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**GLOBAL SCHOOL BASED  
STUDENT HEALTH SURVEY (GSHS)  
CAMBODIA, 2013**

**COUNTRY REPORT**



2014



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STUDENT HEALTH SURVEY (GSHS)  
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2014**

A Collaboration Project of:

Ministry of Health, Cambodia

Ministry of Education, Youth and Sports, Cambodia

The World Health Organization (Western Pacific Region)

and the U.S. Centers for Disease Control and Prevention

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## PREFACE

Non-communicable Diseases (NCDs) such as hypertension, diabetes, cardiovascular disease and, cancers have currently become a major health problem of adults and elderly people and are on the rise in Cambodia.. The major causes of these diseases are strongly associated with negative knowledge and behavior of individuals who committed when they were young. Although NCDs are preventable, people living with non-communicable diseases are increasing because their knowledge on how to prevent NCDs and its risk factors are very limited.

The school-based survey on youth's health called "the Global School-based Student Health Survey" (GSHS) was initiated by the World Health Organization in collaboration with UNAIDS, UNESCO, UNICEF and with technical assistance from the United States Centers of Disease Control and Prevention (CDC). This survey was conducted among students in schools in order to gather data on knowledge, attitudes and behaviours of youth's health which related to the leading cause of morbidity and mortality among children and adults worldwide.

The results of this survey can be a baseline information for developing plans, activities, and interventions related to youth's health on timely basis. The results can also be used to measure the trends in the prevalence of youth's health behaviors and make comparisons with other countries.

Ministry of Health hopes that the results of this survey are an additional achievement that can contribute to the prevention and health promotion among the youth to reduce prevalence of non-communicable diseases and especially for better health of the Cambodian people in both present and future.

## ACKNOWLEDGEMENTS

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On behalf of the Cambodian Ministry of Health, we also would like to express our sincere thanks to the following individuals for their continued support to make this GSHS succeed:

- H.E. Professor **Eng Huot**, Secretary of State of the Ministry of Health
- Associate Professor. **Prak Piseth Raingsey**, Director of Preventive Medicine Department.,  
Ministry of Health
- Dr. **Chhay Kim Sotheavy**, Director of School Health Department,  
Ministry of Education, Youth and Sport
- Dr. **Yung Kunthearith**, Deputy Director of School Health Department,  
Ministry of Education, Youth and Sport
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Diseases and Health Promotion, WHO-HQ
- Dr. **Laura Kann**, Scientist and Chief of School-Based Surveillance  
Branch, US-CDC

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Special thanks to all the Cambodia GSHS Survey Supervisors and Administrators from both Ministry of Health and Ministry of Education Youth and Sports that made strong efforts to go to the field for collecting data.

Least but not last, we also wish to thanks and acknowledge, generically to all school directors, teachers and students' parents/guardians from 50 schools countrywide, for permission to collect and distribute data and information and thanks for all students from 50 selected schools for their participation in this survey.

## **LIST OF ABBREVIATION**

BMI	Body Mass Index
CDC	Centers for Disease Control and Prevention
GSHS	Global School-based Student Health Survey
MoH	Ministry of Health
MoEYS	Ministry of Education, Youth and Sport
NCD	Non-Communicable Disease
NECHR	National Ethics Committee for Human Research
SD	Standard Deviation
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNAIDS	Joint United Nations Programme on HIV/AIDS
WHO	World Health Organization

## SUMMARY

### **Study Purpose**

The Cambodia Global School-based Student Health Survey (GSHS) is a school-based survey conducted primarily among students aged 13-17 years. It measures behaviours related to the leading causes of mortality and morbidity among youth and adults in Cambodia. The purposes of the 2013 Cambodia GSHS are:

- To evaluate health situations of school age youth in both knowledge and behaviours
- To establish trends in the prevalence of health behaviours and protective factors for use in evaluation of school health and youth's health promotion
- To make comparison of the students' health situations within country and with other countries regarding the prevalence of knowledge, attitude and behaviours towards health.

### **Study Methodology**

The 2013 Cambodia GSHS is a school-based survey conducted primarily among students aged 13-17 years. All youth who were studying in grade 7, 8, 9, 10, 11 and 12 in Cambodia in school year 2012-2013 were included in the sampling frame. The 2013 Cambodia GSHS employed a two-stage cluster sample design to produce a representative sample of students: school level and class level. Fifty schools were selected to participate in this survey which divided into 25 schools in urban and other 25 schools in rural locations.

There were 69 questions that had been chosen from nine out of ten core-modules which include: Alcohol use, Dietary behaviours, Drug use, Hygiene, Mental health, Physical activity, Sexual behaviours, Tobacco use, and Violence and unintentional injury.

Survey administration had been conducted in March 2013. Survey procedures were designed to protect student privacy by allowing for anonymous and voluntary participation. Students completed the self-administered questionnaire during one classroom period and recorded their responses directly on a computer-scannable answer sheet.

## **Key Results**

There were 3,806 students from 50 selected schools participated. The school response rate was 100%, the student response rate was 85%, and the overall response rate was 85%.

### **Alcohol use**

In Cambodia, one in ten students are currently drinking alcohol (10%). Among those, one in five students had their first drink before aged 14 years. 10.8% of students drank so much alcohol that they were really drunk one or more times during their life. Male students are significantly different from females (15% vs 4.6%) to report as currently alcohol user. One in five students usually got the alcohol they drank from their friends. Other negative behaviours were also developed after drinking. About 3% of students reported that they got into trouble with their family or friends, missed school or got into fights one or more times as a result of drinking alcohol.

This risk behaviour can also be adopted quickly from their family habit or other influence such as advertisement. About half of participants (50.5%) reported that their parents or guardians drank alcohol. More than half of students saw alcohol advertisements almost every day during past 30 days.

### **Dietary behaviour**

The same with other developing countries, most children in Cambodia are facing problem of malnutrition. The GSHS results showed that the prevalence of underweight students (12.8%) were three time higher than students with overweight (3.4%) and about more than ten times compared with students who have obesity (0.4%). Students with overweight are significantly different between urban (6.2%) and rural areas (2.3%).

During the past 30 days, one in every five students ate fruits and one in every ten students ate vegetables every day. About one in every two students drank carbonated soft drinks at least one time per day during the past 30 days ago and about 3% of them consumed fast foods at least three days per week. Most students (53.4%) saw the advertisements of carbonated soft drink almost every day.

### **Drug use**

In Cambodia, there was less than 1% of students reported that they are currently use drugs such as marijuana, amphetamines or methamphetamines and among those students who ever used

drugs, also most of them first used drugs before age 14 years. Although this percentage is very small but there is a concern because this information tells us about drugs that had been infiltrated into the school environment.

### **Hygiene**

During the past 30 days, there was 1.9% of students who never or rarely washed their hands before eating, 2.7% of students who never or rarely washed their hands after using the toilet or latrine, and 2.7% reported that they never or rarely used soap when washing their hands. Four in every ten students (37.7%) did not have a source of clean water for drinking at school.

The percentage of students who usually cleaned or brushed their teeth less than one time per day during the past 30 days was 4%. Students in rural areas are more likely not to clean their teeth than those who live in urban areas. More than half of students described their teeth and gums as excellent, very good, or good. During the past 12 months, two in every ten students had a toothache that caused them to miss class or school and 3.5% of them reported that most of the time they always had toothache or discomfort because of their teeth. About 60% of students believed that they used toothpaste that contained fluoride. About 60% of students never visit a dentist for any dental check-up, teeth cleaning or other dental work.

### **Mental health**

There were 5.7% of students who most of the time or always felt lonely during the past 12 months. About 5% reported that they had no close friends and this may be the main reason for loneliness. About three to six percent of students felt so worried that they could not eat or sleep at night and, among those, half of them reported that because they were bullied on one or more days during the past 30 days. About 8.8% of students made a plan about how they would attempt suicide and 6.8% actually attempted suicide one or more times during the past 12 months.

### **Physical activity**

In Cambodia, there was only one in every ten students who were doing physical activity for a total of at least 60 minutes per day on five or more days during the past seven days. Male students (12.7%) are more likely to do physical activity than female students (8.5%) and students in urban areas (13.9%) are more active than students in rural areas (9.5%).

There were 12% of students spent three or more hours per day during a typical or usual day doing sitting activities. Students in urban area (20.2%) (one in every five) are spending their sitting time more than students in rural area (9.1%). More than 70% of students had received information on the benefit of physical activity in their classes during this school year.

One in every ten students went to physical education class on three or more days each week. About 72% of students had been taught in any of their classes during this school year on the benefit of physical activity.

### **Sexual Behaviours that Contribute to HIV Infection, Other STI, and Unintended Pregnancy**

There were 11.9% of students reported that they ever had sexual intercourse. Male students are significant different from female students. Among students who ever had sexual intercourse, three in every ten of them had most of the time or always used a condom. There was only 1% of students had sexual intercourse with two or more people during their life. About 16% of students had ever had sexual intercourse when they were already drunk one or more times in their life.

### **Tobacco use**

According to WHO Report on the Global Tobacco Epidemic, 2013, about 6 million people died because of tobacco each year.

In Cambodia, there was only 2.7% of students smoked cigarettes on one or more days during the past 30 days. Among students who ever smoked cigarettes, nearly half of students first tried a cigarette before age 14 years. Male students (3.9%) are significantly smoked cigarettes more than female students (1.4%). Students live in rural are more likely to use other tobacco products than students live in urban. There was only very small number of students tried to stop smoking cigarettes.

One in every two students reported about other people smoked in their presence on one or more days during the past seven days and about one third of students had parents or guardians smoked or using any form of tobacco. There were only 1.5% of students who probably or definitely would smoke a cigarette if one of their best friends offered them one.

## **Violence and unintentional injury**

Regarding to the violence and unintentional injury, about one in every five students was physically attacked, one in every ten students was in a physical fight and one in five students were seriously injured one or more times during the past 12 months. About one in three of those injuries were traffic accidents. Male students are less likely to get accident than females, especially for those who live in urban location.

The result also revealed that 8.6% students were bullied on one or more days during the past 30 days. About three in ten students reported that they never or rarely used a seat belt when they rode in motor vehicle driven by someone else. One out of five students were rode in motor vehicle one or more times driven by someone else had been drinking alcohol during past 30 days.

## **Recommendations**

According to the finding of the Cambodia GSHS, recommendations are made as the follows:

1. Disseminate the survey results to all stakeholders and health partners in order to draw attention for the current health situation of youth in Cambodia.
2. Relevant ministries and stakeholders must collaborate with each other to develop policies and strategic plans and establish intervention programmes for youth health.
3. Relevant ministries and stakeholders must strengthen youth health policy in order to reduce risk factors for youth to all schools such as:
  - Smoke-free zone in school environments
  - Impact of alcohol and drugs use on health
  - Promoting sanitation and hygiene in school environment
  - Selling only safe, nutritious, healthy and hygiene snacks/foods/drinks in school compound.

4. Ministry of Education, Youth and Sport must improve clean water system and drainage system for hand washing in all schools for students and staff. These also help improve the sanitation and hygiene in school as well.
5. Provide related information and risk factors on youth's health and protective factors, especially for teachers and students at teacher's training schools, so that they can transfer the knowledge to their students.
6. Promote healthy lifestyle for youth in both school and family/community environments by building healthy habits such as: increasing physical activity, choosing healthy diet and foods, and reducing or avoiding unhealthy habits: smoking cigarettes, drinking alcohol, using drugs, sitting long period of time in front of computer or playing video games.
7. Strengthen healthy communities by encouraging young people to involve in social functions, social interactions and other networking for developing both social and mental relationship.
8. Alcohol advertisement on all medias, especially television must be banned to reduce the encouragement of young people to try and drink of alcohol, which causes many negative effects in society. Changing alcohol advertisement to health education messages.
9. The law for prohibiting on selling cigarettes/tobacco products to customers under the age of 18 years and the law for prohibiting on selling all kinds of alcohol to customers under the age of 21 years must be developed.
10. As health risk behaviours and protective factors are always changing over time, it will be very important to repeat this GSHS every five year.

## 1- INTRODUCTION

Most Non-Communicable Diseases (NCDs) are related strongly to the people's routine behaviors, nutrition, dietary, physical activities and other risk factors such as alcohol and tobacco use. Those behaviors had been adopted from the young age <sup>[1]</sup> and can develop some kind of chronic diseases in adulthood. Although NCDs are largely preventable, but its burden is growing because of people's knowledge about NCDs risk factors are still very limited. Environmental factors such as family, peer group, school, and community characteristics also contribute to adolescents' health and risk behaviors.

Health problems of adults and elderly people are mostly as consequences of health behaviors of lifestyle in younger age, especially several behaviour risk factors in adolescent period. Those risk behaviours include smoking, alcohol consumption, personal hygiene and sanitation, unhealthy diet, lack of physical activity, using drug and unprotected sexual practice. Unhealthy behaviours practice during adolescence can also have both immediate and lifelong consequences <sup>[2]</sup>.

According to American Cancer Society, there were more than 23% of all high school students who were studying at grades 9-12 had used some kind of tobacco product at least one day in the month <sup>[3]</sup>. As research has shown, tobacco use is linked to other harmful behaviors <sup>[4, 5, 6]</sup>. Tobacco users are more likely to use alcohol and illegal drugs than are non-users. They are also more likely to get into fights, carry weapons, attempt suicide, suffer from mental health problems such as depression, and engage in high-risk sexual behaviors.

When they continue to smoke, many other problems such as gum disease and tooth loss, chronic lung diseases, blood vessel disease, infertility would developed as they get older <sup>[7, 8, 9]</sup>. Smoking increases the risk for oral cancer, lung cancer, stomach cancer, and esophageal cancer <sup>[10, 11]</sup>.

In 2001, WHO, in collaboration with UNAIDS, UNESCO, and UNICEF, and with technical assistance from the US Centers for Disease Control and Prevention (CDC), initiated development of the Global School-based Student Health Survey (GSHS). The GSHS is a relatively low-cost school-based survey which uses a self-administered questionnaire to obtain data on young people's health

behaviour and protective factors related to the leading causes of morbidity and mortality among children and adults worldwide.

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

To date, representatives from more than 110 countries have been trained and those countries have either implemented the GSHS, or are in process <sup>[12]</sup>.

This report describes results from the first GSHS conducted in Cambodia by Department of Preventive Medicine, Ministry of Health in collaboration with Department of School Health, Ministry of Education, Youth and Sports under support from World Health Organization (WHO), with technical assistance from Centers of Disease Control and Prevention (CDC). The Cambodia GSHS had been conducted in March, 2013.

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

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

The GSHS is a school-based survey conducted primarily among students aged 13-17 years. It measures behaviours related to the leading causes of mortality and morbidity among youth and adults in Cambodia. The core-modules of the 2013 GSHS include:

- Alcohol use
- Dietary behaviours
- Drug use
- Hygiene
- Mental health

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

According to the National Census of Cambodia in 2008 <sup>[13]</sup>, there were 24.6% of young people in age group between 10 to 19 years-old among the total population. However, there were not many studies about knowledge of youth which related to health attitude and behaviors had been conducted in Cambodia.

One baseline study was conducted in 2004 <sup>[14]</sup> by RHIYA (Reproductive Health Initiative for Youth in Asia) program on 2075 people aged from 10 to 24 years-old in 8 provinces. The study focused on drugs addiction, HIV/AIDS awareness and knowledge, sexual behavior and condom use, sexually transmitted infections, reproductive health and contraception. About 95% of young people in this study were aware of drugs of addiction. Only about 4% young people reported that they had personally tried drugs. Overall, 34.3 percent of this sample reported that they had ever had sex. Knowledge of different STIs was generally low, with only syphilis being recognized by most respondents and consistent condom use was the most commonly reported method of avoiding STIs and was a good way to prevent HIV transmission.

Another study on 1178 household youth aged 15-24 years-old in three districts of Kampot Province was conducted by Domrei research in 2006 <sup>[15]</sup>. This study focused on several points such as smoking, alcohol use, drugs use, HIV/AIDS knowledge, sexual behavior and attitudes and the perceptions about sex and condom use. The results showed that over half of the young men smoking about one pack a week whereas only 2% of young women reported ever tried to smoke but none of female subjects were active smokers. Two thirds of the boys under 20 years, and close to nine tenths of the young men, have tried alcohol. Almost everyone (97 percent) has heard of drugs, but nobody reported they use any kind of drug. The awareness and knowledge on HIV/AIDS of the youth in this study showed very high and using condoms in preventing HIV and STD infection is also well known.

Another study was conducted in 2006 by the Rural Cambodian Youth Sexual Reproductive Health (RCYSRH) Project <sup>[16]</sup> as a baseline survey of the sexual and reproductive knowledge, attitudes and

practices of rural youth aged 10 to 24 year-old in selected target areas of Preah Vihear and Kampong Thom Provinces. This study focused on Sexual and Reproductive Health Knowledge and Health-Seeking Behavior & Access to Products and Services. The youth demonstrated significant awareness of HIV /AIDS although actual and practical knowledge of transmission and prevention was less impressive. The number of young people having sex was still higher than expected with reports of up to 30 or 40% of singles sexually active in some areas. The number of couples in 'sweetheart' relationships estimated regular condom use was less than 50%.

In 2009, United Nations Country Team had conducted the Situation Analysis of Youth in Cambodia <sup>[17]</sup>. The report covered the demographic profile of youth, economic and social context, employment, education, health, vulnerability, participation and right of Cambodian youth. This report mentioned about the development of information communication technology (ICT) that was a critical factor influence on young people's perception and expectation. The migration of young people from rural to urban areas was also another factor that could be increased the number of youth in vulnerable environment easily such as alcohol, tobacco, unhealthy diet, accident and injury, sexual abuse, drugs abuse, and violence when they live alone without family and social support.

In 2010, the Most at Risk Young People Survey (MRYPs) <sup>[18]</sup> had been conducted to obtain data on the situation, behaviours, sexual and reproductive health on 2489 youth aged between 10 and 24 in eight provinces in Cambodia. This study reveals that there was a high risk behaviours among youth with up to 70% females and 90% males drink although they already knew about the harmful effects of alcohol. There were 3.5% females and 15% males using drugs. Although they used some contraceptive methods but there was a lack of specific knowledge about health services or misunderstanding about how to use contraception. About 20 to 40% of them were sexual active. However, consistent of condom use among them was high. According to the 2010 Cambodia Demographic and Health Survey (CDHS) <sup>[19]</sup>, most of women have heard of at least one contraceptive method and about 2.8% of women age 15-19 used at least any methods of contraception.

In 2012, Ministry of Education, youth and Sports in Cambodia with under support of UNICEF and FHI 360 conducted a study <sup>[20]</sup> on 77 young people who worked as young entertainment workers in purpose of situational analysis on their knowledge about HIV, condom use, contraceptive methods, alcohol and drug use, violent, stigma and discrimination. The results showed that knowledge of HIV

prevention among female entertainment workers (FEWs) was moderate and high among male entertainment workers (MEWs). Most participants believed that ‘a person can avoid HIV infection by only having sex with one faithful and uninfected partner’. Condom use was inconsistent and knowledge and use of contraceptive methods other than condoms was very low among participants. Therefore, abortion for this study subjects was very common. Most participants reported about alcohol and drug use because this behavior could be influenced easily in this working environment. However, drug use was uncommon despite a number of participants saying that they were often offered drugs in their line of work. Violence and harassment commonly occurred within the context of their current work.

To address issues of young people’s health, Ministry of Health (MoH), Ministry of Education, Youth and Sports (MoEYS) and other relevant ministries and agencies developed some laws and policies such as the National Birth Spacing Policy (1995) <sup>[21]</sup>, Abortion Law (1997) <sup>[22]</sup>, Law on Control of Drugs (1997) <sup>[23]</sup>, Law of Prevention Against HIV/AIDS (2002) <sup>[24]</sup>, National Population Policy (2003) <sup>[25]</sup>, Family Planning and Safe Motherhood Policy (2004) <sup>[26]</sup>, Law on Prevention of Domestic Violence and Protection of Victims (2005) <sup>[27]</sup>, and the National Policy on Cambodian Youth Development (2011) <sup>[28]</sup>.

Some programmes on life skills development had been developed and integrated in-and out-of-school<sup>[16]</sup> youth such as the Programmes on Life Skills for HIV and AIDS Education phase I (2005) and phase II (2006-07), the Second Expanded Basic Education Programme (EBEPII) (2006-10) which focus mainly on the integration skill associated with reproductive health, early sexual initiation, HIV/AIDS, drugs abuse.

Those studies described above were conducted only on some specific places that could not be a national data. Regarding the study subjects, some were household youth, some were group of ‘at risk’, some were already married and some of them may not attended school. For those who were ‘at risk’, the results could be influenced by those vulnerable environments. For those who were household, after married, some of them would change their attitude and behaviors because they are become the head of the house so they can do whatever they like such as smoking, drinking, going out at night time.

The GSHS, however, focus on only students at high schools. From this background, we expected that this youth group have more knowledge and good attitude than youth that could not attend school or other youth that were in the 'at risk' environments. In additional, this study performed the same way with other countries because it will be followed the same core questionnaire which was developed by WHO although there are some slight different of selecting questionnaire.

## **2- METHODS**

### **2.1- Sample Description**

The 2013, Cambodia GSHS employed a two-stage cluster sample design to produce a representative sample of students.

**School Level** – The first-stage sampling frame consisted of all schools containing All schools containing grades 7, 8, 9, 10, 11 and 12 were included in the sampling frame. Schools were selected with probability proportional to school enrolment size. 50 schools were selected to participate in the Cambodia GSHS which 25 schools from urban location and other 25 schools from rural location.

**Class Level** - The second stage of sampling consisted of randomly selecting intact classrooms (using a random start) from each school to participate. All classes with the majority of students in grades 7, 8, 9, 10, 11 and 12 in each selected schools were included in the sampling frame. Systematic equal probability sampling with a random start was used to select classes from each school that participated in the survey. All students in the sampled classrooms were eligible to participate in the GSHS.

### **2.2- Sample selection steps**

- Determine age group and grades to be chosen (MoH, MoEYS)
- Create a GSHS sampling frame and summary statistics (CDC)
- Determine how many students and schools to sample (MoH, MoEYS, CDC)
- Select the sample of schools (MoH)
- Obtain agreement from each sampled school to participate (MoEYS)
- Create a list of eligible classrooms (MoH)
- Use the GSHS School-Level Form to sample classrooms and complete documentation (MoH)

### **2.3- Study tools**

For the 2013 Cambodia GSHS, nine out of ten core modules had been selected as the following:

- Alcohol use
- Dietary behaviours

- Drug use
- Hygiene
- Mental health
- Physical activity
- Sexual behaviours that contribute to HIV infection, other STI, and unintended pregnancy
- Tobacco use
- Violence and unintentional injury

In total, 69 questions had been selected to conduct this survey which included: 3 questions on demographics, 49 questions from the core modules and other 17 questions were selected from the core-expanded modules (*Appendix A*).

The questionnaire was selected by key person includes: Assoc. Prof. Dr. Prak Piseth Raingsey (Principle investigator), Dr. Chher Tepirou (Survey Coordinator), Dr. Yung Kunthearith (Co-survey coordinator) and Dr. Khim Sam Ath (Technical Officer on Non-communicable Diseases, WHO-Cambodia).

A Steering Committee had been established and members were included from other organizations such as School Health Department, University of Health Science, Maternal and Child Health Centre, WHO, UNICEF, UNFPA, and UNESCO (*Appendix B*). The Steering committee has the responsibility to give advice and assist with questionnaire selection, sampling strategy, school participation, and application of results.

After the questionnaire had been selected, all questions had been sent to CDC for reorganizing in order. When received back the questionnaire, the translation had been conducted from English into Khmer (Native language) and re-check twice to make sure on the accuracy of the translation.

There was a meeting between all members of the Steering Committee to recheck and receive some suggestion on the translation and other matter related with the GSHS survey.

## 2.4- Survey Administration

### 2.4.1- Ethical approval from the National Committee

The Cambodia GSHS got the approval from the National Ethics Committee for Health Research (NECHR) on the 24<sup>th</sup> December 2012 (*Appendix C*) before the survey started.

### 2.4.2- Pre-test of questionnaire

A pre-test had been conducted in one peri-urban secondary school with 45 students on the 4<sup>th</sup> March 2013. This pre-test was conducted in purpose of finding out about the difficulty of understanding from the students on the translated questionnaire in local language, Khmer, and the time spent for answering the questions. There were few points that need to be considered and pay more attention in explanation to the students during the on-going data collecting.

### 2.4.3- Survey administrators training and data collection

Ten Survey Administrators (SA) and five Survey Supervisors (SS) (*Appendix D*) were specially trained to conduct the GSHS. The training was emphasized on the step of data collection as the following:

- Explanation of the survey process and instruction to the participants how to use the answer sheet
- How to manage all answer sheets
- Pointing out what should be emphasis during data collection process

Those ten SAs and five SSs were divided into five teams and each team responsible for collecting data in ten selected schools. Survey coordinator, survey supporter and field supervisors were working together drawing the roadmap for each team to go to selected schools easily and faster.

Survey administration occurred in **March 2013**. Survey procedures were designed to protect student privacy by allowing for anonymous and voluntary participations. Students completed the self-administered questionnaire during one classroom period and recorded their responses directly on a computer-scannable answer sheet.

## 2.5- Data Management

The data set was cleaned and edited for inconsistencies. Missing data were not statistically imputed. Software that takes into consideration the complex sample design was used to compute prevalence estimates and 95% confidence intervals. GSHS data are representative of all students attending grade 7 to 12 in Cambodia.

### 2.5.1- Weighting

A weighting factor was applied to each student record to adjust for non-response and for the varying probabilities of selection.

The weight used for estimation in this survey is given by:

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

- W1 = the inverse of the probability of selecting the school;
- W2 = the inverse of the probability of selecting the classroom within the school;
- f1 = a school-level nonresponse adjustment factor calculated by school size category (small, medium, large). The factor was calculated in terms of school enrollment instead of number of schools.
- f2 = a student-level nonresponse adjustment factor calculated by class.
- f3 = a poststratification adjustment factor calculated by grade.

### 2.5.2- Use of the Weighted Results:

The weighted results can be used to make important inferences about the priority health-risk behaviors of all students in grades 7, 8, 9, 10, 11 and 12.

### 3- RESULTS

#### 3.1- Response rate

As the result of the Cambodia-GSHS 2013, there were 3,806 students from 50 selected schools participated. The school response rate was 100%, the student response rate was 85%, and the overall response rate was 85%.

#### 3.2- Demographics

Table 1: Demographic characteristics of the sample of the Cambodia GSHS, 2013.

	Total N (Weighted %)	Sex N (Weighted %)		Age N (Weighted %)			Grade N (Weighted %)					
		M	F	≤ 12	13-17	≥ 18	7	8	9	10	11	12
<b>Overall</b>	3,806 (100)	1,791 (52.3)	2,003 (47.7)	90 (2.4)	2,840 (78.3)	868 (19.3)	893 (25.8)	685 (20.2)	586 (16.9)	455 (13.0)	540 (12.1)	629 (11.9)
<b>Urban</b>	1,870 (100)	913 (53.1)	953 (46.9)	42 (2.1)	1,355 (73.7)	469 (24.2)	372 (19.0)	242 (15.8)	409 (15.6)	169 (16.2)	294 (15.9)	371 (17.5)
<b>Rural</b>	1,936 (100)	878 (52.1)	1,050 (47.9)	48 (2.6)	1,485 (79.9)	399 (17.6)	521 (28.2)	443 (21.8)	177 (17.4)	286 (11.9)	246 (10.7)	258 (9.9)

The demographic characteristics of the sample are described in Table 1. There were 3,806 students from 50 selected schools around the country participated in this survey in which 1,870 students from 25 schools were in urban area and 1,936 students from 25 schools were in rural area. Overall, the weighting percentage showed that 52.3% of the study subjects were males and 47.7% were females. Among those, there were 78.3% of the total subjects were aged between 13 to 17; 2.4% of students aged 12 and younger; and other 19.3% aged 18 and over. There were more students from grade 7 (25.8%) participated in this study and less from the upper grades which students who studied in Grade 8 were 20.2%, Grade 9 were 16.9%, Grade 10 were 13%, Grade 11 were 12.1% and Grade 12 were 11.9%.

### 3.3- Alcohol Use

Table 2: Alcohol use among students, by sex, and location of the Cambodia GSHS, 2013.

Behaviour	National % (CI)			Urban % (CI)			Rural % (CI)		
	Total	M	F	Total	M	F	Total	M	F
Drank at least one drink containing alcohol on one or more of the past 30 days	10.0 (8.2 - 12.1)	15.0 (12.4 - 17.9)	4.6 (3.4 - 6.1)	13.7 (10.1 - 18.2)	21.0 (15.1 - 28.3)	5.5 (4.0 - 7.5)	8.7 (6.6 - 11.4)	12.8 (10.0 - 16.3)	4.4 (2.9 - 6.5)
Among students who ever had a drink of alcohol, those who had their first drink of alcohol before age 14 years	19.5 (14.3 - 26.0)	17.5 (12.2 - 24.4)	24.8 (17.1 - 34.6)	16.7 (11.9 - 23.0)	18.1 (11.5 - 27.2)	13.6 (7.7 - 23.0)	20.8 (13.4 - 30.9)	17.2 (10.2 - 27.5)	30.4 (19.4 - 44.2)
Among students who drank alcohol during the past 30 days, those who usually drank two or more drinks per day on the days they drank alcohol	31.0 (26.0 - 36.5)	32.9 (27.2 - 39.2)	26.5 (18.8 - 35.8)	40.2 (32.6 - 48.2)	42.9 (34.8 - 51.3)	33.1 (25.1 - 42.3)	27.4 (20.8 - 35.1)	28.7 (21.2 - 37.7)	24.2 (14.6 - 37.4)
Among students who drank alcohol during the past 30 days, the percentage who usually got the alcohol they drank from their friends	19.7 (15.0 - 25.2)	19.3 (14.5 - 25.1)	21.2 (12.6 - 33.4)	22.4 (17.8 - 27.9)	22.5 (16.6 - 29.7)	-	18.4 (12.1 - 26.9)	17.8 (11.6 - 26.4)	-
Drank so much alcohol that they were really drunk one or more times during their life	10.8 (8.5 - 13.7)	16.3 (12.8 - 20.6)	5.0 (3.9 - 6.3)	13.3 (10.0 - 17.6)	18.9 (14.1 - 24.8)	7.1 (4.9 - 10.2)	10.0 (7.1 - 13.8)	15.4 (10.9 - 21.3)	4.2 (3.1 - 5.7)
Got into trouble with their family or friends, missed school, or got into fights one or more times during their life as a result of drinking alcohol.	2.8 (2.2 - 3.7)	3.9 (3.0 - 5.1)	1.6 (1.1 - 2.4)	3.0 (2.0 - 4.4)	4.3 (3.0 - 6.0)	1.6 (0.7 - 3.3)	2.7 (1.9 - 3.9)	3.8 (2.6 - 5.4)	1.7 (1.1 - 2.6)
% of students whose parents or guardians drank alcohol	50.5 (47.0 - 53.9)	53.1 (48.6 - 57.6)	47.5 (44.1 - 51.0)	48.9 (44.6 - 53.3)	50.4 (44.4 - 56.4)	47.1 (42.3 - 51.9)	51.0 (46.4 - 55.6)	54.1 (48.0 - 60.1)	47.7 (43.1 - 52.3)
% of students who probably or definitely would drink alcohol if their best friend offered them	11.1 (8.6 - 14.3)	15.6 (12.1 - 19.9)	6.3 (4.7 - 8.5)	12.4 (9.0 - 16.9)	17.7 (12.9 - 23.9)	6.2 (4.2 - 9.3)	10.7 (7.5 - 15.1)	14.8 (10.4 - 20.7)	6.3 (4.2 - 9.3)
% of students who saw any alcohol advertisements almost daily during past 30 days	51.4 (47.9 - 55.0)	52.1 (48.2 - 56.0)	50.8 (46.3 - 55.2)	57.6 (54.1 - 61.2)	56.7 (52.3 - 61.0)	58.6 (55.0 - 62.1)	49.2 (44.4 - 54.1)	50.5 (45.0 - 55.9)	48.1 (42.0 - 54.2)

\*95% confidence interval.

(-)= Fewer than 100 students in this subgroup.

### **Prevalence of current alcohol use**

In **Cambodia**, the overall prevalence of current alcohol use among students (i.e., drinking at least one drink containing alcohol on one or more of the past 30 days) is 10% (one in ten). Male students are significantly different from females (15% vs 4.6%) to report currently alcohol user. Among students who ever had a drink of alcohol, 19.5% (one in five) of students had their first drink of alcohol before age 14 years.

Among students who drank alcohol, 31% (one in three) of students usually drank two or more drinks per day on the days they drank alcohol during the past 30 days. Among students who drank alcohol during the past 30 days, 19.7% (one in five) of students usually got the alcohol they drank from their friends. About 11% of students probably or definitely would drink alcohol if one of their best friends offered them a drink. Males are significantly more likely than females to accept a drink offered from their best friends.

### **Consequences of drinking**

As the results showed, 10.8% of students drank so much alcohol they were really drunk one or more times during their life. Males were significantly more likely than females to have ever drunk so much alcohol that they were really drunk. Among them, 2.8% of students got into trouble with their family or friends, missed school, or got into fights one or more times during their life as a result of drinking alcohol.

### **Other related factors affected to alcohol use**

About half of participants (50.5%) reported that their parents or guardians drank alcohol. More than half of students saw alcohol advertisements almost daily or daily during past 30 days. Students from urban area are likely to see the alcohol advertisement from the media than students in rural area.

### 3.4- Dietary Behaviours

Table 3: BMI and dietary behaviours, by sex, and location of the Cambodia GSHS, 2013.

Behaviour or Health Outcome	National % (CI)			Urban % (CI)			Rural % (CI)		
	Total	M	F	Total	M	F	Total	M	F
Underweight <sup>1</sup>	12.8 (9.9 - 16.2)	15.6 (11.6 - 20.7)	9.7 (7.8 - 12.1)	12.5 (9.7 - 16.1)	15.4 (11.7 - 20.1)	9.3 (7.0 - 12.4)	12.8 (9.1 - 17.8)	15.7 (10.3 - 23.1)	9.9 (7.4 - 13.1)
Overweight <sup>2</sup>	3.4 (2.6 - 4.4)	3.3 (2.3 - 4.7)	3.4 (2.6 - 4.5)	6.2 (5.1 - 7.5)	7.2 (5.4 - 9.5)	5.0 (3.3 - 7.7)	2.3 (1.4 - 3.8)	1.9 (0.9 - 3.8)	2.9 (1.9 - 4.3)
Obese <sup>3</sup>	0.4 (0.3 - 0.7)	0.7 (0.4 - 1.2)	0.2 (0.1 - 0.5)	1.1 (0.7 - 1.6)	1.6 (0.8 - 2.9)	0.5 (0.2 - 1.0)	0.2 (0.1 - 0.5)	0.3 (0.1 - 1.2)	0.1 (0.0 - 0.9)
Went hungry most of the time or always because there was not enough food in their home during the past 30 days	6.3 (4.6 - 8.6)	6.2 (4.6 - 8.2)	6.5 (3.9 - 10.6)	5.6 (3.9 - 7.9)	6.1 (4.3 - 8.6)	5.1 (3.2 - 7.9)	6.6 (4.4 - 9.8)	6.2 (4.2 - 9.2)	7.0 (3.6 - 13.1)
Usually ate fruit two or more times per day during the past 30 days	21.6 (18.6 - 24.8)	21.9 (18.8 - 25.3)	21.3 (17.7 - 25.3)	24.1 (20.5 - 28.0)	23.3 (19.0 - 28.2)	25.0 (20.8 - 29.9)	20.7 (16.8 - 25.1)	21.4 (17.4 - 26.1)	20.0 (15.4 - 25.5)
Usually ate vegetables three or more times per day during the past 30 days	11.9 (10.8 - 13.1)	11.1 (8.9 - 13.9)	12.9 (11.2 - 14.9)	15.5 (13.1 - 18.3)	14.1 (10.6 - 18.6)	17.2 (14.5 - 20.3)	10.7 (9.4 - 12.1)	10.1 (7.3 - 13.8)	11.4 (9.2 - 14.2)
Usually ate fruits and vegetables five or more times per day during the past 30 days	9.9 (8.8 - 11.2)	10.2 (8.5 - 12.3)	9.7 (8.2 - 11.5)	12.2 (10.3 - 14.4)	12.1 (9.3 - 15.7)	12.4 (9.7 - 15.8)	9.1 (7.7 - 10.8)	9.5 (7.4 - 12.2)	8.8 (6.9 - 11.1)
Usually drank carbonated soft drinks one or more times per day during the past 30 days	42.1 (37.7 - 46.6)	41.2 (36.3 - 46.3)	43.0 (38.4 - 47.8)	49.2 (43.6 - 54.8)	48.7 (42.9 - 54.6)	49.6 (43.4 - 55.7)	39.6 (33.9 - 45.5)	38.5 (32.1 - 45.3)	40.8 (34.8 - 47.0)
Ate food from a fast food restaurant on three or more days during the past 7 days	3.1 (2.2 - 4.2)	3.0 (2.0 - 4.5)	3.2 (2.3 - 4.4)	4.6 (3.6 - 5.8)	4.2 (3.0 - 5.9)	5.0 (3.9 - 6.5)	2.5 (1.5 - 4.3)	2.6 (1.3 - 4.9)	2.5 (1.4 - 4.4)
Saw advertisements for carbonated soft drinks or fast foods most of the time or always when they watched television, videos, or movies.	53.4 (49.1 - 57.7)	51.9 (48.0 - 55.8)	54.9 (49.1 - 60.6)	61.6 (58.2 - 65.0)	60.5 (57.8 - 63.1)	62.9 (56.8 - 68.7)	50.4 (44.4 - 56.5)	48.7 (43.2 - 54.3)	52.1 (44.1 - 60.0)

\*95% confidence interval.

<sup>1</sup><-2SD from median for BMI by age and sex.

<sup>2</sup>>+1SD from median for BMI by age and sex.

<sup>3</sup>>+2SD from median for BMI by age and sex.

#### Prevalence of weight

In Cambodia, 12.8% of students were underweight, 3.4% of students were overweight, and only 0.4% was obese. Male students seems to have very slight problem about their weight than females

(underweight: 15.6% vs 9.7% and obese: 0.7% vs 0.2%). There was significant difference between students in urban (6.2%) and in rural areas (2.3%) on overweight problem. However, there was not different on underweight problem between students from both locations (12.5% vs 12.8%).

Overall, 6.3% of students went hungry most of the time or always because there was not enough food in their home during the past 30 days. There were no difference between male (6.2%) and female students (6.5%) and between students in urban (5.6%) and rural areas (6.6%).

### **Fruit and vegetable intake**

Overall, 21.6% (one in five) of students usually ate fruit, such as bananas, oranges, papaya, mango, pineapple, grapefruit, jackfruit, watermelon, gava, mangosteen, and sapodilla, two or more times per day during the past 30 days. About 12% of students usually ate vegetables such as water spinach, water lily, pumpkin, winter melon, cucumber, eggplant, tomato, carrots, cabbages, green beans, lettuce, and ivy gourds, three or more times per day during the past 30 days. Students in urban area are more likely ate vegetables than students in rural areas (15.5% vs 10.7%). One in ten students (10%) usually ate fruits and vegetables five or more times per day during the past 30 days. Generally, there were no difference between male (10.2%) and female (9.7%) students in eating fruits and vegetables five or more times per day during the past 30 days.

### **Other dietary behaviours**

Overall, 42.1% of students drank carbonated soft drinks such as Coca Cola, Pepsi, Fanta, 7-Up, Sprite, Mirinda, or Sarsi one or more times per day during the past 30 days. Although the percentage of students in urban (49.2%) drank carbonated soft drinks is higher than students in rural areas (39.6%) but the statistic showed no significant difference. There is no difference between male and female students.

Fast foods are unhealthy foods. In Cambodia, about 3% of students ate food from a fast food restaurant such as KFC, Pizza Company, Pizza World, Lucky Burgers, Lucky Seven, Master Grill, BBQ Chicken, Burger King, Saprino Pizza, Pizza Hand, or Mariyan Pizza House on three or more days during the past 7 days. There was no difference between male and female students about their behaviours of eating fast foods. Students in urban (4.6%) seem to eat fast foods more than students in rural areas (2.5%), however, there is no difference in statistical analysis.

More than half (53.4%) of students reported that they saw the advertisements for carbonated soft drinks or fast foods most of the time or always when they watched television, videos, or movies. According to their report, more urban students (61.6%) saw those advertisements frequently if compared with students who live in rural area (50.4%).

### 3.5- Drug Use

Table 4: Drug-use behaviours, by sex, and location of the Cambodia GSHS, 2013.

Behaviours	National % (CI)			Urban % (CI)			Rural % (CI)		
	Total	M	F	Total	M	F	Total	M	F
Among students who ever used drugs, those who first used drugs before age 14 years	46.2 (34.7-58.1)	-	-	-	-	-	-	-	-
Used marijuana one or more times during their life	1.0 (0.6 - 1.8)	1.3 (0.7 - 2.2)	0.8 (0.4 - 1.6)	1.0 (0.6 - 1.9)	1.6 (0.8 - 3.2)	0.4 (0.1 - 1.5)	1.0 (0.5 - 2.1)	1.2 (0.5 - 2.6)	0.9 (0.4 - 2.2)
Used marijuana one or more times during the past 30 days	0.9 (0.5 - 1.5)	1.0 (0.6 - 1.7)	0.8 (0.4 - 1.6)	1.0 (0.6 - 1.7)	1.6 (0.8 - 3.1)	0.3 (0.1 - 1.2)	0.8 (0.4 - 1.8)	0.8 (0.3 - 1.9)	0.9 (0.4 - 2.2)
Used amphetamines or methamphetamines one or more times during their life	0.8 (0.5 - 1.3)	1.2 (0.8 - 1.9)	0.4 (0.2 - 0.9)	0.9 (0.6 - 1.3)	1.4 (0.9 - 2.1)	0.3 (0.1 - 0.7)	0.8 (0.4 - 1.5)	1.2 (0.6 - 2.2)	0.4 (0.1 - 1.2)

\*95% confidence interval.

(-)= Fewer than 100 students in this subgroup.

In **Cambodia**, among those students who ever used drugs, 46.2% of them first used drugs before age 14 years. There was no report on this question between sex and between locations because the answer is less than 100 students in those subgroups.

Overall, there was only 1.0% of students used marijuana one or more times during their life. There was no different between students in urban and rural areas in regard to the current marijuana user. There was no significantly different between sexes. However, male students (1.3%) seem to use marijuana than female (0.8%) one or more times during their life. There were only 0.9% of students reported that they currently use marijuana one or more times during the past 30 days. Overall, there were 0.8% of students used Amphetamines or Methamphetamines one or more times during their life. Although there is not showed statistically significant different, but male students have a higher risk in using Amphetamines or Methamphetamines than female students (1.2% vs 0.4%).

### 3.6- Hygiene

Table 5: Hygiene-related behaviours, by sex, and location of the Cambodia GSHS, 2013.

Behaviours	National % (CI)			Urban % (CI)			Rural % (CI)		
	Total	M	F	Total	M	F	Total	M	F
Usually cleaned or brushed their teeth less than one time per day during the past 30 days	4.0 (3.0 - 5.3)	4.6 (3.4 - 6.2)	3.2 (2.1 - 4.9)	1.9 (1.4 - 2.6)	2.4 (1.6 - 3.7)	1.2 (0.6 - 2.6)	4.7 (3.4 - 6.5)	5.4 (3.8 - 7.5)	3.9 (2.4 - 6.3)
Never or rarely washed their hands before eating during the past 30 days	1.9 (1.3 - 2.7)	2.1 (1.3 - 3.3)	1.6 (1.1 - 2.2)	1.7 (1.1 - 2.7)	2.3 (1.3 - 4.2)	1.0 (0.5 - 1.9)	1.9 (1.2 - 3.1)	2.0 (1.1 - 3.7)	1.7 (1.1 - 2.7)
Never or rarely washed their hands after using the toilet or latrine during the past 30 days	2.7 (1.9 - 3.8)	3.2 (2.2 - 4.5)	2.2 (1.4 - 3.5)	1.6 (1.0 - 2.6)	2.0 (1.1 - 3.5)	1.2 (0.6 - 2.3)	3.1 (2.1 - 4.7)	3.6 (2.4 - 5.5)	2.6 (1.5 - 4.4)
Never or rarely used soap when washing their hands during the past 30 days	2.7 (2.1 - 3.5)	3.4 (2.5 - 4.6)	1.9 (1.1 - 3.3)	2.2 (1.4 - 3.4)	2.7 (1.5 - 4.7)	1.4 (0.7 - 2.9)	2.9 (2.1 - 4.0)	3.6 (2.5 - 5.2)	2.1 (1.1 - 4.1)
% of students who did not have a source of clean water for drinking at school	37.7 (29.6 - 46.7)	37.5 (28.9 - 47.1)	38.0 (29.7 - 47.0)	42.1 (32.6 - 52.2)	42.8 (32.4 - 53.9)	41.3 (31.7 - 51.7)	36.2 (25.5 - 48.5)	35.6 (24.3 - 48.8)	36.8 (25.9 - 49.2)
% students who described the health of their TEETH as excellent, very good, or good	53.8 (49.9 - 57.6)	55.5 (51.5 - 59.5)	51.9 (46.7 - 57.0)	48.7 (44.7 - 52.7)	53.9 (50.1 - 57.5)	42.9 (37.0 - 49.0)	55.6 (50.2 - 60.8)	56.1 (50.5 - 61.5)	55.0 (48.0 - 61.8)
% students who described the health of their GUMS as excellent, very good, or good	57.8 (53.9 - 61.7)	59.8 (56.2 - 63.3)	55.8 (50.9 - 60.5)	55.5 (49.8 - 61.1)	59.5 (54.3 - 64.6)	50.8 (43.8 - 57.8)	58.7 (53.5 - 63.7)	59.9 (55.1 - 64.5)	57.5 (51.0 - 63.7)
% students who had a toothache that caused them to miss class or school during the past 12 months	18.0 (16.3 - 19.8)	19.0 (17.1 - 21.2)	16.8 (14.3 - 19.6)	19.4 (17.4 - 21.7)	19.2 (16.2 - 22.4)	19.6 (16.9 - 22.7)	17.4 (15.2 - 19.9)	19.0 (16.4 - 21.8)	15.8 (12.6 - 19.6)
% students who most of the time or always had a toothache or felt discomfort during the past 12 months	3.5 (2.8 - 4.4)	2.8 (2.2 - 3.7)	4.2 (3.0 - 5.7)	4.4 (3.1 - 6.3)	4.4 (3.1 - 6.2)	4.5 (2.7 - 7.4)	3.2 (2.3 - 4.4)	2.3 (1.5 - 3.4)	4.1 (2.7 - 6.2)
% of students who used toothpaste that contained fluoride	59.9 (54.9 - 64.8)	60.9 (55.4 - 66.1)	59.0 (53.7 - 64.2)	61.5 (57.2 - 65.6)	63.9 (59.0 - 68.6)	58.8 (52.2 - 65.1)	59.4 (52.4 - 66.0)	59.8 (52.1 - 67.0)	59.1 (51.8 - 66.0)
% of students who never saw a dentist for a check-up, teeth cleaning or other dental work	59.9 (56.5 - 63.2)	60.1 (56.1 - 64.0)	59.6 (55.9 - 63.1)	51.8 (48.7 - 54.9)	53.2 (48.8 - 57.5)	50.2 (46.9 - 53.5)	62.8 (58.0 - 67.3)	62.6 (57.1 - 67.8)	62.8 (57.8 - 67.6)

\*95% confidence interval.

### **Teeth cleaning**

In **Cambodia**, the percentage of students who usually cleaned or brushed their teeth less than one time per day during the past 30 days was 4%. Students who live in rural (4.7%) are significantly more likely to less clean or brush their teeth if compared with students who live in urban (1.9%).

### **Hand washing**

In Cambodia, 1.9% of students never or rarely washed their hands before eating during the past 30 days. Male students (2.1%) are not significantly different from female students (1.6%) in regard to not wash their hands before eating. There was also no different between students in urban and rural areas.

Overall, 2.7% of students never or rarely washed their hands after using the toilet or latrine and 2.7% of students never or rarely used soap when washing their hands during the past 30 days. Students in rural (3.1%) seem to not wash their hand after using toilet or latrine than urban students (1.6%).

### **Source of cleaning water for drinking**

Overall, 37.7% of students in Cambodia reported that they did not have a source of clean water for drinking at school.

### **Perception about oral health and other related factors**

Overall, more than half of students (53.8%) described their teeth and 57.8% of them described their gums as excellent, very good, or good.

During the past 12 months, there were 18% of students who had a toothache that caused them to miss class or school. The overall percentage of students who most of the times or always had a toothache or felt discomfort because of their teeth during the past 12 months was 3.5%.

As the result showed, there were 59.9% of students who used toothpaste that contained fluoride. There were 59.9% of students never saw a dentist for doing any dental check-up, teeth cleaning or other dental work. Students in rural area less see dentist of checkup or treatment than students in urban area.

### 3.7- Mental Health

Table 6: Mental health issues among students, by sex and location of the Cambodia GSHS, 2013.

Behaviours	National % (CI)			Urban % (CI)			Rural % (CI)		
	Total	M	F	Total	M	F	Total	M	F
<b>Loneliness/Depression</b>									
Most of the time or always felt lonely during the past 12 months	5.7 (4.9 - 6.7)	4.9 (3.9 - 6.2)	6.6 (5.3 - 8.3)	8.6 (6.9 - 10.6)	8.1 (5.8 - 11.4)	9.1 (7.6 - 10.9)	4.7 (3.8 - 5.8)	3.8 (2.7 - 5.2)	5.8 (4.1 - 8.1)
Had no close friends	5.0 (4.2 - 6.0)	5.7 (4.3 - 7.6)	4.3 (3.3 - 5.6)	5.8 (4.6 - 7.3)	5.9 (4.5 - 7.7)	5.7 (4.4 - 7.4)	4.7 (3.6 - 6.2)	5.6 (3.8 - 8.3)	3.8 (2.5 - 5.7)
Most of the times were so worried that could not eat or feel hungry in past 12 months	3.3 (2.8 - 4.0)	2.5 (2.0 - 3.1)	4.2 (3.3 - 5.4)	3.2 (2.7 - 3.9)	3.0 (2.2 - 4.2)	3.5 (2.7 - 4.4)	3.4 (2.6 - 4.3)	2.3 (1.7 - 3.2)	4.5 (3.3 - 6.1)
Most of the time or always were so worried about something that they could not sleep at night during the past 12 months	6.0 (5.3 - 6.9)	5.6 (4.5 - 6.9)	6.6 (5.6 - 7.8)	8.7 (7.0 - 10.7)	7.6 (5.8 - 10.0)	9.9 (7.9 - 12.4)	5.1 (4.3 - 6.1)	4.8 (3.5 - 6.6)	5.5 (4.4 - 6.7)
Always so worried that could not sleep in past 12 months + were bullied on one or more days during past 30 days	47.9 (41.3- 54.5)	48.4 (39.9- 57.1)	47.3 (38.5- 56.3)	48.3 (39.4- 57.3)	-	-	-	-	-
<b>Suicide attempting</b>									
Ever seriously considered attempting suicide during the past 12 months	6.4 (5.6 - 7.2)	5.5 (4.2 - 7.3)	7.3 (6.1 - 8.8)	6.9 (5.8 - 8.1)	6.2 (4.8 - 7.9)	7.7 (6.2 - 9.6)	6.2 (5.2 - 7.4)	5.3 (3.6 - 7.9)	7.2 (5.6 - 9.2)
Made a plan about how they would attempt suicide during the past 12 months	8.8 (7.8 - 10.0)	8.8 (7.4 - 10.4)	8.9 (7.4 - 10.7)	8.5 (7.4 - 9.7)	8.0 (6.5 - 9.9)	9.0 (7.4 - 10.9)	8.9 (7.5 - 10.6)	9.0 (7.2 - 11.3)	8.9 (6.9 - 11.5)
Actually attempted suicide one or more times during the past 12 months	6.8 (5.8 - 7.8)	5.7 (4.4 - 7.4)	7.9 (6.7 - 9.4)	6.8 (5.6 - 8.4)	6.4 (5.1 - 7.9)	7.4 (5.3 - 10.3)	6.7 (5.5 - 8.2)	5.5 (3.7 - 8.0)	8.1 (6.1 - 10.0)

\*95% confidence interval.

(-)= Fewer than 100 students in this subgroup.

### **Loneliness/ Depression**

In **Cambodia**, 5.7% of students most of the time or always felt lonely during the past 12 months. There were significant different between students in both locations. Students in urban location (8.6%) are always or most of the time feel lonely than students in rural location (4.7%). There were 5% of students reported that they had no close friends. This is must be one of reason for loneliness and depression.

Overall, 3.3% of students most of the times were so worried that could not eat or feel hungry in past 12 months. There were significant different between male (2.5%) and female (4.2%) students at rural location (male: 2.3% vs female: 4.5%) and at national levels, but not for students in urban location.

Overall, 6% of students most of the time or always were so worried about something that they could not sleep at night during the past 12 months. There were significant different between students in both locations. Students in urban location (8.7%) are always or most of the time were so worried about something that they could not sleep at night during the past 12 months than students in rural location (5.1%). However, there were no different between male and female students. Among students who most of the times or always were so worried about something that they could not sleep at night during the past 12 months, the percentage who was bullied on one or more days during the past 30 days was 47.9%.

### **Suicide Attempting**

Overall, there were 6.4% of students ever seriously considered attempting suicide and 6.8% of students actually attempted suicide one or more times during the past 12 months. There was no different between students from both locations on this issue. Females seem to considered seriously and attempting suicide than male students although there is no statistical significant different.

Overall, 8.8% of students made a plan about they would attempt suicide during the past 12 months. However, there was no different between sex and location.

### 3.8- Physical Activity

Table 7: Physical activity among students, by sex, and location of the Cambodia GSHS, 2013.

Behaviour	National % (CI)			Urban % (CI)			Rural % (CI)		
	Total	M	F	Total	M	F	Total	M	F
<b>Physical activity</b>									
Were physically active for a total of at least 60 minutes per day on <b>five or more</b> days during the past seven days	10.7 (9.5 - 12.0)	12.7 (11.1 - 14.6)	8.5 (6.6 - 10.9)	13.9 (11.8 - 16.3)	17.0 (13.8 - 20.9)	10.5 (8.0 - 13.6)	9.5 (8.0 - 11.3)	11.2 (9.3 - 13.4)	7.8 (5.4 - 11.2)
Were physically active for a total of at least 60 minutes per day on <b>all seven</b> days during the past seven days	7.5 (6.3 - 9.0)	9.4 (7.9 - 11.1)	5.5 (3.9 - 7.8)	9.7 (7.5 - 12.3)	12.6 (9.7 - 16.2)	6.4 (3.9 - 10.5)	6.8 (5.3 - 8.7)	8.2 (6.5 - 10.3)	5.2 (3.3 - 8.2)
Did not walk or ride a bicycle to or from school during the past seven days	27.1 (22.5 - 32.1)	28.4 (23.3 - 34.1)	25.6 (21.2 - 30.5)	32.3 (28.5 - 36.4)	33.5 (28.4 - 38.9)	30.8 (26.2 - 35.8)	25.2 (19.2 - 32.4)	26.5 (19.8 - 34.6)	23.8 (18.0 - 30.7)
<b>Physical education</b>									
Went to physical education class on <b>three or more</b> days each week during this school year	10.7 (9.0 - 12.7)	12.2 (10.0 - 14.9)	8.8 (6.7 - 11.6)	9.5 (7.5 - 11.9)	11.4 (8.8 - 14.7)	7.4 (5.0 - 10.7)	11.1 (8.8 - 13.8)	12.5 (9.6 - 16.2)	9.4 (6.6 - 13.1)
Went to physical education class on <b>five or more</b> days each week during this school year	5.6 (4.4 - 7.1)	6.8 (5.3 - 8.5)	4.3 (2.7 - 6.7)	5.4 (4.1 - 7.2)	7.0 (4.8 - 10.1)	3.7 (2.2 - 6.0)	5.7 (4.1 - 7.7)	6.7 (4.9 - 9.1)	4.5 (2.5 - 8.1)
Spent three or more hours per day during a typical or usual day doing sitting activities	12.0 (9.9 - 14.5)	12.1 (9.7 - 15.0)	11.9 (9.7 - 14.7)	20.2 (17.7 - 22.9)	20.9 (17.3 - 25.1)	19.4 (15.9 - 23.4)	9.1 (6.5 - 12.4)	8.9 (6.0 - 12.9)	9.4 (6.7 - 12.9)
% of students who were taught in any of their classes during this school year the benefit of physical activity	71.9 (67.7 - 75.8)	74.1 (69.8 - 77.9)	69.6 (64.5 - 74.2)	64.6 (57.9 - 70.7)	66.5 (59.5 - 72.8)	62.3 (55.1 - 69.1)	74.6 (68.8 - 79.5)	76.8 (71.3 - 81.6)	72.1 (65.0 - 78.3)

\*95% confidence interval.

## **Physical activity**

In **Cambodia**, 10.7% of students were physically active for a total of at least 60 minutes per day on **five or more** days during the past seven days. Male students (12.7%) are more likely to do physical activity than female students (8.5%). Students in urban area (13.9%) are more active than students in rural area (9.5%).

Overall, 7.5% of students were physically active for a total of at least 60 minutes on **all seven** days during the past seven days. Male students (9.4%) are more likely to do physical activity than female students (5.5%).

During the past seven days, there were 27.1% of students did not walk or ride a bicycle to or from school.

## **Physical education**

Overall, 10.7% (one in ten) of students went to physical education class on **three or more** days each week and 5.6% of students went to physical education class on **five or more** days each week during this school year. Male students are more likely gone to physical education class than female students, but there was no much different between the two locations.

Overall, 12% of students spent three or more hours per day during a typical or usual day doing sitting activities, such as watching television, playing games, working with computer or talking with friends. Male students are not significant different from female students. Students in urban area (20.2%) (one in every five) are spending their sitting time more than students in rural area (9.1%).

There were 71.9% of students who were taught in any of their classes during this school year the benefit of physical activity. Male students are not significant different from female students. Students in rural area (74.6%) seem to receive this information then than students in urban area (64.6%).

### 3.9- Sexual Behaviours that Contribute to HIV Infection, Other STI, and Unintended Pregnancy

Table 8: Sexual behaviours that contribute to HIV infection, other STI, and unintended pregnancy among students, by sex, and location of the Cambodia GSHS, 2013.

Behaviour	National % (CI)			Urban % (CI)			Rural % (CI)		
	Total	M	F	Total	M	F	Total	M	F
Ever had sexual intercourse	11.9 (10.4 - 13.6)	14.3 (12.2- 16.7)	9.4 (7.7 - 11.3)	11.3 (9.3 - 13.7)	14.5 (11.1 - 18.7)	7.9 (6.4 - 9.8)	12.1 (10.1 - 14.4)	14.2 (11.5- 17.4)	9.9 (7.6 - 12.7)
Among students who ever had sexual intercourse, those who had sexual intercourse for the first time before age 14 years	-	-	-	-	-	-	-	-	-
Had sexual intercourse with two or more people during their life	1.0 (0.6 - 1.7)	1.4 (0.8 - 2.4)	0.7 (0.3 - 1.4)	1.0 (0.5 - 1.7)	1.7 (0.9 - 3.2)	0.2 (0.0 - 0.8)	1.1 (0.5 - 2.1)	1.3 (0.6 - 2.8)	0.9 (0.4 - 1.9)
Among students who ever had sexual intercourse, those who used a condom the last time they had sexual intercourse	-	-	-	-	-	-	-	-	-
Among students who ever had sexual intercourse, those who used any other method of birth control the last time they had sexual intercourse	-	-	-	-	-	-	-	-	-
Among students who ever had sexual intercourse, those who most of the time or always used a condom	29.8 (21.4 - 39.7)	-	-	-	-	-	-	-	-
% students who were already drunk one or more times in their life + had ever had sexual intercourse	15.7 (10.9 - 22.0)	15.5 (10.2- 22.8)	16.1 (8.8 - 27.6)	21.2 (15.9 - 27.5)	21.2 (14.6 - 29.7)	-	12.9 (6.7 - 23.4)	12.9 (6.4 - 24.4)	-

\*95% confidence interval.

(-)= Fewer than 100 students in this subgroup.

In **Cambodia**, 11.9% of students reported that they ever had sexual intercourse. Male students are significant different from female students with the percentage of 14.3% for males and 9.4% for females. There was no much different between students live in urban and rural locations.

Among students who ever had sexual intercourse, there were 29.8% of them had most of the time or always used a condom. There was only 1% of students had sexual intercourse with two or more people during their life. Among students who drank so much alcohol they were really drunk one or more times during their life, the percentage who had ever had sexual intercourse was 15.7%.

The following issues could not be described in this report because the number of students who could answer the question was too small (less than 100):

- who has sexual intercourse for the first time before age 14 years
- who used a condom the last time they had sexual intercourse
- who used any other method of birth control the last time they had sexual intercourse.

### 3.10- Tobacco Use

Table 9: Tobacco use among students, by sex, and location of the Cambodia GSHS, 2013.

Behaviour	National % (CI)			Urban % (CI)			Rural % (CI)		
	Total	M	F	Total	M	F	Total	M	F
Smoked cigarettes on one or more days during the past 30 days	2.7 (2.0 - 3.6)	3.9 (2.8 - 5.6)	1.4 (0.8 - 2.4)	2.9 (2.0 - 4.3)	4.9 (3.2 - 7.4)	0.7 (0.3 - 1.8)	2.6 (1.7 - 4.0)	3.6 (2.1 - 6.0)	1.6 (0.8 - 3.1)
Among students who ever smoked cigarettes, those who first tried a cigarette before age 14 years	48.3 (38.1 - 58.6)	44.5 (33.5 - 56.2)	-	51.4 (38.9 - 63.7)	48.2 (36.4 - 60.1)	-	-	-	-
Used any tobacco products other than cigarettes on one or more days during the past 30 days	2.3 (1.5 - 3.5)	2.5 (1.5 - 4.1)	2.1 (1.2 - 3.9)	1.3 (0.9 - 1.9)	1.9 (1.3 - 2.8)	0.7 (0.3 - 1.6)	2.7 (1.6 - 4.4)	2.7 (1.5 - 5.1)	2.6 (1.3 - 5.2)
Used any tobacco on one or more days during the past 30 days	3.6 (2.7 - 4.9)	5.0 (3.4 - 7.1)	2.1 (1.2 - 3.9)	3.2 (2.1 - 4.7)	5.1 (3.3 - 7.9)	0.9 (0.3 - 2.5)	3.8 (2.5 - 5.5)	4.9 (3.0 - 8.0)	2.5 (1.3 - 5.1)
Among students who smoked cigarettes during the past 12 months, those who tried to stop smoking cigarettes during the past 12 months	-	-	-	-	-	-	-	-	-
Reported people smoked in their presence on one or more days during the past seven days	50.1 (47.3 - 52.9)	52.9 (49.3 - 56.5)	47.0 (43.7 - 50.3)	48.2 (44.7 - 51.7)	49.9 (44.9 - 55.0)	46.1 (42.4 - 49.9)	50.8 (47.0 - 54.5)	54.0 (49.1 - 58.7)	47.3 (42.8 - 51.8)
Had parents or guardians who used any form of tobacco	36.6 (34.0 - 39.3)	36.4 (32.5 - 40.6)	36.8 (33.4 - 40.3)	30.5 (28.4 - 32.6)	30.8 (28.2 - 33.4)	29.9 (26.1 - 34.1)	38.8 (35.2 - 42.6)	38.5 (33.0 - 44.3)	39.1 (34.5 - 44.0)
% students who probably or definitely would smoke a cigarette if one of their best friends offered them one	1.5 (1.0 - 2.1)	2.1 (1.4 - 3.2)	0.8 (0.3 - 1.7)	1.6 (1.0 - 2.6)	2.4 (1.4 - 4.2)	0.7 (0.2 - 1.8)	1.4 (0.9 - 2.4)	2.0 (1.2 - 3.5)	0.8 (0.3 - 2.2)

\*95% confidence interval.

(-)= Fewer than 100 students in this subgroup.

In **Cambodia**, there were 2.7% of students smoked cigarettes on one or more days during the past 30 days. Among students who ever smoked cigarettes, 48.3% of students first tried a cigarette before age 14 years. Male students (3.9%) are significantly smoked cigarettes more than female students (1.4%). There was no different between the students in both locations: urban and rural.

Overall, 2.3% of students used any tobacco products other than cigarettes on one or more days during the past 30 days. Students live in rural seem to use other tobacco products than students live in urban, however, there is no statistically different for both locations and between males and females.

There were 3.6% of students used any tobacco on one or more days during the past 30 days.

Among students who smoked cigarettes during the past 12 months, very small number of students tried to stop smoking cigarettes during the past 12 months that could not declared in the table because less than 100 students provided answer to this question.

About half of students (50.1%) reported about other people smoked in their presence on one or more days during the past seven days. 36.6% of students had parents or guardians smoked or using any form of tobacco.

Overall, there was only 1.5% of students who probably or definitely would smoke a cigarette if one of their best friends offered them one.

### 3.11- Violence and Unintentional Injury

Table 10: Violence and unintentional injury among students, by sex, and location of the Cambodia GSHS, 2013.

Behaviours or health outcomes	National % (CI)			Urban % (CI)			Rural % (CI)		
	Total	M	F	Total	M	F	Total	M	F
Were physically attacked one or more times during the past 12 months	17.5 (15.1 - 20.1)	20.7 (18.0 - 23.6)	13.9 (10.7 - 17.9)	19.3 (17.3 - 21.5)	24.6 (21.2 - 28.3)	13.5 (11.7 - 15.4)	16.8 (13.7 - 20.6)	19.3 (15.8 - 23.3)	14.1 (9.7 - 19.9)
Were in a physical fight one or more times during the past 12 months	10.5 (9.2 - 12.0)	11.2 (9.3 - 13.5)	9.6 (7.6 - 12.1)	12.3 (10.0 - 14.9)	14.6 (11.7 - 18.0)	9.7 (6.7 - 13.7)	9.9 (8.2 - 11.9)	10.0 (7.5 - 13.2)	9.6 (7.0 - 13.0)
Were seriously injured one or more times during the past 12 months	20.1 (17.5 - 23.0)	22.5 (19.2 - 26.3)	17.5 (14.3 - 21.4)	20.3 (17.9 - 22.9)	23.5 (20.0 - 27.4)	16.7 (13.5 - 20.5)	20.0 (16.5 - 24.1)	22.2 (17.6 - 27.6)	17.8 (13.4 - 23.2)
Among students who were seriously injured during the past 12 months, those whose most serious injury was a broken bone or dislocated joint	22.4 (17.7 - 28.0)	27.0 (19.8 - 35.7)	16.2 (11.8 - 22.0)	30.6 (24.7 - 37.2)	37.5 (31.6 - 43.8)	-	19.5 (13.6 - 27.3)	23.1 (13.9 - 35.7)	15.0 (10.0 - 21.8)
% of those who most serious injury was caused by a motor vehicle accident or being hit by a motor vehicle during the past 12 months	33.7 (27.3 - 40.8)	32.5 (23.2 - 43.3)	35.4 (26.6 - 45.3)	39.4 (30.8 - 48.6)	27.9 (17.8 - 40.8)	55.4 (44.3 - 66.1)	31.8 (23.5 - 41.5)	34.1 (22.0 - 48.6)	29.0 (18.7 - 42.0)
Were bullied on one or more days during the past 30 days	22.3 (18.7 - 26.3)	22.1 (19.3 - 25.2)	22.5 (17.4 - 28.6)	25.8 (22.6 - 29.1)	26.2 (22.5 - 30.3)	25.4 (20.9 - 30.4)	21.0 (16.3 - 26.7)	20.6 (17.0 - 24.9)	21.5 (14.8 - 30.1)
Among students who were bullied during the past 30 days, those who were bullied most often by being hit, kicked, pushed, shoved around, or locked indoors	8.6 (6.3 - 11.5)	12.9 (8.7 - 18.8)	4.8 (2.6 - 8.6)	9.8 (5.8 - 16.2)	14.3 (7.8 - 24.8)	4.6 (1.5 - 13.5)	8.0 (5.4 - 11.7)	-	4.8 (2.2 - 10.1)
Among students who rode in a motor vehicle driven by someone else during the past 30 days, the percentage who never or rarely used a seat belt	28.9 (25.1 - 33.1)	27.3 (23.4 - 31.4)	31.0 (26.3 - 36.0)	20.6 (16.7 - 25.1)	18.4 (14.1 - 23.8)	23.1 (17.9 - 29.3)	32.0 (26.7 - 37.8)	30.5 (25.3 - 36.2)	33.9 (27.7 - 40.7)
Among students who rode in a motor vehicle driven by someone else during the past 30 days, the percentage who rode in a car or other motor vehicle one or more times driven by someone who had been drinking alcohol	21.0 (17.8 - 24.5)	25.7 (21.6 - 30.3)	15.9 (12.4 - 20.2)	21.7 (19.1 - 24.5)	26.9 (23.0 - 31.3)	15.5 (12.6 - 18.9)	20.7 (16.5 - 25.7)	25.2 (19.7 - 31.7)	16.1 (11.4 - 22.2)

\*95% confidence interval.

### **Physical attack or fighting**

In **Cambodia**, 17.5% of students were physically attacked one or more times during the past 12 months. Male students are significantly at high risk of physical attack than female students with the percentage of 20.7% compared with 13.9%.

Overall, 10.5% of students were in a physical fight one or more times during the past 12 months. Male students seem to fight with others than female students and students who live in urban area seem to get fighting with others than rural students, however, there is no statistically significant different.

### **Unintentional injury**

Overall, 20.1% of students were seriously injured one or more times during the past 12 months. There was no different between students in urban and rural area and between both sex.

Among students who were seriously injured during the past 12 months, a broken bone or dislocated joint was the most serious injury among 22.4% of students. There is no statistical significant different between sex and locations, however, male students seem to get those kinds of injury than female students with the percentage of 27.0% compared with 16.2% and students in urban area are seem to get those kinds of injury than rural students with the percentage of 30.6% compared with 19.5%.

Among students who were seriously injured during the past 12 months, a motor vehicle accident or being hit by a motor vehicle was the cause of the most serious injury among 33.7% of students. Female students urban location are more likely to get accident than males student with the percentage of 55.4% compared with 27.9%.

### **Bullying**

Overall, 22.3% of students were bullied on one or more days during the past 30 days. Among students who were bullied during the past 30 days, 8.6% of students were bullied most often by being hit, kicked, pushed, shoved around, or locked indoors. Male students are significantly at high risk of bullying than female students with the percentage of 12.9% compared with 4.8%.

Overall, among students who rode in motor vehicle driven by someone else during past 30 days, 28.9% of them never or rarely used a seat belt. Students in rural were never or rarely used seat belt if compared with students in urban with the percentage of 32.0% significantly different with 20.6%.

Overall, 21% of students rode in motor vehicle one or more times driven by someone else had been drinking alcohol during past 30 days. Male students are more likely to ride with other drinking driver than females with the percentage of 25.7% compared with 15.9%.

## 4- DISCUSSION

The Cambodia GSHS observation is different from other surveys that had been conducted in Cambodia in the past. Other previous studies conducted in communities which mix up of many status of the study subjects: some were single, some married, some got education, some had no education and some were working in the vulnerable environments. There are many factors underlying in those different status that should be considered. After married, some people may change their behavior and attitudes because they became the head of the family, so they could do whatever they want such as smoking, drinking alcohol, going out at night... etc. Those negative behaviours could be risk and causes many consequences and illness in the future. Immediate consequences include violence and traffic accident and long-life consequences are development of many non-communicable diseases later in life.

Differently, the Cambodia GSHS was mainly focus on youth who were studying at schools and were not married. We expect that the youth have more knowledge and attitudes and good behavior than young men without education. The sample selection of the Cambodia GSHS represents for all youth who are attending schools in Cambodia.

According to the results of the Cambodia GSHS, in general, there was only 2.7% of students smoked cigarettes, and among those, nearly half of them first tried a cigarette before age 14 years. However, more than half of students are passive smokers because other people smoked in their presence on one or more days during the past seven days.

Most male students drink alcohol more than females approximately two to four times. The survey results also highlighted the negative consequence of drinking because about 3% of them got into trouble with family members or friends, could not go to school, or got into fights as a result of drinking alcohol.

More than half of the students had seen the advertisement almost daily from the mass media. Those advertisements are factors that may encourage the youth to taste and after that it would become a bad habit and sometimes are difficult to change. In addition, young people can buy or purchase cigarettes or alcohol at any stores and anytime by themselves.

About half of the youth have their parents or guardians who are often drinking alcohol or smoking. This is also a factor being a bad model for their children. In addition, peer pressure could also influence students' behaviours because one in ten students would probably drink and about 2% of them would smoke a cigarette if one of their best friends offered them one.

Regarding on drug use issue, in spite the result showed the percentage of youth using marijuana or amphetamines or methamphetamines drugs is small (<1%), but it is a big concern about this issue because this information tell us that drugs began infiltrate with youth society at schools.

General sanitation is very important to maintain good health and prevents diseases. As a result, the understanding on general hygiene such as hand washing, cleaning or brushing teeth had been reported by most students. However, hygiene must be related to the water source, as if no source of water, it is very difficult to maintain good hygiene. Source of clean water remains a problem in some schools in Cambodia because about 38% students reported that they do not have clean water for drinking at schools. This information can be very useful for the development of sanitation in schools.

In regard to the physical activity issue, students in Cambodia are less active if compared with other countries in the region. There was only one in ten students who is doing physical activity for a total of at least 60 minutes per day on five or more days during the past seven days. Less physical activity would increase the rate of high blood pressure, diabetes and other NCDs.

As the result showed, 11.9% of students reported that they ever had sexual intercourse, and among those, three in ten of them had most of the time or always used a condom. This number was higher than our expectation because we expected that being junior students, they would not involve with sexual intercourse in their early age.

## **5- CONCLUSION AND RECOMMENDATIONS**

### **5.1- Conclusion**

The Cambodia GSHS provided some important information about the risk behaviours of the youth that could lead to develop other health problems during adults or older age. The information can be used to set up goals and for a better strategy or intervention to overcome risk behaviours for youth.

The Cambodia GSHS survey results have proved that a large number of youth still do not care and pay much attention about their health. This maybe the fact that they were not aware of problems that may occur in the future as consequences of their ‘at risk’ present behaviours. Some of those negative behaviours were adopted by seeing lots of advertising on mass media; by bad behaviour of their own family members, especially their parents; and by peer pressure.

Based on the results of the Cambodia GSHS survey, some health issues such as mental disorders, bullying, alcohol use, drug use, smoking, sexual involvement among students are issues that should be addressed in other public health programmes. Other issues such as less doing physical activities, consuming more unhealthy foods, hygiene also need to be intervened and covered in schools curriculum.

There is a need to establish more and reinforce more intervention programs for youth which are not only in school-based programme but also involve in the families, community-based prevention programmes and the governmental agencies to help prevent adolescences harmful practices and protect them from dangerous situation such as violence, bullying and accidents.

More negative information should be banned from the mass media. All relevant institutions and families must be carefully strengthened to provide information necessary for young people about health issues in a comprehensive manner. We must work together in order to help young generation to interact in society as much as possible so that they can be good resource for Cambodian society.

## 5.2- Recommendations

According to the finding of the Cambodia GSHS, recommendations are made as the following:

1. Disseminate the survey results to all stakeholders and health partners in order to draw attention for the current health situation of youth in Cambodia.
2. Relevant ministries and stakeholders must collaborate with each other to develop policies and strategic plans and establish intervention programmes for youth health.
3. Relevant ministries and stakeholders must strengthen youth health policy in order to reduce risk factors for youth to all schools such as:
  - Smoke-free zone in school environments
  - Impact of alcohol and drugs use on health
  - Promoting sanitation and hygiene in school environment
  - Selling only safe, nutritious, healthy and hygiene snacks/foods/drinks in school compound.
4. Ministry of Education, Youth and Sport must improve clean water system and drainage system for hand washing in all schools for students and staff. These also help improve the sanitation and hygiene in school as well.
5. Provide related information and risk factors on youth's health and protective factors, especially for teachers and students at teacher's training schools, so that they can transfer the knowledge to their students.
6. Promote healthy lifestyle for youth in both school and family/community environments by building healthy habits such as: increasing physical activity, choosing healthy diet and foods, and reducing or avoiding unhealthy habits: smoking cigarettes, drinking alcohol, using drugs, sitting long period of time in front of computer or playing video games.
7. Strengthen healthy communities by encouraging young people to involve in social functions, social interactions and other networking for developing both social and mental relationship.

8. Alcohol advertisement on all medias, especially television must be banned to reduce the encouragement of young people to try and drink of alcohol, which causes many negative effects in society. Changing alcohol advertisement to health education messages.
9. The law for prohibiting on selling cigarettes/tobacco products to customers under the age of 18 years and the law for prohibiting on selling all kinds of alcohol to customers under the age of 21 years must be developed.
10. As health risk behaviours and protective factors are always changing over time, it will be very important to repeat this GSHS every five year.

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## 7- APPENDICES

### 7.1- Appendix 1: Questionnaire

#### *2013 CAMBODIA GLOBAL SCHOOL-BASED STUDENT HEALTH SURVEY*

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

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

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

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

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

Fill in the circles like this



Not like this



or



Survey

1. Do fish live in water?
  - A. Yes
  - B. No

Answer sheet

1.   B  C  D  E  F  G  H

Thank you very much for your help.

- How old are you?
  - 11 years old or younger
  - 12 years old
  - 13 years old
  - 14 years old
  - 15 years old
  - 16 years old
  - 17 years old
  - 18 years old or older

- What is your sex?
  - Male
  - Female

- In what grade are you?
  - Grade 7
  - Grade 8
  - Grade 9
  - Grade 10
  - Grade 11
  - Grade 12

The next 3 questions ask about your height, weight, and going hungry.

- 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 oval below each number.*

*Example*

Height (cm)		
1	5	3
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input checked="" type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input checked="" type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	I do not know	

- 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 oval below each number.*

*Example*

Weight (kg)		
0	5	2
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input checked="" type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	I do not know	

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

**The next 4 questions ask about what you might eat and drink.**

7. During the past 30 days, how many times per day did you **usually** eat fruit, such as bananas, oranges, papaya, mango, pineapple, grapefruit, jackfruit, watermelon, gava, mangosteen, and sapodilla?
- A. I did not eat fruit during the past 30 days
  - B. Less than one time per day
  - C. 1 time per day
  - D. 2 times per day
  - E. 3 times per day
  - F. 4 times per day
  - G. 5 or more times per day

8. During the past 30 days, how many times per day did you **usually** eat vegetables, such as water spinach, water lily, pumpkin, winter melon, cucumber, eggplant, tomato, carrots, cabbages, green beans, lettuce, and ivy gourds?

- A. I did not eat vegetables during the past 30 days
- B. Less than one time per day
- C. 1 time per day
- D. 2 times per day
- E. 3 times per day
- F. 4 times per day
- G. 5 or more times per day

9. During the past 30 days, how many times per day did you **usually** drink carbonated soft drinks, such as Coca Cola, Pepsi, Fanta, 7-Up, Sprite, Mirinda, or Sarsi? (Do **not** include diet soft drinks.)

- A. I did not drink carbonated soft drinks during the past 30 days
- B. Less than one time per day
- C. 1 time per day
- D. 2 times per day
- E. 3 times per day
- F. 4 times per day
- G. 5 or more times per day

10. During the past 7 days, on how many days did you eat food from a fast food restaurant, such as KFC, Pizza Company, Pizza World, Lucky Burgers, Lucky Seven, Master Grill, BBQ Chicken, Burger King, Saprino Pizza, Pizza Hand, or Mariyan Pizza House?

- 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 ads you might have seen.**

11. When you watch television, videos, or movies, how often do you see advertisements for carbonated soft drinks or fast foods?

- A. I do not watch television, videos, or movies
- B. Never
- C. Rarely
- D. Sometimes
- E. Most of the time
- F. Always

**The next 4 questions ask about cleaning your teeth and washing your hands.**

12. 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 times per day
- F. 4 or more times per day

13. 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

14. 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

15. 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 drinking water.**

16. Is there a source of clean water for drinking at school?

- A. Yes
- B. No

**The next 6 questions ask about oral health.**

17. How would you describe the health of your teeth?

- A. Excellent
- B. Very good
- C. Good
- D. Average
- E. Poor
- F. Very poor

18. How would you describe the health of your gums?

- A. Excellent
- B. Very good
- C. Good
- D. Average
- E. Poor
- F. Very poor

19. During the past 12 months, did a tooth ache cause you to miss classes or school?

- A. Yes
- B. No

20. During the past 12 months, how often did you have a tooth ache or feel discomfort because of your teeth?

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

21. Do you use toothpaste that contains fluoride?

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

22. When was the last time you saw a dentist for a check-up, exam, teeth cleaning, or other dental work?

- A- During the past 12 months
- B- Between 12 and 24 months ago
- C- More than 24 months ago
- D- Never
- E- I do not know

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

23. 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 occurs when two students of about the same strength or power choose to fight each other.**

24. 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 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.**

25. 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

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

- A. I was not seriously injured during the past 12 months
- B. I had a broken bone or a dislocated joint
- C. I had a cut 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

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

- A. I was not seriously injured during the past 12 months
- B. I was in a motor vehicle accident or hit by a motor vehicle
- C. I fell
- D. Something fell on me or hit me
- E. I was 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 2 questions ask about bullying. Bullying occurs when a student or group of students say or do bad and unpleasant things to another student. It is also bullying when a student is teased a lot in an unpleasant way or when a student is left out of things on purpose. It is not bullying when two students of about the same strength or power argue or fight or when teasing is done in a friendly and fun way.**

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

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

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

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

**The next 2 questions ask about riding in a motor vehicle.**

30. During the past 30 days, how often did you use a seat belt when riding in a car or other motor vehicle driven by someone else?

- A. I did not ride in a motor vehicle driven by someone else
- B. Never
- C. Rarely
- D. Sometimes
- E. Most of the time
- F. Always

31. During the past 30 days, how often did you ride in a car or other motor vehicle **driven by someone who had been drinking alcohol**?

- A. I did not ride in motor vehicle driven by someone else
- B. 0 times
- C. 1 time
- D. 2 or 3 times
- E. 4 or 5 times
- F. 6 or more times

**The next 7 questions ask about your feelings and friendships.**

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

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

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

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

34. During the past 12 months, how often have you been so worried about something that you could not eat or did not feel hungry?

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

35. During the past 12 months, did you ever **seriously** consider attempting suicide?

- A. Yes
- B. No

36. During the past 12 months, did you make a plan about how you would attempt suicide?

- A. Yes
- B. No

37. During the past 12 months, how many times did you actually attempt suicide?

- A. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or more times

38. How many close friends do you have?

- A. 0
- B. 1
- C. 2
- D. 3 or more

**The next 7 questions ask about cigarette and other tobacco use.**

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

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

40. 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

41. During the past 30 days, on how many days did you use any 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

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

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

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

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

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

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

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

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

**The next 8 questions ask about drinking alcohol. This includes drinking beer, white wine, red wine, whiskey, traditional herbal wine, or palm wine. Drinking alcohol does not include drinking a few sips of wine for religious purposes. A “drink” is a glass of wine, a bottle of beer, a small glass of liquor, or a mixed drink.**

46. 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

47. 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

48. 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

49. 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

50. Which of your parents or guardians drink alcohol?
- A. Neither
  - B. My father or male guardian
  - C. My mother or female guardian
  - D. Both
  - E. I do not know

51. If one of your best friends offered you a drink of alcohol, would you drink it?
- A. Definitely not
  - B. Probably not
  - C. Probably yes
  - D. Definitely yes

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

52. During your life, how many times did you drink so much alcohol that you were really drunk?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 or more times

53. During your life, how many times have you got into trouble with your family or friends, missed school, or got into fights, as a result of drinking alcohol?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 or more times

**The next question asks about how often you see alcohol advertisements on videos, magazines, or the internet or at movie theaters, sports events, or music concerts.**

54. During the past 30 days, how often did you see any alcohol advertisements?
- A. Never
  - B. Rarely
  - C. Sometimes
  - D. Almost daily
  - E. Daily

**The next 4 questions ask about drug use. This includes using marijuana, amphetamines, cocaine, inhalants, methamphetamines (also called Yama or Yaba), and heroin.**

55. How old were you when you first used drugs?
- A. I have never used drugs
  - 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

56. During your life, how many times have you used marijuana (also called cannabis)?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 or more times

57. During the past 30 days, how many times have you used marijuana (also called cannabis)?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 or more times

58. During your life, how many times have you used amphetamines or methamphetamines (also called Yama or Yaba)?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 to 19 times
- E. 20 or more times

**The next 6 questions ask about sexual intercourse.**

59. Have you ever had sexual intercourse?

- A. Yes
- B. No

60. 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 year old or older

61. 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

62. 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

63. How often do you or your partner use a condom when you have sexual intercourse?

- A. I have never had sexual intercourse
- B. Never
- C. Rarely
- D. Sometimes
- E. Most of the time
- F. Always

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

- A. I have never had sexual intercourse
- B. Yes
- C. No
- D. I do not know

**The next 4 questions ask about physical activity. Physical activity is any activity that increases your heart rate and makes you get out of breath some of the time. Physical activity can be done in sports, playing with friends, or walking to school. Some examples of physical activity are running, fast walking, biking, dancing, football, jogging, volley ball, tennis, table tennis, and badminton.**

65. During the past **7 days**, on how many days were you physically active for a total of at least 60 minutes per day? **ADD UP ALL THE TIME YOU SPENT IN ANY KIND OF PHYSICAL ACTIVITY EACH DAY.**

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

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

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

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

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

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

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

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

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

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

7.2- Appendix 2: List of members of the Steering Committee for the GSHS



**ព្រះរាជាណាចក្រកម្ពុជា**  
**ជាតិ សាសនា ព្រះមហាក្សត្រ**

**ក្រសួងសុខាភិបាល**

លេខ.....០០៧.....ប.ជ.ប ប. ក ស

រាជធានីភ្នំពេញ, ថ្ងៃទី ០៧ ខែ ២៤ ឆ្នាំ២០១៧

**លិខិតបង្គាប់ការ**

- យោងលិខិតរបស់អង្គការសុខភាពពិភពលោក ចុះថ្ងៃទី០៣ ខែតុលា ឆ្នាំ២០១២
- យោងលិខិតលេខ ៤៤០ កស ចុះថ្ងៃទី១៨ ខែតុលា ឆ្នាំ២០១២ របស់នាយកដ្ឋានការពារសុខភាពស្តីពីសំណើសុំបង្កើតគណៈកម្មការដឹកនាំគម្រោង ក្នុងការធ្វើអង្កេតជាសកល ស្តីពីការយល់ដឹងនិងការប្រព្រឹត្តទាក់ទងផ្នែកសុខភាពរបស់យុវសិស្សតាមសាលារៀន
- យោងលិខិតលេខ ០៨៣ អបស/កស ចុះថ្ងៃទី០២ ខែវិច្ឆិកា ឆ្នាំ២០១២ របស់ក្រសួងសុខាភិបាល
- យោងតាមការចាំបាច់របស់ក្រសួងសុខាភិបាល

លោក លោកស្រីមកពីស្ថាប័នជាតិនិងអន្តរជាតិពាក់ព័ន្ធ ដូចមានរាយនាមខាងក្រោម ត្រូវបានចាត់តាំងជា គណៈកម្មការដឹកនាំគម្រោង "ការអង្កេត ជាសកល ស្តីពីការយល់ដឹង និងការប្រព្រឹត្តទាក់ទងផ្នែកសុខភាពរបស់យុវសិស្សតាមសាលារៀន" :

១. លោកស្រីវេជ្ជបណ្ឌិត <b>ប្រាក់ ពិសិដ្ឋន៍</b>	ប្រធាននាយកដ្ឋានការពារសុខភាព ក្រសួងសុខាភិបាល	ប្រធាន
២. លោកស្រីវេជ្ជបណ្ឌិត <b>នាយ គឹមសុទ្ធាធី</b>	ប្រធាននាយកដ្ឋានសុខភាពសិក្សា ក្រសួងអប់រំ យុវជន និងកីឡា	អនុប្រធាន
៣. លោកស្រីវេជ្ជបណ្ឌិត <b>នែន នេត្តិ</b>	អនុករិ.សុខភាពមាត់ធ្មេញ នាយកដ្ឋានការពារសុខភាព	សមាជិកអចិន្ត្រៃយ៍
៤. លោកស្រីវេជ្ជបណ្ឌិត <b>យ៉ង់ គន្ធាវិទ្ធី</b>	អនុប្រធាននាយកដ្ឋានសុខភាពសិក្សា ក្រសួងអប់រំ យុវជន និងកីឡា	សមាជិកអចិន្ត្រៃយ៍
៥. លោក <b>នេត្រ ពារម្ម</b>	ប្រធានករិ.ផែនការនៃនាយកដ្ឋានសុខភាពសិក្សា	សមាជិក
៦. លោកស្រីវេជ្ជបណ្ឌិត <b>ម៉ី ចន្ទធារិត</b>	អនុប្រធានលេខាធិការដ្ឋាននៃសកលវិទ្យាល័យវិទ្យាសាស្ត្រសុខាភិបាល	សមាជិក
៧. លោកស្រីវេជ្ជបណ្ឌិត <b>ឡូ គីរុណ</b>	អនុកម្មវិធីជាតិសុខភាពបន្តពូជ-មជ្ឈមណ្ឌលជាតិគាំពារមាតានិងទារក	សមាជិក
៨. លោក <b>នីង គឹមហាន់</b>	មន្ត្រីនាយកដ្ឋានគោលការណ៍អប់រំ-ក្រសួងអប់រំ យុវជន និងកីឡា	សមាជិក
៩. មន្ត្រីតំណាងអង្គការ WHO		ទីប្រឹក្សាបច្ចេកទេស
១០. មន្ត្រីតំណាងអង្គការ UNICEF		ទីប្រឹក្សាបច្ចេកទេស
១១. មន្ត្រីតំណាងអង្គការ UNFPA		ទីប្រឹក្សាបច្ចេកទេស
១២. មន្ត្រីតំណាងអង្គការ UNESCO		ទីប្រឹក្សាបច្ចេកទេស

សមាជិក-សមាជិកា នៃគណៈកម្មការដឹកនាំគម្រោង ត្រូវតែរួមប្រជុំតាមការអញ្ជើញរបស់ប្រធាន ។

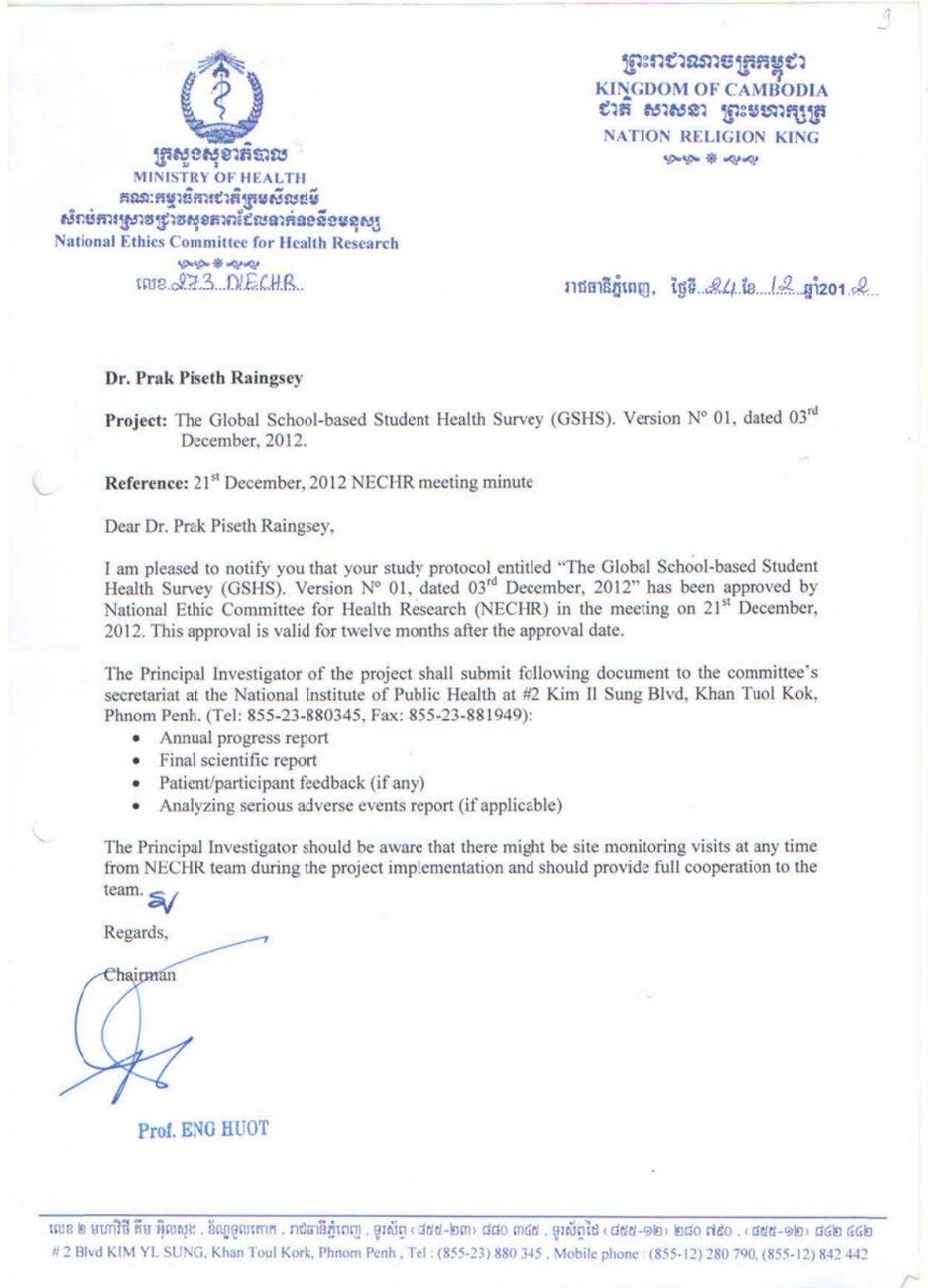
- កន្លែងទទួល :**
- ខុទ្ទកាល័យក្រសួងសុខាភិបាល
  - អគ្គនាយកដ្ឋានបច្ចេកទេសសុខាភិបាល
  - អង្គការពាក់ព័ន្ធ
- "ដើម្បីជូនប្រជាជាតិមាន"**
- សាមីខ្លួន **"ដើម្បីមុខការ"**
  - ឯកសារ-កាលប្បវត្តិ

**ជ. រដ្ឋមន្ត្រី**  
**រដ្ឋមន្ត្រីទទួលបន្ទុក**

សាស្ត្រាចារ្យ **កែវ ហួត**

ទីស្តីការគណៈរដ្ឋមន្ត្រីក្រសួងសុខាភិបាល , លេខ ១៥១-១៥៣ ត្រីវិទី កម្ពុជាក្រោម ភ្នំពេញ ទូរស័ព្ទ-ទូរសារ: (៨៥៥-២៣) ៨២៦ ០៣៥/៨២៦ ៨៤១ ទូរស័ព្ទ: (៨៥៥-២៣) ៧២២ ៩៣៣

**7.3- Appendix 3: Approval letter from the National Ethics Committee Related for Health**



## 7.4- Appendix 4: List of members of the GSHS survey

### Principle investigator

Assoc. Prof. Dr. **Prak Piseth Raingsey** Preventive Medicine Dept., MoH

### Co-principle investigators

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Dr. <b>Kuoy Sotha</b>	Preventive Medicine Dept., MoH
Dr. <b>Hing Touch</b>	Preventive Medicine Dept., MoH

### Survey Administrators

Ms. <b>Ek Tith Thida</b>	School Health Dept., MoEYS
Ms. <b>Sar Horn</b>	School Health Dept., MoEYS
Ms. <b>Em Phalla</b>	School Health Dept., MoEYS
Dr. <b>Hou Sokuntheary</b>	Preventive Medicine Dept., MoH
Dr. <b>Nget Sovann</b>	Preventive Medicine Dept., MoH
Mr. <b>Ean Sokoeu</b>	Preventive Medicine Dept., MoH
Mr. <b>Khut Sovanno</b>	School Health Dept., MoEYS
Ms. <b>Hun Sophorn</b>	School Health Dept., MoEYS
Dr. <b>Soeun Sopharith</b>	Preventive Medicine Dept., MoH
Mr. <b>Sat Sokunthy</b>	School Health Dept., MoEYS

### Survey Coordinator

Dr. <b>Chher Tepirou</b>	Preventive Medicine Department, MoH
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