, and students. All students in the sampled classrooms were eligible to participate in the survey.

2.3. SURVEY QUESTIONNAIRE

The Mongolian GSHS questionnaire contained 74 questions from 9 groups (Annex 1).

1. Demographic profile
2. Dietary behaviors
3. Hygiene
4. Unintentional injuries and violence
5. Mental health
6. Tobacco use
7. Alcohol use
8. Protective factors
9. Reproductive health

The questionnaire was collaboratively developed by experts from WHO, UNICEF, UNESCO, and the U.S. CDC. Based on the 10-module questionnaire utilized by the WHO GSHS, implemented in 104 countries, the finalized questionnaire was revised to incorporate the country-specific context.

Anthropometric measurements of the students included:

- Body weight
- Height

These measurements were utilized to calculate the physical parameters of the students.

The survey participants' weight was measured using the "TANITA BC-587" electronic scale for **body weight** measurements. This scale, designed for scientific and research purposes, features a lithium battery capable of conducting 100,000 measurements. It can accurately measure weights up to 200 kg with a precision of 100 grams.

The "IN LAB S50" instrument determined the participants' **heights**. This stadiometer can measure heights up to 2 meters, with measurement readings expressed in centimeters and an accuracy of millimeters.

2.4. DATA PROCESSING, WEIGHTING, AND ANALYSIS

The answer sheets collected during the survey were scanned and read for data processing. The data was coded by researchers and experts from the NCD Surveillance, Monitoring and Reporting Unit, WHO in Geneva. To ensure accuracy, the research results were tabulated and compared based on location, gender, class, and age group, following WHO standard guidelines and criteria. Additionally, WHO-developed guidelines for creating “Summary of main research results” and “Compilation of research results” were adhered to. The sample size was determined to yield research results with a 95% probability and a margin of error not exceeding 5%. Some study parameters were computed using statistical software. Given the use of multi-stage cluster sampling, weighting was necessary for the statistical processing to account for the probability of selection at each stage.

A weight has been associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of nonresponse. The weight used for estimation is given by:

$$W = W1 * W2 * f1 * f2 * f3$$

W1 = the inverse of the probability of selecting the school

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

f1 = a school-level nonresponse adjustment factor calculated by school size category. The factor was calculated in terms of school enrollment instead of number of schools.

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

f3 = a post stratification adjustment factor calculated by grade.

The weighted results can be used to make important inferences about the priority health-risk behaviors and protective factors of all students in Grade 8 - Grade 12 in Mongolia.

2.5. TRAINING OF RESEARCHERS AND PILOT STUDY

The research methodology training on the nationwide survey was conducted in two phases. The initial phase, held online on December 16-17, 2022, engaged researchers in collaboration with Laura Kathleen Kann, consultant, NCD Surveillance, Monitoring and Reporting Unit at WHO in Geneva, and the WHO Country Office in Mongolia. Subsequently, from April 10-15, 2023, in-person training was organized on the data collection and data entry according to the approved program. The training encompassed various aspects, including the experiences of school-based health research from other countries, organizing the survey in selected schools, sampling techniques, questionnaire administration, answer sheet verification, and anthropometric measurements of students’ body weight and height. Ethical considerations for researchers, team leaders, member rights, and responsibilities were also addressed. All researchers received comprehensive training on the standardized methodology for research implementation, their roles, and other research-related tasks. A 5-day pilot study was conducted at schools No. 23 and No. 155 in the capital city and the secondary school of Bayanchandmani Soum in Tuv province to validate the method.

2.6. DATA COLLECTION

The survey was conducted nationwide between April 17 and May 13, 2023, at the selected schools in provinces and districts in the city. The research team comprised 16 members divided into four teams, each led by a team leader and supported by three main researchers. These teams collaborated with local assistant experts to collect the data. Parents and guardians of randomly selected students were informed about the study in advance with the assistance of schoolteachers and social workers. Given the voluntary nature of participation, parents and guardians signed the informed consent form and provided consent to enroll their children in the study. Data collection involved administering questionnaires and conducting anthropometric measurements on students who presented consent to participate. Survey coordinators



and consultants provided oversight and guidance to the research teams throughout the data collection process to ensure protocol adherence and data quality.

2.7. ETHICAL CONSIDERATIONS

The Scientific Council at the NCPH reviewed and approved the survey protocol and methodology on December 13, 2022. The Medical Ethical Committee at the MOH reviewed the survey materials and granted permission to start the survey on March 27, 2023. Additionally, the Standing Committee for Methodology and Chairman's Council at the NSO approved the research concept, questionnaire, instructions for completion, and sampling design by the official letter No. 01/278 dated April 4, 2023.

2.8. INCLUSION AND EXCLUSION CRITERIA

All students in grades 8-12 randomly selected from designated schools were considered eligible for participation in the survey. From those chosen randomly, students whose parents or guardians provided informed consent for their participation were recruited. Students who had their parents or guardians declined participation or students themselves refused to participate in the study, students who lacked proficiency in reading and understanding the Mongolian language, and students who presented with intellectual disabilities were excluded.

2.9. SURVEY LIMITATIONS

The survey recruited only secondary school students from grades 8 to 12 studying during the day. Evening classes or distance learning students were not eligible to participate.

The survey results could not compare public and private schools due to the insufficient class sizes of private school students.

CHAPTER 3. SURVEY RESULTS

3.1. DEMOGRAPHIC PROFILE

A total of 3,311 students in grades 8-12 participated in the study across 26 urban and 25 rural public and private secondary schools, with 47.9% male and 52.1% female (Table 1).

Table 1. Percentage of survey participants by age and gender

Age group	Total		Male		Female	
	n	%	n	%	n	%
Total	3311	100	1514	47.9	1774	52.1
12 and younger	34	0.8	9	0.5	18	0.7
13-15	2134	60.5	997	62.2	1126	59.0
16-17	952	31.6	437	31.5	514	32.1
18 and older	182	7.0	67	5.8	114	8.3
13-17	3086	92.1	1434	93.7	1640	91.1

The gender distribution among the students participating in the study closely mirrors previous research findings, with 47.5% being male in 2010, 48.3% in 2013, and 47.9% in 2023.

Regarding age and grade level, most participants fall within the 13-15 age group, comprising 60.5% of the total, while 8th to 10th graders represent 71.8% of the sample (Table 2).

Table 2. Percentage of students by gender and grades

Grades	Total		Male		Female	
	n	%	n	%	n	%
Total	3311	100	1514	47.9	1774	52.1
8th	1101	27.3	534	28.9	556	25.6
9th	741	25.2	359	26.6	387	23.9
10th	723	19.3	306	18.5	415	20.2
11th	417	15.1	184	14.3	231	15.7
12th	310	13.1	122	11.7	187	14.5

Risk factors for non-communicable diseases among students

The risk factors associated with non-communicable diseases among students encompass a range of 23 indicators, including:

Dietary behaviors

- Underweight
- Overweight
- Obese
- Consumption of one or more sugary beverages daily within the past seven days

Hygiene

- Do not brush the teeth at all, or brushing once or less a day
- Do not wash hands or rare handwashing after using the restroom

Unintentional injuries and violence

- Accidents and injuries
- Engaging in physical fights
- Exposure to violence in the school environment



- Cyberbullying instances

Mental health

- Lack of close friends
- Thoughts of suicide
- One or more suicide attempts

Tobacco use

- Smoked at least one day within the last 30 days
- Tried smoking
- Smoked e-cigarettes at least one day within the last 30 days

Alcohol use

- Consumption of "ONE DRINK" of alcoholic beverages on at least one day within the past 30 days
- Drunken state one or more times

Reproductive health

- Engagement in sexual intercourse
- Use of condoms during the most recent sexual intercourse

Protective factors

- Unexcused absences from school for one or more days
- Lack of understanding and support from parents or guardians regarding their children's issues
- Lack of parental attention on their children's leisure activities

3.2. DIETARY BEHAVIORS

Due to an imbalance between the calorie intake from food and calorie burn, individuals experience weight gain, leading to overweight and obese conditions. A significant contributor to this global phenomenon is the rising consumption of low-nutrient, unhealthy, calorie-dense foods high in fat, sugar, and salt across all age groups. Studies indicate that obesity caused by excessive caloric intake detrimentally impacts both the physical and mental development of adolescents while also elevating the risk of cardiovascular diseases, diabetes, liver and gall bladder disorders, and certain types of cancers [9]. Among school-age children, one prominent factor driving overweight and obesity is the consumption of junk food, including carbonated beverages, sugary snacks, cakes, cookies, pastries, and savory snacks.

Nutritional deficiencies, characterized by inadequate protein, calories, and essential vitamins such as A, D, and iron, can similarly impair children's health and learning capabilities, akin to the effects of obesity [3]. Hence, it is imperative to promote the regular consumption of nutrient-rich foods such as vegetables and fruits, which serve as vital sources of essential vitamins and minerals, to mitigate the risk of non-communicable diseases [7].

In this survey, students were asked about their dietary habits over the past week, including their intake of fruits, vegetables, fast food, carbonated beverages, sugary drinks, breakfast intake, and occasions when students felt hungry due to inadequate food at home.

3.2.1. Underweight, overweight, and obese

The students' weight and height were measured to assess physical growth and Body Mass Index (BMI), and they were determined to be underweight, overweight, or obese using the WHO growth chart. Results showed that 3.2% of all students were underweight, 14.6% were overweight, and 3.0% were obese.

Among boys, 4.2% were underweight, and 2.3% for girls. While there were differences in the proportions of underweight, overweight, and obese students based on gender, age, and location, no statistically significant differences were observed. (Table 3).

Table 3. Percentage of underweight, overweight, and obese students by gender and location

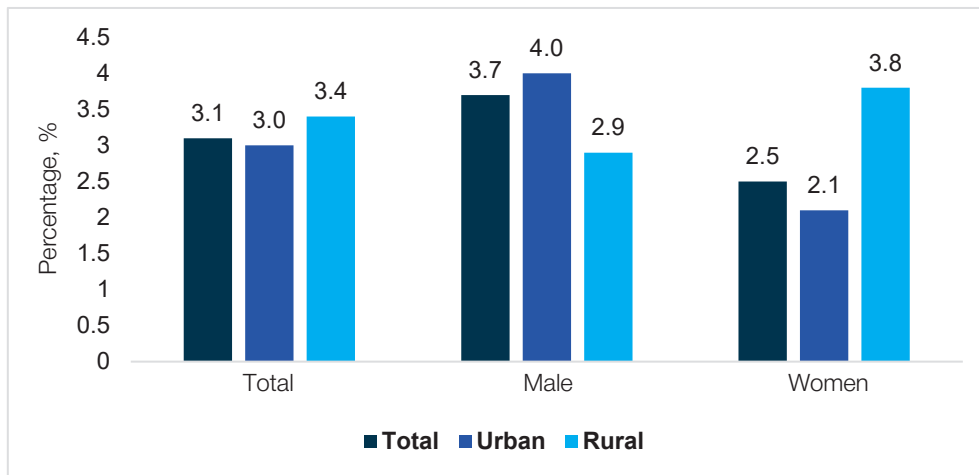
Indicator	Underweight		Overweight		Obese	
	%	95%CI	%	95%CI	%	95%CI
Gender						
Male	4.2	3.0-5.9	13.3	10.2-17.1	3.6	2.3-5.5
Female	2.3	1.5-3.6	15.7	13.3-18.5	2.5	1.7-3.6
Location						
Urban	3.1	2.3-4.0	14.5	11.3-18.5	3.0	2.0-4.5
Rural	3.8	1.5-9.6	15.0	12.5-18.0	3.1	1.9-5.0

3.2.2. Food consumption

The dietary patterns of the students were determined by their intake of fruits, vegetables, carbonated and sugary drinks in the past week.

Approximately 3.1% (95%CI 2.1-4.5) of all students reported experiencing hunger last month due to insufficient food at home. When comparing this measure across different locations, no statistically significant difference was observed between urban and rural areas (Figure 1).

Figure 1. Percentage of students who were hungry due to insufficient food at home in the past 30 days by gender and location



In the past week, 32.0% of all students did not consume fruit, whereas 89.0% had fruit at least once (Table 4).

Table 4. Fruit consumption by gender (past seven days)

Indicator	Total		Male		Female	
	%	95%CI	%	95%CI	%	95%CI
Did not eat	32.0	29.9-34.1	30.2	28.0-32.4	33.6	30.7-36.7
One or fewer times per day	89.0	87.2-90.6	89.7	87.3-91.7	88.5	85.9-90.7
Two or more times per day	6.4	5.4-7.6	5.3	4.1-6.9	7.3	6.2-8.7
Three or more times per day	3.0	2.3-3.9	2.4	1.6-3.6	3.5	2.8-4.5

Urban students were more likely to eat fruit two or more times a day (6.4%, 95% CI 5.4-7.6) and three or more times a day (3.0%, 95% CI 2.3-3.9) in the past week. However, in terms of gender, female students consumed more fruit than male students, and a decreasing trend in fruit intake was observed as students progressed through grades (Annex 1).

About 2.9% (95%CI 2.1-3.9) of students did not consume vegetables in the past week (Table 5), which increased with grade among rural students (5.7%, 95%CI 4.8-6.7) (Annex1). The study's findings also indicate that urban students consume more vegetables.

Table 5. Vegetable consumption by gender (past seven days)

Indicator	Total		Male		Female	
	%	95%CI	%	95%CI	%	95%CI
Did not eat	2.9	2.1-3.9	2.2	1.6-3.2	3.4	2.4-4.9
One or fewer times per day	40.2	36.4-44.0	39.0	34.2-44.0	41.1	37.2-45.1
Two or more times per day	36.3	32.8-40.0	39.2	35.5-43.0	33.7	29.0-38.7
Three or more times per day	13.8	12.4-15.3	16.8	14.8-19.0	11.0	8.9-13.3

Among all students, 29.1% (95%CI 25.7-32.8) refrained from consuming carbonated soft drinks in the past week, while 87.3% (95%CI 85.1-89.3) had it no more than once a day (Table 6).

Table 6. Carbonated soft drinks consumption by gender (past seven days)

Indicator	Total		Male		Female	
	%	95%CI	%	95%CI	%	95%CI
Did not drink	29.1	25.7-28.8	24.5	20.7-28.8	33.4	29.4-37.5
Less than one time per day	87.3	85.1-9.3	87.9	85.7-89.8	87.0	83.5-89.8
One or more times per day	12.7	10.8-14.9	12.1	10.2- 14.3	13.0	10.2-16.5
Three or more times per day	2.1	1.6-2.8	1.8	1.2-2.8	2.2	1.6-3.1

No differences were observed by location or gender for students who drank one or more carbonated soft drinks (Annex 1). However, the proportion of students who consumed carbonated soft drinks three or more times in the past week decreased as students progressed through grades.

Furthermore, 31.1% (95%CI 27.9-34.6) of all students did not consume sugar-sweetened drinks in the past week. This figure was 11.1 percentage points higher among students in rural areas (39.5%, 95%CI 34.7-44.4) compared to urban areas (Table 7).

Table 7. Sugar-sweetened drinks consumption by gender (past seven days)

Indicator	Total		Male		Female	
	%	95%CI	%	95%CI	%	95%CI
Did not drink	31.1	27.9-34.6	29.6	25.1-34.6	32.6	28.8-36.7
Less than one time per day	89.9	87.8-91.6	91.5	89.1-93.5	88.6	85.5-91.1
One or more times per day	10.1	8.4-12.2	8.5	6.5-10.9	11.4	8.9-14.5
Three or more times per day	1.8	1.3-2.4	1.6	0.9-2.8	1.7	1.1-2.7

The percentage of female students who consumed sugar-sweetened drinks one or more times in the past week was 2.9 percent higher than that of male students. As the grades progressed, sugar-sweetened drinks consumption declined among rural students, while no significant decrease was observed among urban students. In addition, there were no significant differences in the consumption of sugar-sweetened drinks three or more times a day based on gender or location (Annex 1).

3.2.3. Discussion

Overweight and obesity among adolescents worldwide pose significant public health challenges. According to the WHO, over 340 million children aged 5-19 are affected, with a prevalence rate of 18.0% [21]. Specifically, 18.0% of female children and 19.0% of male children are overweight, while 6.0% of female children and 8.0% of male children are obese [2].

In our country, the prevalence of overweight and obesity among teenagers has been on the rise. A survey conducted in 2013 revealed that 10.6% of all students were overweight, and 1.5% were obese. However, in the latest study conducted in 2023, these figures increased by 4.0% and 1.5%, respectively [8]. These findings underscore the urgent need for large-scale interventions to address overweight and obesity among adolescents.

The prevalence of overweight among 13-15-year-old students in our country (14.6%) aligns with findings from WHO research in other countries of the Western Pacific region, such as Laos (11.6%), Indonesia (15.3%) and Vanuatu (14.9%) [2]. Inadequate consumption of fruits and vegetables is identified as a primary risk factor for chronic kidney disease [20]. Unfortunately, youth in our country fail to meet the recommended dietary intake of fruits and vegetables, particularly in rural areas where limited variety, poor availability, and high cost hinder consumption.

No differences were observed in students' consumption of carbonated drinks based on location and gender (Annex 1). However, a positive trend indicated that consumption decreased as students progressed through grades.

3.2.4. Conclusions:

1. About 14.6% of the students are overweight, and 3.0% are obese. This marks an increase from the 2013 survey, with no gender differences.
2. Urban students had higher consumption of fruit and vegetables.
3. Past seven day, 27.0% of students did not consumed carbonated soft drink in urban areas, and 35.8% in rural, while 28.4% of students did not drink sugar-sweetened drink in urban area and 39.5% in rural areas.

3.3. HYGIENE

Adequate water, sanitation, and hygiene services are critical indicators of children's education rights in a healthy and safe environment. Lack of access to water, sanitation, and hygiene facilities in the school environment has reduced school attendance and students' academic achievement [22]. Children who learn safe water, sanitation, and good hygiene practices in school develop lifelong positive behaviors in their homes and communities. Research has found that more than 802 million children worldwide do not have access to hand hygiene at school, and 42% of primary schools and 40% of secondary schools are not provided with essential hand hygiene services [23].

Poor oral health can affect overall health and quality of life. It also affects students' learning ability and cognition and lowers their self-confidence and self-esteem. Regular brushing during adolescence is maintained into adulthood and protects against risk factors for cardiovascular disease and metabolic syndrome. Globally, 5-10% of adolescents in low—and middle-income countries rarely or never brush their teeth [24].

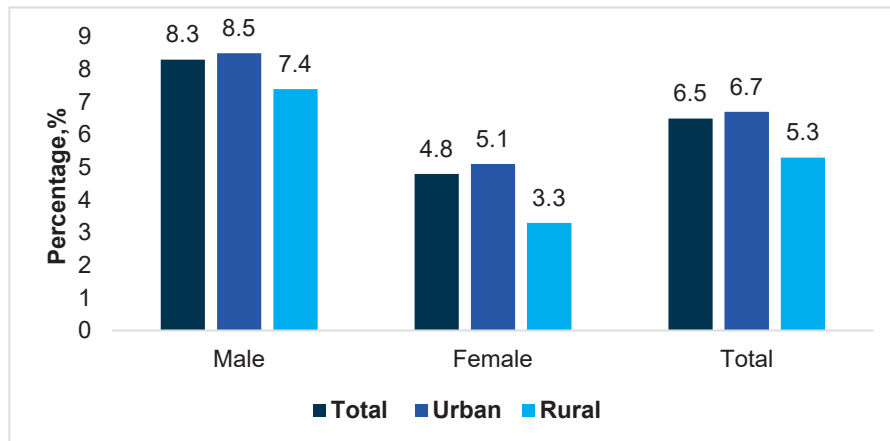
A study conducted in China in 2015-2016 found that 32.6% of 12-15-year-old students brush their teeth twice a day, 7.4% use fluoride toothpaste, and 15-year-old girls have more positive tooth brushing habits [25].

3.3.1. Dental care

Among all students, 6.5% (95% CI 5.1-8.1) reported not brushing their teeth at all or less than once a day in the last month (Figure 2). This habit tends to decrease as students advance through grades.



Figure 2. Percentage of students who usually cleaned or brushed their teeth less than one time per day, by gender and location (past 30 days)



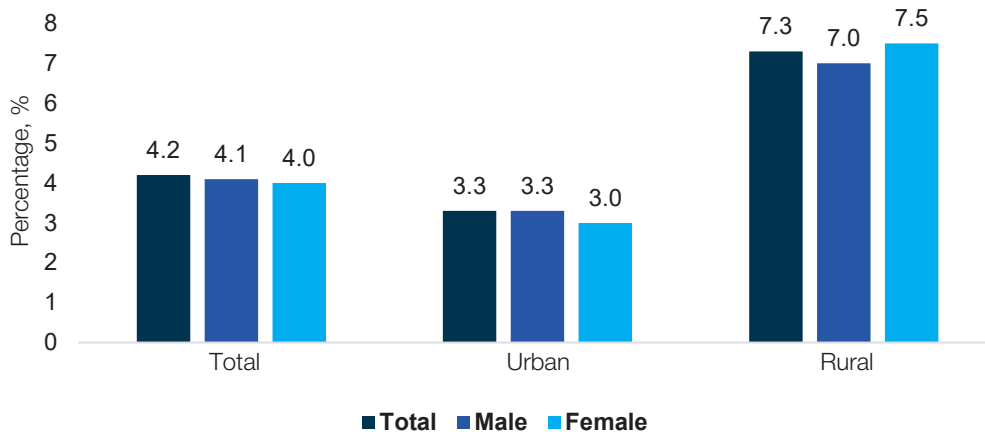
Of the students, 34.0% (95% CI 30.0-38.3) used fluoridated toothpaste while brushing their teeth, with no observed difference between urban and rural areas.

Regarding school absenteeism due to oral health conditions in the last month, 8.0% (95% CI, 6.3-10.0) of students were affected. It was 7.7% (95% CI, 5.6-10.5) in urban areas and 8.9% (95% CI, 5.6-10.5) in rural areas, with no significant gender differences observed. Additionally, there was a 2% increase in absenteeism among 16-17-year-old students compared to those aged 13-15 (7.0-11.1%).

3.3.2. Handwashing practices

Among the students, 4.2% (95% CI, 3.1-5.7) never or rarely washed their hands after using the toilet or restroom in the last month (Figure 3). The improper handwashing practice tends to decrease as students progress through grades and is 4% more prevalent in rural areas than urban areas.

Figure 3. Percentage of students who had improper handwashing practices by location (past 30 days)



This figure is higher for students aged 13-15 years (4.7%, 95%CI, 3.5-6.3) than for the 16-17 age group (3.3%, 95%CI, 1.8-6.1). However, no statistical difference was observed for gender.

On the other hand, 4.0% (95%CI, 2.8-5.8) of students never or rarely used soap to wash their hands in the last month. Notably, this practice was more common among male students at 4.4% (95%CI, 2.9-6.7) and in rural areas at 5.9% (95%CI, 3.8-9.1).

3.3.3. Discussion

Lack of adequate water and sanitation facilities in the educational environment leads to poor hygiene practices, increased absenteeism, and heightened risks of bacterial and parasitic infections [22].

Comparing the results of the 2013 survey with those of 2023, the percentage of students who did not brush their teeth at all or brushed less than once a day has increased, rising from 5.3% to 6.5% [8]. Male students have a bad habit of not brushing their teeth.

In the previous study, 7.7% of students reported never or rarely washing their hands before eating in the last month [8]. This figure decreased to 5.7% (95%CI, 4.7-6.9) in the 2023 study.

Although handwashing practices before eating and after using the bathroom improved in the recent study, no significant difference was observed in the use of soap during handwashing.

In a 2015 study conducted in Laos, 97.7% of students reported positive tooth-brushing habits once or more daily in the past month. However, in a 2023 study, this figure declined to 93.5% [26].

When comparing handwashing practices after using the toilet across various countries in the Western Pacific region of WHO, including Laos (3.4%), Indonesia (2.3%), Samoa (6.3%), and Niue (3.4%), observed to be similar in our country (4.2%, 95% CI 3.1-5.7%) [26, 27, 28, 32].

Despite the implementation of water, sanitation, and hygiene standards in kindergartens, secondary schools, and dormitories since 2015, students' oral hygiene and handwashing practices have not significantly improved. Establishing proper environments for handwashing in secondary schools and enhancing students' knowledge, attitudes, and good hygiene practices is crucial.

3.3.4. Conclusions

1. About 93.5% (95%CI, 91.9-94.9) of students maintain the proper habit of brushing their teeth once or more daily. This percentage is higher among the 16-17 age group, particularly among female students.
2. Over 4.2% (95%CI, 3.1-5.7) of students never or rarely washed their hands after using the toilet. Similarly, 4.0% (95%CI, 2.8-5.8) of students reported not using soap when washing their hands. Notably, this practice was more common among rural students.

3.4. UNINTENTIONAL INJURIES AND VIOLENCE

According to WHO 2021 data, approximately 4.4 million people die from injury each year, representing roughly 8% of all deaths [29].

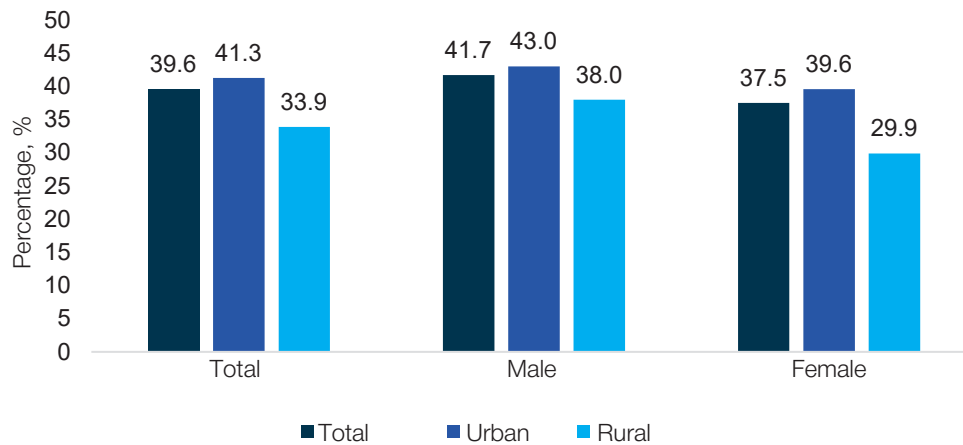
In Mongolia, injuries among children aged 0-18 are reported to be approximately 35% of all injuries. Among these, 62.1% involve male children and 37.9% female children [30]. When comparing the incidence of injuries by gender, male children are 1.8 times more likely to sustain injuries than female children. Over the past five years, Mongolia has recorded 244,987 injury cases among children aged 0-18, with falls accounting for 47.6%, inanimate mechanical forces for 15.3%, traffic accidents for 10.1%, animate mechanical forces for 9.7% and burns for 8% [30].

3.4.1. Injuries

In the last year, 39.6% of all students (95%CI 36.4-42.8) sustained injury, with a higher prevalence among male students at 41.7% (95%CI 37.6-45.9) (Figure 4). Interestingly, no statistical differences were observed by age group (Annex 1).



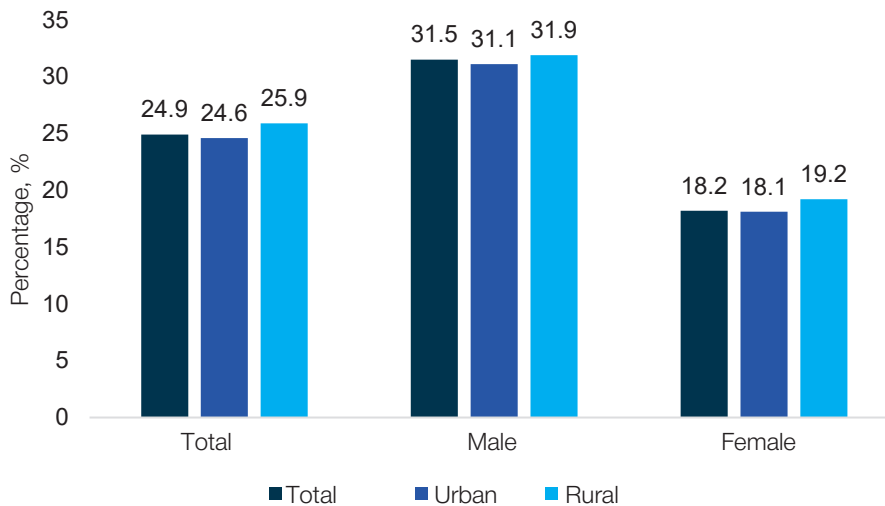
Figure 4. Percentage of students who were injured by location and gender (past 12 months)



The incidence of injury was higher in urban areas (41.3%, 95%CI, 37.1-45.6) compared to rural areas (33.9%, 95%CI, 29.5-38.7), although this difference did not present statistical significance.

Approximately 24.9% (95%CI 20.6-29.7) of all students sustained serious injuries such as broken bones, dislocated joints, and broken teeth. Notably, this figure was higher among male students at 31.5% (95%CI, 25.7-38.0) (Figure 5).

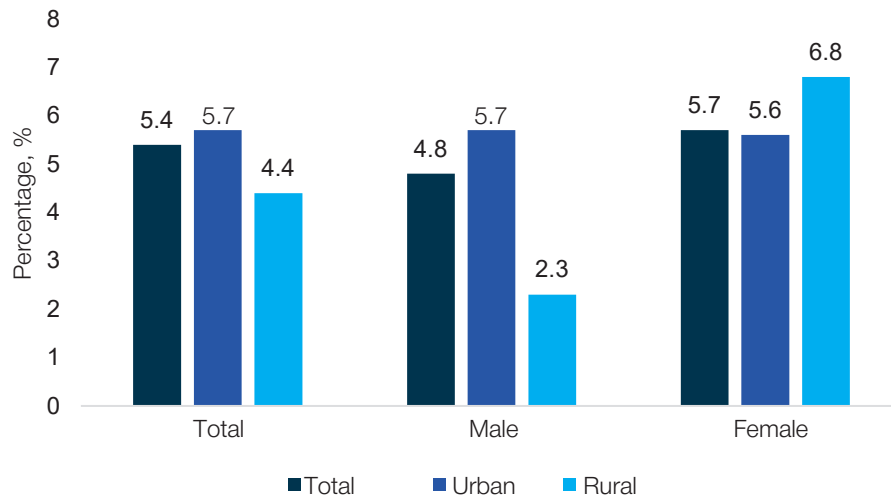
Figure 5. Percentage of serious injuries among students by location and gender



Irrespective of urban or rural areas, the proportion of male students who sustained an injury in the last year was higher than female students.

About 5.4% (95% CI, 3.9-7.4) of students reported being injured due to road traffic, particularly being hit by a vehicle in the last year, marking a decrease from the findings of the 2013 survey (Figure 6).

Figure 6. Percentage of students who were involved in road traffic accident by location and gender (past 12 months)

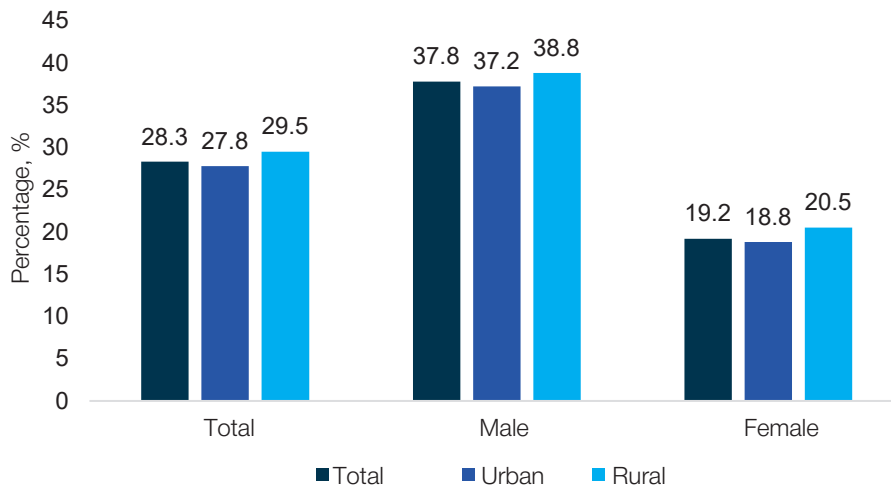


The percentage of students who were involved in road traffic accident was higher for male in urban and female in rural. This number was higher among 16-17 years female respondents. (Annex 1)

3.4.2. Violence

Among the students, 23.3% (95%CI, 21.2-25.6) reported being physically attacked by others in the last year, with a higher percentage among male students. No statistically significant differences were observed between urban and rural students.

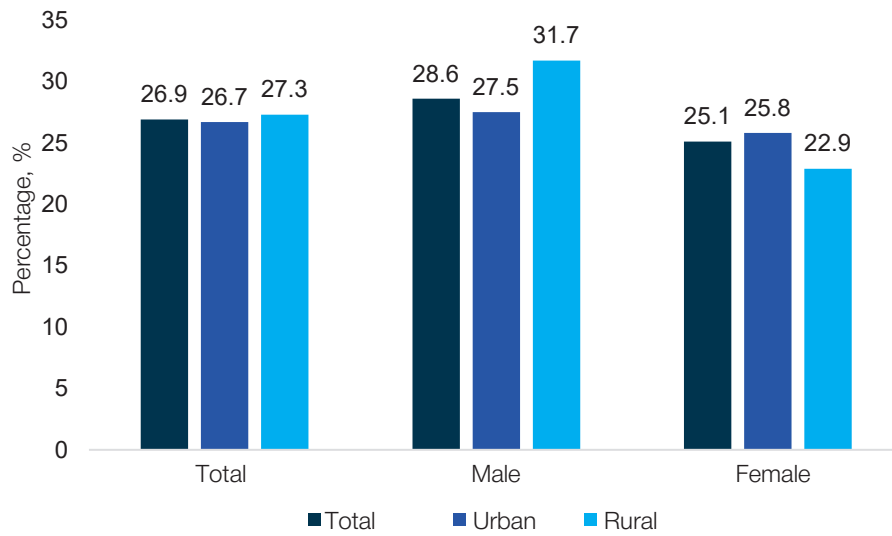
Figure 7. Percentage of students who were in a physical fight by location and gender (past 12 months)



Involvement of physical fights accounts for 28.3% (95%CI, 26.1-30.6) of all students, with a higher percentage among male students (37.8%, 95%CI, 35.0-40.7) compared to female students (19.2%, 95%CI, 16.8-21.9). This trend decreases as students progress through grades. In terms of location, both urban (37.2%, 95%CI, 33.1-41.5) and rural (38.8%, 95%CI, 34.8-42.8) male students engage in more fights, although no statistically significant difference was observed (Figure 7).

In the past month, 26.9% (95%CI, 25.2-28.6) of all students experienced bullying in the school environment, while 17.4% (95%CI, 15.5-19.5) encountered bullying outside of school settings (Figure 8).

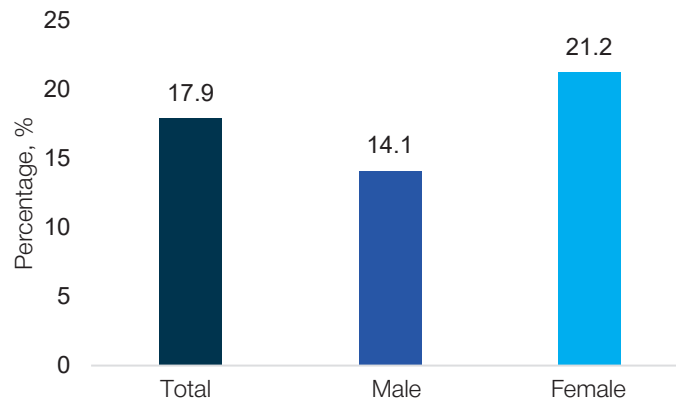
Figure 8. Percentage of students who were bullied at school by location and gender (past 30 days)



The incidence of bullying is similar in both urban and rural areas, with male students aged 13-15 years being more affected (Annex 1).

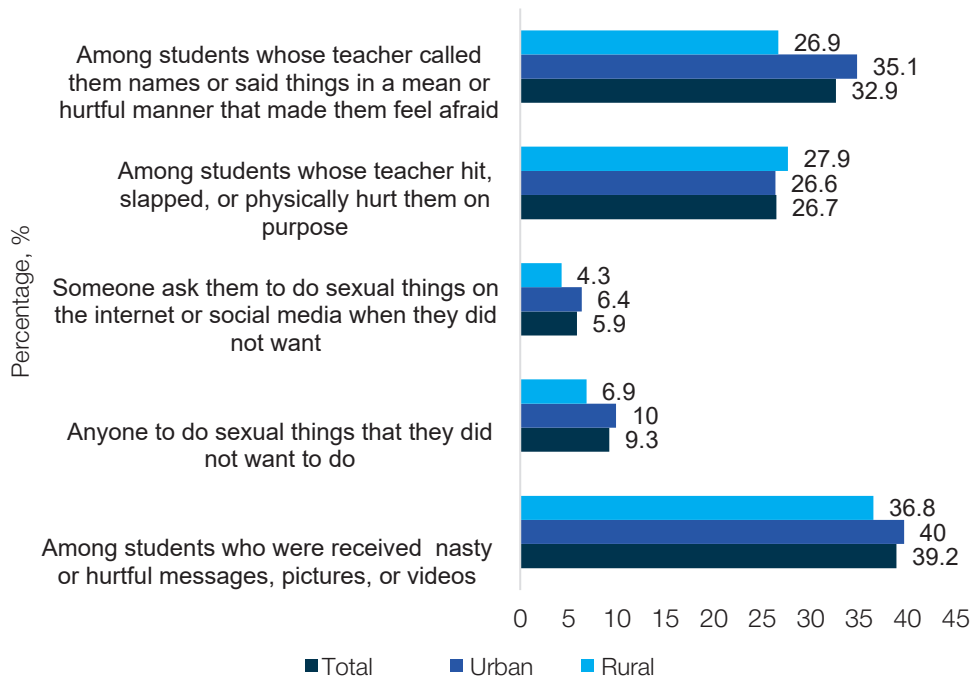
In the last year, 17.9% (95%CI, 16.5-19.3) of all students experienced cyberbullying. Among them, 14.1% (95%CI, 12.3-16.0) were male, while 21.3% (95%CI, 19.2-23.6) were female (Figure 9).

Figure 9. Percentage of students who were cyberbullied by gender (past 12 months)



The incidence of cyberbullying is 18.5% (95%CI, 16.7-20.4) in urban areas and 15.6% (95%CI, 13.3-18.3) in rural areas, with female students being more affected irrespective of location (Annex 1).

Figure 10. Percentage of students who were bullied face-to-face by type (past 12 months)



Regarding the type of cyberbullying, 39.2% (95%CI, 34.4-44.3) of students received obscene pictures or videos, while 5.9% (95%CI, 4.8-7.3) were coerced into engaging in sexually related activities on social media platforms (Figure 10).

Over 26.7% (95% CI, 23.5-30.1) of students experienced physical punishment from their teachers in the last year, including actions such as slapping, kicking, or hitting, while 32.9% (95%CI, 29.6-36.4) were subjected to intimidation, embarrassment, verbal insults, name-calling, or scolding. Male students aged 16-17, regardless of their location, were more affected by both forms of mistreatment (Figure 10).

Among all 16-17 years old male were more physically attacked than female (Annex 1).

3.4.3. Discussion

In the last year, 39.6% of the students sustained an injury, marking a 3.3% increase compared to the 2013 research findings (36.3%) [8]. This indicates that 4 out of 10 students are still getting injured. Compared to international studies, the incidence of accidents among students in our country over the past year is roughly half that of Cook Island and Indonesia [27].

According to our survey, 23.3% of students engaged in physical fights with others, with a higher percentage among male students (25.3%) than female students.

A study conducted in Indonesia found that 24.6% (95%CI, 22.5-26.8) of students were involved in physical fights in the last year, of which 35.9% (95%CI, 32.9-39.0) were male students [27]. Comparable figures were observed in Vanuatu (59.1%), Fiji (46.7%), the Philippines (43.7%), and Niue (48.2%). Compared to regional studies, the percentage of students involved in physical fights once or more in the last year is similar to other countries [31,32,40,41].

Furthermore, 26.7% (95%CI, 25.2-28.6) of all students experienced violence, which indicated a slight decrease of 1.4% from the 2013 survey. The incidence of cyberbullying is 18.5%, with varying percentages observed in other countries worldwide (Table 8).

Table 8. Percentage of students who were injured, physical fights and bullied at school, comparison of some countries in the Western Pacific region [33]

Some countries in the Western Pacific region	Physical fights one or more times last year among students by %	Accidents/injuries happened one or more times last year among students by %	Bullies one or more days last month %
Republic of Vanuatu, 2016	40.2	59.1	50.4
Philippines, 2019	31.0	43.7	40.7
Niue, 2019	35.4	48.2	36.3
Laos, 2015	7.6	16.8	11.8
Indonesia, 2015	22.6	29.4	20.6
Fiji Islands, 2016	32.8	46.7	27
Cook Islands, 2015	27.4	52.1	26.8
Mongolia, 2023	28.5	39.8	26.0

Over 9.3% of students reported being coerced into performing sexual acts. In addition, female students had a high percentage of inappropriate behavior on social media, indicating a concerning issue that requires further attention.

The findings reveal that 26.7% of students experienced punishment from their teachers, while 32.9% faced harassment. These statistics underscore the importance of measures to improve the relationship and attitude between teachers and students.

3.4.4. Conclusions:

1. In the last year, 23.3% of all students experienced physical attacks from others. Specifically, 25.3% (95%CI, 22.4-28.4) of male students and 21.5% (95%CI, 18.9-24.5) of female students were subjected to physical violence. Notably, this percentage tends to be higher among younger age groups.
2. Four out of ten students have been involved in an accident, with male students being more affected. Accidents commonly result in bone fractures and head and neck injuries, primarily due to falls.
3. The incidence of cyberbullying among students was 17.7% (95%CI, 16.4-19.0), and primarily female students are more affected than male students
4. Approximately two to three out of ten students experience punishment and pressure from teachers.

3.5. MENTAL HEALTH

One out of every six individuals in the global population falls within the 10-19 age group, signifying adolescence a crucial period in human development. Adolescents are particularly susceptible to mental health issues due to various negative factors like poverty, conflict, and violence. Safeguarding adolescents from these adversities, promoting social-emotional education, and ensuring accessible mental health care are critical for their well-being and future adult health. Psychological trauma experienced during youth can impede healthy development and socialization.

Data indicates that globally, 14% of children and adolescents equivalent to one in seven children encounter mental and physical health challenges. A study in the United States revealed that 56% of children aged 4 to 17 require mental health support.

In Mongolia, a study aimed at understanding teenagers' needs revealed that 25.7% of adolescents experience feelings of loneliness and depression. Adolescents with mental health issues are susceptible to social isolation, discrimination, stigma, educational setbacks, health risks, loss of physical well-being, and violations of their human rights [34].

3.5.1. Some mental health problems among students

In this section, various mental health issues, such as loneliness, insomnia, stress, and anxiety management, as well as suicidal thoughts, plans, or attempts, were investigated.

About 24.3% of students (95%CI, 22.2-26.4) often felt lonely. The loneliness among female students is nearly twice that of male students. By location, the rate was 18.1% (95%CI, 15.6 - 21.0) in rural areas and 26.1% (95%CI, 23.5 - 28.9) in urban areas.

Among all students, 12.5% (95%CI, 10.8 - 14.5) experienced insomnia due to worrying about something, with twice as high rates among female students (16.4%, 95%CI, 14.0 - 19.1) compared to male students.

Over the past year, 39.0% (95%CI, 36.3-41.8) of students had seriously considered attempting suicide, 22.2% (95%CI, 20.0-24.6) had made plans to attempt suicide, and 15.8% (95%CI, 13.8 -18.0) attempted suicide.

More female students (9.9%, 95% CI, 7.7-12.5) reported not having a close friend than male students (6.6%, 95% CI, 5.3-8.2).

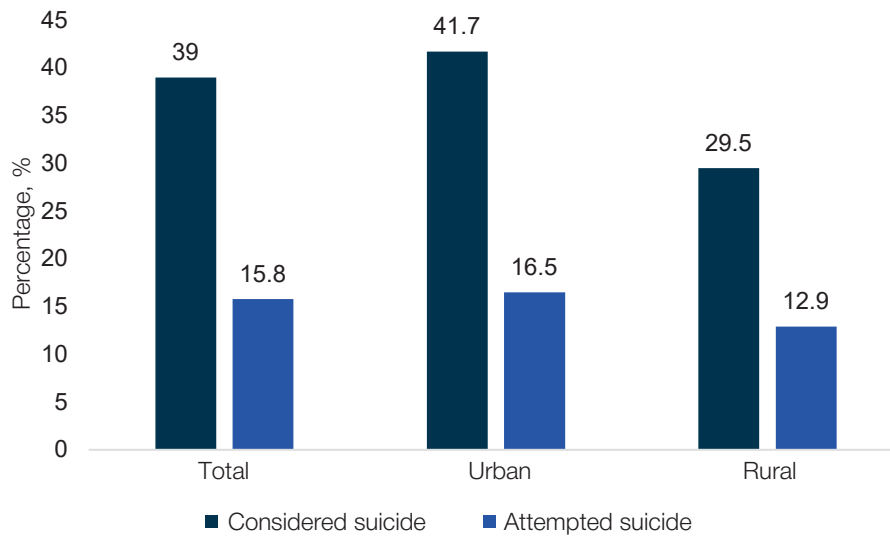
Over 46.4% of all students participated in classes and training on stress and anger management since the beginning of the school year (Table 9).

Table 9. Students' mental health by gender (past 12 months)

Indicator	Total		Male		Female	
	%	95%CI	%	95%CI	%	95%CI
Have no close friends	8.2	6.8 - 10.0	6.6	5.3 - 8.2	9.9	7.7 - 12.5
Always felt lonely	24.3	22.2 - 26.4	16.8	14.3 - 19.6	31.5	28.6 - 34.5
So worried that he/she could not fall asleep at night	12.5	10.8 - 14.5	8.5	6.7 - 10.8	16.4	14.0 - 19.1
Attended classes and trainings on stress and anger management since the beginning of the school year	46.1	42.1 - 50.1	42.5	38.6 - 46.5	49.6	44.5 - 54.7
Seriously considered attempting suicide	39.0	36.3 - 41.8	28.3	24.6 - 32.3	49.1	45.1 - 53.2
Made a plan to attempt suicide	22.2	20.0 - 24.6	16.1	13.9 - 18.6	27.9	24.8 - 31.3
Had one or more attempts of suicide	15.7	13.8 - 17.9	10.2	8.1 - 12.8	20.6	17.8 - 23.5

When comparing students who had suicidal thoughts, 41.7% (95%CI, 38.0-45.4) were from urban areas, whereas 29.5% (95%CI, 26.2-33.1) were from rural areas. When looking at this indicator by age group and gender, the highest rate was among female students aged 13-15, reaching 49.4% (95%CI, 44.1-54.7) (Figure 11).

Figure 11. Percentage of students who were seriously considered attempting suicide and attempted suicide by location (past 12 months)



3.5.2. Discussion

Adolescents are often faced with mental health challenges regarding their age, emotions, behavior, and learning [34].

The percentage of students experiencing loneliness has almost doubled to 24.3% compared to the study results in 2013 (11.9%), and the proportion of those unable to sleep due to worry has also doubled to 12.9% [8].

In comparison to previous surveys in 2010 and 2013, the rates of suicidal thoughts, plans, and attempts have notably increased. For instance, while the 2010 study reported 19.3% of students having suicidal thoughts, 12.4% planning suicide, and 8.6% attempting suicide, these figures doubled to 38.9%, 22.0%, and 15.7%, respectively, in this study [7, 8].

Additionally, the proportion of students without close friends has increased, accounting for 7.9% of all students, which marks a rise from previous research conducted in 2010 and 2013.

Since the start of the school year, students who received classes or training on managing stress and anxiety have shown improvement, with participation increasing from 38.0% in 2010 and 35.3% in 2013 to 46.4% in 2023 [7,8].

A 2015 study in Indonesia reported that 5.1% attempted suicide, while Laos had 5.9%, Samoa had 22.3%, and Niue had 10.8%, as per WHO data [26,27,28,32]. In comparison, our country reported 15.7% of attempted suicides, three times higher than Indonesia and Laos and lower than Samoa [26,27,28].

Despite integrating health education into secondary school curricula since 2018, the study reveals a rise in negative health indicators. This underscores the need to reassess and improve the health curriculum and implement effective strategies for adolescent health, particularly mental health.

3.5.3. Conclusions:

1. One in four students experiences frequent loneliness, with females being more affected.
2. One in three students has seriously considered suicide, one in five has made plans to attempt suicide, and one in seven have tried it. These rates are higher among female students, with a significant difference.
3. Despite the prevalence of psychological issues among students, half of them have attended classes and training on managing stress, anger, and coping strategies.

3.6. TOBACCO USE

Around 1.3 billion individuals worldwide smoke, with this number growing annually, particularly in low- and middle-income countries where 80% of smokers reside. Every year, smoking causes 8 million deaths globally, with approximately 1.3 million non-smokers dying from exposure to second-hand smoke [35]. This widespread use of tobacco poses a significant public health challenge in the world. The global pattern of smoking and tobacco consumption in various forms among children and teenagers is on the rise, urging us to the importance of addressing this issue.

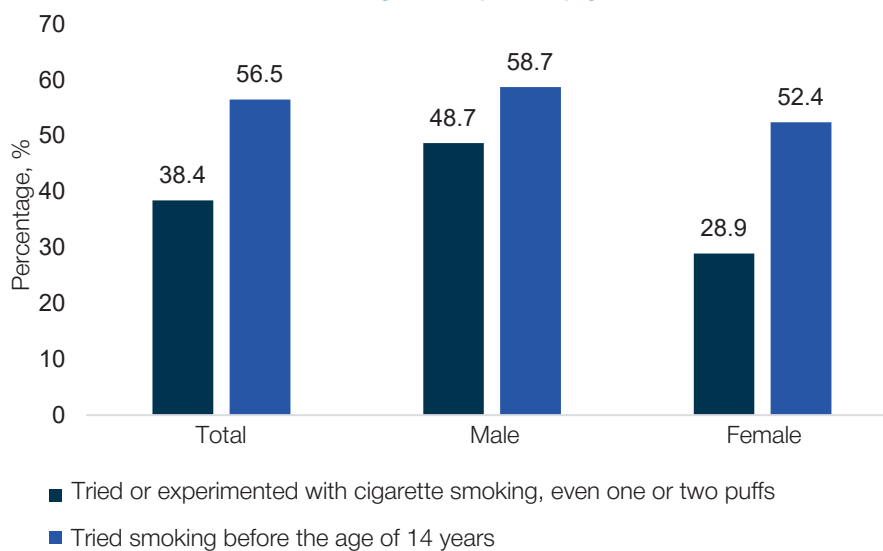
Smoking during adolescence not only severely impacts health but also increases the risk of chronic diseases. Research indicates that parental smoking habits can influence children and adolescents to smoke.

In 2023, the US CDC survey reported that 10.0% of high school students and 4.6% of middle school students had used e-cigarettes in the past month [36].

3.6.1. Students tobacco use

Overall, 19.9% of students had ever tried smoking. Among those, 38.4% (95%CI, 35.2-41.6) smoked cigarettes only once or twice, and 56.5% (95%CI, 51.1-61.7) smoked first time before the age of 14. Male students (58.7%, 95%CI, 51.8-65.2) were more likely than female students (52.4%, 95%CI, 44.9-59.7) to have smoked before age 14 (Figure 12).

Figure 12. Percentage of students who ever tried or experimented with cigarettes and smoked cigarettes before the age of 14 years by gender



Among the urban students, 56.5% (95% CI, 49.3-63.4) had tried smoking before the age of 14 compared to the rural students accounting for 57.5% (95% CI, 51.0-63.7). The consumption was higher among male students (Annex 1).

When assessing students' current tobacco use, 11.1% of all students had smoked at least once in the last 30 days. This rate increased by 1.7% in 2022 compared to 9.4% in 2013.

Among students who had smoked in the last month, males (17.2%, 95%CI, 14.0-20.8) were 3.2 times more likely than females (5.3%, 95%CI, 4.0-7.1) to have smoked (Table 10).



Table 10. Percentage of students who smoked cigarettes at least once by gender and age group (past 30 days)

Age group	Total		Male		Female	
	%	95%CI	%	95%CI	%	95%CI
Total	11.1	9.0-13.5	17.9	14.6-21.7	5.5	4.2-7.3
13-15	8.6	7.0-10.5	13.4	11.0-16.2	3.8	2.5-5.7
16-17	15.8	11.1-22.0	24.7	17.2-34.0	8.1	4.8-13.3

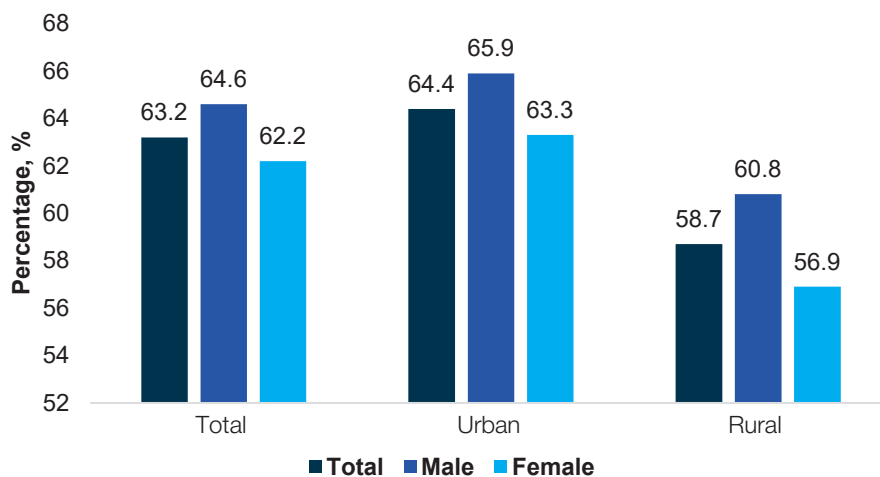
As grades progress, the percentage of students smoking increases. Across all grades, the proportion of male students who smoke cigarettes is higher than that of female students. Tobacco use was higher among rural students (12.2%, 95%CI, 9.6-15.4) than among urban students (10.9%, 95%CI, 8.3-14.2) (Annex 1). Among urban students, 16.6% (95%CI, 12.7-21.5) of males and 5.5% (95%CI, 3.8-8.0) of females smoked. Meanwhile, among rural students, 20.5% (95%CI, 16.4-25.3) of males and 4.2% (95%CI, 3.0-5.9) of females smoked (Annex 1).

The percentage of students who had used tobacco other than cigarettes or pipes in the past 30 days was higher among urban students (males 13.7%, 95%CI, 10.7-17.3; females 5.6%, 95%CI, 4.0-7.9) than rural students (Annex 1).

3.6.2. Second-hand smoke

Exposure to second-hand smoke was 63.2% (95%CI, 59.4-66.8) in the last seven days. Of those, 64.4% (95%CI, 59.4-69.1) were in urban areas and 58.7% (95%CI, 53.6-63.6) in rural areas. According to the survey results, urban students are more exposed to secondhand smoke (Figure 13). However, there is no difference between urban and rural male high school students exposed to secondhand smoke (Annex 1).

Figure 13. Percentage of students who were exposed to second-hand smoking by location and gender (past seven days)

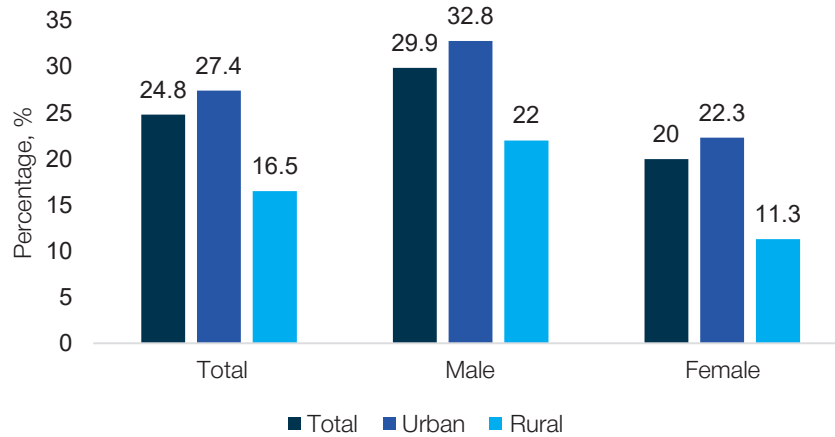


3.6.3. E-cigarette use

Over 24.8% (95%CI, 20.9-29.2) of all participants had used e-cigarettes in the past 30 days. This study found that male high school students used e-cigarettes more than others.

By location, 27.4% (95%CI, 22.5-32.9) of urban students and 16.5% (95%CI, 11.6-22.9) of rural students use e-cigarettes (Figure 14).

Figure 14. Percentage of students who currently used electronic cigarettes by location and gender (past 30 days)



Of the students aged 16-17, 34.2% (95%CI, 26.1-43.2) used e-cigarettes in the past 30 days, which is higher than other age groups. The percentage of students who had tried e-cigarettes before the age of 14 was 35.3% (95%CI, 30.0-40.8). Male students (37.8%, 95%CI, 31.6-44.5) were 5.9 percent more likely than female students (31.9%, 95%CI, 29.9-43.7) to have tried e-cigarettes before age 14. Regarding location, 36.5% (95%CI, 26.7-42.3) in urban areas and 29.9% (95%CI, 23.6-37.0) in rural areas had used e-cigarettes before age 14. Regarding gender, male students used e-cigarettes more in both urban and rural areas (Table 11).

Table 11. Percentage of students who ever tried an e-cigarette before the age of 14 by gender, age group, grades, and location

Indicator	Total		Male		Female	
	%,	95%CI	%	95%CI	%	95%CI
	35.3	30.0 – 40.8	37.8	31.6 - 44.5	31.9	25.3- 39.3
Age groups						
13-15	51.9	47.3 - 56.5	57.4	51.3 - 63.3	45.5	37.3 - 53.9
16-17	10.8	7.4 - 15.5	11.2	7.2 - 16.9	10.2	5.8 - 17.4
Grade						
8th grade	82.2	76.5 - 86.8	84.1	77.3 - 89.2	81.2	71.2 - 88.3
9th grade	40.0	34.1 - 46.3	44.9	35.5 - 54.7	33.1	26.1 - 41.0
10th grade	15.6	11.7 - 20.4	20.4	13.5 - 29.6	10.5	6.5 - 16.5
11th grade	12.1	6.9 - 20.4	11.6	5.9 - 21.6	-	-
12th grade	4.1	1.1 - 14.0	-	-	-	-
Location						
Urban	36.5	29.9 - 43.7	39.5	31.3 - 48.3	32.7	24.6 - 42.0
Rural	29.9	23.6 - 37.0	30.8	23.9 - 38.6	28.7	21.5 - 37.1

Only 38.2% (95% CI, 31.2-45.7) of students who attempted to purchase cigarettes in the past 30 days were rejected as underage. By age group, male students were more likely to try to buy tobacco while underage (44.9%, 95% CI, 35.6-54.6), which was 18.0% higher than female students (Annex 1) .

3.6.4. Discussion

According to our survey, 19.9% of students have ever tried smoking. The majority of students who tried smoking (56.5%, 95%CI, 51.1-61.7) were experienced with smoking when they were younger than 14 years old. There was no significant difference between urban and rural areas.



In the past 30 days, 11.1% (95%CI, 9.0-13.5) of students had smoked at least one day, more in the rural areas (20.5%, 95%CI, 16.4-25.3) than in urban areas. This indicator has increased by 1.7% compared to the 2013 survey, which indicates that students need to be given more information about the dangers of smoking [8].

About 63.2% (95%CI, 59.4-66.8) of all students exposed to second-hand smoke, with 64.4% (95%CI, 59.4-69.1) being urban students and 58.7% (95%CI, 53.6-63.6) rural students. Students' exposure to second-hand smoke was 60.8% in the 2013 study, which unfortunately has increased in this study [8].

In the 2023 survey, an initial attempt to explore students' e-cigarette use found that 1 in 4 students (24.8%, 95%CI, 20.9-29.2) had used e-cigarettes in the past 30 days. Urban schools had higher rates, particularly male high school students who used e-cigarettes more than others.

3.6.5. Conclusions:

1. The percentage of students who tried smoking at the age of 14 or younger is 56.5%, indicating a decrease from the survey results in 2013.
2. 1 in 4 students has used e-cigarettes, and this rate increases as the grade progresses.
3. The number of students exposed to smoking increased by 2.4% compared to the previous survey.
4. Indicators such as tobacco use, exposure, and interest in trying tobacco among students do not decrease significantly, indicating the need to regularly implement information and promotion measures aimed at secondary school students about smoking and its harmful effects.

3.7. ALCOHOL USE

According to studies conducted around the world, 62.2% of domestic violence, 32.9% of traffic accidents, and 12.4% of committed crimes are associated with alcohol consumption [37]. Every year, more than 3 million people suffer from the excessive consumption of alcohol and alcoholic beverages, as reported by WHO [38].

In this chapter, the consumption of alcoholic beverages by adolescents was determined, including where and how they obtain alcohol and how they consume it. Alcoholic beverages considered in this context include "alcohol, beer, wine, whiskey, and distilled spirits."

The term "ever tried drinking" excludes the occasions when students had touched the beverage with their lips once or twice and measured the consumption by "ONE DRINK."

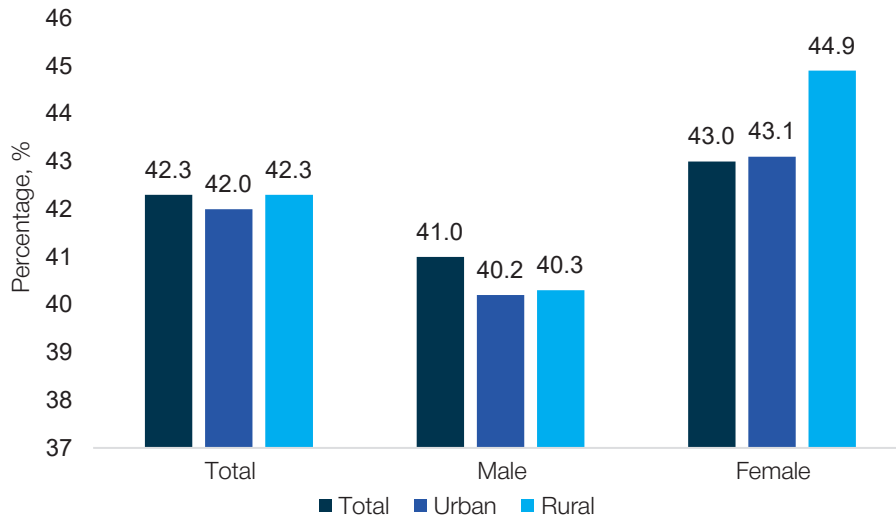
We defined "one drink" as consuming an amount of alcohol equivalent to one glass of wine, and one can of beer, one glass of vodka, or any other alcoholic beverage containing 10 grams of ethanol.

"Really drunk" is characterized by symptoms such as loss of balance, slurred speech, vomiting, and seizures after consuming alcohol.

3.7.1. Adolescent consumption of alcoholic drinks

Among the students, 42.3% (95%CI, 34.4-50.5) had experimented with alcohol before reaching the age of 14 (Figure 15).

Figure 15. Percentage of students who had ever consumed alcohol before the age of 14 years, by location and gender



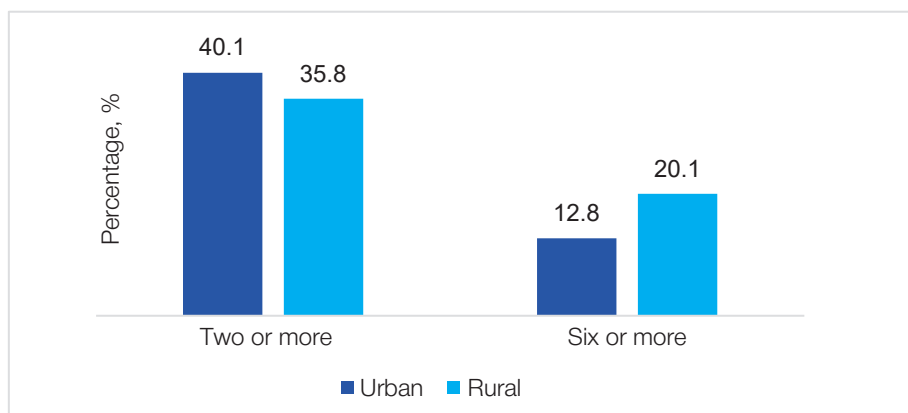
About 10.8% of students (95%CI, 8.3-14.0) consumed alcohol within the last 30 days. Notably, this prevalence is twice as high in urban areas (12.0%, 95%CI, 8.7-16.3) compared to rural areas. Additionally, 39.2% (95%CI, 31.8-47.0) of students reported consuming two drinks or more. When examining consumption patterns by age group, students aged 16-17 years (43.8%, 95%CI, 32.5-55.5) demonstrated a higher likelihood of alcohol consumption compared to other age groups (Table 12).

Table 12. Percentage of students who used alcohol during the past 30 days by gender

Indicator	Total		Male		Female	
	%	95%CI	%	95%CI	%	95%CI
Consumed alcoholic beverages	10.8	8.3-14.0	11.2	8.2-15.1	10.5	7.7-14.0
Two drinks or more	39.2	31.8-47.0	43.2	32.4-54.7	35.1	26.3-45.0
Six drinks or more	13.8	8.8-21.1	17.3	11.0-26.1	10.7	5.4-20.2

In the past 30 days, 13.8% (95%CI, 8.8-21.1) of students consumed six or more drinks of alcoholic beverage per serving. Rural students reported a 7.3% higher prevalence than their urban counterparts (Figure 16).

Figure 16. Percentage of students who drank two and more than six drinks of alcohol by location



Over 22.7% of students (95%CI, 16.2-30.8) obtained alcohol from their friends and consumed it, marking an increase from the findings of the 2013 study. Notably, female students (29%, 95%CI, 19.9-40.1) were found to be outweighing (Annex 1).

Additionally, 50.4% (95%CI, 39.8-61.0) of underage individuals attempted to purchase alcohol, consumed it at home (66.1%, 95%CI, 60.8-71.1), and engaged in misconduct or fights (3.8%, 95%CI, 2.8-5.2), with higher rates observed among male students aged 16-17, irrespective of their location (Annex 1).

The overall percentage of students who got "really drunk" one or more times was 14.5. When analyzed by age group, no difference between urban and rural areas was observed, with students aged 16-17 years (urban-22.4%, 95%CI, 18.5-26.9; rural-19.0%, 95%CI, 14.3-26.4) showing higher prevalence (Table 13).

Table 13. Percentage of students who got "really drunk" one or more times by age group, location and gender

Indicator	Total		Male		Female	
	%	95%CI	%	(95%CI)	%	95%CI
	Age group					
13-15	10.7	8.3-13.8	11.4	8.6-14.9	9.9	6.9-13.9
16-17	21.8	18.8-25.2	26.4	21.3-32.2	17.7	13.7-22.6
	Location					
Urban	15.3	12.3-18.9	17.0	13.6-20.9	13.6	9.9-18.4
Rural	11.7	8.5-15.8	15.0	10.4-21.1	8.5	5.5-12.9

3.7.2. Discussion

Among the students, 42.3% experimented with alcohol before the age of 14, with female students indicating a 5.3% increase compared to 2013 [8]. Conversely, the percentage of male students decreased by 6.2%. Moreover, 10.8% of students consumed alcohol in the last 30 days, marking a 1.9% increase from the previous year. There's a notable concern as the consumption of alcohol among female students who obtained alcohol from their friends had a significant increase of 7.7% compared to 2013. Additionally, the proportion of students consuming two or more drinks in the last 30 days increased by 14.4% compared to the previous study [8].

In our country, the prevalence of alcohol consumption among all students in the last 30 days was 10.8%, higher than Indonesia and Brunei Darussalam yet lower than all other countries in the Western Pacific region [27, 39]. However, 14.5% of students got "really drunk," which was higher than in Samoa, Indonesia, Brunei Darussalam, and Fiji. The rate of students who ever tried alcohol at age 14 or younger was 42.3%, exceeding Vanuatu and Laos [26,27,28,39,40,41].

3.7.3. Conclusions:

1. The data reveals that 4 out of 10 students aged 13 to 17 consumed two or more alcoholic drinks, highlighting the inefficient commitment to the information, training, and promotional efforts targeting student alcohol consumption.
2. Over 50.4% of students have engaged in purchasing and consuming alcoholic beverages, suggesting inadequate enforcement of laws prohibiting alcohol sales to minors.
3. Predominantly, male students aged 16-17 consumed six or more drinks, faced troubles at home or work, or engaged in misconduct due to alcohol consumption.
4. Notably, female students had more sources of alcohol from friends and peers for their consumption compared to male students.

3.8. REPRODUCTIVE HEALTH

Around 21 million girls aged 15-19 become pregnant each year globally, with roughly 12 million giving birth. Among teenage girls, about 55% of unwanted pregnancies end in abortion, which can be very risky [42].

By the end of 2022, Mongolia reported to have a total of 13,068 abortions among women, with an observed increase of 1,025 cases from the previous year. Among these, 626 cases, or 4.8%, were teenage girls abortions [5].

As adolescents develop curiosity about sex, an international emphasis on mitigating potential risks inclines toward open conversations and comprehensive sex education [43].

Sexuality education encompasses a broad spectrum, including aspects such as reproduction, sexually transmitted infections, sexual hygiene, and contraception.

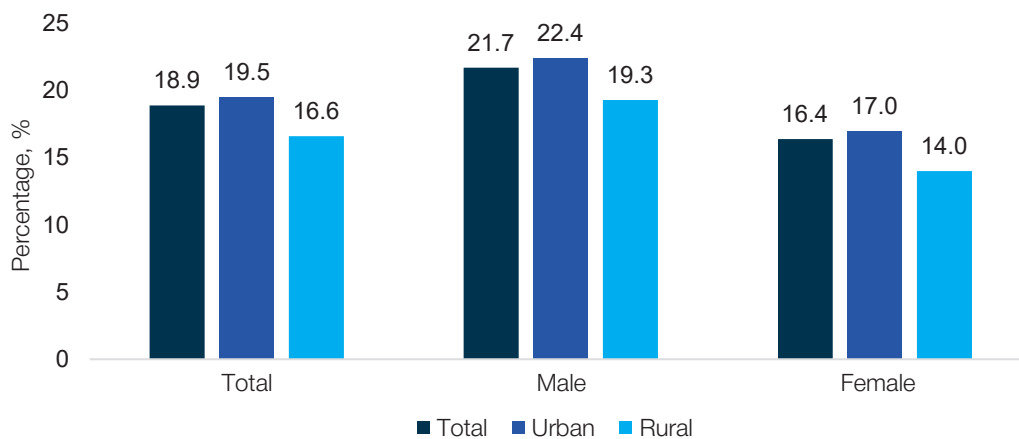
Across numerous studies conducted worldwide, it is evident that adolescents tend to engage in early sexual activity with multiple partners while often neglecting condom usage, thereby heightening their vulnerability to sexually transmitted diseases, including HIV.

This chapter investigated students' knowledge and attitudes regarding sexual behavior, condom utilization, and contraceptive methods.

3.8.1. Sexual behaviors

Around 18.9% (95%CI, 16.4-21.8), roughly equivalent to 1 in 5 students, reported having engaged in sexual intercourse. The prevalence of sexual activity was slightly higher in urban areas, at 19.5% (95%CI, 16.2-23.3), compared to 16.6% (95%CI, 13.5-20.2) in rural regions (Figure 17).

Figure 17. Percentage of students who ever had sexual intercourse by location and gender



When examining the gender distribution of students who admitted to engaging in sexual activity, it was found that 21.7% were male while 16.4% were female. Regarding age demographics, 15.2% of students aged 13-15 and 25.9% of those aged 16-17 reported having experienced sexual intercourse. Within each age group, the prevalence of sexual activity among male students exceeded that of their female counterparts by 2.8-10.6%.

In terms of motivations for engaging in sexual activity, 4.0% of male students (95%CI 2.1-7.8) and 2.6% of female students (95%CI 0.8-7.7) stated that peer pressure was a significant factor, mainly answered: "All my friends have had sexual intercourse" (Annex 1)

Furthermore, 5.7% (95%CI, 4.2-7.7) of students admitted to have had two or more sexual partners. It was observed to be 6.0% (with a confidence interval of 4.1-8.8) in urban areas and 4.7% (with a confidence interval of 3.2-6.9) in rural areas. Notably, 1 in 10 male students disclosed having engaged in sexual activity with two or more partners (Figure 18).

Figure 18. Percentage of students who had sexual intercourse with two or more persons by location and gender

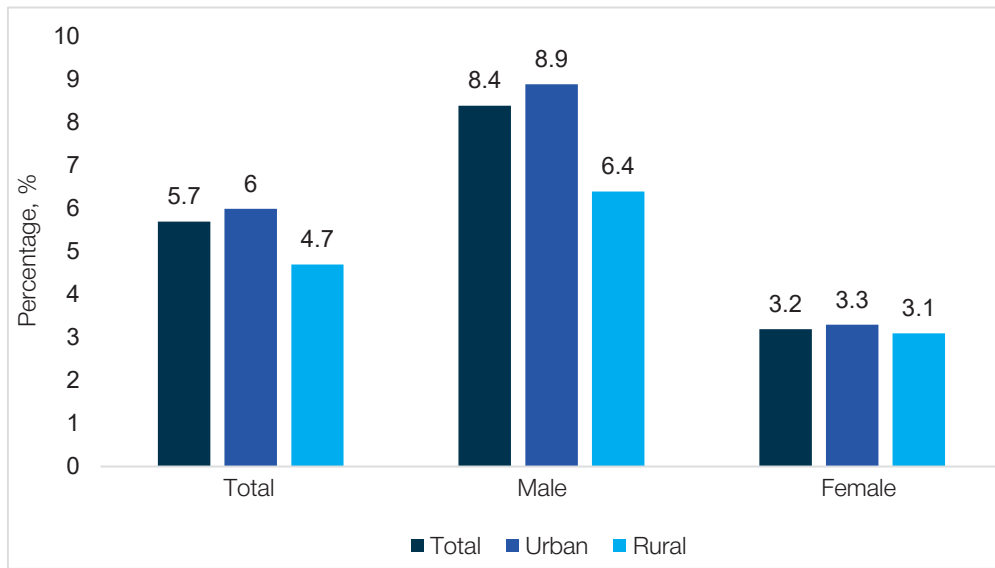
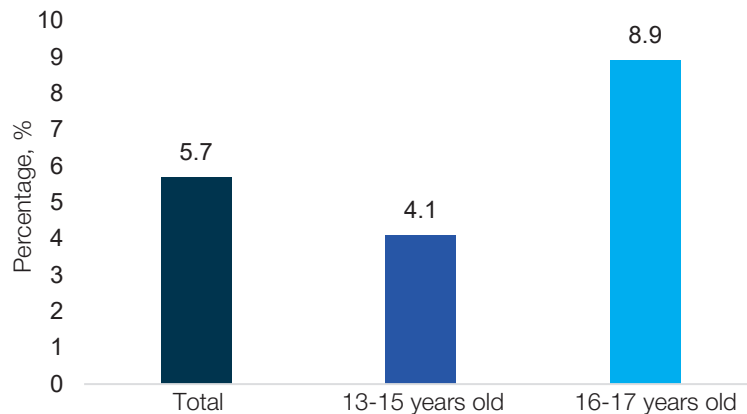


Figure 19. Percentage of students who had sexual intercourse with two or more persons by age group



Among those engaged in sexual activities, 24.3% (95%CI, 15.8-35.5), or roughly 1 in 4 students, reported having their first sexual encounter before the age of 14. Regarding gender, this percentage was 19.4% (95%CI, 11.2-31.4) for male students and 30.4% (95%CI, 20.2-43.0) for female students (Annex 1).

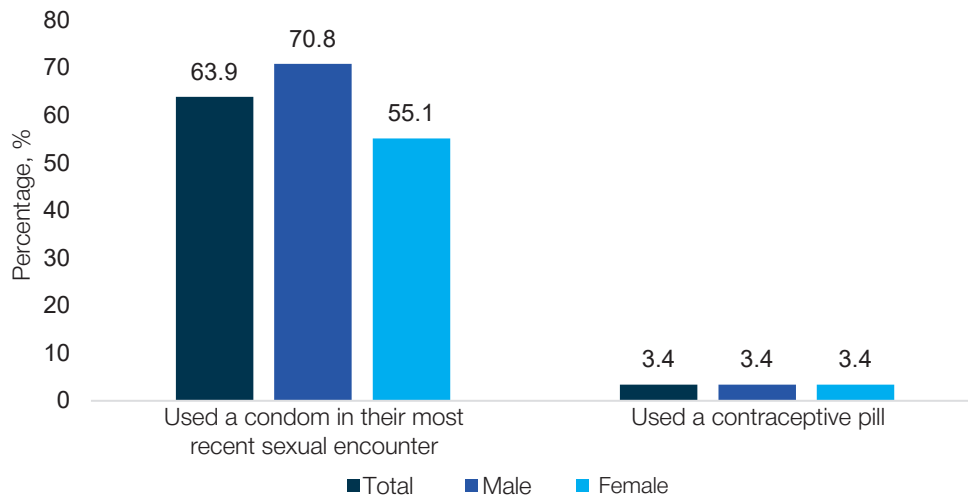
3.8.2. Usage of condoms and contraceptives

Among students who reported having engaged in sexual activity, 63.9% (95%CI, 55.8-71.3) stated that they had used a condom during their last sexual encounter. Specifically, 70.8% (95%CI, 63.9-76.9) of male students and 55.1% (95%CI, 43.3-66.4) of female students reported condom use (Figure 20).

Regarding locations, condom usage was observed in 70.1% (95%CI, 62.2-76.9) of rural students and 63.2% (95%CI, 52.7-72.5) of urban students. Additionally, there was a trend of increased condom usage as the grade levels progressed (Annex 1).

About 3.4% (95%CI, 2.1-5.5) of students reported using contraceptives other than condoms during their most recent sexual encounter (Figure 20). While this percentage did not differ significantly by gender, it was notably higher among urban students (Annex 1).

Figure 20. Percentage of students who used condom or contraceptive pills to prevent pregnancy and tools used in their last sexual intercourse by gender



Over 37.0% (95%CI, 34.3-39.8) of students reported to engage in discussions about sexual life and behavior with their parents. Of them, 35.7% (95%CI, 31.9-39.8) were male, and 38.2% (95%CI, 35.3-41.3) were female. Findings indicate that students aged 13-15 (41.8%, 95%CI, 38.8-44.7) and those residing in rural areas (42.4%, 95%CI, 39.3-45.5) are more likely to have such discussions with their parents.

3.8.3. Discussion

Approximately 1 out of every five students aged 13-17, or 18.9%, have engaged in sexual intercourse. This marks an increase from previous research conducted in 2010 and 2013. Moreover, this indicator has doubled across genders.

Comparative data from international studies indicate variations in sexual activity among adolescents. For instance, a 2015 study in Indonesia reported a prevalence of 5.2%, while figures were notably higher in Laos (15.1% in 2015), Samoa (24.8% in 2017), and Brunei (5.7% in 2019). In contrast, the prevalence in our country is three times higher than in Indonesia and Brunei but lower than in Samoa [26,27,28,39,40,41].

Although comprehensive sexual and reproductive health education modules have been integrated into school health curricula since 2018, this study underscores the need to address adolescent sexuality and sexual behavior. Therefore, it is necessary to evaluate and update the health curriculum of secondary schools, improve the capacity of teachers and social workers who provide health education, provide quality knowledge and information to students, and create a favorable environment for expressing their problems.

3.8.4. Conclusions:

1. One in five students has engaged in sexual activity, with a higher rate observed among male students of all age groups.
2. One in four students under the age of 14 and one in ten male students have reported having had sexual intercourse with two or more partners.
3. One in two students who engaged in sexual intercourse utilized a condom during their most recent encounter, with greater condom use among male students.
4. One in three students engaged in discussions about sexuality and sexual behavior with their parents.

3.9. PROTECTIVE FACTORS

For most teenagers, the school environment is crucial outside the family sphere, fostering independence and social development. Cultivating a nurturing and supportive atmosphere for self-confidence within schools enables students to thrive and maintain positive relationships with peers, teachers, friends, and the



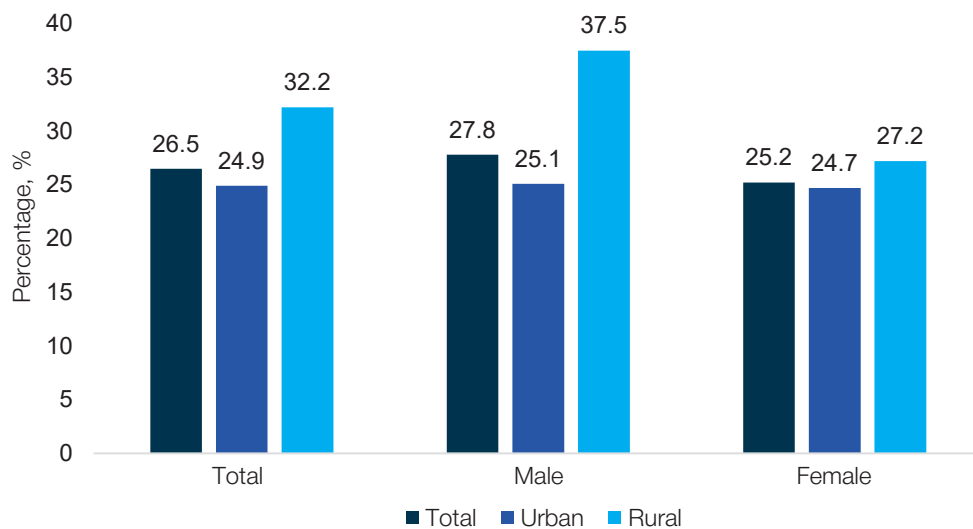
broader community and coordination. Establishing a safe and conducive environment within families and schools is instrumental in mitigating adolescents' risks and promoting positive relationships for their future well-being [44].

Within this context, we examined various factors indicative of parental care and school engagement, such as students' unexcused absences, homework completion, parental support and supervision, monitoring of leisure activities, and unauthorized access to their belongings.

Our findings reveal that 26.5% of all students (27.8% among males with 95%CI, 23.8-32.1, and 25.2% among females with 95%CI, 20.5-30.7) skipped classes without valid reasons in the past month. Although male students had a higher incidence of unexcused absences, the gender disparity did not reach statistical significance.

When stratified by location and age group, it was found that rural students (32.2%, 95%CI, 29.3-35.3) and male students aged 16-17 years (44.5%, 95%CI, 37.3-51.9) had notably higher rates of unexcused absences (Figure 21).

Figure 21. Percentage of students who missed classes or school without permission by location and gender (past 30 days)

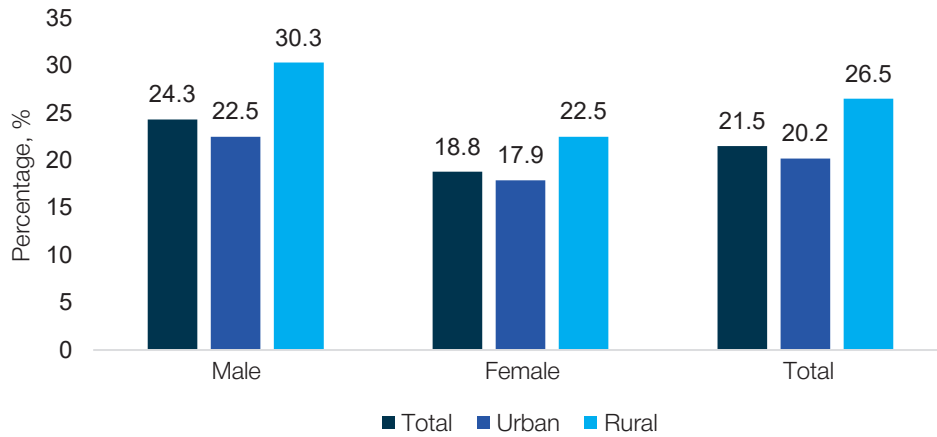


In the survey, when classmates and peers were asked about their attention to their friends' studies in the past month, 55.3% (95%CI, 51.5-59.0) of students reported always paying attention to their friends' studies and academic endeavors. This support included assisting each other with studies and sharing books. Breaking down the data by grade levels:

- For 8th grade students: 54.1%, (95%CI 48.3 - 59.9)
- For 9th grade students: 53.6%, (95%CI 48.9 - 58.2)
- For 10th grade students: 55.3%, (95%CI 47.4 - 63.0)
- For 11th grade students: 61.1%, (95%CI 47.9 - 72.8)
- For 12th grade students: 51.8%, (95%CI 39.9 - 63.5)

Additionally, 21.5% (95%CI, 19.8-23.3) of students reported that their parents or guardians regularly checked their homework over the past month. Notably, as students progressed in age and grade levels, there was a decline in parental or guardian monitoring of homework completion (Figure 22).

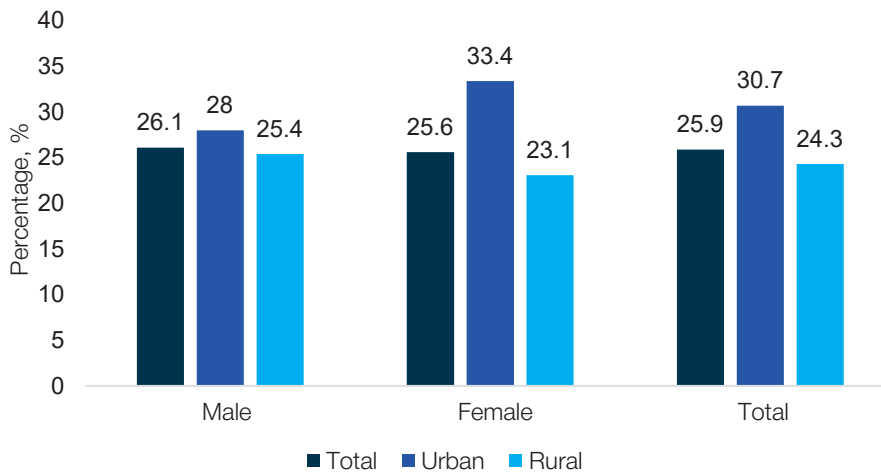
Figure 22. Percentage of students who reported that their parents or guardians most of the time checked their homework by location and gender



Among students, 57.3% (95%CI, 54.4-60.2) reported that their parents or guardians did not understand and support their problems, particularly noticeable among male students (60.6%, 95%CI, 57.1-64.0). Regarding location, similar rates were observed between urban (57.1%, 95%CI, 52.9-61.3) and rural (57.0%, 95%CI, 54.0 - 60.0) areas.

Regarding leisure time, 25.9% (95%CI, 23.4-28.6) of students answered that their parents or guardians did not pay attention to their leisure activities over the past month. While this indicator did not vary significantly by age group or gender, there was a notable difference based on location, with parents or guardians of urban students displaying less attention to their children’s free time than those in rural areas (Figure 23).

Figure 23. Percentage of students who reported that their parents or guardians were never or rarely knew what they were doing with their free time by gender and location



In the last month, 80.7% (95% CI,78.0-83.3) of students had their parents or guardians access their belongings without permission (Tables 14).

Table 14. Percentage of students who had their parents or guardians touch their belongings without their permission by age group, gender and location

Indicator	Total		Male		Female	
	%	95%CI	%	95%CI	%	95%-CI
	80.7	78.0-83.3	81.5	78.2-84.3	80.0	76.7-83.0
Age group						
13-15	79	76.5-81.3	80.3	76.8-83.4	77.7	74.9-80.3
16-17	84	79.0-88.0	83.7	78.0-88.1	84.3	77.1-89.5
Location						
Urban	79.9	76.0-83.4	81.6	76.9-85.5	78.3	73.6-82.4
Rural	82.8	80.3-85.1	81.2	76.6-85.1	84.4	82.2-86.3

Table 15. Percentage of students who answered the questions regarding protective factors by gender (past 30 days)

Indicator	Total		Male		Female	
	%	95%CI	%	95%CI	%	95%CI
One or more days of unexcused absence	26.5	22.7-30.7	27.8	23.8-32.1	25.2	20.5-30.7
Classmates and other students always pay attention to my classroom performance	55.3	51.5-59.0	55.5	50.7-60.3	55.2	51.0-59.3
Parents and guardians are regularly checking for homework completion	21.5	19.8-23.3	24.3	21.4-27.4	18.8	16.4-21.4
Parents and guardians understand and support their child's concerns	25.0	22.7-27.4	24.0	21.3-26.8	25.8	22.3-29.6
Parental supervision of leisure activities	57.2	53.7-60.6	57.6	54.1-61.1	56.9	52.4-61.2
Parents and guardians often or frequently have unauthorized access to their belongings	80.7	78.0-83.3	81.5	78.2-84.3	80.0	76.7-83.0

The findings suggest a decrease in students' protective factors, particularly evident in the lack of supervision by parents and guardians.

3.9.1. Discussion

Parents and family members are responsible for creating a healthy, safe, and friendly environment for children to grow up in, fully meeting the child's educational and developmental needs, and guiding them to have a friendly and positive attitude in both the family and school environment.

In our country, the absenteeism rate among students (26.5%) is slightly higher than that of other nations, such as the Philippines (20.3%), Brunei (36.2%), Indonesia (20.3%), and the Cook Islands (35.8%) [27,31,39]. This represents a 1.9% increase from the 2013 survey results.

When examining parental supervision of students' leisure activity, Mongolia (57.2%) surpasses that of Indonesia (20.3%), the Philippines (32.2%), Brunei (47.3%), and even Bahrain (54.3%) [27,31,39]. Notably, this indicates an increase from previous surveys conducted in 2010 and 2013, which reported 43.3% and 48.8%, respectively.

Moving forward, efforts must be directed toward preventing potential social and psychological risks for teenagers by creating safe and supportive environments within families, peer groups, and schools and organizing activities that promote healthy relationships between parents, guardians, and children.

3.9.2. Conclusions

1. 26.5% of students had unexcused absences in the past month. Compared to the urban students, the rural students have twice the rate of unexcused absences.
2. Over 57.3% of parents and guardians do not adequately understand or support their children's problems.
3. About 25.9% of students reported that their parents and guardians do not pay attention to how they spend their free time.



CHAPTER 4. CONCLUSION AND RECOMMENDATIONS

4.1. Dietary Behaviors

To assess students' health behavior in the educational environment, the following conclusions have been drawn from studying their dietary behaviors, hygiene practices, injury incidences, mental health status, alcohol and tobacco usage, sexual behavior, and protective factors.

- One out of 10 students in Mongolian secondary schools are overweight, 3% are obese, and the prevalence of overweight and obesity increases as the grade progresses. An increase has been observed in overweight and obesity rates across genders since the 2013 survey.
- Urban students had a notably higher intake of fruits and vegetables.
- Two out of 5 students have consumed vegetables only once or less in the past seven days, falling short of the recommended intake.
- Two out of 3 students reportedly consume sugary and carbonated beverages daily. This usage pattern remains consistent across urban and rural areas.

4.2. Hygiene

- The majority of students aged 13-17 have the habit of brushing their teeth once or more times per day. This figure is even higher among the 16-17 age group, particularly for female students.
- Nine out of ten students brush their teeth once or more times daily, and one out of three students regularly use fluoride toothpaste. There is no significant difference based on location or age.
- Compared to the 2013 survey, the percentage of students who did not brush their teeth at all increased from 5.3% to 6.5%, and male students still had the highest rate of not brushing their teeth.
- The practice of washing hands before eating and after using the restroom has increased compared to the 2013 study, but the use of soap has not seen a significant rise.

4.3. Unintentional injuries and violence

- Two out of five students reported being injured, with the rate increasing with grade level and being more common among male students.
- Three out of ten students sustained serious injuries, and two out of five had an accident, which is not lower than the 2013 study results.
- Three out of five students were involved in physical fights with others and were bullied at school, while two out of five were beaten by others, bullied outside of school, and cyberbullied.
- One out of ten male students and one out of five female students experienced cyberbullying, including receiving negative comments, pictures, and videos. Regardless of location, female students are more affected by cyberbullying than male students.
- Over 9.3% of students reported being forced to perform sexual acts, with this problem being twice as high among female students compared to male students.
- One out of three students was punished or harassed by their teacher, with no significant difference between urban and rural male students.

4.4. Mental health

- One out of five students always feel lonely, and two out of five students have planned and attempted suicide one or more times.
- One out of every two students said their school held classes and talks on managing stress and anger.
- Over 8.2% of respondents have no close friends, with this figure being 3.0% higher for female students than male students.

4.5. Tobacco use

- Two out of five students have tried cigarettes once or twice, tried electronic cigarettes before the age of 14, and attempted to buy cigarettes in the last 30 days.
- Three out of five students were exposed to secondhand smoke one or more days a week, regardless of gender and location.
- One in ten students has used smokeless tobacco other than cigarettes and snuff for at least one day.
- One out of five students used e-cigarettes at least once in the last month, with urban students using 10.9% more than rural students.

4.6. Alcohol use

- Seven out of ten students consumed alcohol at home or someone else's house. Students aged 13-15 use about 20% more than students aged 16-17.
- Two out of five students have tried alcohol before the age of 14, with this indicator being 2-5% higher for female students, regardless of location. Compared to the 2013 survey, female students' consumption of alcoholic beverages has increased.
- Two out of five students consumed two or more drinks of alcohol in the last month.
- One out of five students drank alcohol provided by their friends in the last month.
- About 3.8% of the students experienced problems at home, workplace, or school due to alcohol use and caused trouble to others.

4.7. Reproductive health

- One out of five students have had sexual intercourse first time before the age of 14.
- One out of five students aged 13-15 and one out of three students aged 16-17 have had sexual intercourse.
- Over 5.7% of students had sex with two or more people.
- Three out of five students used a condom during their last sexual intercourse, with this indicator increasing as the grade progressed.
- Two out of five students know about sexuality and sexual behavior by asking their parents.

4.8. Protective factors

- One out of three students had an unexcused absence in the last month, which was higher among rural students.
- Four out of five students said their parents and caregivers do not understand or support their concerns.
- Four out of five students found that their parents or guardians often or frequently touched their belongings without consent, and three in five students reported an unpleasant interaction such as humiliation, ridicule, or tease.



RECOMMENDATIONS

ONE. To Relevant organizations and officials

1.1 Diet and hygiene practices

- Monitor the sale of food around schools and determine the appropriate products to be sold.
- Provide opportunities for students to engage in physical activity and exercise during recess as part of the school schedule.
- Ensure school buildings, structures, and rooms meet hygiene and sanitation requirements.
- Ensure the availability of toilets is proportionate to the number of students and include this in annual reports on meeting hygiene standards.
- Initiate public awareness campaigns about regular hand washing and teeth brushing and support targeted activities.
- Incorporate the review and evaluation of appropriate hygiene practices at the start of each academic year in all educational institutions.

1.2 Unintentional injury, violence, mental and reproductive health, its protection

- Develop and implement measures to address issues such as bullying, physical violence, cyberbullying, and other attacks, and report on the national implementation to students.
- Provide and receive annual statistical data on cybersecurity incidents, appropriate internet use, mental health, rights protection, and reproductive health to all educational institutions.
- Provide guidance on sexual and reproductive health education, risks, unwanted pregnancies, and abortions through mass media and inclusion in school action plans at all levels.

1.3 Alcohol and Tobacco Use

- Provide financial support for activities educating students and their guardians on the harmful effects of alcohol and tobacco and regularize these activities.
- Ensure students have a comprehensive understanding of alcohol and tobacco use, habits, addiction, and adverse health impacts, and include this in the curriculum.
- Advocate for and influence legal provisions to prevent minors from purchasing or selling alcohol, alcoholic beverages, or tobacco.

TWO. To School management and related staff

2.1 Diet and hygiene practices

- Encourage the selling of healthy and nutritious products in shops and shopping centers around schools.
- Prepare and inspect school lunches and meals to ensure appropriate nutritional composition.
- Provide scheduled training for students on the proper use and benefits of food and food ingredients and include this in the plan.
- Maintain and create accessible hygiene and toilet facilities, including hand sinks, liquid soap, toilet paper, and age-appropriate toilet seats.
- Provide students with opportunities to use the toilet facilities according to age and gender.

2.2 Unintentional injury, violence, mental and reproductive health, its protection

- Install necessary fences and signage around the school perimeter.
- Provide regular training and discussions for teachers and staff on addressing cyberbullying, physical altercations, and bullying.
- Educate all school personnel on maintaining student confidentiality and their roles and responsibilities.
- Ensure regular training and professional development for school psychologists on mental health, reproductive health, and protection.

- Offer quarterly training and open discussions for parents, guardians, and students on the above issues and support related proposals and initiatives.
- Establish a confidential reporting system for teachers, parents, guardians, and students to raise concerns.
- Provide an information board on sexual and reproductive health and risks and organize updates in each senior class according to the schedule.

2.3 Alcohol and tobacco use

- Initiate activities for students and their guardians on the harmful effects of alcohol and tobacco use.
- Encourage and support student clubs and councils to organize activities on the dangers of alcohol and tobacco.
- Maintain records of students with family members who are alcohol-dependent, assess risks, implement preventive measures, and monitor physical and mental health.
- Control the sale of alcohol, alcoholic beverages, and all types of tobacco within the school environment and report to higher authorities.
- Warn students about the prohibition of purchasing alcohol, alcoholic beverages, and all types of tobacco, provide information, and enforce responsibility.
- Organize joint events with student clubs on the risks of unwanted pregnancy and abortion.

THREE. To Parents and guardians

3.1 Diet and hygiene practices

- Ensure regular and proper consumption of foods containing vitamins, minerals, fats, proteins, and carbohydrates, and monitor their intake.
- Exchange information with your child about different food products' benefits and potential side effects.
- Regularly remind your child to practice proper hand washing, teeth brushing, and bathing.
- Instill, encourage, and support your child's healthy nutrition, hygiene, and sanitation practices.

3.2 Unintentional injury, violence, mental and reproductive health, its protection

- If necessary, propose and request the installation of additional fences and signs around the school exit.
- Limit your child's electronic device use and cooperate with the teacher when needed.
- Demonstrate respect for teachers and school staff, cultivate a positive attitude, and set an example for your child.
- Cooperate with the school management and the class and provide suggestions if you receive information about bullying, fights, violence, or negative student behaviors.
- Engage in open discussions with your child about mental health and reproductive issues and be a supportive resource.
- Help your child understand the harmful effects of unwanted pregnancy and abortion, discuss openly, and work together to address any issues.
- Get to know your child's friends and classmates, participate in joint activities, and try to influence them positively.
- Avoid comparing, rejecting, humiliating, or demeaning your child; communicate openly, make joint decisions, and show mutual respect.



3.3 Alcohol and Tobacco Use

- Limit the use of alcohol, alcoholic beverages, and tobacco in your child's environment, and prevent exposure to secondhand smoke.
- Discuss the harms and adverse effects of alcohol and tobacco use with your child, and ensure they have a comprehensive understanding of addiction.
- Discuss and exchange opinions about your child's classmates', peers', and other students' use of alcohol and tobacco.

FOUR. To Students

4.1 Diet and hygiene practices

- Avoid consuming food that is poorly nutritious or spoiled.
- Develop the habit of eating in the right proportions and at the appropriate times.
- Practice personal hygiene, such as brushing your teeth 2-3 times a day, regularly washing your hands, bathing 2-3 times a week, and setting an example for others.
- Provide school cleanliness and hygiene information to your parents/guardians and present it to the school management.

4.2 Unintentional injury, violence, mental and reproductive health, its protection

- Learn to read and follow road crossing signs, markings, and traffic lights.
- Avoid giving a negative impression to others and refrain from fights, violence, and bullying.
- If you or someone else has experienced violence, harassment, or bullying, immediately inform the school management, class teachers, and your guardians and take protective measures.
- Adhere to student rules and regulations in the online environment, and do not engage in or support discrimination or bullying.
- Be polite and friendly towards teachers and other school staff.
- Openly and transparently express any mental health or reproductive health concerns, seek support, and provide support to others.
- Understand the risks and negative consequences of unwanted pregnancy and abortion, discuss with classmates and friends, and seek the correct information to get the necessary help without delay.

4.3 Alcohol and tobacco use

- Follow the rules and regulations set by the school and other relevant organizations, ensure the law is implemented, and take responsibility.
- Do not use alcohol, alcoholic beverages, or tobacco, and do not tempt or negatively influence others or be tempted yourself.
- Do not buy or sell alcohol, alcoholic beverages, or tobacco.
- Inform the school management, parents, and guardians about any sale of these substances around the school.

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ANNEX 1

SUMMARY OF RESULTS (Students by gender)

YOUTH'S HEALTH BEHAVIOUR AMONG SECONDARY SCHOOL CHILDREN, GSHS-2023

The data collection for the “ Youth`s Health Behaviour Among Secondary School Children, GSHS-2023” survey was conducted nationwide from April 17 to May 13, 2023, following the standard methodology developed by the WHO. A total of 51 secondary schools, comprising students from grades 8 to 12 in both urban and rural areas, were selected for the study using a two-stage random sampling method. The parents and guardians of the students in the selected classes provided informed consent for their children’s participation in the study by signing a consent form. The school participation rate in the survey was 100%, and the student participation rate was 85.9%.

Among 13-17-year-old secondary school students	Total, % (95% CI)	Male, % (95% CI)	Female, % (95% CI)
Body Mass Index			
Percentage of students who were underweight (BMI <-2SD)	3.2 (2.4 - 4.4)	4.2 (3.0 - 5.9)	2.3 (1.5 - 3.6)
Percentage of student who were overweight (BMI>+1SD)	14.6 (12.1-17.4)	13.3 (10.2-17.1)	15.7 (13.3-18.5)
Percentage of student who were obese (BMI>+2SD)	3.0 (2.2-4.2)	3.6 (2.3-5.5)	2.5 (1.7-3.6)
Dietary behaviours			
Percentage of students who most of the time or always went hungry, because there was not enough food in their home (past 30 days)	3.1 (2.1-4.5)	3.7 (2.5-5.4)	2.5 (1.5-4.2)
Percentage of students who did not eat fruit (past 7 days)	32.0 (29.9-34.1)	30.2 (28.0-32.4)	33.6 (30.7-36.7)
Percentage of students who ate fruit less than one time (past 7 days)	89.0 (87.2-90.6)	89.7 (87.3-91.7)	88.5 (85.9-90.7)
Percentage of students who ate fruit one or more times (past 7 days)	11.0 (9.4 - 12.8)	10.3 (8.3 - 12.7)	11.5 (9.3 - 14.1)
Percentage of students who ate fruit two or more times (past 7 days)	6.4 (5.4-7.6)	5.3 (4.1-6.9)	7.3 (6.2-8.7)
Percentage of students who ate fruit three or more times (past 7 days)	3.0 (2.3-3.9)	2.4 (1.6-3.6)	3.5 (2.8-4.5)
Percentage of students who did not eat vegetables (past 7 days)	2.9 (2.1-3.9)	2.2 (1.6-3.2)	3.4 (2.4-4.9)
Percentage of students who ate vegetables less than one time (past 7 days)	40.2 (36.4-44.0)	39.0 (34.2-44.0)	41.1 (37.2-45.1)
Percentage of students who ate vegetables one or more times (past 7 days)	59.8 (56.0 - 63.6)	61.0 (56.0 - 65.8)	58.9 (54.9 - 62.8)
Percentage of students who ate vegetables two or more times (past 7 days)	36.3 (32.8-40.0)	39.2 (35.5-43.0)	33.7 (29.0-38.7)
Percentage of students who ate vegetables three or more times (past 7 days)	13.8 (12.4-15.3)	16.8 (14.8-19.0)	11.0 (8.9-13.3)
Percentage of students who did not drink carbonated soft drinks (past 7 days)	29.1 (25.7 - 32.8)	24.5 (20.7 - 28.8)	33.4 (29.4 - 37.5)

Percentage of students who drank carbonated soft drinks less than one time (past 7 days)	87.3 (85.1 - 89.2)	87.9 (85.7 - 89.8)	87.0 (83.5 - 89.8)
Percentage of students who drank carbonated soft drinks one or more times (past 7 days)	12.7 (10.8 - 14.9)	12.1 (10.2 - 14.3)	13.0 (10.2 - 16.5)
Percentage of students who drank carbonated soft drinks two or more times (past 7 days)	5.0 (3.7 - 6.6)	4.5 (3.5 - 5.6)	5.3 (3.4 - 8.1)
Percentage of students who drank carbonated soft drinks three or more times (past 7 days)	2.1 (1.6 - 2.8)	1.8 (1.2 - 2.8)	2.2 (1.6 - 3.1)
Percentage of students who did not drink sugar-sweetened drinks (past 7 days)	31.1 (27.9 - 34.6)	29.6 (25.1 - 34.6)	32.6 (28.8 - 36.7)
Percentage of students who drank sugar-sweetened drinks less than one time (past 7 days)	89.9 (87.8 - 91.6)	91.5 (89.1 - 93.5)	88.6 (85.5 - 91.1)
Percentage of students who drank sugar-sweetened drinks one or more times (past 7 days)	10.1 (8.4 - 12.2)	8.5 (6.5 - 10.9)	11.4 (8.9 - 14.5)
Percentage of students who drank sugar-sweetened drinks two or more times (past 7 days)	4.0 (3.2 - 4.9)	2.8 (2.0 - 4.0)	4.9 (3.6 - 6.5)
Percentage of students who drank sugar-sweetened drinks three or more times (past 7 days)	1.8 (1.3 - 2.4)	1.6 (0.9 - 2.8)	1.7 (1.1 - 2.7)
Hygiene			
Percentage of students who usually cleaned or brushed their teeth one or more times per day (past 30 days)	93.5 (91.9 - 94.9)	91.7 (89.3 - 93.6)	95.2 (93.6 - 96.4)
Percentage of students who did not clean or brush their teeth or usually cleaned or brushed their teeth less than 1 time per day (past 30 days)	6.5 (5.1 - 8.1)	8.3 (6.4 - 10.7)	4.8 (3.6 - 6.4)
Percentage of students who usually used a toothpaste that contained fluoride among students who cleaned or brushed their teeth (past 30 days)	34 (30.0 - 38.3)	35.7 (31.8 - 39.8)	32.2 (27.4 - 37.3)
Percentage of students who missed classes or school because of a problem with their mouth and teeth (past 30 days)	8.0 (6.3 - 10.0)	7.8 (5.7 - 10.7)	7.9 (6.5 - 9.6)
Percentage of students who never or rarely washed their hands before eating (past 30 days)	5.7 (4.7 - 6.9)	5.3 (3.9 - 7.3)	5.9 (4.8 - 7.3)
Percentage of students who never or rarely washed their hands after using the toilet or latrine (past 30 days)	4.2 (3.1 - 5.7)	4.1 (2.8 - 5.9)	4.0 (2.9 - 5.6)
Percentage of students who never or rarely used soap when washing their hands (past 30 days)	4.0 (2.8 - 5.8)	4.4 (2.9 - 6.7)	3.7 (2.4 - 5.5)
Percentage of students who had separate toilets or latrines for boys and girls (among students who attended a school with toilets or latrines)	98.5 (92.3 - 99.7)	97.7 (83.9 - 99.7)	99.2 (93.8 - 99.9)
Unintentional injuries and violence			
Percentage of students who were seriously injured (one or more times during the past 12 months)	39.6 (36.4- 42.8)	41.7 (37.6- 45.9)	37.5 (32.8- 42.4)
Percentage of students who reported that their most serious injury was a broken bone, dislocated joint, or a broken or knocked out tooth (past 12 months)	24.9 (20.6- 29.7)	31.5 (25.7- 38.0)	18.2 (13.8- 23.7)
Percentage of students who reported that their most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle (past 12 months)	5.4 (3.9-7.4)	4.8 (2.4-9.3)	5.7 (3.5-9.3)

Percentage of students who were physically attacked (one or more times (past 12 months)	23.3 (21.2-25.6)	25.3 (22.4-28.4)	21.5 (18.9-24.5)
Percentage of students who were in a physical fight one or more times (past 12 months)	28.3 (26.1-30.6)	37.8 (35.0-40.7)	19.2 (16.8-21.9)
Percentage of students who were bullied on school property (past 12 months)	26.9 (25.2-28.6)	28.6 (26.1-31.2)	25.1 (22.5-27.9)
Percentage of students who were bullied when not on school property (past 12 months)	17.4 (15.5-19.5)	22.2 (19.8-24.8)	12.8 (10.8-15.1)
Percentage of students who were bullied face-to-face most often by being hit, kicked, pushed, shoved around, or locked indoors (past 12 months)	17.7 (14.8 - 21.0)	26.7 (21.2 - 33.0)	10.3 (8.1 - 13.0)
Percentage of students who were cyber bullied (past 12 months)	17.9 (16.5-19.3)	14.1 (12.3-16.0)	21.3 (19.2-23.6)
Percentage of students who were cyber bullied most often by being sent nasty or hurtful messages, pictures, or videos (past 12 months)	39.2 (34.4-44.3)	31.5 (24.6-39.3)	44.2 (37.7-50.8)
Percentage of students who were forced by anyone to do sexual things that they did not want to do one or more times (past 12 months)	9.3 (7.7-11.2)	6.6 (4.6-9.2)	11.9 (9.6-14.6)
Percentage of students who had someone ask them to do sexual things on the internet or social media when they did not want to one or more times (past 12 months)	5.9 (4.8-7.3)	3.7 (2.8-4.9)	8.0 (6.2-10.2)
Percentage of students whose teacher hit, slapped, or physically hurt them on purpose or made them do something that hurt (past 12 months)	26.7 (23.5 - 30.1)	34.0 (29.2 - 39.1)	19.9 (17.4 - 22.6)
Percentage of students whose teacher called them names or said things in a mean or hurtful manner that made them feel afraid, rejected, shameful, or threatened (past 12 months)	32.9 (29.6 - 36.4)	31.6 (28.1 - 35.2)	34.3 (30.0 - 38.8)
Mental health			
Percentage of students who have no close friends	8.2 (6.8 - 10.0)	6.6 (5.3 - 8.2)	9.9 (7.7 - 12.5)
Percentage of students who most of the time or always felt lonely (past 12 months)	24.3 (22.2-26.4)	16.8 (14.3 - 19.6)	31.5 (28.6 - 34.5)
Percentage of students who most of the time or always were so worried about something that they could not sleep at night (past 12 months)	12.5 (10.8 - 14.5)	8.5 (6.7 - 10.8)	16.4 (14.0 - 19.1)
Percentage of students who were you taught in any of their classes how to handle stress in healthy ways during this school year	46.1 (42.1 - 50.1)	42.5 (38.6 - 46.5)	49.6 (44.5 - 54.7)
Percentage of students who seriously considered attempting suicide (past 12 months)	39.0 (36.3 - 41.8)	28.3 (24.6 - 32.3)	49.1 (45.1 - 53.2)
Percentage of students who made a plan about how they would attempt suicide (past 12 months)	22.2 (20.0 - 24.6)	16.1 (13.9 - 18.6)	27.9 (24.8 - 31.3)
Percentage of students who attempted suicide one or more times (past 12 months)	15.8 (13.8-18.0)	10.2 (8.0 - 12.9)	21.0 (18.1 - 24.1)

Tobacco use			
Percentage of students who ever tried or experimented with cigarette smoking (even one or two puffs)	38.4 (35.2 - 41.6)	48.7 (44.2 - 53.2)	28.9 (25.8 - 32.2)
Percentage of students who first tried smoking a cigarette before age 14 years (among students who ever tried smoking a cigarette)	56.5 (51.1 - 61.7)	58.7 (51.8 - 65.2)	52.4 (44.9 - 59.7)
Percentage of students who currently smoked cigarettes at least 1 day (past 30 days)	11.1 (9.0 - 13.5)	17.2 (14.0 - 20.8)	5.3 (4.0 - 7.1)
Percentage of students who reported someone refused to sell them cigarettes because of their age (past 30 days)	38.2 (31.2 - 45.7)	44.9 (35.6 - 54.6)	26.9 (20.0 - 35.1)
Percentage of students who currently used any form of smoked tobacco products other than cigarettes at least 1 day (past 30 days)	9.2 (7.7 - 11.1)	13.3 (10.9 - 16.1)	5.4 (4.1 - 7.1)
Percentage of students who had someone smoke in their presence 1 or more days (past 7 days)	63.2 (59.4 - 66.8)	64.6 (61.2 - 67.8)	62.2 (57.0 - 67.1)
Percentage of students who currently used any form of smokeless tobacco products at least 1 day (past 30 days)	9.5 (8.3 - 10.9)	13.6 (11.4 - 16.2)	5.7 (4.5 - 7.2)
Percentage of students who currently used a tobacco product at least 1 day (past 30 days)	19.9 (17.7 - 22.2)	28.6 (25.4 - 32.1)	11.7 (10.0 - 13.6)
Percentage of students who currently used electronic cigarettes at least 1 day (past 30 days)	24.8 (20.9 - 29.2)	29.9 (25.5 - 34.6)	20.0 (15.7 - 25.2)
Percentage of students who first tried an electronic cigarette or e-cigarette before age 14 years	35.3 (30.0 - 40.8)	37.8 (31.6 - 44.5)	31.9 (25.3 - 39.3)
Alcohol use			
Percentage of students who had their first drink of alcohol before age 14 years	42.3 (34.4-50.5)	41.0 (33.3 - 49.2)	43.0 (33.8 - 52.8)
Percentage of students who currently drank alcohol at least one drink containing alcohol at least 1 day (past 30 days)	10.8 (8.3-14.0)	11.2 (8.2-15.1)	10.5 (7.7-14.0)
Percentage of students who drank two or more drinks (past 30 days)	39.2 (31.8-47.0)	43.2 (32.4-54.7)	35.1 (26.3-45.0)
Percentage of students who drank six or more drinks (past 30 days)	13.8 (8.8-21.1)	17.3 (11.0-26.1)	10.7 (5.4-20.2)
Percentage of students who usually got the alcohol they drank from their friends (past 30 days)	22.7 (16.2-30.8)	16.2 8.2-29.6	29.0 (19.9-40.1)
Percentage of students who reported someone refused to sell them alcohol because of their age	50.4 (39.8 - 61.0)	-	-
Percentage of students whose last drink of alcohol was at their home or someone else's home	66.1 (60.8-71.1)	60.9 (51.1-69.8)	70.9 (63.5-77.3)
Percentage of students who ever got into trouble at home, work, or school or got into fights as a result of drinking alcohol	3.8 (2.8-5.2)	4.7 (3.0-7.5)	2.9 (2.0-4.2)
Percentage of students who drank so much alcohol that they were really drunk (one or more times during their life)	14.5 (12.2-17.2)	16.4 (13.7-19.5)	12.7 (9.8-16.2)
Reproductive health			
Percentage of students who ever had sexual intercourse	18.9 (16.4-21.8)	21.7 (17.9-26.1)	16.4 (14.3-18.8)
Percentage of students whose main reason for having sexual intercourse the first time was that all of their friends were already doing it	3.4 (1.9-6.1)	4.0 (2.1-7.8)	2.6 (0.8-7.7)

Percentage of students who had sexual intercourse for the first time before age 14 years	24.3 (15.8-35.5)	19.4 (11.2-31.4)	30.4 (20.2-43.0)
Percentage of students who had sexual intercourse with two or more persons	5.7 (4.2-7.7)	8.4 (6.0-11.6)	3.2 (2.3-4.5)
Percentage of students who used a condom during last sexual intercourse	63.9 (55.8-71.3)	70.8 (63.9-76.9)	55.1 (43.3-66.4)
Percentage of students who used birth control pills to prevent pregnancy during last sexual intercourse	3.4 (2.1-5.5)	3.4 (1.5-7.3)	3.4 (2.1-.5.5)
Percentage of students who would go to their parents or guardians if they wanted to learn about sexual behaviors and sexuality	37.0 (34.3-39.8)	35.7 (31.9-39.8)	38.2 (35.3-.41.3)
Protective factors			
Percentage of students who missed classes or school without permission at least 1 day (past 30 days)	26.5 (22.7 - 30.7)	27.8 (23.8 - 32.1)	25.2 (20.5 - 30.7)
Percentage of students who reported that most of the students in their school were most of the time or always kind and helpful (past 30 days)	55.3 (51.5 - 59.0)	55.5 (50.7 - 60.3)	55.2 (51.0 - 59.3)
Percentage of students who reported that most of the students in their school were never or rarely kind and helpful (past 30 days)	20.9 (17.6 - 24.6)	21.2 (17.5 - 25.5)	20.5 (17.0 - 24.5)
Percentage of students who reported that they were able to talk to someone most of the time or always about difficult problems and worries (past 30 days)	18.5 (16.2 - 21.1)	14.5 (12.2 - 17.2)	22.3 (19.1 - 25.9)
Percentage of students who reported that they were never or rarely able to talk to someone about difficult problems and worries (past 30 days)	57.2 (54.7 - 59.7)	65.0 (62.2 - 67.8)	49.8 (46.6 - 53.1)
Percentage of students who were able to talk to an adult in their school most of the time or always about difficult problems and worries (past 30 days)	2.9 (2.2 - 3.8)	2.5 (1.6 - 3.8)	3.1 (2.0 - 4.6)
Percentage of students who reported that their parents or guardians most of the time or always understood their problems and worries (past 30 days)	25.0 (22.7 - 27.4)	24.0 (21.3 - 26.8)	25.8 (22.3 - 29.6)
Percentage of students who reported that their parents or guardians never or rarely understood their problems and worries (past 30 days)	57.3 (54.4 - 60.2)	60.6 (57.1 - 64.0)	54.5 (49.9 - 58.9)
Percentage of students who reported that their parents or guardians most of the time or always checked to see if their homework was done (past 30 days)	21.5 (19.8 - 23.3)	24.3 (21.4 - 27.4)	18.8 (16.4 - 21.4)
Percentage of students who reported that their parents or guardians never or rarely checked to see if their homework was done (past 30 days)	59.0 (56.7 - 61.3)	53.7 (50.5 - 56.9)	64.2 (61.3 - 67.0)
Percentage of students who reported that their parents or guardians most of the time or always really knew what they were doing with their free time (past 30 days)	57.2 (53.7 - 60.6)	57.6 (54.1 - 61.1)	56.9 (52.4 - 61.2)
Percentage of students who reported that their parents or guardians never or rarely really knew what they were doing with their free time (past 30 days)	25.9 (23.4 - 28.6)	26.1 (23.2 - 29.2)	25.6 (22.5 - 28.9)
Percentage of students who reported that their parents or guardians never or rarely went through their things without their approval (past 30 days)	7.2 (5.8 - 8.9)	7.1 (5.7 - 8.9)	7.2 (5.6 - 9.2)



Percentage of students who reported that their parents or guardians most of the time or always went through their things without their approval (past 30 days)	80.7 (78.0 - 83.3)	81.5 (78.2 - 84.3)	80.0 (76.7 - 83.0)
Percentage of students who reported that their parents or guardians never or rarely ridiculed or put them down (past30 days)	59.8 (56.4 - 63.1)	66.1 (61.9 - 70.0)	53.9 (50.2 - 57.5)
Percentage of students who reported that their parents or guardians never or rarely unfairly compared them to someone else (past 30 days)	61.4 (57.7 - 64.9)	71.7 (68.2 - 75.0)	51.7 (46.3 - 57.1)
Percentage of students who reported that their parents or guardians most of the time or always tried to know who their friends were (past 30 days)	29.4 (27.3 - 31.6)	26.3 (23.2 - 29.7)	32.4 (29.7 - 35.2)

SUMMARY OF RESULTS (Students by location)

YOUTH'S HEALTH BEHAVIOUR AMONG SECONDARY SCHOOL CHILDREN, GSHS-2023

The data collection for the “ Youth`s Health Behaviour Among Secondary School Children, GSHS-2023” survey was conducted nationwide from April 17 to May 13, 2023, following the standard methodology developed by the WHO. A total of 51 secondary schools, comprising students from grades 8 to 12 in both urban and rural areas, were selected for the study using a two-stage random sampling method. The parents and guardians of the students in the selected classes provided informed consent for their children’s participation in the study by signing a consent form. The school participation rate in the survey was 100%, and the student participation rate was 85.9%.

Among 13-17-year-old secondary school students	Total, % (95% CI)	Urban, % (95% CI)	Rural, % (95% CI)
Body Mass Index			
Percentage of students who were underweight (BMI <-2SD)	3.2 (2.4 - 4.4)	3.1 (2.3 - 4.0)	3.8 (1.5 - 9.6)
Percentage of student who were overweight (BMI>+1SD)	14.6 (12.1-17.4)	14.5 (11.3-18.5)	15.0 (12.5-18.0)
Percentage of student who were obese (BMI>+2SD)	3.0 (2.2-4.2)	3.0 (2.2-4.5)	3.1 (1.9-5.0)
Dietary behaviours			
Percentage of students who most of the time or always went hungry, because there was not enough food in their home (past 30 days)	3.1 (2.1-4.5)	3.0 (1.9 - 4.9)	3.4 (1.8 - 6.1)
Percentage of students who did not eat fruit (past 7 days)	32.0 (29.9-34.1)	29.2 (26.9 - 31.7)	41.0 (36.0 - 46.2)
Percentage of students who ate fruit less than one time (past 7 days)	89.0 (87.2-90.6)	88.3 (86.0 - 90.3)	91.6 (88.5 - 94.0)
Percentage of students who ate fruit one or more times (past 7 days)	11.0 (9.4 - 12.8)	11.7 (9.7 - 14.0)	8.4 (6.0 - 11.5)
Percentage of students who ate fruit two or more times (past 7 days)	6.4 (5.4-7.6)	7.1 (5.8 - 8.7)	4.2 (2.9 - 6.1)
Percentage of students who ate fruit three or more times (past 7 days)	3.0 (2.3-3.9)	3.3 (2.4 - 4.5)	1.9 (2.3 - 5.7)
Percentage of students who did not eat vegetables (past 7 days)	2.9 (2.1-3.9)	2.0 (1.1 - 3.5)	5.7 (4.8 - 6.7)
Percentage of students who ate vegetables less than one time (past 7 days)	40.2 (36.4-44.0)	36.2 (31.2 - 41.4)	52.6 (47.7 - 57.5)
Percentage of students who ate vegetables one or more times (past 7 days)	59.8 (56.0 - 63.6)	63.8 (58.6 - 68.8)	47.4 (42.5 - 52.3)
Percentage of students who ate vegetables two or more times (past 7 days)	36.3 (32.8-40.0)	39.2 (34.1 - 44.5)	27.7 (23.3 - 32.6)
Percentage of students who ate vegetables three or more times (past 7 days)	13.8 (12.4-15.3)	14.2 (12.6 - 16.0)	12.4 (9.5 - 16.0)
Percentage of students who did not drink carbonated soft drinks (past 7 days)	29.1 (25.7 - 32.8)	27.0 (23.0 - 31.4)	35.8 (28.9 - 43.4)
Percentage of students who drank carbonated soft drinks less than one time (past 7 days)	87.3 (85.1 - 89.2)	87.1 (84.6 - 89.3)	88.2 (83.1 - 91.9)

Percentage of students who drank carbonated soft drinks one or more times (past 7 days)	12.7 (10.8 - 14.9)	12.9 (10.7 - 15.4)	11.8 (8.1 - 16.9)
Percentage of students who drank carbonated soft drinks two or more times (past 7 days)	5.0 (3.7 - 6.6)	5.0 (3.4 - 7.2)	4.6 (3.0 - 6.9)
Percentage of students who drank carbonated soft drinks three or more times (past 7 days)	2.1 (1.6 - 2.8)	2.1 (1.5 - 2.9)	1.9 (1.1 - 3.4)
Percentage of students who did not drink sugar-sweetened drinks (past 7 days)	31.1 (27.9 - 34.6)	28.4 (24.3 - 33.0)	39.5 (34.7 - 44.4)
Percentage of students who drank sugar-sweetened drinks less than one time (past 7 days)	89.9 (87.8 - 91.6)	89.8 (87.0 - 92.0)	91.0 (88.5 - 93.1)
Percentage of students who drank sugar-sweetened drinks one or more times (past 7 days)	10.1 (8.4 - 12.2)	10.2 (8.0 - 13.0)	9.0 (6.9 - 11.5)
Percentage of students who drank sugar-sweetened drinks two or more times (past 7 days)	4.0 (3.2 - 4.9)	4.2 (3.2 - 5.5)	3.0 (2.1 - 4.2)
Percentage of students who drank sugar-sweetened drinks three or more times (past 7 days)	1.8 (1.3 - 2.4)	1.8 (1.2 - 2.8)	1.5 (0.9 - 2.3)
Hygiene			
Percentage of students who usually cleaned or brushed their teeth one or more times per day (past 30 days)	93.5 (91.9 - 94.9)	93.3 (91.1 - 95.0)	94.7 (93.4 - 95.7)
Percentage of students who did not clean or brush their teeth or usually cleaned or brushed their teeth less than 1 time per day (past 30 days)	6.5 (5.1 - 8.1)	6.7 (5.0 - 8.9)	5.3 (4.3 - 6.6)
Percentage of students who usually used a toothpaste that contained fluoride among students who cleaned or brushed their teeth (past 30 days)	34 (30.0 - 38.3)	34.1 (28.8 - 39.8)	34 (29.8 - 38.5)
Percentage of students who missed classes or school because of a problem with their mouth and teeth (past 30 days)	8.0 (6.3 - 10.0)	7.7 (5.6 - 10.5)	8.9 (7.0 - 11.1)
Percentage of students who never or rarely washed their hands before eating (past 30 days)	5.7 (4.7 - 6.9)	6.0 (4.6 - 7.6)	5.0 (3.6 - 7.0)
Percentage of students who never or rarely washed their hands after using the toilet or latrine (past 30 days)	4.2 (3.1 - 5.7)	3.3 (2.0 - 5.5)	7.3 (5.1 - 10.4)
Percentage of students who never or rarely used soap when washing their hands (past 30 days)	4.0 (2.8 - 5.8)	3.6 (2.1 - 6.0)	5.9 (3.8 - 9.1)
Percentage of students who had separate toilets or latrines for boys and girls (among students who attended a school with toilets or latrines)	98.5 (92.3 - 99.7)	-	-
Unintentional injuries and violence			
Percentage of students who were seriously injured (one or more times during the past 12 months)	39.6 (36.4-42.8)	41.3 (37.1-45.6)	33.9 (29.5-38.7)
Percentage of students who reported that their most serious injury was a broken bone, dislocated joint, or a broken or knocked out tooth (past 12 months)	24.9 (20.6-29.7)	24.6 (19.3-30.7)	25.9 (19.9-33.0)
Percentage of students who reported that their most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle (past 12 months)	5.4 (3.9-7.4)	5.7 (3.8-8.7)	4.4 (2.1-8.8)
Percentage of students who were physically attacked (one or more times (past 12 months)	23.3 (21.2-25.6)	23.2 (20.5-26.2)	23.3 (20.1-27.0)

Percentage of students who were in a physical fight one or more times (past 12 months)	28.3 (26.1-30.6)	27.8 (24.9-30.9)	29.5 (26.3-32.8)
Percentage of students who were bullied on school property (past 12 months)	26.9 (25.2-28.6)	26.7 (24.5-29.1)	27.3 (25.1-29.6)
Percentage of students who were bullied when not on school property (past 12 months)	17.4 (15.5-19.5)	16.7 (14.1-19.6)	19.0 (10.8-15.1)
Percentage of students who were bullied face-to-face most often by being hit, kicked, pushed, shoved around, or locked indoors (past 12 months)	17.7 (14.8 - 21.0)	18.6 (14.7 - 23.1)	15.3 (12.3 - 18.8)
Percentage of students who were cyber bullied (past 12 months)	17.9 (16.5-19.3)	18.5 (16.7-20.4)	19.0 (16.4-21.9)
Percentage of students who were cyber bullied most often by being sent nasty or hurtful messages, pictures, or videos (past 12 months)	39.2 (34.4-44.3)	40.0 (33.2-47.2)	36.8 (31.7-42.1)
Percentage of students who were forced by anyone to do sexual things that they did not want to do one or more times (past 12 months)	9.3 (7.7-11.2)	10.0 (7.9-12.7)	6.9 (5.6-8.5)
Percentage of students who had someone ask them to do sexual things on the internet or social media when they did not want to one or more times (past 12 months)	5.9 (4.8-7.3)	6.4 (4.9-8.3)	4.3 (2.9-6.4)
Percentage of students whose teacher hit, slapped, or physically hurt them on purpose or made them do something that hurt (past 12 months)	26.7 (23.5 - 30.1)	26.6 (22.5 - 31.0)	27.9 (23.6 - 32.6)
Percentage of students whose teacher called them names or said things in a mean or hurtful manner that made them feel afraid, rejected, shameful, or threatened (past 12 months)	32.9 (29.6 - 36.4)	35.1 (30.6 - 39.7)	26.9 (23.5 - 30.6)
Mental health			
Percentage of students who have no close friends	8.2 (6.8 - 10.0)	8.8 (6.8 - 11.3)	6.7 (5.1 - 8.8)
Percentage of students who most of the time or always felt lonely (past 12 months)	24.3 (22.2-26.4)	26.1 (23.5 - 28.9)	18.1 (15.6 - 21.0)
Percentage of students who most of the time or always were so worried about something that they could not sleep at night (past 12 months)	12.5 (10.8 - 14.5)	14.1 (11.7 - 16.7)	7.5 (6.3 - 8.9)
Percentage of students who were you taught in any of their classes how to handle stress in healthy ways during this school year	46.1 (42.1 - 50.1)	47.6 (42.4 - 52.9)	41.2 (36.5 - 46.1)
Percentage of students who seriously considered attempting suicide (past 12 months)	39.0 (36.3 - 41.8)	41.7 (38.0 - 45.4)	29.5 (26.2 - 33.1)
Percentage of students who made a plan about how they would attempt suicide (past 12 months)	22.2 (20.0 - 24.6)	23.6 (20.4 - 27.1)	17.3 (14.4 - 20.7)
Percentage of students who attempted suicide one or more times (past 12 months)	15.8 (13.8-18.0)	16.5 (13.8 - 19.6)	12.9 (10.1 - 16.3)
Tobacco use			
Percentage of students who ever tried or experimented with cigarette smoking (even one or two puffs)	38.4 (35.2 - 41.6)	38.8 (34.9 - 42.8)	36.8 (31.1 - 43.0)
Percentage of students who first tried smoking a cigarette before age 14 years (among students who ever tried smoking a cigarette)	56.5 (51.1 - 61.7)	56.5 (49.3 - 63.4)	57.5 (51.0 - 63.7)

Percentage of students who currently smoked cigarettes at least 1 day (past 30 days)	11.1 (9.0 - 13.5)	10.9 (8.3 - 14.2)	12.2 (9.6 - 15.4)
Percentage of students who reported someone refused to sell them cigarettes because of their age (past 30 days)	38.2 (31.2 - 45.7)	33.2 (24.5 - 43.2)	53.3 (40.6 - 65.7)
Percentage of students who currently used any form of smoked tobacco products other than cigarettes at least 1 day (past 30 days)	9.2 (7.7 - 11.1)	9.5 (7.6 - 11.9)	8.5 (6.4 - 11.2)
Percentage of students who had someone smoke in their presence 1 or more days (past 7 days)	63.2 (59.4 - 66.8)	64.4 (59.4 - 69.1)	58.7 (53.6 - 63.6)
Percentage of students who currently used any form of smokeless tobacco products at least 1 day (past 30 days)	9.5 (8.3 - 10.9)	9.6 (8.0 - 11.5)	9.2 (7.8 - 10.8)
Percentage of students who currently used a tobacco product at least 1 day (past 30 days)	19.9 (17.7 - 22.2)	20.0 (17.2 - 23.0)	20.2 (16.6 - 24.2)
Percentage of students who currently used electronic cigarettes at least 1 day (past 30 days)	24.8 (20.9 - 29.2)	27.4 (22.5 - 32.9)	16.5 (11.6 - 22.9)
Percentage of students who first tried an electronic cigarette or e-cigarette before age 14 years	35.3 (30.0 - 40.8)	36.5 (29.9 - 43.7)	29.9 (23.6 - 37.0)
Alcohol use			
Percentage of students who had their first drink of alcohol before age 14 years	42.3 (34.4-50.5)	42.0 (32.2 - 52.4)	42.3 (34.0 - 51.1)
Percentage of students who currently drank alcohol at least one drink containing alcohol at least 1 day (past 30 days)	10.8 (8.3-14.0)	12.0 (8.7 - 16.3)	6.7 (4.8 - 9.1)
Percentage of students who drank two or more drinks (past 30 days)	39.2 (31.8-47.0)	40.1 (31.2 - 49.8)	35.8 (23.5 - 50.2)
Percentage of students who drank six or more drinks (past 30 days)	13.8 (8.8-21.1)	12.8 (7.1 - 21.9)	20.1 (8.2 - 41.2)
Percentage of students who usually got the alcohol they drank from their friends (past 30 days)	22.7 (16.2-30.8)	22.8 (15.0 - 33.0)	22.7 (16.9 - 29.7)
Percentage of students who reported someone refused to sell them alcohol because of their age	50.4 (39.8 - 61.0)	-	-
Percentage of students whose last drink of alcohol was at their home or someone else's home	66.1 (60.8-71.1)	66.0 (59.4 - 72.1)	65.8 (57.2 - 73.4)
Percentage of students who ever got into trouble at home, work, or school or got into fights as a result of drinking alcohol	3.8 (2.8-5.2)	3.9 (2.6 - 5.7)	4.4 (1.2 - 14.7)
Percentage of students who drank so much alcohol that they were really drunk (one or more times during their life)	14.5 (12.2-17.2)	15.3 (12.3 - 18.9)	11.7 (8.5 - 15.8)
Reproductive health			
Percentage of students who ever had sexual intercourse	18.9 (16.4-21.8)	19.5 (16.2-23.3)	16.6 (13.5-20.2)
Percentage of students whose main reason for having sexual intercourse the first time was that all of their friends were already doing it	3.4 (1.9-6.1)	3.5 (1.5-7.6)	3.5 (1.5-8.0)
Percentage of students who had sexual intercourse for the first time before age 14 years	24.3 (15.8-35.5)	23.8 (13.7-38.1)	26.2 (17.3-37.7)
Percentage of students who had sexual intercourse with two or more persons	5.7 (4.2-7.7)	6.0 (4.1-8.8)	4.7 (3.2-6.9)
Percentage of students who used a condom during last sexual intercourse	63.9 (55.8-71.3)	63.2 (52.7-72.5)	70.1 (62.2-76.9)

Percentage of students who used birth control pills to prevent pregnancy during last sexual intercourse	3.4 (2.1-5.5)	3.5 (2.0-6.2)	2.3 (0.8-6.6)
Percentage of students who would go to their parents or guardians if they wanted to learn about sexual behaviors and sexuality	37.0 (34.3-39.8)	35.3 (31.8-39.0)	42.4 (39.3-.45.5)
Protective factors			
Percentage of students who missed classes or school without permission at least 1 day (past 30 days)	26.5 (22.7 - 30.7)	24.9 (20.1 - 30.4)	32.2 (29.3 - 35.3)
Percentage of students who reported that most of the students in their school were most of the time or always kind and helpful (past 30 days)	55.3 (51.5 - 59.0)	55.5 (50.2 - 60.7)	55.7 (52.8 - 58.5)
Percentage of students who reported that most of the students in their school were never or rarely kind and helpful (past 30 days)	20.9 (17.6 - 24.6)	20.8 (16.3 - 26.3)	20.5 (18.2 - 22.9)
Percentage of students who reported that they were able to talk to someone most of the time or always about difficult problems and worries (past 30 days)	18.5 (16.2 - 21.1)	19.8 (16.8 - 23.2)	13.8 (12.1 - 15.7)
Percentage of students who reported that they were never or rarely able to talk to someone about difficult problems and worries (past 30 days)	57.2 (54.7 - 59.7)	56.6 (52.9 - 59.5)	62.1 (59.7 - 64.5)
Percentage of students who were able to talk to an adult in their school most of the time or always about difficult problems and worries (past 30 days)	2.9 (2.2 - 3.8)	2.7 (1.8 - 4.1)	3.3 (2.6 - 4.2)
Percentage of students who reported that their parents or guardians most of the time or always understood their problems and worries (past 30 days)	25.0 (22.7 - 27.4)	25.0 (21.8 - 28.5)	25.7 (22.8 - 28.8)
Percentage of students who reported that their parents or guardians never or rarely understood their problems and worries (past 30 days)	57.3 (54.4 - 60.2)	57.1 (52.9 - 61.3)	57.0 (54.0 - 60.0)
Percentage of students who reported that their parents or guardians most of the time or always checked to see if their homework was done (past 30 days)	21.5 (19.8 - 23.3)	20.2 (18.1 - 22.3)	26.5 (22.5 - 30.9)
Percentage of students who reported that their parents or guardians never or rarely checked to see if their homework was done (past 30 days)	59.0 (56.7 - 61.3)	60.4 (57.5 - 63.1)	53.9 (49.5 - 58.2)
Percentage of students who reported that their parents or guardians most of the time or always really knew what they were doing with their free time (past 30 days)	57.2 (53.7 - 60.6)	58.9 (54.4 - 63.2)	51.7 (46.9 - 56.3)
Percentage of students who reported that their parents or guardians never or rarely really knew what they were doing with their free time (past 30 days)	25.9 (23.4 - 28.6)	24.3 (21.0 - 28.0)	30.7 (27.7 - 33.8)
Percentage of students who reported that their parents or guardians never or rarely went through their things without their approval (past 30 days)	7.2 (5.8 - 8.9)	7.4 (5.7 - 9.7)	6.1 (4.7 - 8.1)
Percentage of students who reported that their parents or guardians most of the time or always went through their things without their approval (past 30 days)	80.7 (78.0 - 83.3)	79.9 (76.0 - 83.4)	82.8 (80.3 - 85.1)
Percentage of students who reported that their parents or guardians never or rarely ridiculed or put them down (past 30 days)	59.8 (56.4 - 63.1)	58.2 (53.7 - 62.5)	66.0 (63.0 - 68.8)



Percentage of students who reported that their parents or guardians never or rarely unfairly compared them to someone else (past 30 days)	61.4 (57.7 - 64.9)	59.2 (54.2 - 64.0)	67.9 (65.9 - 69.9)
Percentage of students who reported that their parents or guardians most of the time or always tried to know who their friends were (past 30 days)	29.4 (27.3 - 31.6)	30.7 (28.0 - 33.4)	24.1 (21.8 - 26.6)

SUMMARY OF RESULTS (Students by location and gender)

YOUTH'S HEALTH BEHAVIOUR AMONG SECONDARY SCHOOL CHILDREN, GSHS-2023

The data collection for the “ Youth`s Health Behaviour Among Secondary School Children, GSHS-2023” survey was conducted nationwide from April 17 to May 13, 2023, following the standard methodology developed by the WHO. A total of 51 secondary schools, comprising students from grades 8 to 12 in both urban and rural areas, were selected for the study using a two-stage random sampling method. The parents and guardians of the students in the selected classes provided informed consent for their children’s participation in the study by signing a consent form. The school participation rate in the survey was 100%, and the student participation rate was 85.9%.

Among 13-17-year-old secondary school students	Total %, (95% CI)	Urban %	
		Male (95% CI)	Female (95% CI)
Body Mass Index			
Percentage of students who were underweight (BMI <-2SD)	3.1 (2.3 - 4.0)	3.9 (2.9 - 5.4)	2.2 (1.3 - 3.8)
Percentage of student who were overweight (BMI>+1SD)	14.5 (11.3 - 18.5)	14.3 (10.2 - 19.6)	14.7 (11.6 - 18.5)
Percentage of student who were obese (BMI>+2SD)	3.0 (2.0 - 4.5)	3.7 (2.2 - 6.3)	2.3 (1.3 - 4.1)
Dietary behaviours			
Percentage of students who most of the time or always went hungry, because there was not enough food in their home (past 30 days)	3.0 (1.9 - 4.9)	4.0 (2.5 - 6.3)	2.1 (1.0 - 4.3)
Percentage of students who did not eat fruit (past 7 days)	29.2 (26.9 - 31.7)	28.4 (25.9 - 31.1)	30.0 (26.7 - 33.5)
Percentage of students who ate fruit less than one time (past 7 days)	88.3 (86.0 - 90.3)	89.5 (86.5 - 91.9)	87.4 (83.8 - 90.3)
Percentage of students who ate fruit one or more times (past 7 days)	11.7 (9.7 - 14.0)	10.5 (8.1 - 13.5)	12.6 (9.7 - 16.2)
Percentage of students who ate fruit two or more times (past 7 days)	7.1 (5.8 - 8.7)	5.4 (3.9 - 7.5)	8.5 (6.8 - 10.4)
Percentage of students who ate fruit three or more times (past 7 days)	3.3 (2.4 - 4.5)	2.5 (1.4 - 4.2)	4.1 (3.1 - 5.4)
Percentage of students who did not eat vegetables (past 7 days)	2.0 (1.1 - 3.5)	1.4 (0.7 - 2.7)	2.5 (1.3 - 4.8)
Percentage of students who ate vegetables less than one time (past 7 days)	36.2 (31.2 - 41.4)	34.8 (28.6 - 41.5)	37.3 (32.0 - 42.9)
Percentage of students who ate vegetables one or more times (past 7 days)	39.2 (34.1 - 44.5)	42.6 (37.7 - 47.6)	36.0 (29.3 - 43.3)
Percentage of students who ate vegetables two or more times (past 7 days)	39.2 (34.1 - 44.5)	42.6 (37.7 - 47.6)	36.0 (29.3 - 43.3)
Percentage of students who ate vegetables three or more times (past 7 days)	14.2 (12.6 - 16.0)	17.9 (15.3 - 20.8)	10.8 (8.3 - 13.8)
Percentage of students who did not drink carbonated soft drinks (past 7 days)	27.0 (23.0 - 31.4)	23.5 (18.6 - 29.3)	30.2 (25.8 - 34.9)

Percentage of students who drank carbonated soft drinks less than one time (past 7 days)	87.1 (84.6 - 89.3)	88.2 (85.8 - 90.4)	86.3 (81.9 - 89.8)
Percentage of students who drank carbonated soft drinks one or more times (past 7 days)	12.9 (10.7 - 15.4)	11.8 (9.6 - 14.2)	13.7 (10.2 - 18.1)
Percentage of students who drank carbonated soft drinks two or more times (past 7 days)	5.0 (3.4 - 7.2)	4.0 (2.9 - 5.4)	5.7 (3.3 - 9.6)
Percentage of students who drank carbonated soft drinks three or more times (past 7 days)	2.1 (1.5 - 2.9)	1.7 (1.0 - 2.8)	2.4 (1.6 - 3.6)
Percentage of students who did not drink sugar-sweetened drinks (past 7 days)	28.4 (24.3 - 33.0)	27.3 (21.5 - 34.0)	29.5 (24.5 - 35.1)
Percentage of students who drank sugar-sweetened drinks less than one time (past 7 days)	89.8 (87.0 - 92.0)	91.9 (88.7 - 94.2)	88.1 (83.9 - 91.3)
Percentage of students who drank sugar-sweetened drinks one or more times (past 7 days)	10.2 (8.0 - 13.0)	8.1 (5.8 - 11.3)	11.9 (8.7 - 16.1)
Percentage of students who drank sugar-sweetened drinks two or more times (past 7 days)	4.2 (3.2 - 5.5)	2.7 (1.7 - 4.4)	5.3 (3.7 - 7.6)
Percentage of students who drank sugar-sweetened drinks three or more times (past 7 days)	1.8 (1.2 - 2.8)	1.7 (0.8 - 3.5)	1.7 (1.0 - 3.1)
Hygiene			
Percentage of students who usually cleaned or brushed their teeth one or more times per day (past 30 days)	93.3 (91.1 - 95.0)	91.5 (88.2 - 93.9)	94.9 (92.7 - 96.5)
Percentage of students who did not clean or brush their teeth or usually cleaned or brushed their teeth less than 1 time per day (past 30 days)	6.7 (5.0 - 8.9)	8.3 (6.4 - 10.7)	4.8 (3.6 - 6.4)
Percentage of students who usually used a toothpaste that contained fluoride among students who cleaned or brushed their teeth (past 30 days)	34.1 (28.8 - 39.8)	36.1 (30.8 - 41.7)	31.8 (25.7 - 38.6)
Percentage of students who missed classes or school because of a problem with their mouth and teeth (past 30 days)	7.7 (5.6 - 10.5)	7.9 (5.2 - 11.8)	7.3 (5.6 - 9.5)
Percentage of students who never or rarely washed their hands before eating (past 30 days)	6.0 (4.6 - 7.6)	5.5 (3.6 - 8.2)	6.2 (4.7 - 8.0)
Percentage of students who never or rarely washed their hands after using the toilet or latrine (past 30 days)	3.3 (2.0 - 5.5)	3.3 (1.7 - 6.2)	3.0 (1.7 - 5.2)
Percentage of students who never or rarely used soap when washing their hands (past 30 days)	3.6 (2.1 - 6.0)	3.9 (2.0 - 7.4)	3.2 (1.7 - 5.7)
Percentage of students who had separate toilets or latrines for boys and girls (among students who attended a school with toilets or latrines)	-	-	-
Unintentional injuries and violence			
Percentage of students who were seriously injured (one or more times during the past 12 months)	41.3 (37.1 - 45.6)	43.0 (37.5 - 48.6)	39.6 (33.3 - 46.3)
Percentage of students who reported that their most serious injury was a broken bone, dislocated joint, or a broken or knocked out tooth (past 12 months)	24.6 (19.3 - 30.7)	31.1 (24.1 - 39.2)	18.1 (12.5 - 25.6)
Percentage of students who reported that their most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle (past 12 months)	5.7 (3.8 - 8.7)	5.7 (2.5 - 12.4)	5.6 (2.9 - 10.3)



Percentage of students who were physically attacked (one or more times (past 12 months))	23.2 (20.5 - 26.2)	23.9 (20.3 - 27.9)	22.6 (19.1 - 26.6)
Percentage of students who were in a physical fight one or more times (past 12 months)	27.8 (24.9 - 30.9)	37.2 (33.1 - 41.5)	18.8 (16.0 - 22.1)
Percentage of students who were bullied on school property (past 12 months)	26.7 (24.5 - 29.1)	27.5 (24.7 - 30.5)	25.8 (22.1 - 29.9)
Percentage of students who were bullied when not on school property (past 12 months)	16.7 (14.1 - 19.6)	21.3 (18.1 - 24.8)	12.3 (9.7 - 15.4)
Percentage of students who were bullied face-to-face most often by being hit, kicked, pushed, shoved around, or locked indoors (past 12 months)	18.6 (14.7 - 23.1)	27.0 (19.4 - 36.1)	12.1 (9.1 - 16.0)
Percentage of students who were cyber bullied (past 12 months)	18.5 (16.7 - 20.4)	14.4 (12.0 - 17.3)	22.1 (19.4 - 24.9)
Percentage of students who were cyber bullied most often by being sent nasty or hurtful messages, pictures, or videos (past 12 months)	4.0 (33.2 - 47.2)	-	45.1 (36.8 - 53.8)
Percentage of students who were forced by anyone to do sexual things that they did not want to do one or more times (past 12 months)	10.0 (7.9 - 12.7)	7.1 (4.4 - 11.4)	12.8 (9.8 - 16.7)
Percentage of students who had someone ask them to do sexual things on the internet or social media when they did not want to one or more times (past 12 months)	6.4 (4.9 - 8.3)	4.1 (2.7 - 5.9)	8.5 (6.3 - 11.5)
Percentage of students whose teacher hit, slapped, or physically hurt them on purpose or made them do something that hurt (past 12 months)	26.6 (22.5 - 31.0)	33.3 (27.1 - 40.1)	20.4 (17.2 - 24.0)
Percentage of students whose teacher called them names or said things in a mean or hurtful manner that made them feel afraid, rejected, shameful, or threatened (past 12 months)	35.1 (30.6 - 39.7)	28.6 (28.6 - 38.2)	36.8 (31.2 - 42.9)
Mental health			
Percentage of students who have no close friends	8.8 (6.8 - 11.3)	7.2 (5.5 - 9.5)	10.3 (7.6 - 14.0)
Percentage of students who most of the time or always felt lonely (past 12 months)	26.1 (23.5 - 28.9)	18.2 (14.7 - 22.2)	33.8 (30.2 - 37.6)
Percentage of students who most of the time or always were so worried about something that they could not sleep at night (past 12 months)	14.1 (11.7 - 16.7)	9.7 (7.3 - 12.8)	18.3 (15.1 - 22.0)
Percentage of students who were you taught in any of their classes how to handle stress in healthy ways during this school year	47.6 (42.4 - 52.9)	44.5 (39.5 - 49.5)	50.7 (43.9 - 57.4)
Percentage of students who seriously considered attempting suicide (past 12 months)	41.7 (38.0 - 45.4)	30.3 (25.2 - 35.9)	52.3 (47.2 - 57.4)
Percentage of students who made a plan about how they would attempt suicide (past 12 months)	23.6 (20.4 - 27.1)	16.7 (13.6 - 20.3)	30.0 (25.6 - 34.8)
Percentage of students who attempted suicide one or more times (past 12 months)	16.5 (13.8 - 19.6)	10.1 (7.4 - 13.7)	22.4 (18.4 - 27.0)
Tobacco use			
Percentage of students who ever tried or experimented with cigarette smoking (even one or two puffs)	38.8 (34.9 - 42.8)	48.8 (43.0 - 54.7)	29.5 (25.9 - 33.4)

Percentage of students who first tried smoking a cigarette before age 14 years (among students who ever tried smoking a cigarette)	56.5 (49.3 - 63.4)	59.0 (49.5 - 67.8)	51.9 (42.6 - 61.1)
Percentage of students who currently smoked cigarettes at least 1 day (past 30 days)	10.9 (8.3 - 14.2)	16.6 (12.7 - 21.5)	5.5 (3.8 - 8.0)
Percentage of students who reported someone refused to sell them cigarettes because of their age (past 30 days)	-	-	-
Percentage of students who currently used any form of smoked tobacco products other than cigarettes at least 1 day (past 30 days)	9.5 (7.6 - 11.9)	13.7 (10.7 - 17.3)	5.6 (4.0 - 7.9)
Percentage of students who had someone smoke in their presence 1 or more days (past 7 days)	64.4 (59.4 - 69.1)	65.9 (61.7 - 69.8)	63.3 (56.1 - 69.8)
Percentage of students who currently used any form of smokeless tobacco products at least 1 day (past 30 days)	9.6 (8.0 - 11.5)	13.6 (10.7 - 17.2)	5.8 (4.3 - 7.6)
Percentage of students who currently used a tobacco product at least 1 day (past 30 days)	20.0 (17.2 - 23.0)	28.6 (24.4 - 33.2)	12.0 (10.0 - 14.3)
Percentage of students who currently used electronic cigarettes at least 1 day (past 30 days)	27.4 (22.5 - 32.9)	32.8 (27.8 - 38.2)	22.3 (16.7 - 29.1)
Percentage of students who first tried an electronic cigarette or e-cigarette before age 14 years	36.5 (29.9 - 43.7)	39.5 (31.3 - 48.3)	32.7 (24.6 - 42.0)
Alcohol use			
Percentage of students who had their first drink of alcohol before age 14 years	42.0 (32.2 - 52.4)	40.2 (30.5 - 50.8)	43.1 (32.2 - 54.8)
Percentage of students who currently drank alcohol at least one drink containing alcohol at least 1 day (past 30 days)	12.0 (8.7 - 16.3)	12.2 (8.3 - 17.4)	11.8 (8.2 - 16.6)
Percentage of students who drank two or more drinks (past 30 days)	40.1 (31.2 - 49.8)	-	35.2 (24.8 - 47.2)
Percentage of students who drank six or more drinks (past 30 days)	12.8 (7.1 - 21.9)	-	-
Percentage of students who usually got the alcohol they drank from their friends (past 30 days)	22.8 (15.0 - 33.0)	-	29.3 (18.7 - 42.9)
Percentage of students who reported someone refused to sell them alcohol because of their age	66.0 (59.4 - 72.1)	59.1 (47.2 - 70.0)	72.1 (63.3 - 79.4)
Percentage of students whose last drink of alcohol was at their home or someone else's home	3.9 (2.6 - 5.7)	4.9 (2.7 - 8.6)	2.9 (1.7 - 4.8)
Percentage of students who ever got into trouble at home, work, or school or got into fights as a result of drinking alcohol	15.3 (12.3 - 18.9)	17.0 (13.6 - 20.9)	13.6 (9.9 - 18.4)
Reproductive health			
Percentage of students who ever had sexual intercourse	19.5 (16.2 - 23.3)	22.4 (17.5 - 28.2)	17.0 (14.3 - 20.0)
Percentage of students whose main reason for having sexual intercourse the first time was that all of their friends were already doing it	3.5 (1.5 - 7.6)	4.3 (1.9 - 9.4)	-
Percentage of students who had sexual intercourse for the first time before age 14 years	23.8 (13.7 - 38.1)	18.7 (9.1 - 34.6)	-
Percentage of students who had sexual intercourse with two or more persons	6.0 (4.1 - 8.8)	8.9 (5.8 - 13.4)	3.3 (2.1 - 5.1)
Percentage of students who used a condom during last sexual intercourse	63.2 (52.7 - 72.5)	-	-

Percentage of students who used birth control pills to prevent pregnancy during last sexual intercourse	3.5 (2.0 - 6.2)	-	-
Percentage of students who would go to their parents or guardians if they wanted to learn about sexual behaviors and sexuality	35.3 (31.8 - 39.0)	33.9 (29.0 - 39.2)	36.7 (32.4 - 41.1)
Protective factors			
Percentage of students who missed classes or school without permission at least 1 day (past 30 days)	24.9 (20.1 - 30.4)	25.1 (20.4 - 30.5)	24.7 (18.6 - 32.0)
Percentage of students who reported that most of the students in their school were most of the time or always kind and helpful (past 30 days)	55.5 (50.2 - 60.7)	55.8 (49.3 - 62.1)	55.3 (49.5 - 61.0)
Percentage of students who reported that most of the students in their school were never or rarely kind and helpful (past 30 days)	20.8 (16.3 - 26.3)	21.0 (15.8 - 27.3)	20.6 (15.9 - 26.2)
Percentage of students who reported that they were able to talk to someone most of the time or always about difficult problems and worries (past 30 days)	19.8 (16.8 - 23.2)	15.8 (12.9 - 19.3)	23.6 (19.3 - 28.4)
Percentage of students who reported that they were never or rarely able to talk to someone about difficult problems and worries (past 30 days)	56.2 (52.9 - 59.5)	64.6 (60.1 - 67.6)	48.9 (44.3 - 53.5)
Percentage of students who were able to talk to an adult in their school most of the time or always about difficult problems and worries (past 30 days)	2.7 (1.8 - 4.1)	2.5 (1.3 - 4.6)	2.8 (1.5 - 5.0)
Percentage of students who reported that their parents or guardians most of the time or always understood their problems and worries (past 30 days)	25.6 (21.8 - 28.5)	24.6 (21.0 - 28.5)	25.3 (20.6 - 30.6)
Percentage of students who reported that their parents or guardians never or rarely understood their problems and worries (past 30 days)	57.1 (52.9 - 61.3)	60.6 (56.0 - 65.0)	54.1 (47.5 - 60.6)
Percentage of students who reported that their parents or guardians most of the time or always checked to see if their homework was done (past 30 days)	20.2 (18.1 - 22.3)	22.5 (18.7 - 26.8)	17.9 (15.0 - 21.2)
Percentage of students who reported that their parents or guardians never or rarely checked to see if their homework was done (past 30 days)	60.4 (57.5 - 63.1)	55.8 (51.7 - 59.8)	64.8 (61.0 - 68.4)
Percentage of students who reported that their parents or guardians most of the time or always really knew what they were doing with their free time (past 30 days)	58.9 (54.4 - 63.2)	59.0 (54.1 - 63.8)	59.0 (53.2 - 64.6)
Percentage of students who reported that their parents or guardians never or rarely really knew what they were doing with their free time (past 30 days)	24.3 (21.0 - 28.0)	25.4 (21.5 - 29.8)	23.1 (19.1 - 27.7)
Percentage of students who reported that their parents or guardians never or rarely went through their things without their approval (past 30 days)	7.4 (5.7 - 9.7)	7.0 (5.3 - 9.2)	7.8 (5.7 - 10.5)
Percentage of students who reported that their parents or guardians most of the time or always went through their things without their approval (past 30 days)	79.9 (76.0 - 83.4)	81.6 (76.9 - 85.5)	78.3 (73.6 - 82.4)
Percentage of students who reported that their parents or guardians never or rarely ridiculed or put them down (past 30 days)	58.2 (53.7 - 62.5)	64.3 (58.9 - 69.4)	52.4 (47.3 - 57.4)



Percentage of students who missed classes or school without permission at least 1 day (past 30 days)	59.2 (54.2 - 64.0)	69.9 (65.0 - 74.3)	49.3 (42.0 - 56.7)
Percentage of students who reported that most of the students in their school were most of the time or always kind and helpful (past 30 days)	30.7 (28.0 - 33.4)	27.2 (23.0 - 31.7)	34.1 (30.8 - 37.6)

SUMMARY OF RESULTS (Students by location and gender)

YOUTH'S HEALTH BEHAVIOUR AMONG SECONDARY SCHOOL CHILDREN, GSHS-2023

The data collection for the “Youth’s Health Behaviour Among Secondary School Children, GSHS-2023” survey was conducted nationwide from April 17 to May 13, 2023, following the standard methodology developed by the WHO. A total of 51 secondary schools, comprising students from grades 8 to 12 in both urban and rural areas, were selected for the study using a two-stage random sampling method. The parents and guardians of the students in the selected classes provided informed consent for their children’s participation in the study by signing a consent form. The school participation rate in the survey was 100%, and the student participation rate was 85.9%.

Among 13-17-year-old secondary school students	Total %, (95% CI)	Rural, %	
		Male (95% CI)	Female (95% CI)
Body Mass Index			
Percentage of students who were underweight (BMI <-2SD)	3.8 (1.5 - 9.6)	5.0 (2.0 - 11.8)	2.7 (0.9 - 7.8)
Percentage of student who were overweight (BMI>+1SD)	15.0 (12.5 - 18.0)	11.0 (8.5 - 14.1)	19.0 (15.0 - 23.6)
Percentage of student who were obese (BMI>+2SD)	3.1 (1.9 - 5.0)	3.0 (1.5 - 6.0)	3.2 (2.0 - 5.0)
Dietary behaviours			
Percentage of students who most of the time or always went hungry, because there was not enough food in their home (past 30 days)	3.4 (1.8 - 6.1)	2.9 (1.5 - 5.5)	3.8 (2.0 - 7.3)
Percentage of students who did not eat fruit (past 7 days)	41.0 (36.0 - 46.2)	36.1 (32.2 - 40.2)	45.7 (38.3 - 53.3)
Percentage of students who ate fruit less than one time (past 7 days)	91.6 (88.5 - 94.0)	90.8 (86.9 - 93.6)	92.4 (89.0 - 94.8)
Percentage of students who ate fruit one or more times (past 7 days)	8.4 (6.0 - 11.5)	9.2 (6.4 - 13.1)	7.6 (5.2 - 11.0)
Percentage of students who ate fruit two or more times (past 7 days)	4.2 (2.9 - 6.1)	4.8 (2.9 - 7.8)	3.6 (2.3 - 5.7)
Percentage of students who ate fruit three or more times (past 7 days)	1.9 (2.3 - 5.7)	2.4 (1.2 - 4.9)	1.4 (0.9 - 2.5)
Percentage of students who did not eat vegetables (past 7 days)	5.7 (4.8 - 6.7)	4.9 (3.8 - 6.3)	6.3 (5.0 - 7.9)
Percentage of students who ate vegetables less than one time (past 7 days)	52.6 (47.7 - 57.5)	52.2 (46.9 - 57.4)	52.9 (47.9 - 57.9)
Percentage of students who ate vegetables one or more times (past 7 days)	47.4 (42.5 - 52.3)	47.8 (42.6 - 53.1)	47.1 (42.1 - 52.1)
Percentage of students who ate vegetables two or more times (past 7 days)	27.7 (23.3 - 32.6)	28.7 (23.8 - 34.2)	26.9 (22.2 - 32.0)
Percentage of students who ate vegetables three or more times (past 7 days)	12.4 (9.5 - 16.0)	13.2 (9.9 - 17.5)	11.7 (8.7 - 15.5)
Percentage of students who did not drink carbonated soft drinks (past 7 days)	35.8 (28.9 - 43.4)	28.1 (22.5 - 34.4)	43.4 (34.4 - 52.9)

Percentage of students who drank carbonated soft drinks less than one time (past 7 days)	88.2 (83.1 - 91.9)	86.7 (81.3 - 90.7)	89.8 (84.5 - 93.5)
Percentage of students who drank carbonated soft drinks one or more times (past 7 days)	11.8 (8.1 - 16.9)	13.3 (9.3 - 18.7)	10.2 (6.5 - 15.5)
Percentage of students who drank carbonated soft drinks two or more times (past 7 days)	4.6 (3.0 - 6.9)	5.7 (3.7 - 8.7)	3.5 (2.2 - 5.6)
Percentage of students who drank carbonated soft drinks three or more times (past 7 days)	1.9 (1.1 - 3.4)	2.3 (1.1 - 4.7)	1.6 (0.8 - 3.2)
Percentage of students who did not drink sugar-sweetened drinks (past 7 days)	39.5 (34.7 - 44.4)	36.2 (29.5 - 43.5)	42.7 (37.4 - 48.2)
Percentage of students who drank sugar-sweetened drinks less than one time (past 7 days)	91.0 (88.5 - 93.1)	91.1 (87.1 - 93.9)	91.1 (88.3 - 93.2)
Percentage of students who drank sugar-sweetened drinks one or more times (past 7 days)	9.0 (6.9 - 11.5)	8.9 (6.1 - 12.9)	8.9 (6.8 - 11.7)
Percentage of students who drank sugar-sweetened drinks two or more times (past 7 days)	3.0 (2.1 - 4.2)	3.0 (1.6 - 5.4)	3.0 (1.9 - 4.6)
Percentage of students who drank sugar-sweetened drinks three or more times (past 7 days)	2.7 (1.7 - 4.1)	2.6 (1.2 - 5.5)	2.7 (1.7 - 4.4)
Hygiene			
Percentage of students who usually cleaned or brushed their teeth one or more times per day (past 30 days)	94.7 (93.4 - 95.7)	92.6 (89.5 - 94.9)	96.7 (95.1 - 97.7)
Percentage of students who did not clean or brush their teeth or usually cleaned or brushed their teeth less than 1 time per day (past 30 days)	5.3 (4.3 - 6.6)	7.4 (5.1 - 10.5)	3.3 (2.3 - 4.9)
Percentage of students who usually used a toothpaste that contained fluoride among students who cleaned or brushed their teeth (past 30 days)	34.0 (29.8 - 38.5)	35.2 (31.0 - 39.5)	32.8 (27.5 - 38.6)
Percentage of students who missed classes or school because of a problem with their mouth and teeth (past 30 days)	8.9 (7.0 - 11.1)	7.9 (4.5 - 13.4)	9.9 (7.9 - 12.2)
Percentage of students who never or rarely washed their hands before eating (past 30 days)	5.0 (3.6 - 7.0)	4.8 (2.8 - 8.1)	5.3 (4.2 - 6.6)
Percentage of students who never or rarely washed their hands after using the toilet or latrine (past 30 days)	7.3 (5.1 - 10.4)	7.0 (4.4 - 10.9)	7.5 (5.1 - 11.0)
Percentage of students who never or rarely used soap when washing their hands (past 30 days)	5.9 (3.8 - 9.1)	6.4 (3.9 - 10.5)	5.4 (3.3 - 8.7)
Percentage of students who had separate toilets or latrines for boys and girls (among students who attended a school with toilets or latrines)	99.3 (93.5 - 99.9)	-	98.7 (88.7 - 99.9)
Unintentional injuries and violence			
Percentage of students who were seriously injured (one or more times during the past 12 months)	33.9 (29.5 - 38.7)	38.0 (33.5 - 42.8)	29.9 (24.6 - 35.9)
Percentage of students who reported that their most serious injury was a broken bone, dislocated joint, or a broken or knocked out tooth (past 12 months)	25.9 (19.9 - 33.0)	31.9 (22.3 - 43.3)	19.2 (14.4 - 25.3)
Percentage of students who reported that their most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle (past 12 months)	4.4 (2.1 - 8.8)	2.3 (0.6 - 8.7)	6.8 (3.9 - 11.8)



Percentage of students who were physically attacked (one or more times (past 12 months)	23.3 (20.1 - 27.0)	28.0 (24.0 - 32.4)	18.8 (15.0 - 23.3)
Percentage of students who were in a physical fight one or more times (past 12 months)	29.5 (26.3 - 32.8)	38.8 (34.8 - 42.8)	20.5 (16.6 - 25.1)
Percentage of students who were bullied on school property (past 12 months)	27.3 (25.1 - 29.6)	31.7 (27.4 - 36.4)	22.9 (20.1 - 26.1)
Percentage of students who were bullied when not on school property (past 12 months)	19.0 (16.4 - 21.9)	24.2 (21.1 - 27.5)	14.0 (11.7 - 16.6)
Percentage of students who were bullied face-to-face most often by being hit, kicked, pushed, shoved around, or locked indoors (past 12 months)	15.3 (12.3 - 18.8)	26.9 (21.4 - 33.2)	4.1 (2.1 - 7.8)
Percentage of students who were cyber bullied (past 12 months)	15.6 (13.3 - 18.3)	13.3 (10.2 - 17.1)	18.0 (14.0 - 22.7)
Percentage of students who were cyber bullied most often by being sent nasty or hurtful messages, pictures, or videos (past 12 months)	36.8 (31.7 - 42.1)	-	39.0 (32.0 - 46.5)
Percentage of students who were forced by anyone to do sexual things that they did not want to do one or more times (past 12 months)	6.9 (5.6 - 8.5)	5.0 (3.3 - 7.4)	8.9 (7.1 - 11.0)
Percentage of students who had someone ask them to do sexual things on the internet or social media when they did not want to one or more times (past 12 months)	4.3 (2.9 - 6.4)	2.9 (1.9 - 4.4)	5.8 (3.7 - 8.8)
Percentage of students whose teacher hit, slapped, or physically hurt them on purpose or made them do something that hurt (past 12 months)	27.9 (23.6 - 32.6)	36.5 (31.6 - 41.7)	19.5 (14.9 - 25.0)
Percentage of students whose teacher called them names or said things in a mean or hurtful manner that made them feel afraid, rejected, shameful, or threatened (past 12 months)	26.9 (23.5 - 30.6)	26.4 (22.2 - 31.0)	27.6 (23.4 - 32.2)
Mental health			
Percentage of students who have no close friends	6.7 (5.1 - 8.8)	5.1 (3.7 - 7.0)	8.3 (5.8 - 11.8)
Percentage of students who most of the time or always felt lonely (past 12 months)	18.1 (15.6 - 21.0)	11.7 (8.8 - 15.4)	24.5 (19.6 - 30.1)
Percentage of students who most of the time or always were so worried about something that they could not sleep at night (past 12 months)	7.5 (6.3 - 8.9)	4.2 (2.9 - 6.2)	10.8 (8.3 - 13.9)
Percentage of students who were you taught in any of their classes how to handle stress in healthy ways during this school year	41.2 (36.5 - 46.1)	37.0 (30.6 - 43.9)	45.4 (41.8 - 49.0)
Percentage of students who seriously considered attempting suicide (past 12 months)	29.5 (26.2 - 33.1)	21.6 (17.4 - 26.4)	37.3 (32.0 - 43.1)
Percentage of students who made a plan about how they would attempt suicide (past 12 months)	17.3 (14.4 - 20.7)	13.6 (10.5 - 17.6)	21.0 (16.7 - 26.0)
Percentage of students who attempted suicide one or more times (past 12 months)	12.9 (10.1 - 16.3)	9.8 (6.3 - 15.0)	15.7 (13.3 - 18.6)
Tobacco use			
Percentage of students who ever tried or experimented with cigarette smoking (even one or two puffs)	36.8 (31.1 - 43.0)	48.7 (41.9 - 55.6)	25.6 (19.6 - 32.6)

Percentage of students who first tried smoking a cigarette before age 14 years (among students who ever tried smoking a cigarette)	57.5 (51.0 - 63.7)	58.8 (51.7 - 65.5)	54.9 (46.3 - 63.2)
Percentage of students who currently smoked cigarettes at least 1 day (past 30 days)	12.2 (9.6 - 15.4)	20.5 (16.4 - 25.3)	4.2 (3.0 - 5.9)
Percentage of students who reported someone refused to sell them cigarettes because of their age (past 30 days)	53.3 (40.6 - 65.7)	71.5 (57.4 - 82.4)	-
Percentage of students who currently used any form of smoked tobacco products other than cigarettes at least 1 day (past 30 days)	8.5 (6.4 - 11.2)	13.0 (10.0 - 16.7)	4.1 (2.6 - 6.6)
Percentage of students who had someone smoke in their presence 1 or more days (past 7 days)	58.7 (53.6 - 63.6)	60.8 (54.9 - 66.4)	56.9 (51.0 - 62.5)
Percentage of students who currently used any form of smokeless tobacco products at least 1 day (past 30 days)	9.2 (7.8 - 10.8)	13.4 (11.2 - 15.9)	5.1 (3.1 - 8.3)
Percentage of students who currently used a tobacco product at least 1 day (past 30 days)	20.2 (16.6 - 24.2)	30.7 (26.4 - 35.5)	9.9 (6.8 - 14.2)
Percentage of students who currently used electronic cigarettes at least 1 day (past 30 days)	16.5 (11.6 - 22.9)	22.0 (14.8 - 31.3)	11.3 (7.5 - 16.6)
Percentage of students who first tried an electronic cigarette or e-cigarette before age 14 years	29.9 (23.6 - 37.0)	30.8 (23.9 - 38.6)	28.7 (21.5 - 37.1)
Alcohol use			
Percentage of students who had their first drink of alcohol before age 14 years	42.3 (34.0 - 51.1)	40.3 (32.7 - 48.3)	44.9 (31.9 - 58.7)
Percentage of students who currently drank alcohol at least one drink containing alcohol at least 1 day (past 30 days)	6.7 (4.8 - 9.1)	7.8 (5.3 - 11.4)	5.5 (3.3 - 9.0)
Percentage of students who drank two or more drinks (past 30 days)	35.8 (23.5 - 50.2)	-	-
Percentage of students who drank six or more drinks (past 30 days)	20.1 (8.2 - 41.2)	-	-
Percentage of students who usually got the alcohol they drank from their friends (past 30 days)	22.7 (16.9 - 29.7)	-	-
Percentage of students who reported someone refused to sell them alcohol because of their age	65.8 (57.2 - 73.4)	-	-
Percentage of students whose last drink of alcohol was at their home or someone else's home	3.8 (2.3 - 6.3)	4.8 (2.4 - 9.3)	2.9 (1.6 - 5.0)
Percentage of students who ever got into trouble at home, work, or school or got into fights as a result of drinking alcohol	11.7 (8.5 - 15.8)	15.0 (10.4 - 21.1)	8.5 (5.5 - 12.9)
Reproductive health			
Percentage of students who ever had sexual intercourse	16.6 (13.5 - 20.2)	19.3 (14.9 - 24.6)	14.0 (10.6 - 18.3)
Percentage of students whose main reason for having sexual intercourse the first time was that all of their friends were already doing it	3.5 (1.5 - 8.0)	2.8 (0.8 - 9.2)	-
Percentage of students who had sexual intercourse for the first time before age 14 years	26.2 (17.3 - 37.7)	-	-
Percentage of students who had sexual intercourse with two or more persons	4.7 (3.2 - 6.9)	6.4 (4.0 - 10.0)	3.1 (2.0 - 4.8)

Percentage of students who used a condom during last sexual intercourse	70.1 (62.2 - 76.9)	-	-
Percentage of students who used birth control pills to prevent pregnancy during last sexual intercourse	2.3 (0.8 - 6.6)	-	-
Percentage of students who would go to their parents or guardians if they wanted to learn about sexual behaviors and sexuality	42.4 (39.3 - 45.5)	41.4 (37.7 - 45.3)	43.3 (39.0 - 47.8)
Protective factors			
Percentage of students who missed classes or school without permission at least 1 day (past 30 days)	32.2 (29.3 - 35.3)	37.5 (32.1 - 43.2)	27.2 (23.6 - 31.1)
Percentage of students who reported that most of the students in their school were most of the time or always kind and helpful (past 30 days)	55.7 (52.8 - 58.5)	55.1 (49.8 - 60.4)	56.1 (52.3 - 59.8)
Percentage of students who reported that most of the students in their school were never or rarely kind and helpful (past 30 days)	20.5 (18.2 - 22.9)	21.4 (18.7 - 24.5)	19.6 (16.8 - 22.6)
Percentage of students who reported that they were able to talk to someone most of the time or always about difficult problems and worries (past 30 days)	13.8 (12.1 - 15.7)	10.2 (7.1 - 14.3)	17.3 (14.2 - 20.9)
Percentage of students who reported that they were never or rarely able to talk to someone about difficult problems and worries (past 30 days)	62.1 (59.7 - 64.5)	69.5 (67.1 - 71.8)	54.9 (51.0 - 58.6)
Percentage of students who were able to talk to an adult in their school most of the time or always about difficult problems and worries (past 30 days)	3.3 (2.6 - 4.2)	2.6 (1.6 - 4.3)	4.0 (2.8 - 5.6)
Percentage of students who reported that their parents or guardians most of the time or always understood their problems and worries (past 30 days)	25.7 (22.8 - 28.8)	23.0 (19.6 - 26.8)	28.3 (23.9 - 33.1)
Percentage of students who reported that their parents or guardians never or rarely understood their problems and worries (past 30 days)	57.0 (54.0 - 60.0)	59.5 (54.9 - 63.8)	54.7 (51.1 - 58.4)
Percentage of students who reported that their parents or guardians most of the time or always checked to see if their homework was done (past 30 days)	26.5 (22.5 - 30.9)	30.3 (25.6 - 35.4)	22.5 (18.6 - 27.1)
Percentage of students who reported that their parents or guardians never or rarely checked to see if their homework was done (past 30 days)	53.9 (49.5 - 58.2)	46.5 (41.4 - 51.6)	61.3 (55.9 - 66.4)
Percentage of students who reported that their parents or guardians most of the time or always really knew what they were doing with their free time (past 30 days)	51.7 (46.9 - 56.3)	52.9 (47.1 - 58.7)	50.2 (45.6 - 54.9)
Percentage of students who reported that their parents or guardians never or rarely really knew what they were doing with their free time (past 30 days)	30.7 (27.7 - 33.8)	28.0 (23.9 - 32.6)	33.4 (30.5 - 36.4)
Percentage of students who reported that their parents or guardians never or rarely went through their things without their approval (past 30 days)	6.1 (4.7 - 8.1)	6.9 (4.5 - 10.4)	5.5 (4.1 - 7.2)
Percentage of students who reported that their parents or guardians most of the time or always went through their things without their approval (past 30 days)	82.8 (80.3 - 85.1)	81.2 (76.6 - 85.1)	84.4 (82.2 - 86.3)



Percentage of students who reported that their parents or guardians never or rarely ridiculed or put them down (past 30 days)	66.0 (63.0 - 68.8)	74.4 (69.9 - 78.5)	57.5 (54.2 - 60.7)
Percentage of students who missed classes or school without permission at least 1 day (past 30 days)	67.9 (65.9 - 69.9)	78.1 (75.7 - 80.4)	57.7 (53.1 - 62.3)
Percentage of students who reported that most of the students in their school were most of the time or always kind and helpful (past 30 days)	24.1 (21.8 - 26.6)	22.9 (20.5 - 25.4)	25.4 (21.9 - 29.4)

ANNEX 2

QUESTIONNAIRE FOR THE GLOBAL SCHOOL-BASED STUDENT HEALTH SURVEY

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

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

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

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

Instruction to fill out the survey

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

Fill in the circles like this

Not like this

Survey sample:

1. Do fish live in water?

A. Yes

B. No

Answer sheet

(B) (C) (D) (E) (F) (G) (H)

Thank you very much for your help.

1. How old are you?
 - A. 11 years old or younger
 - B. 12 years old
 - C. 13 years old
 - D. 14 years old
 - E. 15 years old
 - F. 16 years old
 - G. 17 years old
 - H. 18 years old or older
2. What is your sex?
 - A. Male
 - B. Female



3. In what grade/class/standard are you?
- A. 8
 - B. 9
 - C. 10
 - D. 11
 - E. 12
 - F. Some other grade

The following three questions ask about your height, weight, and going hungry.

4. How tall are you without your shoes on?

ON THE ANSWER SHEET, WRITE YOUR HEIGHT IN THE SHADED BOXES AT THE TOP OF THE GRID. THEN FILL IN THE CIRCLE BELOW EACH NUMBER

Example

Height (cm)		
1	5	3
①	①	①
●	①	①
②	②	②
	③	●
	④	④
	●	⑤
	⑥	⑥
	⑦	⑦
	⑧	⑧
	⑨	⑨
Do not know		⑨

5. How much do you weigh without your shoes on?

ON THE ANSWER SHEET, WRITE YOUR WEIGHT IN THE SHADED BOXES AT THE TOP OF THE GRID. THEN FILL IN THE CIRCLE BELOW EACH NUMBER.



Example

Weight (kg)		
1	5	3
①	①	①
②	②	●
	③	③
	④	④
	●	⑤
	⑥	⑥
	⑦	⑦
	⑧	⑧
	⑨	⑨
	Do not know ⑨	

6. During the past 30 days, how often did you go hungry because there was not enough food in your home?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always

The following four questions ask about what you might eat and drink.

7. During the past seven days, how many times did you eat fruit such as apples, bananas, oranges, etc.?
- A. I did not eat fruit during the past seven days
 - B. 1 to 3 times during the past seven days
 - C. 4 to 6 times during the past seven days
 - D. 1 time per day
 - E. 2 times per day
 - F. 3 times per day
 - G. 4 or more times per day
8. How many times have you eaten vegetables such as cabbage, carrot, onion, beets, and potatoes during the past seven days?
- A. I did not eat vegetables during the past seven days
 - B. 1 to 3 times during the past seven days
 - C. 4 to 6 times during the past seven days
 - D. 1 time per day
 - E. 2 times per day
 - F. 3 times per day
 - G. 4 or more times per day
9. During the past seven days, how many times did you drink a can, bottle, or glass of a carbonated soft drink, such as coca cola, peps, fanta, etc.? (excluding diet alternatives)



- A. I did not drink carbonated soft drinks during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

For this question, sugar-sweetened drinks include sports drinks (Gatorade, Powerade), energy drinks (Red Bull, Monster), 100% fruit juices (Moya Semiya, Shar Doctor), fruit drinks that are not 100% juice (Multi-fruit juice, Goyo), sugar-sweetened flavoured milks (Pororo, Khaan Coffee, Fuze Tea), and sugar-sweetened teas, coffees, or flavoured waters.

For this question, DO NOT COUNT carbonated soft drinks measured in the previous question or diet or no calorie drinks.

10. During the past 7 days, how many times did you drink a can, bottle, or glass of a sugar-sweetened drink?
- A. I did not drink sugar-sweetened drinks during the past 7 days
 - B. 1 to 3 times during the past 7 days
 - C. 4 to 6 times during the past 7 days
 - D. 1 time per day
 - E. 2 times per day
 - F. 3 times per day
 - G. 4 or more times per day

The next 3 questions ask about your oral health.

11. During the past 30 days, how many times per day did you **usually** clean or brush your teeth?
- A. I did not clean or brush my teeth during the past 30 days
 - B. Less than 1 time per day
 - C. 1 time per day
 - D. 2 times per day
 - E. 3 or more times per day
12. During the past 30 days, did you **usually** use a toothpaste that contains fluoride when you cleaned or brushed your teeth?
- A. I did not clean or brush my teeth during the past 30 days
 - B. Yes, I usually used a toothpaste that contains fluoride
 - C. No, I did not usually use a toothpaste that contains fluoride
 - D. I do not know if the toothpaste I usually used contains fluoride
13. During the past 30 days, did a problem with your mouth, teeth, or gums cause you to miss classes or school?
- A. Yes
 - B. No

The next 3 questions ask about washing your hands.

14. During the past 30 days, how often did you wash your hands before eating?
- A. Never
 - B. Rarely
 - C. Sometimes



- D. Most of the time
- E. Always

15. During the past 30 days, how often did you wash your hands after using the toilet or latrine?

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

16. During the past 30 days, how often did you use soap when washing your hands?

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

The next question asks about toilets or latrines at school.

17. Are there separate toilets or latrines for boys and girls **at school**?

- A. There are no toilets or latrines at school
- B. Yes
- C. No

The next 3 questions ask about serious injuries that happened to you. An injury is serious when it makes you miss at least one full day of usual activities (such as school, sports, or a job) or requires treatment by a doctor or nurse.

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

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

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

- A. I was not seriously injured during the past 12 months
- B. I had a broken bone, a dislocated joint, or a broken or knocked out tooth
- C. I had a cut or stab wound
- D. I had a concussion or other head or neck injury, was knocked out, or could not breathe
- E. I had a gunshot wound
- F. I had a bad burn
- G. I was poisoned or took too much of a drug
- H. Something else happened to me

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

- A. I was not seriously injured during the past 12 months
- B. I was in a motor vehicle accident or hit by a motor vehicle
- C. I fell
- D. Something fell on me or hit me



- E. I was attacked or abused or was fighting with someone
- F. I was in a fire or too near a flame or something hot
- G. I inhaled or swallowed something bad for me
- H. Something else caused my injury

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

21. During the past 12 months, how many times were you physically attacked?
- A. 0 times
 - B. 1 time
 - C. 2 or 3 times
 - D. 4 or 5 times
 - E. 6 or 7 times
 - F. 8 or 9 times
 - G. 10 or 11 times
 - H. 12 or more times

The next question asks about physical fights. A physical fight happens when two students of about the same strength or power choose to fight each other.

22. During the past 12 months, how many times were you in a physical fight?
- A. 0 times
 - B. 1 time
 - C. 2 or 3 times
 - D. 4 or 5 times
 - E. 6 or 7 times
 - F. 8 or 9 times
 - G. 10 or 11 times
 - H. 12 or more times

The next 6 questions ask about bullying. Bullying happens when one or more **students or other people about your age say or do hurtful or mean things. Bullying can occur when someone teases, threatens, ignores, spreads rumors about, calls someone a bad name, makes sexual remarks, or hits, shoves, or hurts another person **over and over again**. It is not bullying when two people of about the same strength or power argue or fight or tease each other in a friendly way.**

23. During the past 12 months, were you bullied **on school property**?
- A. Yes
 - B. No
24. During the past 12 months, were you bullied when you were **not on school property**?
- A. Yes
 - B. No
25. During the past 12 months, how were you bullied face-to-face most often? **SELECT ONLY ONE RESPONSE.**
- A. I was not bullied face-to-face during the past 12 months
 - B. I was hit, kicked, pushed, shoved around, or locked indoors
 - C. I was made fun of, called a bad name, or teased
 - D. I was threatened
 - E. Someone spread rumors about me



- F. I was purposely ignored or left out of a group or activities
- G. I was bullied face-to-face in some other way

Cyber bullying is a form of bullying using social media and other forms of online communications. Cyber bullying may occur on Facebook, Tic Toc, Instagram, Snapchat, WeChat, and other social media platforms or through texting and emails.

26. During the past 12 months, were you cyber bullied?
- A. Yes
 - B. No
27. During the past 12 months, how were you cyber bullied most often? SELECT ONLY ONE RESPONSE.
- A. I was not cyber bullied during the past 12 months
 - B. Nasty or painful messages, pictures, or videos were sent to me
 - C. Nasty or painful messages, pictures, or videos were shared or posted online where others could see them
 - D. I was purposely ignored or left out of a group or activities online
 - E. I was threatened online
 - F. I was made fun of, called a bad name, or teased online
 - G. Someone spread rumors about me online
 - H. I was cyber bullied in some other way

Being forced to do sexual things you do not want to do is called sexual violence. Sexual violence may include being kissed or touched, being spied on when you are not fully dressed, being shown someone's private parts, pulling at your clothes to expose your underwear or body, making sexual comments or gestures, and physically or verbally forced to have sexual intercourse. Sexual violence may occur in person or on social media or the Internet.

28. During the past 12 months, how many times did anyone force you to do sexual things that you did not want to do?
- A. 0 times
 - B. 1 time
 - C. 2 or 3 times
 - D. 4 or 5 times
 - E. 6 or more times

Sexual violence might occur on the Internet or social media when someone asks you to do sexual things you do not want to do. It may include being asked to talk about sex or sexual acts, being asked to do something sexual, being asked for a photo or video showing your private parts, and being shown sexual images without your consent.

29. During the past 12 months, how many times did anyone ask you to do sexual things on the internet or social media that you did not want to do?
- A. 0 times
 - B. 1 time
 - C. 2 or 3 times
 - D. 4 or 5 times
 - E. 6 or more times

The next 2 questions ask about things a teacher might have done.

30. During the past 12 months, did your teacher hit, slap, or physically hurt you purposely or make you do something that hurt, such as stand or kneel for a long period of time?
- A. Yes
 - B. No



31. During the past 12 months, did your teacher call you names or say things in a mean or painful manner that made you feel afraid, rejected, shameful, or threatened?
- A. Yes
 - B. No

The next 3 questions ask about your friendships and feelings.

32. How many close friends do you have?
- A. 0 friends
 - B. 1 friend
 - C. 2 friends
 - D. 3 or more friends
33. During the past 12 months, how often did you feel lonely?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
34. During the past 12 months, how often were you so worried about something that you could not sleep at night?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always

The next question asks about what you were taught in school.

35. During this school year, were you taught in any of your classes how to handle stress in healthy ways?
- A. Yes
 - B. No
 - C. I do not know

Sometimes people feel so depressed about the future that they may consider attempting suicide, that is, taking some action to end their own life. The next 3 questions ask about attempted suicide.

36. During the past 12 months, did you **seriously** consider attempting suicide?
- A. Yes
 - B. No
37. During the past 12 months, did you make a plan about how you would attempt suicide?
- A. Yes
 - B. No
38. During the past 12 months, how many times did you attempt suicide?
- A. 0 times
 - B. 1 time
 - C. 2 or 3 times
 - D. 4 or 5 times
 - E. 6 or more times

The next 4 questions ask about cigarette use. Cigarettes include manufactured cigarettes and roll-your-own cigarettes.



39. Have you ever tried or experimented with cigarette smoking, even one or two puffs?

- A. Yes
- B. No

40. How old were you when you first tried smoking a cigarette?

- A. I have never tried smoking a cigarette
- B. 7 years old or younger
- C. 8 or 9 years old
- D. 10 or 11 years old
- E. 12 or 13 years old
- F. 14 or 15 years old
- G. 16 or 17 years old
- H. 18 years old or older

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

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

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

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

The next question asks about other forms of smoked tobacco products other than cigarettes. This includes pipes and waterpipes.

43. During the past 30 days, on how many days did you use any form of smoked tobacco products other than cigarettes?

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

The next question asks about any kind of smoked tobacco product.

44. During the past 7 days, on how many days did someone smoke in your presence?

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



The next question asks about smokeless tobacco products. This includes snuff and chewing tobacco.

45. During the past 30 days, on how many days did you use any form of smokeless tobacco products?
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 5 days
 - D. 6 to 9 days
 - E. 10 to 19 days
 - F. 20 to 29 days
 - G. All 30 days

The next 2 questions ask about electronic cigarettes. Electronic cigarettes, or e-cigarettes, are electronic devices that usually contain a nicotine-based liquid that is vaporized and inhaled. You may also know them as vape-pens, , electronic cigars (e-cigars), electronic pipes (e-pipes), or e-vaporizers. Some look like cigarettes and others look like pens or small pipes. They are battery-powered devices that produce vapor instead of smoke. They do not contain tobacco.

46. During the past 30 days, on how many days did you use electronic cigarettes?
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 5 days
 - D. 6 to 9 days
 - E. 10 to 19 days
 - F. 20 to 29 days
 - G. All 30 days
47. How old were you when you first tried an electronic cigarette or e-cigarette?
- A. I have never tried an electronic cigarette or e-cigarette
 - B. 7 years old or younger
 - C. 8 or 9 years old
 - D. 10 or 11 years old
 - E. 12 or 13 years old
 - F. 14 or 15 years old
 - G. 16 or 17 years old
 - H. 18 years old or older

The next 9 questions ask about drinking alcohol. This includes drinking arkhi, pivo, vino, whiskey, or Mongol nermel arkh. Drinking alcohol does not mean to have a few sips of vodka.

A “drink” is:

- a glass of wine, or
 - a bottle of beer, or
 - a small glass of liquor, vodka, whiskey or cognac; or
 - a bowl of Mongolian milk vodka
48. How old were you when you had your first drink of alcohol other than a few sips?
- A. I have never had a drink of alcohol other than a few sips
 - B. 7 years old or younger
 - C. 8 or 9 years old
 - D. 10 or 11 years old
 - E. 12 or 13 years old
 - F. 14 or 15 years old



- G. 16 or 17 years old
H. 18 years old or older
49. During the past 30 days, on how many days did you have at least one drink containing alcohol?
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 5 days
 - D. 6 to 9 days
 - E. 10 to 19 days
 - F. 20 to 29 days
 - G. All 30 days
50. During the past 30 days, on the days you drank alcohol, how many drinks did you **usually** drink **per day**?
- A. I did not drink alcohol during the past 30 days
 - B. Less than one drink
 - C. 1 drink
 - D. 2 drinks
 - E. 3 drinks
 - F. 4 drinks
 - G. 5 or more drinks
51. During the past 30 days, what is the largest number of alcoholic drinks you had in a row, that is, within a couple of hours?
- A. I did not drink alcohol during the past 30 days
 - B. 1 or 2 drinks
 - C. 3 drinks
 - D. 4 drinks
 - E. 5 drinks
 - F. 6 or 7 drinks
 - G. 8 or 9 drinks
 - H. 10 or more drinks
52. During the past 30 days, how did you **usually** get the alcohol you drank? SELECT ONLY ONE RESPONSE.
- A. I did not drink alcohol during the past 30 days
 - B. I bought it in a store, shop, or from a street vendor
 - C. I gave someone else money to buy it for me
 - D. I got it from my friends
 - E. I got it from my family
 - F. I stole it or got it without permission
 - G. I got it some other way
53. During the past 30 days, did anyone refuse to sell you alcohol because of your age?
- A. I did not try to buy alcohol during the past 30 days
 - B. Yes, someone refused to sell me alcohol because of my age
 - C. No, my age did not keep me from buying alcohol
54. Where were you the **last time** you had a drink of alcohol?
- A. I have never had a drink of alcohol
 - B. At my home or someone else's home
 - C. On school property
 - D. While riding in or driving a car or other vehicle



- E. At a restaurant, bar, pub, or club
 - F. At a public place, such as out on the street, in a parking lot, at a park, or in some other open area
 - G. At a public event, such as a concert or sporting event
 - H. Some other place
55. During your life, how many times have you got into trouble at home, work, or school or got into fights, as a result of drinking alcohol?
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 5 times
 - D. 6 to 9 times
 - E. 10 to 19 times
 - F. 20 or more times

Staggering when walking, not being able to speak right, throwing up, and passing out are some signs of being really drunk.

56. During your life, how many times have you drank so much alcohol that you were really drunk?
- A. 0 times
 - B. 1 or 2 times
 - C. 3 to 5 times
 - D. 6 to 9 times
 - E. 10 to 19 times
 - F. 20 or more times

The next 6 questions ask about sexual intercourse.

57. Have you ever had sexual intercourse?
- A. Yes
 - B. No
58. What is the **main** reason you had sexual intercourse the first time? SELECT ONLY ONE RESPONSE.
- A. I have never had sexual intercourse
 - B. I was in love or carried away by my feelings
 - C. I was curious about what it would be like
 - D. I was drunk or high on drugs
 - E. All my friends were already doing it
 - F. I was physically or verbally forced to do it
 - G. Some other reason
59. How old were you when you had sexual intercourse for the first time?
- A. I have never had sexual intercourse
 - B. 11 years old or younger
 - C. 12 years old
 - D. 13 years old
 - E. 14 years old
 - F. 15 years old
 - G. 16 or 17 years old
 - H. 18 years old or older
60. During your life, with how many people have you had sexual intercourse?
- A. I have never had sexual intercourse
 - B. 1 person
 - C. 2 people
 - D. 3 people
 - E. 4 people



- F. 5 people
- G. 6 or more people

61. The **last time** you had sexual intercourse, did you or your partner use a condom?
- A. I have never had sexual intercourse
 - B. Yes
 - C. No
62. The last time you had sexual intercourse, what one method did you or your partner use to **prevent pregnancy**? SELECT ONLY ONE RESPONSE.
- A. I have never had sexual intercourse
 - B. No method was used to prevent pregnancy
 - C. Birth control pills
 - D. Condoms
 - E. An IUD or implant
 - F. A shot, patch, or birth control ring
 - G. Withdrawal or some other method
 - H. I do not know

The next question asks about sources of information.

63. If you wanted to learn about sexual behaviors and sexuality, where would you go? SELECT ONLY ONE RESPONSE.
- A. To my parents or guardians
 - B. To a teacher or other adults in your school
 - C. To a doctor or nurse
 - D. To my brothers or sisters
 - E. To my friends
 - F. To the internet or social media
 - G. Someplace else

The next 11 questions ask about your experiences at school and at home.

64. During the past 30 days, on how many days did you miss classes or school without permission?
- A. 0 days
 - B. 1 or 2 days
 - C. 3 to 5 days
 - D. 6 to 9 days
 - E. 10 or more days
65. During the past 30 days, how often were most of the students in your school kind and helpful?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
66. During the past 30 days, how often were you able to talk to someone about difficult problems and worries?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
67. During the past 30 days, how often were you able to talk to an adult in your school about difficult problems and worries?



- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
68. During the past 30 days, how often did your parents or guardians understand your problems and worries?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
69. During the past 30 days, how often did your parents or guardians check to see if your homework was done?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
70. During the past 30 days, how often did your parents or guardians really know what you were doing with your free time?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
71. During the past 30 days, how often did your parents or guardians go through your things without your approval?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
72. During the past 30 days, how often did your parents or guardians ridicule you or put you down (for example, by saying you were stupid or useless)?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
73. During the past 30 days, how often did your parents or guardians unfairly compare you to someone else (such as, your brother or sister or themselves)?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always
74. During the past 30 days, how often did your parents or guardians **try to know** who your friends were?
- A. Never
 - B. Rarely
 - C. Sometimes
 - D. Most of the time
 - E. Always

ANNEX 3.

Survey sampling, by location

Location	Number of schools in urban area	Number of students in urban area	Number of schools in rural area	Number of students in rural area
Bayan-Ulgii	12	5036	16	4106
Govi-Altai	4	1343	21	2791
Zavkhan	8	3033	22	2690
Uvs	6	2534	19	3902
Khovd	8	3468	17	3476
Arkhangai	5	2531	20	3843
Bayankhongor	8	3540	21	2298
Bulgan	5	1529	15	2202
Orkhon	22	8025	1	164
Uvurkhangai	7	3725	23	4256
Khuvsgul	10	4507	22	5686
Gobisumber	3	1047	2	267
Darkhan-Uul	20	7768	3	333
Dornogobi	7	3660	13	981
Dundgobi	5	1737	14	1110
Umnugobi	6	2617	16	1942
Selenge	13	2895	21	4269
Tuv	3	1602	28	4002
Dornod	12	4253	14	1549
Sukhbaatar	4	1864	12	2168
Khentii	6	3243	20	2032
Ulaanbaatar	258	113267	-	230
Baganuur	7	4584	1	230
Bayangol	45	17377	-	-
Bayanzurkh	61	28680	-	-
Nalaikh	8	2677	-	-
Songinokhairkhan	32	18153	-	-
Sukhbaatar	41	16164	-	-
Khan-Uul	43	15306	-	-
Chingeltei	21	10326	-	-
TOTAL	433	183454	340	54067



ANNEX 4.



ЭРҮҮЛ МЭНДИЙН ЯАМНЫ АНАГААХ УХААНЫ ЁС ЗҮЙН ХЯНАЛТЫН ХОРООНЫ ТОГТООЛ

2023 оны 03 сарын 27 өдөр

Дугаар 23/018

Улаанбаатар хот

Судалгаа эхлүүлэх зөвшөөрөл олгох тухай

Анагаах ухааны ёс зүйн хяналтын хорооны 2023 оны 03 дугаар сарын 27-ны өдрийн 23/04 дүгээр хурлын протоколыг үндэслэн ТОГТООХ НЬ:

1. "Боловсролын орчин дахь хүүхдийн эрх хамгаалал, эрүүл мэндийн судалгаа"-ны ажлыг судлаач, Химийн ухааны доктор, дэд профессор С.Өнөрсайханы удирдлаган дор 2023 онд багтаан хийж, гүйцэтгэхийг зөвшөөрсүгэй.

2. Судалгааны явцад тодорхой шалтгааны улмаас арга аргачлал өөрчлөгдөх, гадаад орон руу сорьц тээвэрлэх, Хельсинкийн тунхаглалд туссан ёс зүйн асуудал хөндөгдсөн тохиолдолд Анагаах ухааны ёс зүйн хяналтын хороонд мэдэгдэж, дахин хэлэлцүүлэхийг судалгааны удирдагч болон багийнханд үүрэг болгосугай.

3. Судалгааны явцын тайланг Эрдмийн зөвлөлөөр хэлэлцүүлэн, Анагаах ухааны ёс зүйн хяналтын хороонд ирүүлэхийг төслийн удирдагчид үүрэг болгосугай.

4. Судалгааны төгсгөлийн тайланг Эрдмийн зөвлөлөөр хэлэлцүүлэн, судалгаа дууссан хугацаанаас хойш 2 сарын дотор багтаан Анагаах ухааны ёс зүйн хяналтын хороонд ирүүлэхийг төслийн удирдагчид үүрэг болгосугай.

ДАРГА



Д.ЦЭРЭНДАГВА

149123034



**МОНГОЛ УЛСЫН
ҮНДЭСНИЙ СТАТИСТИКИЙН ХОРОО**

Төвний дүүрэг - 10000, Төвний дүүрэг - 44
Улсын төв дүүрэг - 10000, Төвний дүүрэг - 44
Утас: 7711-10000, 7711-10000
Утас: 7711-10000, 7711-10000
Утас: 7711-10000, 7711-10000
Утас: 7711-10000, 7711-10000

2023.04.04 № 01/278
2023.03.06 № 02/587

**ХӨДӨЛМӨР, НИЙГМИЙН
ХАМГААЛЛЫН ДЭД САЙД
С.ЗУЛПХАР ТАНАА**

Хариу хүргүүлэх тухай

Танай яамнаас ирүүлсэн хүсэлтийн дагуу Үндэсний статистикийн хорооны Арга зүйн байнгын зөвлөл болон Даргын зөвлөлийн хурлаар "Хүүхдийн эрх, хамгаалал, эрүүл мэндийн судалгаа-2023"-ны үзэл баримтлал, асуулга, түүнийг нөхөх заавартай танилцлаа.

Уг судалгааны түүвэр зохиомжийн хувьд олон улсын арга зүйг мөрдсөн, асуулгын хувьд албан ёсны статистикийн үзүүлэлттэй давхцал байхгүй байгаа тул улсын хэмжээнд "Хүүхдийн эрх, хамгаалал, эрүүл мэндийн судалгаа-2023"-г зохион байгуулахад татгалзах зүйлгүй болохыг үүгээр мэдэгдэж байна.

ДАРГА



Б.БАТДАВАА

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