

## Acknowledgement

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# Executive Summary

## Background

Since 2003, World Health Organization (WHO) and the US Centers for Disease Control and Prevention (CDC) conducted the Global School-based Student Health Survey (GSHS) by collaborating with Ministry of Health and Ministry of Education from many countries. Some countries worldwide periodically conducted the Global School-based Student Health Survey (GSHS) in order to follow the prevalence, crucial risk behaviours in health aspect, and protective factors that is the significant causes of illness and death in children age 13-15. Survey issues included alcohol and other drug use, dietary behaviours, hygiene, mental Health, physical Activity, protective factors, sexual behaviours that contribute to HIV infection, other STI, and unintended pregnancy, tobacco use, violence and unintentional injury

The Global School-based Student Health Survey (GSHS) in Thailand 2008 was the first survey, and the objectives of this survey are the followings:

- To evaluate health situations of school age child and youth in both behaviours and protective factors
- To establish trends in the prevalence of health behaviours and protective factors for use in evaluation of school health and youth health promotion.
- To compare students' health situations with other countries

## Methodology

The 2008 Thailand GSHS employed a two-stage cluster sample design to produce a representative sample of students age 13-15 in Grades 7-10. The first-stage sampling frame consisted of all school containing any of Grades 7-10. The second stage of sampling consisted of randomly selecting intact classroom (using a random start) from each school to participate. All students in the sampled classroom were eligible to participate in the GSHS. 30 schools countrywide were selected to participate in GSHS, Thailand. 2,963 students were eligible to participate in this survey, and 2,767 students completed our questionnaires by themselves. The school response rate was 100%, and the overall response rate was 93%.

## Key Results

### Alcohol Use

In Thailand, 76.5% of students drank alcohol for the first time before 14 years old or younger. Overall, the prevalence of current alcohol use among students is 14.8%. Overall, 38.9% of students usually got the alcohol they drank by buying it in a store, shop, or from a street vendor during the past 30 days. Overall, 57.3% of sellers refused to sell alcohol to students because of their age. Overall, 9.7% of students ever had a hang-over, felt sick, got into trouble, missed school, or got into fights one or more times as a result of drinking alcohol during their life. The prevalence of lifetime drug use is 6.0%.

### **Overweight**

In Thailand, 10.0% students were at risk for becoming overweight. Overall, 4.4% of students were overweight .27.8% of students tried to do about their weight. Overall 76.8% of all students usually ate fruit, 87.1% usually ate vegetables, once or more times per day during the past 30 days. Overall, 64.9% of students usually had breakfast during the past 30 days. Overall, Students usually ate salty foods (27.8%) ,ate foods with high fat content(33.7%) , drank soft drinks(32.1%), two or more times per day during the past 30 days. Overall, 40.4% of students usually drank milk or ate milk products,.

### **Personal Hygiene**

In Thailand, the percentage of students who did not clean or brush their teeth less than one time per day during the past 30 days in was 2.6%. Overall, 8.7% of students never or rarely washed their hands before eating during the past 30 days. Overall, 4.0% of students never or rarely washed their hands after using the toilet or latrine. Overall, 7.3% of students never or rarely used soap when washing their hands. Overall, 36.8% usually drank water from the water source in school.

### **Mental Health**

In Thailand, 7.9% of students most of the time or always felt lonely during the past 12 months. Overall, 16.6% of students felt so sad or hopeless everyday for two weeks or more in a row that they stopped doing their usual activities during the past 12 months. 10.2% of students made a plan about how they would attempt suicide during the past 12 months. Overall, 3.4% of students have no close friends. Overall, 43.5% of students were taught in any of their classes the signs of depression and suicide behaviour during the last school year. Overall, 63.3% of students were taught in any of their classes how to manage stress and anger.

### **Physical activity**

In Thailand, 15.3% of students were physically active all seven days for a total of at least 60 minutes per day during the past seven days. Overall, 80.2% of students participated in physical activity for a total of at least 60 minutes per day on five or fewer days on average. Overall, 37.5% of students spent three or more hours per day doing sitting activities, such as watching television, playing computer games, talking with friends, reading books, or talking on the telephone during a typical or usual day. Overall, 55.4% of students did not walk or bicycle to and from school during the past seven days. 74.9% of students were taught in any of classes about preventing injury during physical activity.

### **Protective Factor**

In Thailand, 17.2% of students missed classes or school without permission on one or more of the past 30 days. Overall, 41.7% of students reported that most of the students in their school were kind and helpful most of the time or always during the past 30 days. Overall, 35.9% of students reported that their parents or guardians checked to see if their homework was done most of the time or always during the past 30 days. Overall, 34.2% of students reported that their parents or guardians understood their problem and worries most of the time or always during the past 30 days. Overall, 45.4% of students reported that their parents or guardians really know what they were doing with their free time most of the time or always during the past 30 days. Overall, 56.2% of students usually slept 8 hours or more per day.

### **Sexual Behaviours**

In Thailand, 6.1% of students had had sexual intercourse during their life and 4.5% of students initiated sexual intercourse when they were 13 years old or younger. Overall, 5.5% of students had sexual intercourse with multiple partners during their life. Overall, among students who had sexual intercourse during the past 12 months, Overall, 79.4% of students or their partners used these methods of birth control: condom, birth control pill, emergency birth control pill, and withdrawal. Overall, 18.6% of students wanted to get a condom and most got it from a pharmacy, clinic, or hospital. Overall, 38.2% of students or their partners usually used a condom when having sexual intercourse during the past 12 months. Overall, 63.8% of students thought that people can protect themselves from HIV infection or AIDS by using a condom correctly every time they have sexual intercourse. Overall, 46.8% of students thought that a healthy-looking person can be infected with HIV.

### **Prevalence of tobacco use**

In Thailand, 8.2 % of students smoked cigarettes on one or more days during the past 30 days. Among students who smoked cigarettes during the past 30 days, 73.7% tried their first cigarette at age 13 or younger. Among students who smoked cigarettes during

the past 12 months, 86.3% tried to stop smoking cigarette. Overall, 29.4% of students had been received help or advice to help them stop smoking. Overall, 32.8% of students had a parent or guardian who uses any form of tobacco. Overall, 48.2% of students got cigarettes by one of these means during the past 30 days: buying in a store, shop, or from a street vendor, buying from a vending machine, giving someone money to buy them, borrowing from someone else, stealing, being given by older person, and other ways. Overall, 54.8% of students had been denied purchase of cigarettes because of their age during the past 30 days. Overall, 90.8% of students believed that smoke from other people's cigarettes was harmful.

### **Violent and Unintentional Injury**

In Thailand, 33.2% of students were physically assaulted one or more times during the past 12 months. Overall, 33.3% of students were in a physical fight one or more times during the past 12 months. 24.7% of students were in a physical fight on school premises one or more times during the past 12 months. Overall, 46.7% of students were seriously injured one or more times during the past 12 months. Among students who were seriously injured one or more times during the past 12 months, 51.0% had their most serious injury occur as a result of hurting themselves by accident.

Overall, 27.8% of students were bullied on one or more days during the past 30 days. Overall, 53.9% of students were verbally abused by a teacher one or more times during the past 12 months. Overall, 50.6% of students were verbally and physically abused by their parents, guardians, or family members one or more times. Overall, 52.9% of students were taught in any of their classes what to do if someone is trying to force them to have sexual intercourse during this last school year. 70.7% of students were taught in any of their classes how to avoid physical fight or violence during this last school year. Overall, 28.8% of students rode in a car or other motor vehicle driven by someone who had been drinking alcohol during the past 30 days.

### **Recommendation**

- 1 Presenting results from Global School-based Student Health Survey (GSHS) in Thailand 2008 to National Health Committee, State organization, private organization, and political organization in order to set national policies, plans, and supported projects Furthermore, solving youth problem will become successful if it is efficiently collaborated by related people and organizations.
- 2 Advocating school to participate in Health Promoting School project, and supporting them to pass the standard criteria of Health Promoting School, especially gold and diamond levels. Health Promoting School project has impacts on physical and mental health of students as well as school environment.

- 3 Establishing relationship between home and school, teacher and students, parents/guardians and students. For example, there should be the Parent School project that supports parents/ guardians to become more understand and care of their children.
- 4 Promoting students to be physical active until it become their lifestyle. School, community, and family should support student physical activity by providing exercise places, and developing appropriate models for their age.
- 5 Promoting/Supporting schools to provide enough and clean water for students and school officers.
- 6 Paying special attention to law enforcement. For examples, seller must not sell alcohol and tobacco to children age below 18, and alcohol and tobacco advertisement should be decreased.
- 7 Constantly promoting a campaign and providing knowledge to students/children toward media includes television, radio, and newspaper.
- 8 Having a control measure of selling sweet, salty or high fat foods in school, and promoting students/children to eat more fruits vegetables.
- 9 Making a campaign that promotes people to use condom every time they have sexual intercourse.
- 10 Finding relationship between some questionnaires for the next project/program development.

### **Recommendation for the next research**

- Conducting the School based Student Health survey in regional level, provincial level and school level
- Conducting the School based Student Health survey to compare between subgroups, such as comparing between urban students and rural students etc.

# Part 1: Introduction

## Background

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).

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

To date, more than 50 countries have completed a GSHS. This report describes results from the first GSHS conducted in Thailand by Department of Health, Ministry of Public Health conducting GSHS during March 1, 2008 until November 30, 2008.

## Purpose

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

- Help countries develop priorities, establish programmes, and advocate for resources for school health and youth health programmes and policies.
- Establish trends in the prevalence of health behaviors 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.

## About GSHS

The GSHS is a school-based survey conducted primarily among students aged 13-15 years. It measures behaviours and protective factors related to the leading causes of mortality and morbidity among youth and adults in Thailand.

- Alcohol and other drug use
- Dietary behaviours

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

Before the Global School-based Student Health Survey, Thailand conducted previous health surveys on many issues. In 1990-1991, School Age Division, Department of Health, Ministry of Public Health (MOPH), collaborated with Health Promotion Region to conduct a health survey of primary students at age 6-13 years old countrywide with a sample size of 4,176.<sup>37</sup> The results included bad personal hygiene (Scabiasis, Head Lice, Taenia Corporis/Versicolo, and Impetigo), Otitis Media, Dental carries, Underweight 12%, and Overweight 8%. In 2004,<sup>38</sup> The Bureau of Health Promotion, Department of Health, studied health behaviours and health condition of students' grade 5-12 of Health Promoting schools in 12 provinces of Thailand with a sample size of 7,169. Example problems included health behaviours, dietary behaviours, physical activity behaviours, mental problems, overweight (7.8%), dental carries (38.7%). Dental Division, Department of Health, Ministry of Public Health conducted a survey of The 6<sup>th</sup> National Oral Health in 2006-2007<sup>39</sup> with a sample size of 10,522. From this survey, students who had tooth decay in permanent teeth are rather high (56.87%). Inflamed gum condition of 15-year-old students in urban area (64.54%) is higher than those in rural area (60.53%). In 1999, The National Statistical Office, Office of the Prime Minister, Thailand, conducted a survey of smoking behaviours among people age 11 years old and older for around 49 million people countrywide. According to this survey, people age 11 years old and older smoked cigarettes 12.0 million people or 20.5%. In 2004,<sup>43</sup> The National Statistical Office, Ministry of Information and Communication Technology, conducted a survey of alcohol and tobacco use behaviours of people age 15 years old and older for around 49.4 million people, and found that 11.3 million people smoked cigarettes, 16.1 million people drank alcohol, and 53.2% of them drove car after drinking alcohol. In 2007, The National Statistical Office, Ministry of Information and Communication Technology, supported the budget for conducting a survey of alcohol and tobacco use behaviours among people at age 15 years old or older, and found that 10.8 million people smoked cigarettes, and 14.9 million people drank alcohol.

The results of HIV infection among school age children<sup>48</sup> with a sample size of 5,574 found that male youths ever had sexual intercourse more than female youths, and male first tried sexual intercourse before 15 years old. There were also studies of other

issues. For examples, the US Centers for Disease Control and Prevention (CDC), collaborated with the Bureau of AIDS and Sexual Transmitted Disease, Communicable Disease Control Department, Ministry of Public Health, Thailand, to inspect the prevalence and risk factors of methamphetamine use among Thai youth in the north region by examining urine with the sample size of 1,7425. The results showed that 128 male youths and 49 female youths uses methamphetamine. In 2001, Ruangkanchanasetrs et all<sup>50</sup> surveyed risk factors of youth at age 15 years old on average in Bangkok, Thailand with a sample size of 2,311. The results showed that the important risk factors were marital status of their parents, social status, relationship among family members, friends, loneliness, and study achievement.

## **School Health Policy, Thailand**

Thailand initiated the Health Promoting School as a strategy in managing health of school age child since 1998. Health promoting school began in Europe since 1980 under the support of World Health Organization (WHO), and then continued to proceed in Canada, USA, and Australia. Every school reformed education system along with health system. We can say that school is the beginning of health promotion because it is able to access large populations.<sup>51</sup>

According to World Health Organization (WHO)'s definition, a health promoting school is a school that constantly strengthening its capacity as a healthy setting for living and working (WHO: 1998)<sup>52</sup> while The Bureau of Health Promotion, Department of Health, Ministry of Public Health gave a definition of health promoting school as "A school that all members are in collaboration to constantly develop behaviours and environments supporting to good health of everybody in school."

## **Strategies of Health Promoting School, Thailand**

Main strategies for development of health promoting school<sup>54</sup> are the followings:

### **1. Advocation**

Advocating policy makers includes academic institutes, communities, schools, teachers, and students, to realize the importance of Health Promoting School.

### **2. Partnerships and Alliances**

Collaborating among focal points, such as Ministry of Public Health, Ministry of Education, Ministry of the Interior, and other organization, in order to establish local

partnerships and alliances including schools and communities, and gather resources to develop Health Promoting School.

### 3. Capability building of main local organizations.

Building capability of health officers, education officers, community leaders, and student leaders to improve their skills, so they can develop health plan/project.

### 4. Research, Monitoring, and Evaluation

In order to get good quality basic data for improving procedures of the project, we needed to conduct a research, monitoring and evaluation continuously.

School age youth division, Bureau of Health Promotion, Department of Health developed ten components of Health Promoting School, Thailand, as the followings

1. **School Policies:** School sets policies that promote health by social health team and transfers these policies into practice.
2. **School Management Practices:** School systematically develops health promotion plan/project.
3. **School/Community Projects:** Community participates in solving school problems as well as planning, processing, evaluating, revising, and improving.
4. **Healthy School Environment:** School controls and improves healthy school environment to standard as well as managing social environment that had an effect on students and officers' mental health.
5. **School Health Services:** School monitors student health, and provides essential drugs and medical supplies for first aids.
6. **School Health Education:** School provides knowledge and practice for students as well as enhancing their attitude towards 10 national health rules.
7. **Nutrition and Food Safety:** School assesses student's growth and provides standard food sanitation in school canteen. Besides, school also provides knowledge on how to choose nutrition and safe food for students.
8. **Physical Exercise Sports and Recreation:** School develops school environment that promotes exercise and recreation activities for students and school officers. Furthermore, school also establishes club/group arrange exercise, sports, and recreation activities in school.
9. **Counseling and Social Support:** School has a program providing counsel to students when they have problems, such as study problems, family problems, and risk behaviours.

**10. Health Promotion for staff:** Teachers and school staffs behave as idols of health behaviours for students, and participate in health promotion activities according to school plan.

## Method

### Sampling

The 2008 Thailand GSHS employed a two-stage cluster sample design to produce a representative sample of students in Grades 7-10. The first-stage sampling frame consisted of all school containing any of Grades 7-10. Schools were selected with probability proportional to school enrolment size. 30 schools were selected to participate in Thailand GSHS.

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

### Weighting

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

**Formula** The weighting formula used for most GSHS data sets is:

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

The table below shows what each variable in the formula represents.

Variable		Represents
Base weight	W1	The inverse of the probability of selecting each school
	W2	The inverse of the probability of selecting each class room
Non response adjustment	f1	A school-level non response adjustment factor
	f2	A student-level non response adjustment factor calculated by class room
Post stratification adjustment	f3	A post stratification adjustment factor calculated by sex within grade

### Response Rate

For the 2008, Thailand, GSHS, 2,767 questionnaires were completed in 30 schools. The school response rate was 100%, the student response rate was 93%, and the overall response rate was 93%. 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 estimate and 95% confidence intervals. GSHS data are representative of all students attending grade 7-10 in Thailand

**Table1: Weighting and response rate of students age 13-15, grade 7-10, Thailand 2008.**

Information	Gender	Grade 7	Grade 8	Grade 9	Grade 10	Total
Total amount of students before weighting	Male	389,551	377,492	359,658	145,193	1,221,894
	Female	378,147	377,714	374,644	219,811	1,350,316
	Total	767,698	755,206	734,302	365,004	2,622,210
Amount / rate of male and female students after weighting	Male	420 (0.11%)	480 (0.13%)	447 (0.12%)	139 (0.10%)	1,486 (0.12%)
	Female	426 (0.11%)	497 (0.13%)	499 (0.12%)	105(0.05%)	1,477 (0.11%)
	Total	846 (0.11%)	977 (0.13%)	896 (0.12%)	244 (0.07%)	2,963 (0.11%)
Amount of male and female students that responded to the survey (Response Rate)	Male	394(93.81%)	416 (86.67%)	423 (96.64%)	129 (92.81%)	1,371 (92.26%)
	Female	400 (93.90%)	451(90.74%)	447(99.55%)	98 (93.33%)	1,396 (94.52%)
	Total	794 (93.85%)	867 (88.74%)	879 (98.10%)	227 (93.03%)	2,767 (93.39%)

## Administering the Survey

This project is a cross-sectional survey.

### Survey Administration

Global School based Student Health Survey (GSHS) in Thailand, 2008, were conducted by the School Age and Youth Health Group, The Bureau of Health Promotion, Department of Health, Ministry of Public Health. Working group consisted of coordinators and representatives from related ministries, departments, divisions, such as managers and executives and technical officers from Ministry of Public Health, Ministry of Education, Ministry Of Interior, Bangkok Metropolitan, and private organizations.

### Administrating Procedures

1. Preparing documents presenting to Permanent Secretary of Ministry of Public Health and Ministry of Education in order to ask them to read and authorize their acceptance of the state policies and procedures of this survey.
2. Appointing steering committee that consists of representatives from various organizations within and outside Ministry of Public Health
3. Translating GSHS questionnaires from original manuscript in English to Thai
4. Arranging meetings of steering committee in order to set the means to control the project as well as verify the accuracy of the report.
5. Arranging meetings of related technical officers in order to consider choosing questionnaires that consists of 3 sections
  - 52 core questionnaires from 10 issues
  - 243 core expanded questionnaires from 8 issues
  - Specific questionnaires for Thailand
6. Trying out of the questionnaires with 30 students, age 13-15, before conducting a survey.
7. Preparing name list of schools that had students age 13-15 along with classroom information, school size, and school location, and then informing the US Centre for Disease Prevention and Control (CDC) in order to select the sample
8. Informing responsible organizations included Ministry of Education, Bangkok Metropolitan, and private schools in order to collect data from sampling.
9. Conducting a survey that was designed to protect student privacy by allowing for anonymous and voluntary participation. Students completed the self-administered questionnaire during one classroom period and record their response directly on a computer answer sheet. Approximately 8 survey administrators were specially trained to conduct the GSHS.

### **The Global School-based Student Health Survey (GSHS) Questionnaires**

The Global School-based Student Health Survey (GSHS) questionnaires for Thailand were self administered questionnaires consisting of 89 questions divided into 3 sections. The First section consisted of 52 core questions, the second section consisted of 28 core expanded questions, and the third section consisted of 4 specific questions for Thailand. These questionnaires developed with the collaboration of the Global School-based Student Health Survey project, the US Centre for Disease Prevention and Control (CDC) and World Health Organization (WHO), were the main questionnaires used worldwide. In Thailand, we appointed the committee for selecting the questionnaires as the name list written in appendix. Questionnaires consisted of these 10 issues:

- Response Demographic

- Dietary Behaviour
- Personal Hygiene
- Violence and Unintentional Injury
- Mental Health
- Tobacco Use
- Alcohol and other Drug Use
- Sexual Behaviour
- Physical Activity
- Protective Factors

## Part 2: Results

### Demographics

#### Introduction

In December 2007, Thailand's total population was 60.03 million people. 15 years old or younger youths were approximately 18.48% of total population. There were 2,880,196 youths of 13-15 years old, or 4.32% of total population.

From the 2008 statistical information of Ministry of Education, There were 2,622,210 students in grade 7-10. 2,963 students or 0.11%, both males and females, were selected as a sample in this research, and 2,767 students, or 93.38% of the sample, responded our questionnaire. It divided into 48.5% males and 51.5% females. 12 year-olds or younger students were 17%. 13-15 year-olds students were 79.3%. 16 year-olds or older students were 3.7%. Students who studied in Grade 7 were 29.5%, Grade 8 were 28.6%, Grade 9 were 28.1%, and Grade 10 were 13.8%

#### Results

The demographic characteristics of the sample are describes in the following table.

**Table 2. Demographic characteristics of the sample Thailand, 2008.**

Name of site	Sex	%	Age	%	Grade	%
Thailand	Males	48.5%	12 or younger	17.0%	7	29.5%
	Females	51.5%	13-15	79.3%	8	28.6%
			16 or older	3.7%	9	28.1%
					10	13.8%
					other	0.0%

### Alcohol and other drug use

#### Background

Worldwide, alcohol use causes 3% of deaths (1.8 million) annually, which is equal to 4% of the global disease burden. Across sub-regions of the world, the proportion of disease

burden attributable to alcohol use is greatest in the Americans and Europe ranging from 8% to 18% of total burden for males and 2% to 4% of total burden for females. Besides the direct effects of intoxication and addiction, alcohol use causes about 20% to 30% of each esophageal cancer, liver disease, homicide and other intentional injuries, epilepsy, and motor vehicle accidents worldwide<sup>1</sup>, and heavy alcohol use places one at greater risk for cardiovascular disease.<sup>2</sup>

In most countries, alcohol-related mortality is highest among 45- to 54-year-olds, but the relationship between the age of initiation of alcohol use and the pattern of its use and abuse in adulthood makes the study of alcohol consumption among adolescents important.<sup>3</sup> Intentional and unintentional injuries are far more common among youth and young adults. Unintentional injuries are the leading cause of death among 15- to 25-year-olds and many of these injuries are related to alcohol use.<sup>4</sup>

Young people who drink are more likely to use tobacco and other drugs and engage in risky sexual behavior, than those who do not drink.<sup>5,6</sup> Problems with alcohol can impair adolescents' psychological development and influence both the school environment and leisure time negatively.<sup>7</sup>

## Results

The alcohol and drug use characteristics of the sample are described in the following table.

**Table 3. Alcohol use and other drug use among students, by sex, Thailand, 2008.**

Questions	Total% (CI)*	Sex	
		Males% (CI)	Female% (CI)
Drank alcohol for the first time before 14 years old or younger	76.5 (70.0-82.9)	80.2 (75.4-85.1)	70.5 (60.4-80.5)
Drank at least one drink containing alcohol on one or more of the past 30 days	14.8 (12.6-17.0)	21.2 (18.2-24.1)	9.3 (7.6-10.9)
Drank two or more drinks per day containing alcohol during the past 30 days	43.9 (37.0-50.7)	41.4 (33.1-49.6)	49.0 (39.4-58.6)
Usually got the alcohol they drank by buying in a store, shop, or from a street vendor during the past 30 days	38.9 (34.6-43.1)	41.2 (37.2-45.1)	34.7 (24.8-44.5)
Had a hang-over, felt sick, got into trouble, missed school, or got into fights one or more times as a result of drinking alcohol during their life	9.7 (8.6-10.8)	14.4 (12.4-16.4)	5.2 (3.8-6.6)

Drank so much alcohol they were really drunk one or more times during their life	19.0 (16.8-21.1)	24.7 (21.3-28.1)	13.6 (10.4-16.8)
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Questions	Total% (CI)*	Sex	
		Males% (CI)	Female% (CI)
Sellers refused to sell alcohol because of the students' age	57.3 (52.7-61.8)	57.5 (51.1-63.8)	56.6 (48.7-64.5)
Students who used drugs, such as, Methamphetamine, Ecstasy, or Marihuana, one or more times during their life.	6.1 (4.9-7.2)	11.1 (9.6-12.6)	1.3 (0.6-2.0)
14 year-olds or younger students who first tried drugs, such as, Marihuana, Opium, Kratom , Methamphetamine, Ecstasy, Heroine , or Thinner	80.3 (70.6-90.0)	77.7 (66.1-89.2)	Sample size cannot be used as a representative (<100)

\* 95% of Confidence Interval

### Prevalence of current alcohol use

In Thailand, 76.5% of students drank alcohol for the first time before 14 years old or younger. Male students (80.2%) are not significantly different from female students (70.5%) to drink alcohol for the first time before 14 years old or younger.

Overall, the prevalence of current alcohol use among students (i.e., drinking at least one drink containing alcohol on one or more of the past 30 days) is 14.8%. Male students (21.2%) are significantly more likely than female students (9.3%) to report current alcohol use.

Overall, 43.9% of students drank alcohol one or more drinks per day during the past 30 days. Male students (41.4%) are not significantly different from female students (49.0%) to drink alcohol one or more drinks per day.

### Access to alcohol products

Overall, 38.9% of students usually got the alcohol they drank by buying it in a store, shop, or from a street vendor during the past 30 days. Male students (41.2%) are not significantly different from female students (34.7%) to usually get the alcohol they drank by buying it in a store, shop, or from a street vendor.

Overall, 57.3% of sellers refused to sell alcohol to students because of their age. (According to Thai law, the sale of alcohol to people who are younger than 18 years old

is prohibited.) Male students (57.5%) are not significantly different from female students (56.6%) to be refused from sellers because of their age.

### **Drunkenness and consequences of drinking**

During their life, 19.0% of students drank so much alcohol they were really drunk one or more times. Male students (24.7%) are significantly more likely than female students (13.6%) to drink so much alcohol they are really drunk one or more times. Overall, 9.7% of students ever had a hang-over, felt sick, got into trouble, missed school, or got into fights one or more times as a result of drinking alcohol during their life. Male students (14.4%) are significantly more likely than female students (5.2%) to have a hang-over, felt sick, got into trouble, missed school, or got into fights one or more times as a result of drinking alcohol.

### **Prevalence of lifetime drug using**

In Thailand, the prevalence of lifetime drug use (using drugs, such as Methamphetamine, Ecstasy, or Marijuana, one or more times during their life) is 6.1%. Male students (11.1%) are significantly more likely than female students (1.3%) to report lifetime drug use.

80.1% of students of overall students who tried drugs, such as Marijuana, Opium, Kratom, Methamphetamine, Ecstasy, Heroine, or Thinner when they was younger than 14 years old. In this group, we reported only male student. As a consequence, male students have a higher risk to use drugs than female students in Thailand.

## **Dietary Behaviours**

### **Background**

During adolescence, overweight is associated with hyperlipidemia, raised blood pressure (hypertension), abnormal glucose tolerance, and adverse psychological and social consequences.

Overweight acquired during childhood or adolescence may persist into adulthood and increase risk later in life for coronary heart disease, diabetes, gallbladder disease, some types of cancer, and osteoarthritis of the weight-bearing joints. Nutritional deficiencies as a result of food insecurity (protein-energy malnutrition, iron, Vitamin A, and iodine deficiency) affect school participation and learning.<sup>8</sup>

Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substance important for good health. Dietary patterns that include higher

intakes of fruits and vegetables are associated with several health benefits, including a decreased risk for some types of cancer.<sup>9</sup>

## Results

**Table 4. BMI and dietary behaviours, by sex, Thailand, 2008.**

Question	Total% (CI)*	Sex	
		Male% (CI)	Female% (CI)
At risk for becoming overweight	10.0 (8.0-12.0)	12.7 (9.7-15.6)	7.6 (5.9-9.3)
Overweight	4.4 (3.2-5.7)	5.0 (3.6-6.4)	3.9 (2.5-5.4)
Went hungry most of the time or always because there was not enough food in their home during the past 30 days	3.4 (2.5-4.3)	4.7 (3.5-5.9)	2.1 (1.2-3.0)
Usually ate fruits, such as orange, pineapples, rambutan, mangoes, or Sapodilla plums, one or more times per day during the past 30 days	76.8 (73.8-79.8)	72.9 (69.5-76.3)	80.4 (76.7-84.2)
Usually ate vegetables, such as cabbage, morning glory, Chinese kale, cucumber, or cauliflower, one or more times per day during the past 30 days	87.1 (84.9-89.4)	86.0 (83.8-88.2)	88.3 (85.3-91.4)
Ate fruits and vegetable five or more times per day during the past 30 days	33.8 (29.8-37.7)	34.7 (31.0-38.4)	32.9 (28.1-37.7)
Tried to do about their weight	27.9 (25.4-30.3)	22.3 (19.4-25.1)	33.0 (29.9-36.2)
Usually had breakfast during the past 30 days	64.9 (60.3-69.5)	66.9 (61.9-72.0)	63.0 (58.2-67.8)
Usually did not have breakfast because no food was prepared in their house during the past 30 days	7.3 (5.8-8.8)	7.0 (5.7-8.4)	7.4 (5.3-9.4)
Usually ate salty foods, such as snacks, instant noodles, or preserved vegetables and fruits two or more times per days during the past 30 days	27.8 (24.8-30.7)	26.8 (23.6-30.0)	28.7 (25.3-32.1)
Usually ate foods with high fat content, such as fried chicken, fried sausage, fried pork ball, toast with jam, hamburgers, or pizza two or more times per day during the past 30 days	33.7 (31.5-35.9)	34.8 (31.0-38.6)	32.7 (29.8-35.6)
Usually drank soft drinks, such as Coke, Pepsi, Fanta, Sprite, or Seven-up two or more times per day during the past 30 days	32.1 (26.0-38.2)	35.1 (29.1-41.2)	29.4 (22.8-35.9)

Usually drank milk or ate milk products, such as yogurt or cheese two or more times per day during the past 30 days	40.4 (35.9-44.9)	41.4 (37.8-45.1)	39.4 (33.4-45.4)
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\* 95% of Confidence Interval

### Prevalence of overweight

In Thailand, 10.0% students were at risk for becoming overweight (i.e., at or above the 85<sup>th</sup> percentile, but below the 95<sup>th</sup> percentile for body mass index by age and sex) and male students (12.7%) are significantly more likely than female students (7.6%).

Overall, 4.4% of students were overweight (i.e., at or above the 95<sup>th</sup> percentile for body mass index by age and sex). Male students (5.0%) are not significantly different than female students (3.9%) to become overweight. Overall, 27.9% of students tried to do about their weight. Male students (22.3%) are significantly less likely than female students (33.0%) to try to do something about their weight. In summary, female students tried to do about their weight more than male students.

### Prevalence of hunger

Overall, 3.4% of students went hungry most of the time or always because there was not enough food in their home during the past 30 days. Male students (4.7%) are significantly more likely than female students (2.1%) to go hungry most of the time or always because there was not enough food in their home.

### Fruit and vegetable intake

Overall 76.8% of all students usually ate fruit, such as orange, pineapples, rambutan, mangoes, or Sapodilla plums, one or more times per day during the past 30 days. Male students (72.9%) are significantly less likely than female students (80.4%) to usually eat fruit one or more times per day.

Overall 87.1% of students usually ate vegetables, such as cabbage, morning glory, Chinese kale, cucumber, or cauliflower once or more times per day during the past 30 days. Male students (86.0%) are not significantly different from female students (88.3%) to usually eat ate vegetables once or more times per day. Overall, 33.8% of students ate vegetable and fruit five or more time per day during the past 30 days. Male students (34.7%) are not significantly different from female students (32.9%) to eat fruits and vegetables five or more times per day.

### Other dietary behaviours

Overall, 64.9% of students usually had breakfast during the past 30 days. Male students (66.9%) are not significantly different than female students (63.0%) to have breakfast.

Overall, 7.2% of students did not have breakfast because no food was prepared in their house during the past 30 days. Male students (7.0%) are not significantly different from female students (7.4%) to do not have breakfast because no food is prepared in their house. Overall, 27.8% of students usually ate salty foods, such as snacks, instant noodles, or preserved vegetables and fruits two or more times per days during the past 30 days. Male students (26.8%) are not significantly different from female students (28.7%) to eat salty foods two or more time per day. Overall, 33.7% of students usually ate foods with high fat content, such as fried chicken, fried sausage, fried pork ball, toast with jam, hamburgers, or pizza two or more times per day during the past 30 days. Male students (34.8%) are not significantly different from female students (32.7%) to eat food with high fat content two or more times per day. Overall, 32.1% of students usually drank soft drinks, such as Coke, Pepsi, Fanta, Sprite, or Seven-up two or more times per day during the past 30 days. Male students (35.1%) are not significantly different from female students (29.4%) to drink soft drink two or more times per day. Overall, 40.4% of students usually drank milk or ate milk products, such as yogurt or cheese two or more times per day during the past 30 days. Male students (41.4%) are not significantly different from female students (39.4%) to drink or eat milk products two or more times per day.

## Hygiene

### Background

Dental caries affect between 60-90% of children in developing countries and is the most prevalent oral disease among children in several Asian and Latin American countries. In Africa, the incidence of dental caries is expected to rise drastically in the near future due to increase d sugar consumption and inadequate fluoride exposure.<sup>10</sup> In addition to causing pain and discomfort, poor oral health can affect children's ability to communicate and learn. More than 50 million school hours are lost annually because of oral health problems.<sup>11</sup> In both developed and developing countries, many children do not have access to water fluoridation or professional dental care. Daily tooth cleaning or brushing can help prevent some dental disease.<sup>12</sup>

Diarrhoeal diseases kill nearly 2 million children every year. Hygiene education and the promotion of hand-washing can reduce the number of diarrhoeal cases by 45%. About 400 million school-aged children they infected with worms worldwide. These parasites consume nutrients from children they infect, cause abdominal pain and malfunction, and can impair learning by slowing cognitive development.<sup>14</sup>

## Results

**Table5. Hygiene-related behaviours, by sex, Thailand, 2008.**

Question	Total% (CI*)	Sex	
		Male% (CI)	Female%(CI)
Did not clean or brush their teeth less than 1 time per days during the past 30 days	2.6 (1.8-3.3)	4.1 (2.9-5.4)	1.1 (0.6-1.6)
Never or rarely washed their hands before eating during the past 30 days	8.7 (6.6-10.9)	8.2 (6.1-10.3)	9.2 (6.6-11.8)
Never or rarely washed their hands after using the toilet or latrine	4.0 (3.0-4.9)	5.0 (4.0-6.1)	2.9 (1.9-3.9)
Never or rarely used soap when washing their hands	7.3 (5.8-8.8)	7.7 (5.6-9.8)	6.8 (5.3-8.4)
Usually drank water from the water source at school	36.7 (33.1-40.4)	45.5 (41.0-50.1)	28.7 (25.1-32.2)

\* 95% of Confidence Interval

### Personal Hygiene

In Thailand, the percentage of students who did not clean or brush their teeth less than one time per day during the past 30 days. Male students (4.1%) are significantly more likely than female students (1.1%) to do not clean or brush their teeth less than one time per day.

Overall, 8.7% of students never or rarely washed their hands before eating during the past 30 days. Male students (8.2%) are not significantly different from female students (9.2%) to not wash their hands before eating.

Overall, 4.0% of students never or rarely washed their hands after using the toilet or latrine. Male students (5.0%) are significantly more likely than female students (2.9%) to students never or rarely wash their hands after using the toilet or latrine.

Overall, 7.3% of students never or rarely used soap when washing their hands. In this group, Male students (7.7%) are not significantly different from female students (6.8%) to use soap when washing their hands.

### Other hygiene results

Overall, 36.7% usually drank water from the water source in school. Male students (45.5%) are significantly more likely than female students (28.7%) to drink water from water source from the water source in school.

## Mental Health

### Background

World-wide, approximately 20% of children and adolescents suffer from a disabling mental illness.<sup>15</sup> Anxiety disorders, depression and other mood disorders, and behavioural and cognitive disorders are among the most common mental health problems among adolescents. Half of all lifetime cases of mental disorder start by 14.<sup>16</sup>

Every country and culture has children and adolescents struggling with mental health problems. Most of these young people suffer needlessly, unable to access appropriate resources for recognition, support, and treatment. Ignored, these young people are at high risk for abuse and neglect, suicide, alcohol, and other drug use, school failure, violent and criminal activities, mental illness in adulthood, and health-jeopardizing impulsive behaviours. Each year, about 4 million adolescents world-wide attempt suicide. Suicide is the third leading cause of death among adolescents.<sup>17,18</sup>

### Results

**Table 6. Mental health issues among students, by sex, Thailand, 2008.**

Question	Total% (CI)*	Sex	
		Male% (CI)	Female% (CI)
Most of the times or always felt lonely during the past 12 months	7.9 (6.2-9.6)	7.8 (5.8-9.7)	8.0 (5.9-10.2)
Most of the times or always felt so worried about something that they could not sleep at night during the past 12 months	6.5 (5.4-7.7)	6.6 (5.2-7.9)	6.5 (5.2-7.9)
Felt so sad or hopeless everyday for two weeks or more in a row that they stopped doing their usual activities during the past 12 months	16.6 (14.1-19.0)	18.2 (15.7-20.6)	15.1 (12.2-18.0)
Seriously considered attempting suicide during the past 12 months	8.8 (7.7-10.0)	9.9 (8.4-11.5)	7.7 (5.7-9.8)
Made a plan about how they would attempt suicide during the past 12 months	10.2 (8.5-11.9)	10.4 (8.6-12.2)	9.9 (7.3-12.6)
Have no close friends	3.5 (2.4-4.5)	4.5 (3.0-6.1)	2.4 (1.5-3.3)
Were taught in any of their classes the signs of depression and suicide behaviour during the last school year	43.5 (39.1-47.8)	40.7 (35.8-45.5)	46.2 (41.7-50.8)
Were taught in any of their classes how to manage stress and anger	63.3 (59.0-67.6)	58.3 (53.8-62.7)	68.0 (63.0-73.1)

\* 95% of Confidence Interval

## **Loneliness/ Depression**

In Thailand, 7.9% of students most of the time or always felt lonely during the past 12 months, Male students (7.8%) are not significantly different from female students (8.0%) to feel lonely most of the time or always felt lonely. Overall, 6.5% of students most of the times or always felt so worried about something that they could not sleep at night during the past 12 months. Male students (6.6%) are not significantly different from female students (6.5%) to feel so worried about something that they could not sleep at night. Overall, 16.6% of students felt so sad or hopeless everyday for two weeks or more in a row that they stopped doing their usual activities during the past 12 months. Male students (18.2%) are not significantly different from female students (15.1%) to feel so sad or hopeless everyday for two weeks or more in a row that they stopped doing their usual activities. Overall, 8.8% of students seriously considered attempting suicide during the past 12 months. Male students (9.9%) are not significantly different from female students (7.7%) to seriously consider attempting suicide. Overall, 10.2% of students made a plan about how they would attempt suicide during the past 12 months. Male students (10.4%) are not significantly different from female students (9.9%) to attempt suicide. Overall, 3.5% of students have no close friend. Male students (4.5%) are not significantly different from female students (2.4%) to have no close friend.

## **Other mental health issues**

Overall, 43.5% of students were taught in any of their classes the signs of depression and suicide behaviour during the last school year. Male students (40.7%) are not significantly different from female students (46.2%) to be taught in any of their classes the signs of depression and suicide behaviour. Overall, 63.3% of students were taught in any of their classes how to manage stress and anger. Male students (58.3%) are significantly less likely than female students (68.0%) to be taught in any of their classes how to manage stress and anger.

## **Physical Activity**

### **Background**

Participating in adequate physical activity throughout the life span and maintaining normal weight are the most effective ways of preventing many chronic diseases, including cardiovascular disease and diabetes.<sup>19</sup>

The prevalence of type 2 diabetes is increasing globally and now is occurring during adolescence and childhood.<sup>20</sup> Participating in adequate physical activity also helps build and maintain healthy bones and muscles, control weight, reduce blood pressure, ensure a healthy blood profile, reduce fat and promote psychological well-being.<sup>21</sup>

Roughly 60% of the world's population is estimated to not get enough physical activity. Patterns of physical activity acquired during childhood and adolescence are more likely to be maintained throughout the life span, thus sedentary behaviour adopted at a young age is likely to persist.<sup>22</sup>

## Results

**Table 7. Physical activity among students, by sex, Thailand, 2008**

Question	Total% (CI)*	Sex	
		Male% (CI)	Female% (CI)
Physically active all seven days for a total of at least 60 minutes per day during the past seven days	15.3 (13.7-16.9)	21.6 (19.6-23.6)	9.4 (7.6-11.2)
Physically active seven days for a total of at least 60 minutes per day during a typical or usual week	13.8 (12.1-15.4)	20.4 (18.4-22.5)	7.5 (6.0-9.1)
Participated in physical activity for a total of at least 60 minutes per day on five or fewer days on average	80.2 (77.7-82.8)	72.5 (68.5-76.6)	87.4 (85.2-89.6)
Spent three or more hours per day doing sitting activities, such as watching television, playing computer games, talking with friends, reading books, or talking on the telephone during a typical or usual day	37.6 (32.8-42.3)	37.7 (33.1-42.3)	37.4 (31.1-43.7)
Did not walk or bicycle to and from school during the past seven days	55.4 (50.4-60.4)	52.9 (47.2-58.7)	57.8 (52.3-63.3)
Usually took less than 29 minutes to get to and from school each day during the past seven days	69.8 (67.1-72.5)	73.5 (69.8-77.2)	66.3 (63.9-68.6)
Walked or bicycled to and from school for a total of 150 minutes or less during the past seven days	89.4 (87.4-91.4)	90.6 (88.1-93.0)	88.2 (86.0-90.5)
Were taught in any of classes about preventing injury during physical activity	74.9 (72.4-77.4)	73.0 (70.1-75.9)	76.7 (73.6-79.8)

\* 95% of Confidence Interval

## Physical activity

In Thailand, 15.3% of students were physically active all seven days for a total of at least 60 minutes per day during the past seven days. Male students (21.6%) are significantly more likely than female students (9.4%) to be physically active all seven days for a total of at least 60 minutes per day. Overall, 13.8% of students were physically active seven days for a total of at least 60 minutes per day during a typical or usual week. Male students (20.4%) are significantly more likely than female students

(7.5%) to be physically active seven days for a total of at least 60 minutes per day. Overall, 80.2% of students participated in physical activity for a total of at least 60 minutes per day on five or fewer days on average. Male students (72.5%) are significantly less likely than female students 87.4% to participate in physical activity for a total of at least 60 minutes per day.

### **Sedentary behaviour**

Overall, 37.6% of students spent three or more hours per day doing sitting activities, such as watching television, playing computer games, talking with friends, reading books, or talking on the telephone during a typical or usual day. Male students (37.7%) are not significantly different from female students (37.4%) to spend three or more hours per day doing sitting activities.

### **Over physical activity results**

Overall, 55.4% of students did not walk or bicycle to and from school during the past seven days. Male students (52.9%) are not significantly different from female students (57.8%) to do not walk or bicycle to and from school. Overall, 69.8% of students usually took less than 29 minutes to get to and from school each day during the past seven days. Male students (73.5%) are significantly more likely than female students (66.3%) to take less than 29 minutes to get to and from school each day. Overall, 89.4% of students walked or bicycled to and from school for a total of 150 minutes or less during the past seven days. Male students (90.6%) are not significantly different from female students (88.2%) to walk or bicycle to and from school for a total of 150 minutes or less. Overall, 74.9% of students were taught in any of classes about preventing injury during physical activity. Male students (73.0%) are not different from female students (76.7%) to be taught in any of classes about preventing injury during physical activity.

In summary, male students have a higher tendency to be physically active during day and number of days in week than female students.

## **Protective Factors**

### **Background**

For most adolescents, school is the most important setting outside of the family. School attendance is related to the prevalence of several health risk behaviours including violence and sexual risk behaviours.<sup>23</sup>

Adolescents who have a positive relationship with teachers, and who have positive attitudes towards school are less likely to initiate sexual activity early, less likely to use

substances, and less likely to experience depression. Adolescents who live in a social environment which provides meaningful relationships, encourages self-expression, and also provides structure and boundaries, are less likely to initiate sex at a young age, less likely to experience depression, and less likely to use substance.<sup>24</sup>

Being liked and accepted by peers is crucial to young people's health development, and those who are not socially integrated are far more likely to exhibit difficulties with their physical and emotional health. Isolation from peers in adolescence can lead to feelings of loneliness and psychological symptoms. Interaction with friends tends to improve social skills and strengthen the ability to cope with stressful events.<sup>25</sup>

Parental bonding and connection is associated with lower levels of depression and suicidal ideation, alcohol use, sexual risk behaviours, and violence.<sup>26</sup>

## Results

**Table 8. Protective Factors among students, by sex, Thailand 2008**

Question	Total% (CI)*	Sex	
		Male% (CI)	Female% (CI)
Missed classes or school without permission on one or more of the past 30 days	17.2 (14.9-19.4)	24.0 (21.4-26.6)	10.6 (8.6-12.7)
Most of the students in their school were kind and helpful most of the time or always during the past 30 days	41.7 (37.6-45.7)	34.4 (30.9-37.9)	48.5 (43.8-53.2)
Parents or guardians checked to see if their homework was done most of the time or always during the past 30 days	35.9 (32.3-39.5)	35.2 (30.5-39.8)	36.6 (32.3-40.8)
Parents or guardians understood their problem and worries most of the time or always during the past 30 days	34.2 (30.8-37.6)	28.7 (25.1-32.3)	39.3 (35.3-43.2)
Parents or guardians really know what they were doing with their free time most of the time or always during the past 30 days	45.4 (42.0-48.8)	38.6 (34.0-43.2)	51.8 (47.7-56.0)
Usually slept 8 hours or more per day	56.2 (53.5-59.0)	55.6 (52.3-59.0)	56.9 (52.9-60.9)

\*95% of Confidence Interval

### Missing classes

In Thailand, 17.2% of students missed classes or school without permission on one or more of the past 30 days. Male students (24.0%) are significantly more likely than female students (10.6%) to miss classes or school without permission on one or more of the past 30 days.

## **Being kind and helpful**

Overall, 41.7% of students reported that most of the students in their school were kind and helpful most of the time or always during the past 30 days. Male students (34.4%) are significantly more likely than female students (48.5%) to report that most of the students in their school were kind and helpful most of the time or always during the past 30 days.

## **Parents or guardians**

Overall, 35.9% of students reported that their parents or guardians checked to see if their homework was done most of the time or always during the past 30 days. Male students (35.2%) are not significantly different from female students (36.6%) to report that their parents or guardians checked to see if their homework was done most of the time or always during the past 30 days. Overall, 34.2% of students reported that their parents or guardians understood their problem and worries most of the time or always during the past 30 days. Male students (28.7%) are significantly less likely than female students (39.3%) to report that their parents or guardians checked to see if their homework was done most of the time or always during the past 30 days. Overall, 45.4% of students reported that their parents or guardians really know what they were doing with their free time most of the time or always during the past 30 days. Male students (38.6%) are significantly less likely than female students (51.8%) to report that their parents or guardians really know what they were doing with their free time most of the time or always during the past 30 days. Overall, 56.2% of students usually slept 8 hours or more per day. Male students (55.6%) are not significantly different from female students (56.9%). In summary, more than half of students did not have enough sleep or slept less than 8 hours per day.

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

### **Background**

AIDS has killed more than 25 million people since 1981. As of 2005, an estimated 40.3 million people were living with HIV. In that year alone, roughly 3.1 million people died of HIV and another 4.9 million people became infected with HIV.<sup>27</sup> Young people between the ages of 15 and 24 are the most threatened group, accounting for more than half of those newly infected with HIV. Studies show that adolescents who begin sexual activity early are likely to have sex with more partners and with partners who have been at risk of HIV infection and AIDS is reducing average life expectancy, threatening food security and nutrition, dissolving households, overloading the health care system, reducing

economic growth and development, and reducing school enrolment and the availability of teachers.<sup>28</sup>

STIs are among the most common causes of illness in the world and have far-reaching health consequences. They facilitate the transmission of HIV and, if left untreated, can lead to cervical cancer, pelvic inflammatory diseases and ectopic pregnancies.<sup>29</sup>

Worldwide, the highest reported rates of STIs are found among people between 15 and 24 years; up to 60% of the new infections and half of all people living with HIV globally are in this group.<sup>30</sup>

## Results

**Table 9. Sexual behaviours that contribute to HIV Infection, other STI, and unintended pregnancy among students, by sex, Thailand, 2008**

Question	Total% (CI)*	Sex	
		Male% (CI)	Female% (CI)
Ever had sexual intercourse	6.1 (4.0-8.1)	7.5 (4.5-10.5)	4.9 (3.0-6.7)
Initiated sexual intercourse when they were 13 years old or younger	4.5 (3.4-5.7)	8.0 (6.2-9.8)	1.3 (0.4-2.3)
Had sexual intercourse with two or more people during their life	5.5 (4.6-6.3)	9.8 (8.2-11.4)	1.6 (1.1-2.1)
Had sexual intercourse during the past 12 months	11.0 (9.1-12.9)	14.6 (11.8-17.5)	7.6 (5.7-9.4)
Among students who had sexual intercourse during the past 12 months, those who used a condom at last sexual intercourse	60.4 (50.4-70.5)	Sample size cannot be used as a representative (<100)	Sample size cannot be used as a representative (<100)
Used these methods of birth control: condom, birth control pill, emergency birth control pill, and withdrawal	79.4 (71.2-87.2)	75.9 (66.3-85.7)	Sample size cannot be used as a representative (<100)
Wanted to get a condom and most got it from a pharmacy, clinic, or hospital	18.6 (16.5-20.8)	19.1 (16.0-22.1)	18.2 (15.0-21.4)

Question	Total% (CI)*	Sex	
		Male% (CI)	Female% (CI)

Usually used a condom when having sexual intercourse during the past 12 months	38.2 (31.9-44.5)	45.1 (33.0-57.2)	Sample size cannot be used as a representative (<100)
Thought that people can protect themselves from HIV infection or AIDS by using a condom correctly every time they have sexual intercourse	63.8 (59.4-68.2)	61.7 (57.5-65.9)	65.8 (60.3-71.4)
Thought that a healthy-looking person can be infected with HIV	46.8 (43.0-50.6)	43.1 (39.1-47.0)	50.4 (45.0-55.8)

\*95% of Confidence Interval

### Sexual intercourse

Male students (7.5%) are not significantly different from female students (4.9%). Overall, 4.5% of students initiated sexual intercourse when they were 13 years old or younger. Male students (8.0%) are significantly more likely than female students (1.3%) to initiate sexual intercourse when they were 13 years old or younger. Overall, 5.5% of students had sexual intercourse with multiple partners (i.e., two or more) during their life. Male students (9.8%) are significantly more likely than female students (1.6%) to have sexual intercourse with multiple partners. Overall, 11.0% of students had sexual intercourse during the past 12 months. Male students (14.6%) are significantly more likely than female students (7.6%) to have sexual intercourse. Among students who had sexual intercourse during the past 12 months, 60.4% used a condom at last sexual intercourse. In this group, we reported only in overall perspective. Overall, 79.4% of students or their partners used these methods of birth control: condom, birth control pill, emergency birth control pill, and withdrawal. In this group, we reported only male students (75.9%). Overall, 18.6% of students wanted to get a condom and most got it from a pharmacy, clinic, or hospital. Male students (19.1%) are not significantly different from female students (18.2%) to get a condom from a pharmacy, clinic, or hospital. Overall, 38.2% of students or their partners usually used a condom when having sexual intercourse during the past 12 months. In this group, we reported only in Male students (45.1%).

### Awareness of HIV infection or AIDS

In Thailand, overall, 63.8% of students thought that people can protect themselves from HIV infection or AIDS by using a condom correctly every time they have sexual intercourse. Male students (61.7%) are not significantly different from female students (65.8%) to think that people can protect themselves from HIV infection or AIDS by using a condom correctly every time they have sexual intercourse. Overall, 46.8% of students thought that a healthy-looking person can be infected with HIV. Male students (43.1%)

are not significantly different from female students (50.4%) to think that a healthy-looking person can be infected with HIV.

As a consequence, some students did not have an accurate knowledge or misunderstand of HIV and AIDS. Some groups are risky in both male and female, and male students have a higher tendency to have sexual intercourse during the past 12 months than female students. We can see that male students who have sexual intercourse during the past 12 months are more than female student two times. Furthermore, only 38.2% of male students used a condom at a last sexual intercourse, so their partners also have a risk to be infected with HIV, AIDS, other sexual transmitted diseases, or unintended pregnancy.

## Tobacco Use

About 1.1 billion people worldwide smoke and the number of smokers continue to increase. Among these, about 84% live in developing and transitional economy countries. Currently, 5 million people died each year from tobacco consumption, the second leading cause of death worldwide. If present consumption patterns continue, it is estimated that deaths from tobacco consumption will be 10 million people per year by 2020.<sup>31</sup> The overwhelming majority of smokers begin tobacco use before they reach adulthood. Among those young people who smoke, nearly one-quarter smoked their first cigarette before they reached the age of ten.

Smokers have markedly increased risks of multiple cancers, particularly lung cancer, and are at far greater risk of heart disease, strokes, emphysema and many other fatal and non fatal diseases. If they chew tobacco, they risk cancer of the lip, tongue and month. Children are at particular risk from adult's smoking. Adverse health effects include pneumonia and bronchitis, coughing and wheezing, worsening of asthma, middle ear disease, and possibly neuro-behavioral impairment and cardiovascular disease in adulthood. Many studied show that parental smoking is associated with higher youth smoking.<sup>32</sup>

## Results

**Table 10 Tobacco use among students, by sex, Thailand, 2008**

Question	Total% (CI)*	Sex	
		Male% (CI)	Female% (CI)
Smoked cigarettes on one or more days during the past 30 days	8.2 (6.6-9.8)	15.0 (11.8-18.2)	2.2 (1.2-3.3)

Among students who smoked cigarettes during the past 30 days, those who tried their first cigarette at age 13 or younger	73.7 (66.9-80.6)	76.4 (67.9-85.0)	Sample size cannot be used as a representative (<100)
Used any other form of tobacco, such as cigars, on one or more days during the past 30 days	7.2 (6.0-8.5)	13.4 (10.9-15.9)	1.3 (0.6-2.0)
Among students who smoked cigarettes during the past 12 months, those who tried to stop smoking cigarette	86.3 (83.9-88.8)	86.2 (83.9-88.4)	Sample size cannot be used as a representative (<100)
People smoke in their presence on one or more days during the past seven days	40.2 (37.6-42.8)	42.2 (39.1-45.4)	38.2 (35.2-41.2)
Had a parent or guardian who uses any form of tobacco	32.8 (28.8-36.8)	32.2 (29.0-35.3)	33.4 (28.0-38.8)
Got cigarettes by one of these means during the past 30 days: buying in a store, shop, or from a street vendor, buying from a vending machine, giving someone money to buy them, borrowing from someone else, stealing, being given by older person, and other ways.	48.2 (41.6-54.7)	50.1 (44.3-55.9)	Sample size cannot be used as a representative (<100)
Had been denied purchase of cigarettes because of their age during the past 30 days	54.8 (50.7-58.8)	53.3 (47.3-59.2)	59.0 (49.5-68.4)
Had been received help or advice to help them stop smoking	29.4 (24.4-34.3)	29.6 (22.4-36.8)	29.0 (22.7-35.3)
Believed that smoke from other people's cigarettes was harmful	90.8 (88.7-99.9)	86.1 (83.4-88.8)	95.3 (93.4-97.1)

\*95% of Confidence Interval

### Prevalence of tobacco use

In Thailand, 8.2 % of students smoked cigarettes on one or more days during the past 30 days. Male students (15.0%) are significantly more likely than female students (2.2%) to have smoked cigarettes on one or more days. Among students who smoked cigarettes during the past 30 days, 73.7% tried their first cigarette at age 13 or younger.. Overall, 7.2% of students used any other form of tobacco, such as cigars, on one or more days during the past 30 days. Male students (13.4%) are significantly different from female students (1.3%). Among students who smoked cigarettes during the past 12 months, 86.3% tried to stop smoking cigarette. In this group, we report only male students (86.2%).

## Parents or guardian tobacco use

Overall, 40.2% of students reported that people smoke in their presence on one or more days during the past seven days. Male students (42.2%) are not significantly different from female students (38.2%) to report that people smoke in their presence on one or more days during the past seven days. Overall, 32.8% of students had a parent or guardian who uses any form of tobacco. Male students (32.2%) are not significantly different from female students (33.4%) to have a parent or guardian who uses any form of tobacco.

## Other tobacco use result

Overall, 48.2% of students got cigarettes by one of these means during the past 30 days: buying in a store, shop, or from a street vendor, buying from a vending machine, giving someone money to buy them, borrowing from someone else, stealing, being given by older person, and other ways. In this group, we report only male students (50.1%). Overall, 54.8% of students had been denied purchase of cigarettes because of their age during the past 30 days. (According to Thai law, the sale of tobacco to people who are younger than 18 years old is prohibited.) Male students (53.3%) are not significantly different from female students (59.0%) to be denied purchase of cigarettes because of their age. Overall, 29.4% of students had been received help or advice to help them stop smoking. Male students (29.6%) are not significantly different from female students (29.0%) to be received help or advice to help them stop smoking. Overall, 90.8% of students believed that smoke from other people's cigarettes was harmful. Male students (86.1%) are significantly less likely female students (95.3%) to believe that smoke from other people's cigarettes was harmful.

In summary, most students realized the danger of smoking. Parents, guardians, or friends of some students used any form of tobacco. Furthermore, male students were at higher risk of smoking than female students. Almost half of sellers did not deny selling tobacco to students.

Therefore, prevalence of diseases and risk behaviours of smoking among youth will continue to be a problem in the future.

## Violence and Unintentional Injury

### Background

Unintentional injuries are a major cause of death and disability among young children.<sup>33</sup> Each year, about 875,000 children under the age of 18 die from injuries and 10 to 30 million have their lives affected by injury, Injury is highly associated with age and gender. Males aged 10-14 have 60% higher injury death rates than females. Teenagers

aged 15-19 have higher rates than those aged 10-14 years (64 compared to 29 per 100,000).

Estimated global homicide death rate for males aged 15-17 is 9 per 100,000.<sup>34</sup> For every youth homicide, approximately 20 to 40 victims of non fatal youth violence receive hospital treatment.<sup>35</sup> Many unintentional injuries lead to permanent disability and brain damage, depression, substance abuse, suicide attempts, and the adoption of health risk behaviours. Victim of bullying have increased stress and a reduced ability to concentrate and are at increased risk for substance abuse, aggressive behaviour, and suicide attempts.<sup>36</sup>

**Table 11. Violence and unintentional injury among students, by sex, Thailand, 2008**

Question	Total% (CI)*	Sex	
		Male% (CI)	Female% (CI)
Were physically assaulted one or more times during the past 12 months	33.3 (29.0-37.6)	44.1 (39.5-48.8)	23.0 (19.4-26.7)
Were in a physical fight one or more times during the past 12 months	33.3 (28.7-37.9)	45.6 (41.3-49.9)	21.7 (17.5-26.0)
Were seriously injured one or more times during the past 12 months	46.7 (42.7-50.6)	56.1 (52.2-60.1)	38.1 (33.4-42.8)
Among students who were seriously injured one or more times during the past 12 months, those whose most serious injury happened to them while they were playing or training for a sport	25.4 (23.0-27.8)	31.3 (27.6-35.0)	17.9 (13.1-22.7)
Among students who were seriously injured one or more times during the past 12 months, those whose most serious injury was the result of a fall	28.9 (26.2-31.6)	27.8 (23.8-31.9)	30.4 (25.4-35.4)
Among students who were seriously injured one or more times during the past 12 months, those whose most serious injury was the result of them hurting themselves by accident	50.9 (46.2-55.6)	47.0 (41.8-52.3)	56.1 (50.5-61.6)

Question	Total% (CI)*	Sex	
		Male% (CI)	Female% (CI)
Among students who were seriously injured one or more times during the past 12 months, those who had a broken bone or dislocated joint as their most serious injury	12.6 (10.6-14.5)	16.4 (13.3-19.5)	7.4 (5.1-9.8)

Were bullied on one or more days during the past 30 days	27.8 (24.2-31.4)	32.9 (28.4-37.4)	23.2 (19.8-26.5)
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	22.5 (18.2-26.8)	30.6 (24.2-36.9)	12.2 (8.5-16.0)
Were in a physical fight on school premises one or more times during the past 12 months	24.7 (21.6-27.9)	37.5 (33.5-41.5)	12.7 (10.4-15.0)
Were verbally abused by a teacher one or more times during the past 12 months	53.9 (49.0-58.8)	58.4 (53.6-63.1)	49.6 (43.2-55.9)
Were verbally and physically abused by their parents, guardians, or family members one or more times.	50.6 (48.3-52.8)	52.0 (48.8-55.2)	49.2 (46.1-52.3)
Were taught in any of their classes what to do if someone is trying to force them to have sexual intercourse during this last school year	52.9 (48.0-57.7)	45.1 (39.4-50.9)	60.1 (55.8-64.4)
Were taught in any of their classes how to avoid physical fight or violence during this last school year	70.7 (68.0-73.5)	68.1 (64.2-72.1)	73.2 (70.7-75.7)
Rode in a car or other motor vehicle driven by someone who had been drinking alcohol during the past 30 days	28.8 (26.9-30.8)	32.7 (29.7-35.6)	25.1 (23.1-27.2)

\*95% of Confidence Interval

## Serious Injury

In Thailand, 33.3% of students were physically assaulted one or more times during the past 12 months. Male students (44.1%) are significantly more likely than female students (23.0%) to be physically assaulted one or more times during the past 12 months. Overall, 33.3% of students were in a physical fight one or more times during the past 12 months. Male students (45.6%) are significantly more likely than female students (21.7%) to be in a physical fight one or more times during the past 12 months. Overall, 46.7% of students were seriously injured one or more times during the past 12 months. Male students (56.1%) are significantly more likely than female students (38.1%) to be seriously injured one or more times during the past 12 months. Among students who were seriously injured one or more times during the past 12 months, 25.4% were playing or training for a sport when most serious injury happened to them. Male students (31.3%) are significantly more likely than female students (17.9%) to get their most serious injury when they were playing or training for sport. Among students who were seriously injured one or more times during the past 12 months, 28.9% had most serious injury caused by a fall. Male students (27.8%) are not significantly different

from female students (30.4%) to have their most serious injury caused by a fall. Among students who were seriously injured one or more times during the past 12 months, 50.9% had their most serious injury occur as a result of hurting themselves by accident. Male students (47.0%) are not significantly different from female students (56.1%) to have their most serious injury occur as a result of hurting themselves by accident. Among students who were seriously injured one or more times during the past 12 months, 12.6% had a broken bone or dislocated joint as their most serious injury. Male students (16.4%) are significantly more likely than female students (7.4%) to experience a broken bone or dislocated joint as their most serious injury.

## **Bullying**

Overall, 27.8% of students were bullied on one or more days during the past 30 days. Male students (32.9%) are significantly more likely than female students (23.2%) to be bullied on one or more days during the past 30 days. Among students who were bullied during the past 30 days, 22.5% were bullied most often by being hit, kicked, pushed, shoved around, or locked indoors. Male students (30.6%) are significantly more likely than female students (12.2%) to be bullied most often by being hit, kicked, pushed, shoved around, or locked indoors. 24.7% of students were in a physical fight on school premises one or more times during the past 12 months. Male students (37.5%) are significantly more likely than female students (12.7%) to be in a physical fight on school premises one or more times during the past 12 months.

## **Other unintentional injury results**

Overall, 53.9% of students were verbally abused by a teacher one or more times during the past 12 months. Male students (58.4%) are not significantly different from female students (49.6%) to be verbally abused by a teacher one or more times during the past 12 months. Overall, 50.6% of students were verbally and physically abused by their parents, guardians, or family members one or more times. Male students (52.0%) are not significantly different from female students (49.2%) to be verbally and physically abused by their parents, guardians, or family members one or more times. Overall, 52.9% of students were taught in any of their classes what to do if someone is trying to force them to have sexual intercourse during this last school year. Male students (45.1%) are significantly less likely than female students (60.1%) to be taught in any of their classes what to do if someone is trying to force them to have sexual intercourse during this last school year. Overall, 70.7% of students were taught in any of their classes how to avoid physical fight or violence during this last school year. Male students (68.1%) are not significantly different from female students (73.2%) to be taught in any of their classes how to avoid physical fight or violence during this last school year. Overall, 28.8% of students rode in a car or other motor vehicle driven by someone who had been drinking alcohol during the past 30 days. Male students (32.7%) are significantly more likely than female students (25.1%).

In summary, Thai youths were at rather high risk of violence and accidental injury. More than half of students who were accidentally injured, bullied, or in a fight are male.

Besides, both male and female students rode in a car or other motor vehicle driven by someone who had been drinking alcohol.

## **Part 3: Conclusion and Recommendation**

### **Overview**

**1. Most important findings from Global School based Student Health Survey (GSHS) in Thailand 2008. The sample of this survey is male students (49.4%) and female students (50.6%). These are the important findings from prevalence of risk factors and factor relating to youth health problems.**

**Drinking alcohol** and using drug are found in students' behaviours. In Thailand, 76.5% of students drank alcohol for the first time before 14 years old or younger. Male students (80.2%) are not significantly different from female students (70.5%) to drink alcohol for the first time before 14 years old or younger. However, the prevalence of current alcohol use among students between male and female students is different. The overall, 14.8% of students drank at least one drink containing alcohol on one or more of the past 30 days. Male students (21.2%) are significantly more likely than female students (9.3%) to report current alcohol use.

19.0% of students, both male and female, drank alcohol to harmful levels. were really drunk one or more times. Male students (24.7%) are significantly more likely than female students (13.6%) to drink so much alcohol they are really drunk one or more times. 9.7% of students ever had missed school, got into fights, or using drugs as a result of drinking alcohol. Therefore, male students are apparently at higher risk of drinking alcohol than female students. Supporting factor is that most sellers did not follow the law and did not refuse to sell alcohol to students. 38.9% of students usually got the alcohol they drank by buying it in a store, shop, or from a street vendor. 6.1% of students used drug one or more time during their life.

Rather high percentage of students **smoked cigarettes** and used any other form of tobacco, such as cigars. Among those who smoked in the past 30 days, 3/4 of students (73.7%) tried their first cigarette at age 13 or younger. 8.2 % of students smoked cigarettes on one or more days during the past 30 days. Male students (15.0%) are significantly more likely than female students (2.2%) to have smoked cigarettes on one or more days. Using any other form of tobacco is found in male student (13.4%). We can summarize that the prevalence of smoking in male student was rather high. The environmental factor that supports students' smoking behaviours is that people smoke in students' presence (40.2%), and students' parents or guardians used any form of tobacco (32.8%). Almost half of sellers (54.8%) did not refuse to sell cigarettes to students. Students could conveniently buy cigarettes in a store, shop, or from a street vendor, buying from a vending machine, or other ways. Some students lacked of supporting to stop smoking. However, most students (90.8%) understood the danger of smoking (90.8%).

Overall, the prevalence of **violence and unintentional injury** is very high. 33.3% of students were physically assaulted, 33.3% of students were in a physical fight, and 46.7% of students were seriously injured one or more times during the past 12 months. Among students who were bullied during the past 30 days, 22.5% were bullied most

often by being hit, kicked, pushed, shoved around, or locked indoors. Male students had a very high tendency to be in physical fight on school premises, and more than half of them (56.1%) were seriously injured one or more times during the past 12 months.

Student got most serious injury because of hurting themselves by accident (50.9%), falling (28.9%), being bullied (22.5%) and playing or for training for sport (25.4%). Significant symptoms are broken bone and dislocated joint.

More than half of students (53.9%) reported that they were verbally abused by a teacher while 50.6% of student reported that they were verbally and physically abused by their parents, guardians, or family members. Almost half of students (47.1%) were not taught how to do if they were forced to have sexual intercourse, so they did not know how to deal with this situation. 1/3 of students (29.3%) were not taught in school about how to avoid physical fight or violence. Furthermore, some students (28.8%) are at risk of riding in a car or other motor vehicle driven by someone who had been drinking alcohol.

Therefore, we can summarize that the prevalence of violence and unintentional injury is rather high and severe, and it is one of the of the important risk behaviours of Thai youths.

In **sexual behaviour** aspect, the prevalence of students who had had sexual intercourse is not high (6.1%). Overall, 11.0% of students had sexual intercourse during the past 12 months. Male students (14.6%) are significantly more likely than female students (7.6%) to have sexual intercourse.

4.5% of students Initiated sexual intercourse when they were 13 years old or younger. Overall, 5.5% of students had sexual intercourse with multiple partners (i.e., two or more) during their life. Overall, among students who had sexual intercourse during the past 12 months, 60.4% used a condom at last sexual intercourse. In this group, we reported only in overall perspective. Overall, 79.4% of students or their partners used these methods of birth control: condom, birth control pill, emergency birth control pill, and withdrawal. In this group, we reported only male students (75.9%). Overall, 18.6% of students wanted to get a condom and most got it from a pharmacy, clinic, or hospital. Male students (19.1%) are not significantly different from female students (18.2%) to get a condom from a pharmacy, clinic, or hospital. Overall, 38.2% of students or their partners usually used a condom when having sexual intercourse during the past 12 months. In this group, we reported only in male students.

In **mental health** aspect, we found that some students felt lonely both male and female at almost similar rate (7.8%, 8.0% respectively). Some students (6.5%) felt so worried about something that they could not sleep at night. Rather high percentage of students (16.6%) felt so sad or hopeless. Some students seriously considered attempting suicide (8.8%), and seriously attempting suicide (10.2%) while some students (3.5%) reported that they do not have any close friend. More than half of students (56.5%) were not taught in any of their classes the signs of depression and suicide behaviour while 1/3 of students were not taught in any of their classes how to manage stress and anger. Therefore, some students are at risk of severe mental problems, such as being in physical fight or physical attack, having a quarrel, and hurting themselves.

In **protective factor** aspect includes taking care from parents, guardians, or teacher, and relationship among friends. 17.2% of students missed classes or school without permission. Male students (24.0%) are significantly more likely than female students (10.6%) to miss classes or school without permission. More than half of students (58.3%) reported that students in their school were not kind and helpful. Male students tended to face this problem more than female students. Almost 2/3 of students (64.1%) reported that their parents or guardians were not regularly checked to see if their homework was done, and were not understand their problem or worries (65.8%) while more than half of students (54.6%) reported that their parents or guardians did not really know what they were doing with their free time. Furthermore, almost half of students (43.8%) did not have enough sleep since they usually slept less than 8 hours per day. Male students are not significantly different from female students. Therefore, this group of students may be induced to many risk behaviours, such as having a quarrel, hurting themselves, drinking alcohol, smoking cigarettes, or having sexual intercourse.

In **Dietary Behaviours** aspect, 10.0% students were at risk for becoming overweight, and male students (12.7%) had a higher tendency than female students (7.6%). Overall, 4.4% of students were overweight, and Male students (5.0%) are not significantly different from female students (3.9%) to become overweight. 27.9% of students tried to do about their weight, and male students (22.3%) are significantly less likely than female students (33.0%) to try to do something about their weight. Low percentage of students (3.4%) went hungry because there was not enough food in their home. 1/3 of students (35.1%) frequently or regularly did not have breakfast, and 7.3% of students did not have breakfast because no food was prepared in their house. Most students usually ate vegetables and fruit one or more times per day (87.1%, 76.8% respectively), and 40.4% of students usually drank milk or ate milk products. However, we found students' dietary behaviours of eating salty food (27.8%) or high fat content food

(33.7%), and drinking soft drinks. Therefore, some students, who were not interested to lose weight or constantly exercise, and some students who had inappropriate dietary behaviours, are at risk of overweight and obesity.

In **physical activity** aspect, rather high percentage of students (80.2%) were physically active for five days or fewer on average, but low percentage of students (15.3%) were physically active all seven days for a total of at least 60 minutes per day. 13.8% of students were physically active seven days for a total of at least 60 minutes per day during a typical or usual week. Male students tended to be physically active more than female students. 1/3 of students (37.6%) were not physically active since they spent three or more hours per day doing sitting activities, such as watching television, playing computer games, talking with friends. More than half of students (55.4%) did not walk or bicycle to and from school during the past seven days while 2/3 of students (69.8%) took less than 29 minutes to get to and from school each day. However, rather high percentage of students (89.4%) walk or bicycle to and from school for a total of 150 minutes or less. Furthermore, 1/4 of students (25.1%) were at risk of Injury from physical activities since they were not taught in any of classes about preventing injury. Patterns of physical activity and appropriate regular exercise can prevent and decrease the risk of overweight, obesity, and other risk behaviours as well. Moreover, physical activity can establish good relationship among friends, prevent unintentional injury, and decrease violence, physical attack, drugs using, worry, stress, or suicide.

In **personal hygiene** aspect, most students have good personal hygiene behaviours. Low percentage of students (2.6%) reported that they did not clean or brush their teeth less than 1 time per days. Some students (8.7%) never or washed their hands before eating. Low percentage of students (7.3%) never or rarely washed their hands after using the toilet or latrine, which can lead to Gastro-Intestinal disease. Besides, only 36.7% of students drank water from the water source in school, so school should provide healthy water source for students.

## **2. Results from Global School based Student Health Survey (GSHS) in Thailand 2008 compared to results from other research both in Thailand and other countries.**

According to Global School based Student Health Survey (GSHS) Thailand, drinking alcohol behaviours, prevalence of alcohol use, access to alcohol products, and consequences of drinking are similar worldwide. The results indicate that Thai youth first tried alcohol at younger age. From this survey, most students first tried **alcohol** before 14 years old and younger while the survey in Thailand 1998<sup>40</sup> reported that Thai

youth first tried alcohol at age 16.4 years old on averages, and the survey in Thailand 2007<sup>43</sup> reported that Thai youth first tried alcohol at age 17 years old on averages. Prevalence of drinking alcohol at least 1 drink per day was 14.8%. Thai youths were at lower risk of alcohol use than youth from Trinidad and Tobago ( $41.0 \pm 2.1$ )<sup>55</sup>, Zambia ( $42.3 \pm 5.1$ )<sup>56</sup>, Grenada ( $45.6 \pm 4.5$ )<sup>57</sup>, but Thai youths were at higher risk of alcohol use than Tajikistani youths ( $0.8 \pm 0.5$ )<sup>58</sup> and Burmese youths ( $0.8 \pm 0.5$ ).<sup>59</sup> Males were apparently at higher risk than females, which is similar to other previous researches reporting that males were five times more than females to drink alcohol.<sup>42</sup> The prevalence of **drugs use**, 6.0% of students used drugs one or more times in their life, and almost all students were male. Results from this survey are similar to the results of previous survey on “The prevalence and risk factors of methamphetamine use in the North of Thailand”, which reported that male students in north of Thailand were at higher risk of methamphetamine use than female students.<sup>49</sup>

In **tobacco use** aspect, this survey found that 73.7% of students first tried smoking at 13 years old or younger. The findings from this survey indicate that students first tried smoking at younger age compares to the survey in 1998,<sup>40</sup> which reported that student first tried smoking at age 16 on averages, and the survey in 2007,<sup>43</sup> which reported that people who frequently smoke first tried smoking at age 18.5 on averages. Comparing the survey in Burma, Thai youths (8.2%) had a higher prevalence of smoking one day or more during the past 30 days. Thai youths were at higher risk of tobacco use than Myanmar youths ( $2.0 \pm 0.8$ )<sup>59</sup>, and male students were at higher risk of smoking cigarettes than female students, which is in accordance with the results from survey in Thailand 1999<sup>41</sup> and 2007.<sup>43</sup> Furthermore, according to the survey of vocational students, Male smoked cigarettes (30.1%) while female smoked cigarette (9.7%).<sup>44</sup> Drinking alcohol and smoking cigarettes can cause significant disease burden for Thai. Drinking alcohol caused the fourth most important disease burden in Thailand that was liver cancer (DALYs 3%). Smoking caused burdens in Thai male that were Cerebrovascular disease (DALYs 5%), Cardiovascular disease (DALYs 3%), and Emphysema (DALYs 3%).

According to AIDS situation report in Thailand 1984-2006, the number of people who were infected with HIV and people who died of AIDS had been gradually decreased. However, some Thai youths still have risk sexual behaviours leading to HIV (AIDS), sexually transmitted diseases, and unintentional pregnancy. Results from this survey showed that 6.1% of students ever had sexual intercourse, and the prevalence of students who had sexual intercourse during the past 12 months was 11.0%, which is less than the results from survey in Thailand and other countries in 2001,<sup>48</sup> which reported that 39% of students ever had sexual intercourse, and male students were at higher risk than female students to have sexual intercourse. According to this survey,

60.4% of students or their partners used condom at last sexual intercourse which is higher than results from the survey in Thailand 2001(27.%).<sup>48</sup> Having sexual intercourse with multiple partners (5.5%), lacking of condom support, and lacking of knowledge on AIDs/HIV lead to risky sexual behaviours as well as unwanted pregnancy among youth.

In **violence and unintentional injury** aspect, we found rather high prevalence of violence and unintentional injury, which is similar worldwide. 33.3% of students were physically attacked and 33.3% of students were in physically fight, which is higher than the prevalence of physically assault or fight during the past 5 years. For people age 15-24 years old, the prevalence of violence and unintentional injury was 7.64%<sup>62</sup>, which is lower than youths from Trinidad and Tobago ( $40.7\pm 4.2$ )<sup>55</sup>. However, students' most serious injury occurred as a result of unintentional hurting themselves is quite similar to youths from Trinidad and Tobago ( $46.5\pm 2.5$ )<sup>52</sup>. Furthermore, almost half of injured students were male. Students got serious injured as a result of physical activity, a fall, and accidentally hurting themselves, may be a consequence of school carelessness of environmental safety.

This survey shows that some students or 1/4 of students were not taught in any of classes about preventing injury during physical activity. More than 1/4 of students were bullied, which is less than youths from Zambia ( $65.1\pm 3.7$ ).<sup>56</sup> In Thailand, the prevalence of bullying in male students (32.9%) were higher than female students (23.2) while in Zambia, male students ( $62.5\pm 5.6$ ) were lower than female students ( $67.1\pm 4.9$ ).

24.7% of students were in physical fight on school premises, and male students are 3 times more than female students to be in physical fight on school premises. Furthermore, students had a higher risk of riding in a car or other motor vehicle driven by someone who had been drinking alcohol than before (28.8%), and Male students (32.7%) are significantly more likely than female students (25.1%), which is similar to the previous researches.<sup>50</sup> Youths in Bangkok had many risk behaviours including not wearing anti-knock helmet when driving motorcycles (50.1%), driving or riding in a car or other motor vehicle driven by someone who had been drinking alcohol (18.8%), carrying weapon (8.5%), serious injury (31.5%), being raped (2.4%), being physically attacked (13.9%), being depressed (19.9%) seriously considering to attempt suicide (12%), attempting suicide (8%), using methamphetamine (4.6%), and using other drugs (37.9%). Supporting factor that decreases these risk behaviours is the relationship between youth and parents, guardians, teachers, or friends.

In **dietary behaviours** aspect, we found the prevalence of overweight in Thailand as well as worldwide. According to this survey, 4.4% of students were overweight, which is less than Food and Nutrition Situation survey in Thailand 2003-2004.<sup>63</sup> Food and

Nutrition survey reported that 8.1% of students 6-14 years old were overweight. In other dietary aspect, around 1/3 of students ate these foods 2 times or more per day: salty food (27.8%), high fat content food (33.7%), and soft drink (32.1%). Thai youths at age 6-14 years old ate salty food everyday (4.7%), and people countrywide drank soft drink and sweeten drink in every region of Thailand (62%-82%).<sup>66</sup> We found many risk factors of students, such as most students, or 2/3 of students did not tried to lose their weight, and 60% of students did not drink milk or eat milk products. The prevalence of Diabetes mellitus type 2 increases 10 times. Supporting factors and environments are eating high fat content or high sugar food, eating inappropriate fruits or vegetables, serving fried food or fast food in school, and selling soft drink in school.<sup>64</sup>

**Physical activity behaviours** of Thai youth from this GSH compares to physical activity of Thai people survey.<sup>65</sup> According to this survey, 15.3% of students were physically active all seven days for a total of at least 60 minutes per day. 13.8% of students were physically active seven days for a total of at least 60 minutes per day during a typical or usual week, which is at lower percentage than students at age 11-14 years old (17%).<sup>65</sup> 1/3 of students spent three or more hours per day doing sitting activities which is similar to the previous survey<sup>40</sup> reporting that 39.8% of students in rural area and 28.9% of students in urban area spent time watching TV. 15.5% of students in rural areas and 13% of students in urban area spent time listening to the radio. 13% of students were physical active while in rural areas, 8.6% of students in rural areas and 9.9% of students in urban areas were physical active. According to this survey, more than half of students did not walk or bicycle to and from school, and 2/3 of students took less than 29 minutes to get to and from school each day. Some students were not constantly exercise. The previous research reported that exercise or physical activities would decrease by age, so the risk of higher weight will increase when getting older.<sup>67</sup>

In **mental health** aspect, this survey reported that 7.9% of students most of the time or always felt lonely, and male students (7.8%) are quite similar to female students (8.0%). However, the survey in Thailand indicates the percentage of students most of the time or always felt lonely is lower than those students from Grenada (14.2±2.0).<sup>57</sup> 6.5% of students most of the times or always felt so worried about something that they could not sleep at night, and 16.6% of students felt so sad or hopeless everyday for two weeks or more. Overall, the results of this survey is higher than the previous survey of Children and Youths' Mental Health, which found that 5.1% of them have mental problems, such as depress, consider attempt suicide, childlike behaviours, anger, out of discipline,

aggressiveness, and sexual problems. Female students have a higher tendency than male students to have these problems.<sup>68</sup>

3.5% of Thai students reported that they did not have any close friend, 8.8% of students seriously considered attempting suicide, and 10.2% of students made a plan about how they would attempt suicide. Male and female are at the same risk. The percentage of Thai students is lower than the percentage of youths from Grenada,<sup>57</sup> which students seriously considered attempt suicide ( $21.3\pm 2.9$ ), and did not have close friends ( $8.9\pm 2.0$ ). More than half of Thai students (56.5%) were not taught in any of their classes the signs of depression and suicide behaviour. 1/3 of students (36.7%) were not taught in any of their classes how to manage stress and anger. 17.2% of Thai students missed classes or school without permission, which is less than Zambian youth ( $58.7\pm 4.7$ ).<sup>56</sup> 35.9% of Thai students reported that their parents or guardians checked to see if their homework was done, which is similar to Zambian youth ( $32.5\pm 5.5$ ).<sup>56</sup> Besides, More than half of students (54.6%) reported that their parents or guardians really knew what they were doing with their free time, and almost half of student (43.8%) slept less than 8 hours. We can summarize that some students did not have mental refuge as a result of relationship problems in family (between students and parents/guardians) and in school (between students and teachers/friends). This can lead to risk behaviours including violence and unintentional injury, alcohol and tobacco use, and sexual intercourse before reaching an appropriate age.

In **Personal Hygiene** aspect, overall, students had good personal hygiene behaviours. 2.6% of students did not clean or brush their teeth less than one time per day. The Division of dental health, Department of Health, Ministry of Health, Thailand has targeted to promote oral health since 20 year ago by persuading student to brush their teeth after having lunch every day. According to the results from the 6<sup>th</sup> Oral Health survey in 2006-2007,<sup>39</sup> 21.7% of 12 year-old students brushed their teeth after having lunch in school every day, but more than half of them did not brush their teeth after having lunch in school. Most students washed their hands before eating (97.3%) or after using the toilet (96.0%), and used soap when washing their hand (96.7%). Moreover, most students or 2/3 of students did not drink water from the water source in school since there was no water source available at school or student brought various kinds of drinks from shop at school. Therefore, only small number of Thai students was at risk of dental caries, and lacking of enough water sources lead to the risk of gastrointestinal disease.

### 3. Results from Global School based Student Health Survey (GSHS) in Thailand and policies/projects related to youth.

Results from this survey are significant for developing projects/ policies about Student Health Promotion. Related organization, such as Ministry of Education who are directly responsible for students), Ministry of Health, Ministry of Social Development and Human Security, should participate in this project.

Students' important risk behaviours that need the collaboration of institutes, organizations, and groups of people, include **alcohol and tobacco use** of students. The collaboration of parents or guardians is important, and also the collaboration of teachers, such as providing knowledge, adjusting students' attitudes, and behaving as a good model for students by do not drinking alcohol or smoking. There should be safety promotion projects, such as "Don't Drink Drunk Campaign", "Anti-Alcohol and Tobacco Use", "Anti-Alcohol Drinking in Thai Youth", "Anti-Smoking in Thai Youth", "Safety Drive with Anti-Knock Helmet". There should be stricter law enforcement to alcohol and tobacco use. The prevalence of violence and unintentional injury can be found in school, house, and community. These problems need the collaboration of many organizations to develop violence and unintentional injury prevention projects, such as "Safety School Project" and "Safety Community Project". Furthermore, there should be safety school environment managing, sport field supporting, standard sport instrument providing, activities club establishing, such as football club, futsal, music club, or aerobic club, relationship activity offering, and Ecotourism activity providing. These activities have a direct impact on decreasing risk behaviours including violence from fight, mental problems, and loneliness. There should be a program that promotes students to become kinder and more helpful, and a program that supports students to have close friend with same interests. School should improve teaching courses on depress prevention, suicidal risk behaviour prevention, stress management, and anger management. Overweight or at risk for becoming overweight conditions are students' important health problems that can lead to the negative effects in the future. Attitude changes on dietary behaviours and constant accumulated exercises are significant as well as the collaboration of parents, guardians, and community. There should be these following projects: "Reduce Sugar Consumption in Thai Youth Project", "Healthy School Lunch Project", and "School Breakfast Project" that can solve the problem of hungry students if they are poor or do not have enough food at house. In personal hygiene aspect, students should be taught in school, and school environment should be suitable for skill practice. School should have appropriate environments, such as enough and clean water source, healthy and clean toilet with soap, safety and clean school areas, and appropriate atmospheres for teaching and learning under School Health Committee. A campaign promoting people to use condom every time they have sexual

intercourse, and providing easy to access condom source can reduce HIV/AIDS, sexual transmitted diseases, and unwanted pregnancy.

Environmental factors that did not cover in this research include social and economic status of family and relationship between risk groups. For example, alcohol and tobacco use is related to student's physical fight or risk sexual behaviour or not. Furthermore, the reasons that students did not drink water from school water source are because they prefer to drink soft drink or not. Therefore, the next research should emphasize on these topics.

## Conclusions

Significant results from Global School-based Student Health Survey (GSHS) in Thailand, 2008, are the followings.

Thai youths were at risk of drinking alcohol, smoking cigarette, and drug use. We found that students first tried alcohol at age 14 years old or younger, first tried a cigarette at age 13 years old or younger. Besides, students could easily buy alcohol and cigarettes from general stores, and some sellers did not refuse to sell alcohol or cigarettes because of students' age. Almost half of people around students including their parents or guardians used any form of tobacco. Drinking alcohol is one of the causes of violence and unintentional injury. According to this survey, 1/10 of Thai youth ever had a hang-over, felt sick, got into trouble, missed school, or got into fights as a result of drinking alcohol. Male student were at a higher risk than female students.

Percentage of overweight students was seemed to be low (4.4%). However, students who were at risk of becoming overweight were rather high (10%). This group of students has an opportunity to change into overweight groups which can lead to the negative effects in the future. 1/3 of students ate salty foods and ate foods with high fat content. Around 1/3 of students spent three or more hours per day doing sitting activities, such as watching television, playing computer games, talking with friends, reading books, or talking on the telephone, etc. 1/2 of students did not walk or bicycle to and from school. Therefore, related people and organization should not only provide knowledge, adjust dietary behaviours and promote physical activities among youth, but they should also create supporting factors, such as establishing control measures on the sale of food with high fat content, salty food, and sweet food. Furthermore, they should support students to eat more vegetables and healthy food, to establish good personal hygiene, and to be constantly physical active.

7.9% of students most of the time or always felt lonely, 6.5% of students most of the times or always felt so worried about something that they could not sleep at night, and

3.4% of students reported that they did not have any close friend. Carelessness of students' parents/guardians and student's worry are the mental problems that every organization should realize because it can lead to suicidal behaviour of students. Parents or guardians should talk with their children more. Moreover, school should promote students' mental health, and provide consultation to students.

Initiating sexual intercourse at age 13 years old or younger, having sexual intercourse with multiple partners, and do not using condom during sexual intercourse, are students' risk behaviours that can lead to HIV, AIDS, other sexual transmitted diseases, or unintended pregnancy. Consequently, there should be an improvement of sex education course to become more practical since primary school.

## **Recommendation**

- 1 Presenting results from Global School-based Student Health Survey (GSHS) in Thailand 2008 to National Health Committee, State organization, private organization, and political organization in order to set national policies, plans, and supported projects. Furthermore, solving youth problem will become successful if it is efficiently collaborated by related people and organizations.
- 2 Advocating school to participate in Health Promoting School project, and supporting them to pass the standard criteria of Health Promoting School, especially gold and diamond levels. Health Promoting School project has impacts on physical and mental health of students as well as school environment.
- 3 Establishing relationship between home and school, teacher and students, parents/guardians and students. For example, there should be the Parent School project that supports parents/ guardians to become more understand and care of their children.
- 4 Promoting students to be physical active until it become their lifestyle. School, community, and family should support student physical activity by providing exercise places, and developing appropriate models for their age.
- 5 Promoting/Supporting schools to provide enough and clean water for students and school officers.
- 6 Paying special attention to law enforcement. For examples, seller must not sell alcohol and tobacco to children age below 18, and alcohol and tobacco advertisement should be decreased.

- 7 Constantly promoting a campaign and providing knowledge to students/children toward media includes television, radio, and newspaper.
- 8 Having a control measure of selling sweet, salty or high fat foods in school, and promoting students/children to eat more fruits vegetables.
- 9 Making a campaign that promotes people to use condom every time they have sexual intercourse.
- 10 Finding relationship between some questionnaires for the next project/program development.

### **Recommendation for the next research**

- Conducting the School based Student Health survey in regional level, provincial level and school level
- Conducting the School based Student Health survey to compare between subgroups, such as comparing between urban students and rural students etc.

## **Part 4: Appendices**

### **GSHS Questionnaire**

**2008 Thailand Global School –Based School 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 question based on what you really know or do. There have 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.

1. How old are you?

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>A. 11 years old or younger</li> </ol> | <ol style="list-style-type: none"> <li>B. 12 years old</li> <li>C. 13 years old</li> <li>D. 14 years old</li> </ol> |
|--|---|

- E. 15 years old
- F. 16 years old or older

2. What is your sex?

- A. Male
- B. Female

3. What grade are you in now?

- A. Grade 7
- B. Grade 8
- C. Grade 9
- D. Grade 10

THE GRID. THEN BLACKEN THE OVAL BELOW TO MATCH EACH NUMBER.

Height (cm)		
1	5	3
<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> 0
<input checked="" type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 1
<input type="radio"/> 2	<input type="radio"/> 2	<input type="radio"/> 2
	<input type="radio"/> 3	<input checked="" type="radio"/> 3
	<input type="radio"/> 4	<input type="radio"/> 4
	<input checked="" type="radio"/> 5	<input type="radio"/> 5
	<input type="radio"/> 6	<input type="radio"/> 6
	<input type="radio"/> 7	<input type="radio"/> 7
	<input type="radio"/> 8	<input type="radio"/> 8
	<input type="radio"/> 9	<input type="radio"/> 9
<input type="radio"/> 9	I do not know	

**The next 4 questions ask about your height, weight, and going hungry.**

4. How tall are you without your shoes on? ON THE ANSWER SHEET, WRITE YOUR HEIGHT IN THE COLOURED BOXES AT THE TOP OF

5. How much do you weigh without your shoes on? ON THE ANSWER SHEET, WRITE YOUR WEIGHT IN THE COLOURED BOXES AT THE TOP OF THE GRID. THEN BLACKEN THE OVAL BELOW TO MATCH EACH NUMBER.

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	

6. Which of the following actions are you trying to do about your weight?
- I have never done **anything** about my weight
  - Lose** weight
  - Gain** weight
  - Stay** the same weight
7. 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 2 questions ask about breakfast.**

8. During the past 30 days, how often did you eat breakfast?
- Never
  - Rarely

- Sometimes
- Most of the time
- Always

9. What is the **main** reason for your not having breakfast?
- I always eat breakfast
  - I do not have time for breakfast
  - I cannot eat early in the morning
  - There is not always food in my home
  - Some other reason

**The next 6 questions ask about foods you might eat and beverages you might drink.**

10. During the past 30 days, how many times per day did you **usually** eat fruit, such as Oranges, Pineapples, Rambutan, Mangoes, or Sapodilla Plums?
- I did not have any fruit intake during the past 30 days
  - Less than one time per day
  - 1 time per day
  - 2 times per day
  - 3 times per day
  - 4 times per day
  - 5 or more times per day

11. During the past 30 days, how many times per day did you **usually** eat vegetables, such as cabbage, morning glory, Chinese kale, cucumber, or cauliflower?
- 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
12. During the past 30 days, how many times per day did you **usually** eat salty foods, such as snacks, instant noodles, or preserved vegetables and fruits?
- A. I did not eat salty foods 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
13. During the past 30 days, how many times per day did you **usually** eat foods with high fat content, such as fried chicken, fried sausage, fried pork ball, toast with jam, hamburgers, or pizza?
- A. I did not eat fatty foods 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
14. During the past 30 days, how many times per day did you **usually** drink soft drinks, such as Coke, Pepsi, Fanta, Sprite, or Seven-up?
- A. I did not drink any 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
15. During the past 30 days, how many times per day did you **usually** drink milk or eat milk products, such as yogurt or cheese?
- A. I did not drink milk or eat milk products 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

**The next 4 questions ask about personal health practices.**

16. 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
17. 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
18. During the past 30 days, how often did you wash your hands after using the toilet? \*
- A. Never
  - B. Rarely
  - C. Sometimes
  - D. Most of the time
  - E. Always
19. 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 at school.**

20. How often do you drink water from the water source at school?
- A. There is no water source at school
  - B. Never
  - C. Rarely
  - D. Sometimes
  - E. Most of the time
  - F. Always

**The next 2 questions ask about physical assault.**

**A physical assault occurs when one or more people hit or strike someone, or when one or more people hurt another person without or with a weapon (such as a stick, knife, or gun). In such a case when two students of about the same strength or power choose to fight each other, it is not considered a physical attack.**

21. During the past 12 months, how many times were you physically assaulted?
- 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
22. During this last school year, were you taught in any of your classes what to do if someone is trying to force you to have sexual intercourse?
- A. Yes
  - B. No
  - C. I do not know

**The next 2 questions ask about verbal abuse.**

23. During the past 12 months, how many times were you verbally abused by a teacher?

- 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

24. During the past 12 months, how many times were you verbally and physically abused by your parents, guardians or family members?

- 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 physical fights which occurs when two or more students of about the same strength or power choose to fight each other.**

25. 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

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

- 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

27. During this last school year, were you taught in any of your classes how to avoid physical fights and violence?

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

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

28. 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

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

- A. I was not seriously injured during the past 12 months
- B. Playing or training for a sport
- C. Walking or running, but not as part of playing or training for a sport
- D. Riding a bicycle, skateboard or other non – motor vehicle
- E. Riding a motorcycle or driving in a car or other motor vehicle
- F. Doing any paid or unpaid work, including housework, gardening, or cooking
- G. I was doing nothing
- H. Others

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

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

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

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

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

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

**The next 2 questions ask about bullying. Bullying occurs when a student or group of students say or do bad and unpleasant things to another student. It is also bullying when a student is teased a lot in an unpleasant way or when a student is forced to withdraw from certain activities 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 hilarious way.**

33. 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

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

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

**The next question asks about riding in a vehicle driven by someone else.**

35. 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. 0 times
- B. 1 time
- C. 2 or 3 times
- D. 4 or 5 times
- E. 6 or more times

**The next 8 questions ask about your feelings and friendships.**

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

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

37. 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

38. During the past 12 months, did you ever feel so sad or hopeless almost every day for **two or more consecutive weeks** that made you stop doing your usual activities?

- A. Yes
- B. No

39. During the past 12 months, have you ever **seriously** considered attempting suicide?

- A. Yes
- B. No

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

- A. Yes
- B. No

41. During this last school year, were you taught in any of your classes the signs of depression and suicidal behavior?

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

42. How many close friends do you have?

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

43. During this last school year, were you taught in any of your classes how to manage stress and anger?

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

**The next 10 questions ask about smoking and other forms of tobacco use.**

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

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

45. 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 through 30 days

46. During the past 30 days, how did you **usually** get your own cigarettes? **SELECT ONLY ONE RESPONSE.**

- A. I did not smoke cigarettes during the past 30 days
- B. I bought them in a store, shop, or from a street vendor
- C. I bought them from a vending machine
- D. I gave someone else money to buy them for me
- E. I borrowed them from someone else
- F. I stole them
- G. An older person gave them to me
- H. I got them some other way

47. During the past 30 days, have you ever been denied purchase of cigarettes because of your age?

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

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

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

49. During the past 12 months, have you ever tried to quit smoking cigarettes?

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

50. Have you ever received help or advice to help you stop smoking? **SELECT ONLY ONE RESPONSE.**

- A. I have never smoked cigarettes
- B. Yes, from a programme or professional
- C. Yes, from a friend
- D. Yes, from a family member
- E. Yes, from both programme or professional and from friends or family member
- F. No

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

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

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

- A. None
- B. My father or male guardian
- C. My mother or female guardian
- D. Both B and C
- E. I do not know

53. Do you think smoke from other people's cigarettes is harmful to you?

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

**The next 7 questions ask about drinking alcohol. This includes drinking beer, wine, Spy, Satho, or Maekong. Drinking alcohol does not include having a few sips of wine for religious purposes.**

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

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

55. 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

56. 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

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

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

58. During the past 30 days, did anyone refuse to sell you alcoholic drinks because of your age?

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

59. 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

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

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

**The next 2 questions ask about drug abuse.**

61. During your life, how many times have you used drugs, such as methamphetamines (Yaba), ecstasy, 4x100, or marijuana?

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

62. How old were you when you first tried drugs, such as marijuana, opium, kratom, amphetamines (Yama), ecstasy, 4x100, heroine, or tinner, for the first time?

- A. I have never tried 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 years old or older

**The next 8 questions ask about sexual intercourse.**

63. Have you ever had sexual intercourse?

- A. Yes
- B. No

64. 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 years old or older

65. During your life,\* how many people have you had sexual intercourse with?
- 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
66. During the past 12 months, have you had sexual intercourse?
- A. Yes
  - B. No
67. The **last time** you had sexual intercourse, what method of birth control did your or your partner use?
- A. I have never had sexual intercourse
  - B. I did not use any method of birth control
  - C. Condom
  - D. Birth control pill
  - E. Emergency birth control pill
  - F. Safe period
  - G. Withdrawal
  - H. I do not know
68. 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
69. If you wanted to get a condom, from where would you most likely get it?
- A. I would get it from a vending machine
  - B. I would get it in a store or shop or from a street vendor
  - C. I would get it from a pharmacy, clinic, or hospital
  - D. I would give someone else money to buy it for me
  - E. I would get it from friends
  - F. I would get it some other way
  - G. I don't know
70. During the past 12 months, how often did you or your partner use a condom, when you had sexual intercourse?
- A. I have never had sexual intercourse
  - B. I have had sexual intercourse, but not during the past 12 months
  - C. Never
  - D. Rarely
  - E. Sometimes
  - F. Most of the time
  - G. Always

**The next 2 questions ask about HIV infection or AIDS.**

71. Can people protect themselves from HIV infection or AIDS by using a condom correctly every time they have sexual intercourse?
- A. Yes
  - B. No
  - C. I do not know
72. Can a healthy-looking person be infected with HIV?
- A. Yes
  - B. No
  - C. I do not know

The next 3 questions ask about physical workout. Physical exercise 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, and aerobic exercise.

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

73. During the past **7 days**, on how many days did you do physical exercise for a total of at least 60 minutes per day?

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

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

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

75. During this last school year, were you taught in any of your classes about preventing injury during 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.

76. How much time do you spend during a **normal** day sitting and watching television, playing computer games, talking with friends, or doing other sitting activities, such as reading books or talking on the telephone?

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

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

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

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

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

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

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

**The next 6 questions ask about your experiences at school and at home.**

79. During the past 30 days, on how many days did you miss classes or school without permission?
- A. 0 days
  - B. 1 or 2 days
  - C. 3 to 5 days
  - D. 6 to 9 days
  - E. 10 or more days
80. During the past 30 days, how often were most of the students in your school kind and for public interest?
- A. Never
  - B. Rarely
  - C. Sometimes
  - D. Most of the time
  - E. Always
81. During the past 30 days, how often did your parents or guardians check to see if your homework was done?
- A. Never
  - B. Rarely
  - C. Sometimes
  - D. Most of the time
  - E. Always
82. During the past 30 days, how often did your parents or guardians understand your problems and worries?
- A. Never
  - B. Rarely
  - C. Sometimes
  - D. Most of the time
  - E. Always
83. During the past 30 days, how often did your parents or guardians **really** know what you were doing in your free time?
- A. Never
  - B. Rarely
  - C. Sometimes
  - D. Most of the time
  - E. Always
84. How many hours do you usually sleep per day?
- A. 5 hours or less
  - B. 6 or 7 hours
  - C. 8 or 9 hours
  - D. 10 hours or more

## List of Steering Committee

### Global School-based Student Health Survey (GSHS) in Thailand, 2008

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