

# NATIONAL HEALTH AND MORBIDITY SURVEY 2017

# ADOLESCENT HEALTH SURVEY 2017

## SARAWAK



**NATIONAL HEALTH AND MORBIDITY  
SURVEY 2017**

**(NMRR-16-698-30042)**

**ADOLESCENT HEALTH SURVEY 2017**

**SARAWAK**

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## **LIST OF ABBREVIATIONS**

<b>AHS</b>	<b>Adolescent Health Survey</b>
<b>CDC</b>	<b>Centre Disease Control</b>
<b>GSHS</b>	<b>Global School-based Student Health survey</b>
<b>IAT</b>	<b>Internet Addiction Test</b>
<b>MVIAT</b>	<b>Malay Version Internet Addiction Test</b>
<b>UNAIDS</b>	<b>Joint United Nations Programme on HIV and AIDS</b>
<b>UNICEF</b>	<b>United Nations Children's Fund</b>
<b>UNESCO</b>	<b>United Nations Educational, Scientific and Cultural Organization</b>
<b>WHO</b>	<b>World Health Organization</b>
<b>YRBSS</b>	<b>Youth Risk Behavior Surveillance System</b>

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## **Executive Summary**

The Adolescent Health Survey 2017 is aimed at assessing the prevalence of health risk behaviours and protective factors amongst secondary school students in Malaysia using self-administered anonymous questionnaires adapted from the Malaysian Global School-based Student Health Survey (GSHS) 2012. This study was conducted among secondary school-going adolescents between 26<sup>th</sup> March and 3<sup>rd</sup> May 2017. In order to ensure national representativeness, this study was implemented using a two-stage cluster sampling design. Out of 2738 secondary schools from the Ministry of Education and Ministry of Rural and Regional Development, 212 schools were selected and more than 30,000 students were eligible to participate in this survey. The overall response rate was 89.0% and 27,497 school-going adolescents completed the survey. A total of 14 secondary schools were randomly selected in Sarawak of which 1,779 students completed the survey out of 1,919 eligible respondents with response rate of 92.7%.

## **Sarawak Key Findings**

The study observed that the prevalence of current cigarette smokers in Sarawak school-going adolescents was 17.7%. Amongst those who ever smoked cigarettes, 69.7% had tried cigarettes before the of age 14 years and 75.1% had attempted to quit smoking in the past 12 months. The prevalence of current e-cigarette/vape use in Sarawak school-going adolescents was 12.0%. Among those who ever smoked e-cigarette/vape, 43.1% had first tried e-cigarette/vape before age 14 years and 58.5% had tried to stop using e-cigarette/vape in the past 12 months. Overall, 13.1% of students reported having parents or guardians who used e-cigarette/vape, 37.9% of students reported having parents or guardians who used any form of tobacco products and 38.9% of students reported having been exposed to people who smoked in their presence in the past seven days. Prevalence of current alcohol drinkers among school-going adolescents in Sarawak was 19.4%. Among students who had ever consumed alcohol (35.5%), 36.3% reported ever drunkenness in their lifetime. With regards to drug use, 5.1% of students in Sarawak reported had ever used drugs and the prevalence of current drug users was 4.0%. Prevalence of ever using marijuana in their lifetime was 3.2% and current use of marijuana was 3.1%, while 2.7% of students reported had ever used amphetamines or methamphetamines during their lifetime.

The study found that prevalence of ever having sex among school-going adolescents in Sarawak was 7.6% and the prevalence of having had sex in the past 30 days was 6.0%. Of those who ever had sex, 31.1% of them had their first sexual experience before age 14 years, and 19.0% had at least two sexual partners. It was found that 13.8% of students reported they, or their partners had used condoms whilst 7.6% used other birth control methods. A total of 28.3% students had been seriously injured in the past 12 months. Among the respondents, 24.1% claimed to have been physically attacked in the past 12 months, while 25.5% of adolescents claimed to have been involved in physical fights. With regards to bullying, 15.5% reported to have ever been bullied in the past 30 days. Physical abuse at home was reported by 11.4% of students while 38.9% of reported verbal abuse at home in the past 30 days.

The overall prevalence of internet use among school-going adolescents in Sarawak was 80.8% and the prevalence of internet addiction was 27.7%. Smartphones were the most prevalent device used. A total of 10.1% school-going adolescents in Sarawak reported feeling lonely and 4.3% reported that they had no close friend. A total of 7.7% reported being unable to sleep “most of the time or always” due to worry in the 12 months prior to the survey. Prevalence of suicidal ideation, plan and attempt were 10.9%, 7.9%, and 8.8% respectively. Prevalence of truancy amongst students in the past 30 days was 25.1% while only 44.6% claimed to have peer support. Students who reported having parental or guardian supervision, parental or guardian connectedness, parental or guardian bonding and parental or guardian respect for privacy were 15.2%, 27.6%, 39.2% and 70.1% respectively.

Overall, 88.6% of students reported having cleaned or brushed their teeth at least twice daily while 1.9% of students reported that they had never cleaned or brushed their teeth in the past 30 days. A total of 64.4% students reported use of fluoridated toothpaste, while only 22.7% used dental floss. In the past 30 days, 12.2% never or rarely used soap when washing their hands, 7.7% never or rarely washed their hands before eating and 4.1% reported that they had never or rarely washed their hands after using the toilet. In relation to dietary behaviours, 2.4% reported being hungry most of the time or always in the past 30 days because there was not enough food at home. The consumption of fruits at least twice daily was 50.0% and consumption of vegetables at least thrice daily was 42.7% in the past 30 days. Only 28.1% of

students reported fruits and vegetables consumption at least five times daily in the past 30 days. Consumption of carbonated soft drinks of at least once daily in the past 30 days was reported at 57.4% and 16.3% consumed food from fast food restaurants for at least three days in the past seven days. Milk/milk products consumption of at least two servings per day was reported at 33.3% while 54.9% drank plain water five times or more per day in the past 30 days. Prevalence of being physically active for a total of at least 60 minutes daily for five days or more in the past seven days was 16.1% whereas 44.5% of students had spent at least three hours in a typical or usual day in sitting activities.

### **Malaysia Key Findings**

The study observed that the prevalence of current cigarette smokers in school-going adolescents was 13.8%. Amongst those who ever smoked cigarettes, 68.4% had tried cigarettes before the age of 14 years and 71.0% had attempted to quit smoking in the past 12 months. The prevalence of current e-cigarette/vape use in school-going adolescents was 9.8%. Among those who ever smoked e-cigarette/vape, 42.2% had first tried e-cigarette/vape before age 14 years and 60.9% had tried to stop using e-cigarette/vape in the past 12 months. Overall, 13.7% of students reported having parents or guardians who used e-cigarette/vape, 42.2% of students reported having parents or guardians who used any form of tobacco products and 42.0% of students reported having been exposed to people who smoked in their presence in the past 7 days. Prevalence of current alcohol drinkers among school-going adolescents was 10.2% in which alcohol sources were mainly from their own family or bought from stores. Among students who had ever consumed alcohol (19.3%), three quarter had their first alcoholic beverage before age 14 years and 31.9% reported ever drunkenness in their lifetime. With regards to drug use, 4.3% of students reported had ever used drugs and the prevalence of current drug users was 3.4%. Prevalence of ever using marijuana in their lifetime was 2.8% and current use of marijuana was 2.5%, while 2.4% of students reported had ever used amphetamines or methamphetamines during their lifetime.

The study found that prevalence of ever having sex among school-going adolescents was 7.3% and the prevalence of having had sex in the past 30 days was 5.4%. Of those who ever had sex, 31.9% of them had their first sexual experience before age 14 years, and 16.6% had at least two sexual partners. It was found that 12.7% of students reported they, or their partners had used condoms whilst 10.3% used other birth control methods. A total of 29.9% students

had been seriously injured in the past 12 months with two most common causes of injury being falls and motor vehicle accidents. Among respondents, 25.3% claimed to have been physically attacked in the past 12 months, while 24.9% of adolescents claimed to have been involved in physical fights. With regards to bullying, 16.2% reported to have ever been bullied in the past 30 days. The two most common forms of bullying were 'being made fun of because of how their body or face looks' and 'made fun of with sexual jokes, comments or gestures'. Physical abuse at home was reported by 11.8% of students while 43.2% reported verbal abuse at home in the past 30 days.

The overall prevalence of internet use among school-going adolescents was 85.6% and the prevalence of internet addiction was 29.0%. Smartphones were the most prevalent device used. A total of 9.3% secondary school students in Malaysia reported feeling lonely and 3.6% reported that they had no close friend. A total of 7.1% reported being unable to sleep "most of the time or always" due to worry in the 12 months prior to the survey. Prevalence of suicidal ideation, plan and attempt were 10.0%, 7.3%, and 6.9% respectively. Prevalence of truancy amongst students in the past 30 days was 29.4% and only 44.2% claimed to have peer support. Students who reported having parental or guardian supervision, parental or guardian connectedness, parental or guardian bonding and parental or guardian respect for privacy were 13.2%, 32.0%, 42.6%, and 74.4% respectively.

Overall, 87.1% of students reported having cleaned or brushed their teeth at least twice daily while 1.2% of students reported they had never cleaned or brushed their teeth in the past 30 days. A total of 58.3% students reported use of fluoridated toothpaste, while only 19.3% used dental floss. In the past 30 days, 11.6% never or rarely used soap when washing their hands, 6.1% never or rarely washed their hands before eating and 4.8% reported that they had never or rarely washed their hands after using the toilet. In relation to dietary behaviours, 3.9% reported being hungry most of the time or always in the past 30 days because there was not enough food at home. The consumption of fruits at least twice daily was 46.8% and consumption of vegetables at least thrice daily was 36.0% in the past 30 days. Only 23.5% reported fruits and vegetables consumption at least five times daily in the past 30 days. Consumption of carbonated soft drinks of at least once daily in the past 30 days was reported at 36.9% while 11.1% consumed food from fast food restaurants for at least three days in the

past seven days. Milk/milk products consumption of at least two servings per day was reported at 31.0% while 60.4% drank plain water five times or more per day in the past 30 days. Prevalence of being physically active for a total of at least 60 minutes daily for five days or more in the past seven days was 19.8% whereas 50.1% of students had spent at least three hours in a typical or usual day in sitting activities.

### **Recommendations:**

In view of the above findings, the following recommendations are suggested:

- To strengthen awareness, knowledge and practice of positive health-related behaviours through home, school and community settings.
- To develop and disseminate more health education materials on health risk behaviours, its consequences and preventive measures.
- To enhance resilience and coping skills among students through school and community programs and activities such as, Doktor Muda, Minda Sihat, cadets and volunteerism.
- To strengthen protective factors against risky behaviours through intersectoral collaboration with more emphasis on spiritual values and parenting skills.
- Intersectoral collaboration to tackle the social determinants contributing to the adolescent health morbidities and mortalities.
- To evaluate the effectiveness of adolescent health programs provided by various agencies at a regular interval.

## **1.0 INTRODUCTION**

The World Health Organization (WHO) has defined adolescents as a group of population between the ages of 10 to 19 years.<sup>1</sup> Adolescence sub-categories used in Malaysia consists of early adolescence (10-14 years), middle adolescence (15-17 years) and late adolescence (18-19 years).<sup>2</sup> Total population of adolescents in Malaysia is around 18% out of 31 million population.<sup>3</sup> Adolescents are the most valuable asset in the country as they will become future leaders who will continue to sustain our national agendas.

By definition, adolescence is a period of transition from childhood to adulthood where significant changes occur in the form of physical appearance as well as emotional well-being. Rapid biological maturity precedes psychosocial maturity, thus having an impact on health consequences.<sup>4</sup> Generally, they are perceived as the healthiest population and often overlooked until now. However previous studies had observed multiple morbidities among adolescents resulting from unintentional injuries, risky behaviours such as smoking, use of alcohol and drugs and also involvement in sexual activity.<sup>5</sup> The current trend of the cyber era, in which more adolescents spend too much time “on line” and have become addicted to the internet, results in detachment from the real world and difficulties adapting with real world communication, which is later associated with mental health problems among adolescents.<sup>6</sup> Physical inactivity and unhealthy dietary behaviors are associated with obesity and these behaviours may continue until adulthood. The practice of good personal hygiene care and dietary behaviours are equally important aspects that should not be put aside in assessing adolescent health.<sup>5</sup> Their interaction with the environment also shapes adolescent growth through psychosocial experiences where peer and parental support play an important role. Adolescents are at-risk of premature morbidity and mortality if no preventive measures are taken.<sup>7</sup> This population should enjoy the highest attainable standards of health with a supportive environment.

### **1.1 Research in Adolescent Health in Malaysian Context**

In Malaysia, the Adolescent Health Unit has been established in 1995 under the Family Health Development Division, Ministry of Health, Malaysia.<sup>3</sup> In terms of research activities, a nationwide health risk behavior study among adolescents was conducted in 1996 with four



main scopes namely smoking, alcohol consumption, drug use and sexual activity practices.<sup>8</sup> Following that, the Global Youth Tobacco Surveys were conducted in 2003 and 2009 to identify tobacco consumption among youth.<sup>9,10</sup> In 2010, the Institute for Health Behavioural Research had initiated The Youth Behaviour Risk Factor Surveillance (YBRFS), however the respondents only consisted of students from Forms 1, Form 2 and Form 4.<sup>11</sup> In realizing that the national data on health risks and behaviours are very much important in developing policy and programs for adolescents, the Ministry of Health, Malaysia took a step forward in collaborating with the World Health Organization (WHO) in conducting the Global School-based Student Health Survey (GSHS) Malaysia in 2012. The survey used a self-administered questionnaire assessing 10 main scopes of adolescent health risk behaviours primarily among students aged 13 to 17 years. The GSHS questionnaire was developed by WHO and the Center for Disease Control and Prevention (CDC) in collaboration with UNICEF, UNESCO, and UNAIDS in 2001. It has been used as a standard tool by more than 100 countries in the world. Local adaption and validation of the questionnaire was done before running the actual nationwide survey.<sup>12</sup>

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

- Help countries develop priorities, establish programmes, and advocate for resources for school health and youth health programmes and policies;
- Establish trends in the prevalence of health behaviours and protective factors 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 risk behaviours and protective factors.

The 10 main scopes were:

- Alcohol use
- Dietary behaviours
- Drug use
- Hygiene (including oral health)
- Mental health problems

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

With regards to the importance of serial data in measuring the trends of health risk behaviours among adolescents in Malaysia, the Ministry of Health has listed the Adolescent Health Survey as one of the main scopes in the National Health and Morbidity Survey (NHMS) cycle. The current Adolescent Health Survey used a similar methodology and validated Malaysian GSHS questionnaire in 2012 with the addition of the Malay Version Internet Addiction Test (MVIAT).<sup>13</sup>

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## **1.2 Objectives**

### **1.2.1 General Objectives**

To assess the prevalence of health risk behaviours among adolescents in Malaysia in order to review health priorities, program strategies and activities and planning for allocation of resources for adolescent health.

### **1.2.2 Specific Objectives**

1.2.2.1 To identify the prevalence of alcohol use

1.2.2.2 To identify the dietary behaviors

1.2.2.3 To identify the prevalence of drug use

1.2.2.4 To identify the practice of hygiene including oral health

1.2.2.5 To identify the prevalence of internet use and addiction

1.2.2.6 To identify the prevalence of mental health problems

1.2.2.7 To identify the practice of physical activity

1.2.2.8 To identify the prevalence of protective factors

1.2.2.9 To identify the prevalence of sexual behaviours

1.2.2.10 To identify the prevalence of tobacco use

1.2.2.11 To identify the prevalence of violence and unintentional injury

### **1.2.3 The NHMS 2017 Organisation Team**

The organisation of NHMS 2017 was set up at various levels of the Ministry of Health and Ministry of Education in order to conduct this survey.

#### **1.2.3.1 NHMS Steering Committee**

The NHMS Steering Committee, chaired by the Director-General of Health was set up at the national level to approve scopes of the NHMS 2015-2018 and to facilitate implementation of the survey.

The members and terms of reference of this committee are shown in **Appendix 1 and 2**.

### **1.2.3.2 Central Coordinating Team (CCT)**

A working committee within the Institute for Public Health was established to coordinate implementation of the survey according to the scheduled Gantt chart. The Operation Centre was set up and led by the CCT team for coordinating and monitoring progress of the survey.

The list of CCT members and terms of reference are shown in **Appendix 3 and 4**. Figure 1 detailed the organisation chart at the Institute for Public Health level. Adolescent Health Survey was part of NHMS 2017 using the sample from secondary schools only.

### **1.2.3.3 Research Team Members**

Research team members for each sub-scope were established and headed by a key-person (among IPH officers) together with the relevant stakeholders. Research team members were responsible for the technical input in development of the questionnaire manual, variable definition, data analysis and writing of the final report.

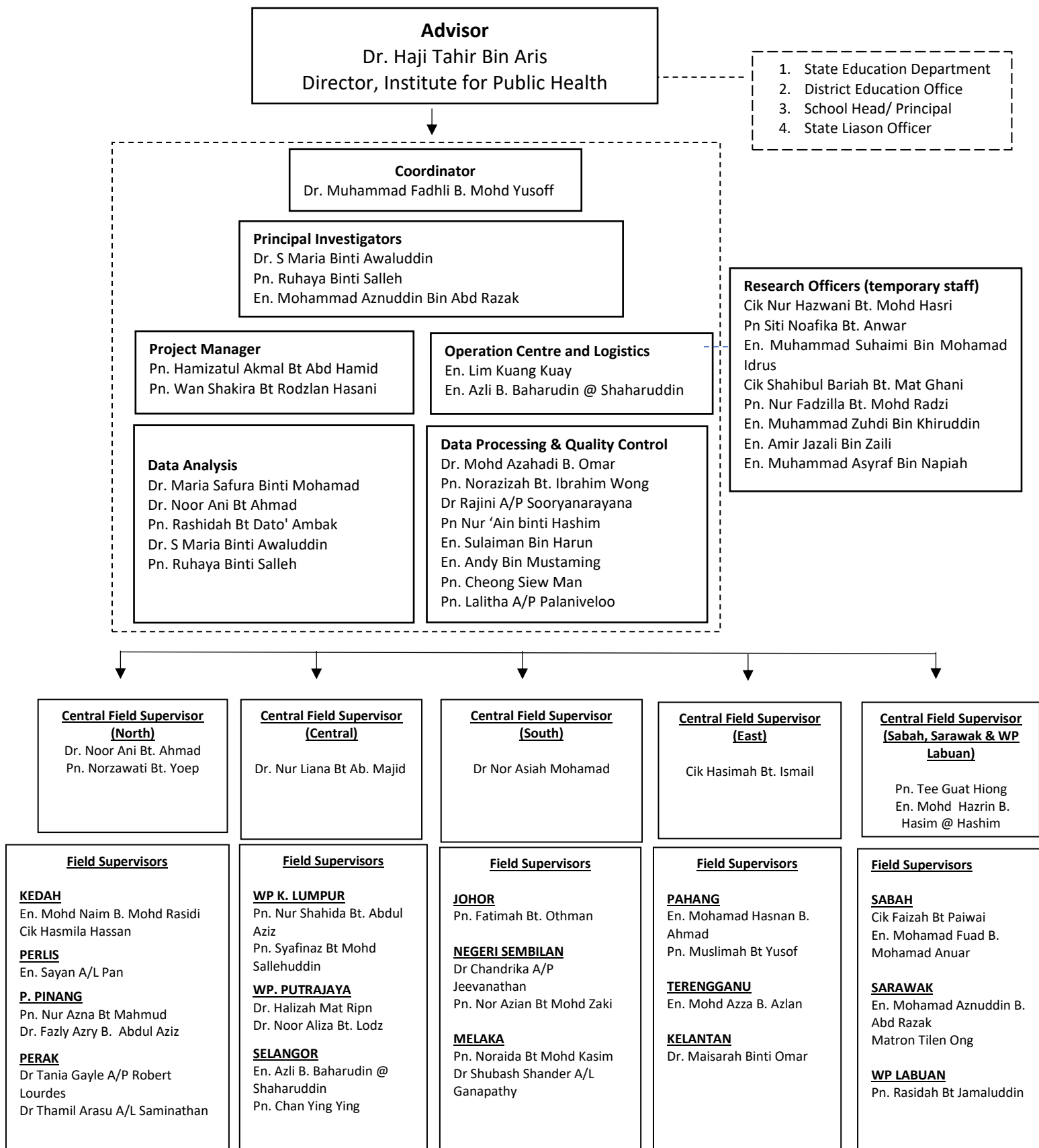
The list of members for each research teams are shown in **Appendix 5**.

### **1.2.3.4 State Liason Officers and Data Collection Team.**

A State Liaison Officer was appointed in each State to facilitate planning and implementation of data collection within the States.

The list of State Liaison Officers and Data Collection Teams are shown in **Appendix 6**.





**Figure 1: Organisation chart for data collection teams NHMS 2017**

## 2.0 METHODOLOGY AND SAMPLING DESIGN

### 2.1 Target Population

The target population for the Adolescent Health Survey 2017 was school-going adolescents aged between 13 to 17 years in Malaysia. An equal sampling proportion was calculated from 13 States and three Federal Territories to represent adolescents in each State / Federal Territories.

### 2.2 Sampling Frame

The sampling frame used in this survey was the list of secondary schools from the Ministry of Education and Ministry of Rural and Regional Development. Students' enrolment data of Form 1 to Form 5 from 2,738 secondary schools in 2016 were used.

### 2.3 Sample Size Determination

Sample size was calculated by using a single proportion formula for estimation of prevalence.

The sample size calculation was based on a few criteria as stated below:

1. Variance of proportion of the variable of interest (Based on Global School-Based Student Health Survey 2012)
2. Margin of error (e) (Between 0.01 to 0.05)
3. Confidence Interval of 95%

To obtain an optimum sample size, a few adjustments were made to the sample size calculation as follows:

1. Adjusted n (srs) for total number of target population (N) (based on the population size for school-going adolescents in 2016)

$$n \geq \frac{n_{SRS}}{1 + \frac{n_{SRS}}{N}}$$

2. Adjusted for design effect (deff) (based on previous survey: GSHS 2012), n (complex) = n \* deff
3. Adjusted for n(complex) taking into account expected non-response rate of 25%, n (adj) = n (complex) \* (1 + non-response rate)



4. The sample size was adjusted according to the needs of analysis; at the national or state level.

Based on the requirements to achieve the objectives of the survey and above mention considerations, the optimum sample size required was 30, 496 respondents (**Table 2.1**).

**Table 2.1: Distribution of Secondary Schools Sampled by State, NHMS 2017**

No.	State / Federal Territories	Total Number of Schools	Number of Schools Sampled	Number of students sampled
1	Johor	306	14	1,906
2	Kedah	219	14	1,906
3	Kelantan	193	14	1,906
4	Melaka	87	14	1,906
5	Negeri Sembilan	139	14	1,906
6	Pahang	209	14	1,906
7	Pulau Pinang	141	14	1,906
8	Perak	275	14	1,906
9	Perlis	33	14	1,906
10	Selangor	345	14	1,906
11	Terengganu	162	14	1,906
12	Sabah	246	14	1,906
13	Sarawak	220	14	1,906
14	WP Kuala Lumpur	133	14	1,906
15	WP Labuan	19	8	1,906
16	WP Putrajaya	11	8	1,906
<b>Total</b>		<b>2,738</b>	<b>212</b>	<b>30,496</b>

## **2.4 Sampling Design**

This survey utilised a two-stage stratified cluster sampling design to ensure representativeness of students from Form 1 to Form 5 (13-17 years). Malaysia was stratified into 16 states/ Federal Territories. The first stage of sampling was selection of secondary schools (schools with students from Forms 1 to Form 5). Schools were selected randomly with probability proportionate to school enrolment size. A total of 212 secondary schools were selected to participate in this survey. The second stage of sampling was selection of classes. All classes in each selected school were included in the sampling frame. Systematic random sampling was used to select minimum of four to maximum of 10 classes from each selected school to meet the required sample for each school in 13 states and WP Kuala Lumpur, WP Putrajaya and WP Labuan; 137 and 239 respondents respectively. All students in selected classes were eligible to participate in the survey.

## **2.5 Ethical Approval and Consent Forms**

This study had obtained approvals from the Medical Research and Ethics Committee of the Ministry of Health and Ministry of Education. We obtained permission to carry out the survey from relevant offices of the Ministry of Education at state and district levels as well as from schools selected. Prior to the survey, several meetings with relevant Ministry of Education officers and persons in-charge at selected schools were conducted to ensure readiness in logistic preparation. Teachers were briefed on the parent's consent form, who then distributed it to parents a week prior to the survey. During the actual day of the survey, student's consent was obtained from eligible respondents before survey was conducted. Students who did not receive parental consent or they themselves refused to participate were considered as non-response of eligible participants in this survey.

## **2.6 Survey Instruments**

A validated self-administered bilingual questionnaire adopted from the Malaysian GSHS 2012 with computer-scan-able answer sheets was used. Answer sheets were anonymous to ensure student confidentiality. Majority of the students completed the survey within two teaching periods. The Adolescent Health Questionnaires contained 77 questions addressing the following topics:

- Alcohol use
- Dietary behaviours
- Drug use
- Hygiene (including oral health)
- Internet Use and Addiction
- Mental health
- Physical activity
- Protective factors
- Sexual behaviours that contribute to HIV infection, other STIs, and unintended pregnancy
- Tobacco use
- Violence and unintentional injury

## **2.7 Data Collection**

There were 36 teams to collect data; 4 teams each for Sabah and Sarawak and 2 teams per state in the Peninsular Malaysia and Federal Territories. Each team consisted of a field supervisor, research assistants and a driver. The field supervisor was a permanent staff in the Ministry of Health.

A pilot study was carried out on 6 February 2017. Data collection training was conducted in Kuala Lumpur and Kuching, Sarawak for data collection teams in Peninsular Malaysia, and for Sabah, Sarawak and WP Labuan respectively. The training module comprised of questionnaires and role-plays in handling the survey in classrooms or in a school hall. Data collection was from 26 March to 3 May 2017.

## **2.8 Data Management**

Quality check on data was conducted throughout the survey based on specific identification (ID) numbers; from the state ID until individual student ID (generated for the study). Upon completing the survey, each student placed his / her answer sheet in an envelope. All answer sheets from the same school were wrapped together to make a bundle. These bundles were

collected by assigned drivers for schools in Peninsular Malaysia or using tracked postage for schools in Sabah, Sarawak and WP Labuan.

### **2.8.1 Data Operation Centre**

An operation centre with several stations was set up to receive data “bundles” from the field:

Station 1: Respondent ID checking

Station 2: Scanning

Station 3: Verification

Station 4: Storage

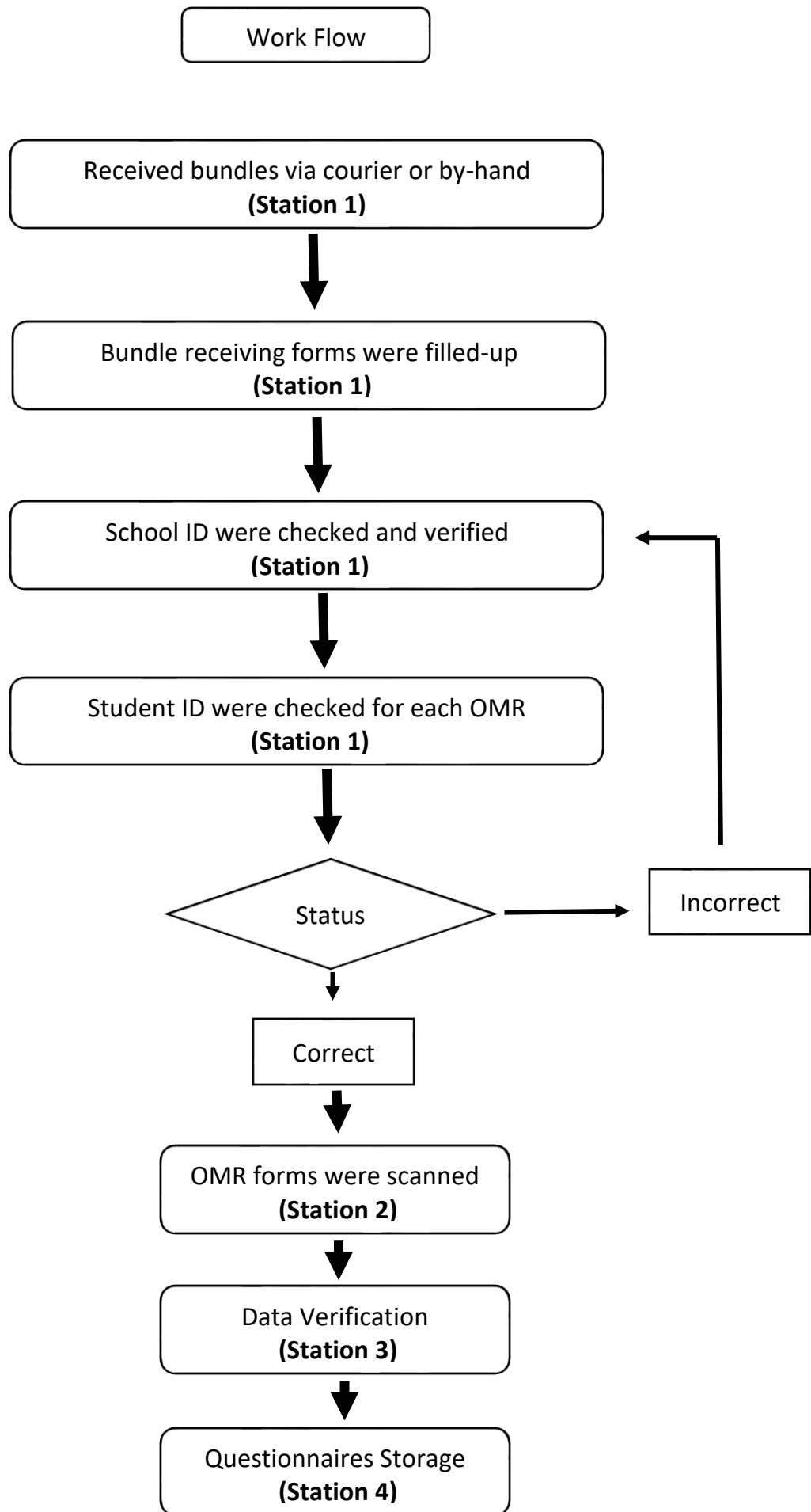


Figure 2 : Work Flow of NHMS 2017

### 2.8.2 Data Analysis

Analysis was prepared according to objectives of the survey, working definitions and dummy tables. IBM SPSS Statistics for Windows, Version 21.0. (Armonk, NY: IBM Corp.) was used to import raw datasets in Excel form. Data set was checked and cleaned for any inconsistencies. The final data analysis was conducted by using complex sampling design and 95% confidence interval.

A weighting factor was applied to each student record to adjust for non-response and for varying probabilities of selection. Weight estimation was calculated by the following formula:

$$W = W1 \times W2 \times F \times PS$$

Where;

**W1** = the inverse of probability of selecting the school

**W2** = the inverse of probability of selecting the class within the school

**F** = the inverse of a school, class and student level non-response adjustment factor

**PS** = a post stratification adjustment factor calculated by class and gender

The weighted results were used to make important inferences on the health risk behaviours and protective factors of all students from Form 1 to Form 5. Variable definitions used in this survey were derived from the Malaysian GSHS 2012 and was discussed in detail for each scope.

### 3.0 FINDINGS

#### 3.1 General Findings

A total of 27,497 OMR forms were received from 212 selected schools. The overall response rate was 89.2%. The response rates for schools and classes were 100% each, while the response rate for students was 89.2%. (Table 3.1.1).

**Table 3.1.1: Response Rate at Student Level by State, NHMS 2017**

State	Selected Schools	Eligible students	Completed OMR forms	Response rate (%)
Johor	14	1,915	1,731	90.4
Kedah	14	1,930	1,691	87.6
Kelantan	14	1,900	1,631	85.8
Melaka	14	1,986	1,872	94.3
Negeri Sembilan	14	1,930	1,718	89.0
Pahang	14	1,948	1,784	91.6
Pulau Pinang	14	1,974	1,749	88.6
Perak	14	1,931	1,754	90.8
Perlis	14	1,992	1,667	83.7
Selangor	14	1,840	1,671	90.8
Terengganu	14	1,880	1,669	88.8
Sabah	14	1,965	1,686	85.8
Sarawak	14	1,919	1,779	92.7
WP Kuala Lumpur	14	1,937	1,721	88.8
WP Labuan	8	1,907	1,712	89.8
WP Putrajaya	8	1,869	1,662	88.9
<b>Total</b>	<b>212</b>	<b>30,823</b>	<b>27,497</b>	<b>89.2</b>

Comparison of total estimated population (weighted) with the national secondary school enrolment is shown in Table 3.1.2 Geographic information system (GIS) on the mapping of selected secondary schools is shown in Figure 3. The socio-demographic characteristics of the sample by gender consist of 53.4% (950) males and 46.6% (829) females in Sarawak. In terms of school locality; 46.1% (820) and 53.9% (959) were students studying in school located in urban areas and rural areas respectively.

**Table 3.1.2: Comparison between NHMS 2017 respondents and national enrolment of secondary school students in Malaysia 2017**

State	NHMS 2017			National Enrolment 2017	
	Unweighted count	Estimated Enrolment (weighted)	Prevalence (%)	Secondary School Students	Prevalence (%)
<b>Malaysia</b>	27,497	2,146,447	100.0	2,146,509	100.0
<b>State</b>					
Johor	1,731	275,711	12.8	275,700	12.8
Kedah	1,691	154,645	7.2	154,643	7.2
Kelantan	1,631	121,684	5.7	121,683	5.7
Melaka	1,872	67,234	3.1	67,235	3.1
Negeri Sembilan	1,718	88,430	4.1	88,429	4.1
Pahang	1,784	103,630	4.8	103,644	4.8
Pulau Pinang	1,749	112,980	5.3	112,981	5.3
Perak	1,754	181,681	8.5	181,724	8.5
Perlis	1,667	27,012	1.3	27,014	1.3
Selangor	1,671	391,634	18.2	391,623	18.2
Terengganu	1,669	98,667	4.6	98,664	4.6
Sabah	1,686	198,960	9.3	199,006	9.3
Sarawak	1,779	197,888	9.2	197,876	9.2
WP Kuala Lumpur	1,721	112,376	5.2	112,370	5.2
WP Labuan	1,712	5,539	0.3	5,539	0.3
WP Putrajaya	1,662	8,376	0.4	8,378	0.4
<b>Sex</b>					
Male	13,135	1,064,954	49.6	1,064,988	49.6
Female	14,362	1,081,493	50.4	1,081,521	50.4
<b>Form</b>					
Form 1	5,704	451,017	21.0	451,024	21.0
Form 2	5,501	426,924	19.9	426,908	19.9
Form 3	5,837	431,050	20.1	431,043	20.1
Form 4	5,532	414,604	19.3	414,653	19.3
Form 5	4,923	422,852	19.7	422,881	19.7



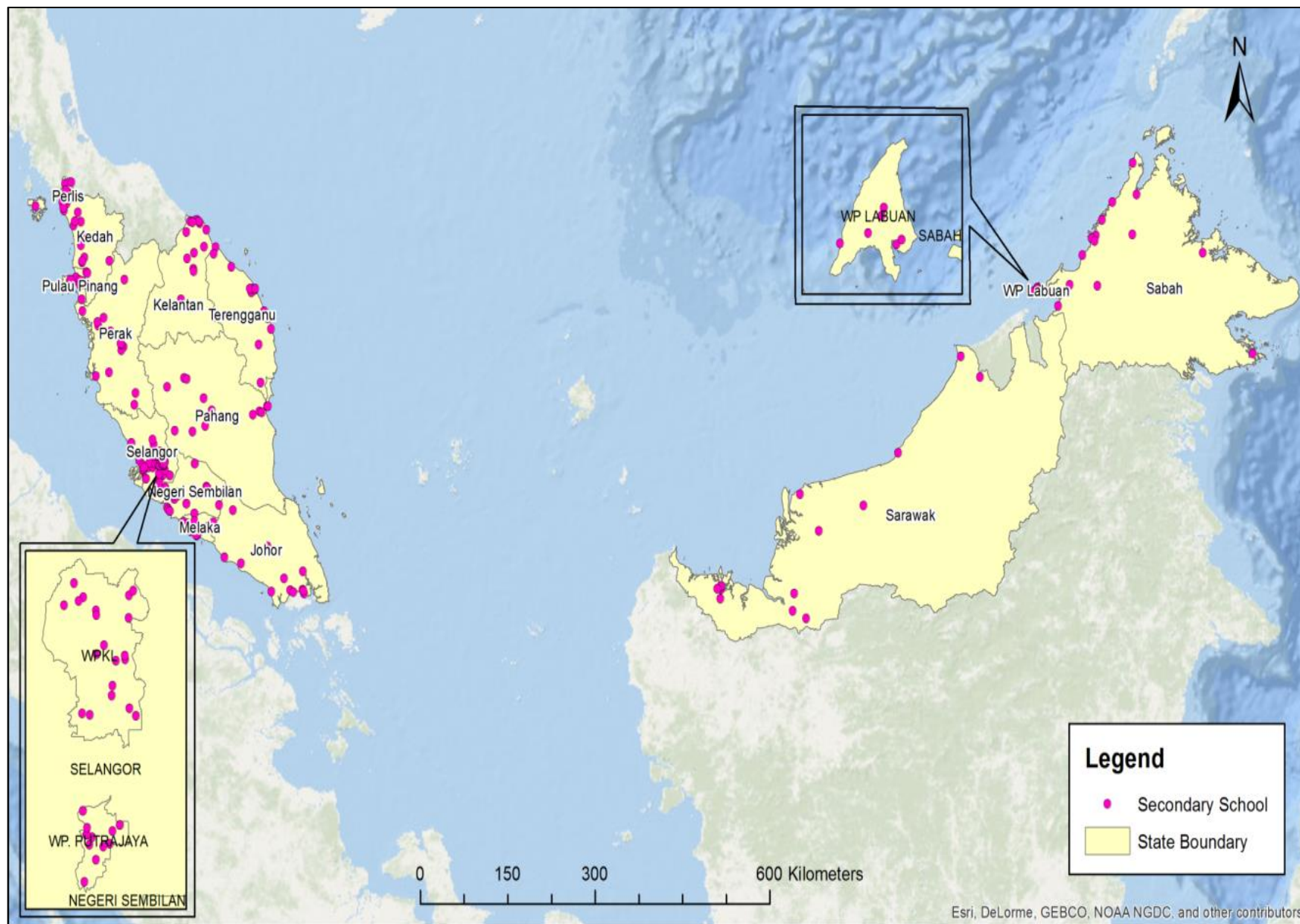


Figure 3: GIS mapping of the selected secondary schools

## **3.2 Alcohol Consumption**

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### **3.2.1 Introduction**

Globally, there are about 3.3 million deaths attributable to harmful use of alcohol annually.<sup>1</sup> The South East Asian region contributed to 4.6% of alcohol-attributable deaths and 4.0% burden of disease and injury.<sup>1</sup> People consuming alcohol are prone to more than 200 diseases and injuries as well as social consequences due to its harmful effects.<sup>1</sup> The Centre for Disease Control (CDC) estimates on average in the United States from 2006 to 2010, there were 4,358 alcohol-attributable deaths due to excessive alcohol use for those under 21; 1,580 deaths from motor vehicle crashes, 1,269 as a result of homicides, 492 from suicide, as well as 245 from other injuries such as falls, burns, and drowning.<sup>2</sup> Alarmingly, about 33% of teens (by age 15) have had at least 1 drink of an alcoholic beverage.<sup>3</sup> Evidently, individuals who started drinking before the age of 15 are five times more likely to have alcohol-related problems later in life.<sup>4</sup> The consequence of early alcohol drinking could lead to memory impairment, thus causing low educational achievement and high absenteeism rates.<sup>5,6</sup>

### **3.2.2 Objectives**

- i. To determine the prevalence of ever and current drinkers among students from Form 1 to Form 5.
- ii. To describe the socio-demographic characteristics of ever and current drinkers among students from Form 1 to Form 5.
- iii. To identify the age of alcohol drinking initiation among students from Form 1 to Form 5
- iv. To identify the sources of obtaining alcoholic beverages among students from Form 1 to Form 5.
- v. To identify the prevalence of drunkenness among students from Form 1 to Form 5 who consume alcohol.

- vi. To determine the frequency of social problems related to alcohol consumption among students from Form 1 to Form 5.

### 3.2.3 Variable definitions

- **Drinking alcohol:** A “drink” is a glass of wine, tuak, lihing, bahar, ijuk or toddy; a can of beer, a small glass of liquor’ or mixed drink. Drinking alcohol does not include drinking a few sips of wine for religious purposes.
- **Ever drinkers:** Those who had a history of alcohol consumption in their lifetime.
- **Current drinkers:** Those who had at least a “drink” of alcohol in the past 30 days.
- **Drunkenness:** When someone demonstrates signs such as staggering when walking, not being able to speak right and throwing up after consuming alcohol in a lifetime.
- **Social problems:** Having trouble with family or friends, missed school or got into fights as a result of drinking alcohol in a lifetime.

### 3.2.4 Findings

The prevalence of ever alcohol drinkers among students from Form 1 to Form 5 was 35.5% (95% CI: 27.10, 44.98). However, there was no significant difference noted across school locality, sex and forms of the students (**Table 3.2.1**). The prevalence of current alcohol drinkers among students from Form 1 to Form 5 was 19.4 % (95% CI: 13.99, 26.18). However, there was no significant difference noted across school locality, sex and forms of the students (**Table 3.2.2**). Among ever alcohol drinkers, 36.3% (95% CI: 30.90, 42.13) reported drunkenness (**Table 3.2.3**). Among students who ever consumed alcohol, most of the students had their first alcoholic beverage at the age of 12 or 13 years old (42.7%, 95% CI: 38.02, 47.42) which was significantly higher compared to other age groups (**Table 3.2.4**).

The main source for obtaining alcohol beverages among the students was from family (31.5%, 95% CI: 24.87, 39.09) followed by from purchasing from stores (29.5 %, 95% CI: 24.32, 35.18) and getting it from friends (24.2%, 95% CI: 24.32, 35.18) (**Table 3.2.5**). The prevalence of students who got into trouble with their family and friends, missed school or got into fights one or more times as a result of drinking alcohol was 7.5% (95% CI: 5.81, 9.64) (**Table 3.2.6**).

### **3.2.5 Discussion/ Conclusion**

The prevalence of ever drinkers in Sarawak was almost double compared to the national prevalence of ever drinkers; Malaysia: 19.3% (95% CI: 17.1, 21.7), Sarawak: 35.5% (95% CI: 27.10, 44.98). Similarly, the prevalence of current drinkers in Sarawak was also almost double compared to the national prevalence; Malaysia: 10.2% (95% CI: 9.00, 11.6), Sarawak: 19.4 % (95% CI: 13.99, 26.18). Similar to the national prevalence, majority of students who ever consumed alcohol in Sarawak had their first drink at the age of 12 or 13 years. However, the percentage of those who had their first alcoholic drink at the age of 12 or 13 years was higher in Sarawak (42.7%, 95% CI: 38.02, 47.42) compared to the national findings (33.28%, 95% CI: 31.02, 35.62). Among current alcohol drinkers, students obtained their alcoholic beverages from their family, by buying them from stores and from their friends. This finding was similar to the national data findings where the students reported the same sources as the main source of obtaining their alcoholic beverages. The prevalence of students who got into trouble with their family and friends, missed school or got into fights one or more times as a result of drinking alcohol was higher in Sarawak [7.5% (95% CI: 5.81, 9.64)] compared to the national prevalence [4.7% (95% CI: 4.12, 5.24)].

### **3.2.6 Recommendations**

Addressing alcohol drinking among adolescents in Malaysia is vital to prevent social and other harmful effects of alcohol on the health of adolescents. Mapping of localities with high alcohol drinking and drunkenness prevalence is highly recommended, since alcohol use is not rampant and localised in specific populations and locations.

By doing this, interventions can be focused on the identified groups. Among the interventions that can be implemented are:

1. To instill awareness about the danger of underage drinking to the adolescents as early as possible.
2. Family-based prevention programmes: Educating parents on the negative effects of alcohol especially on long-term memory and learning skills, health effects and its social repercussions on adolescent behaviour and subsequent dependence and abuse if not controlled. Parents should play an important role as the firsthand educators on the

harmful effects of alcohol to their children and prohibiting children to initiate early alcohol drinking.

3. School-based prevention programmes: Empower counselors and teachers to screen their students for alcohol use and to start intervention for these students as soon as possible.

### **3.2.7 References**

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2. National Institute on Alcohol Abuse and Alcoholism (NIAAA), Underage Drinking. February 2017.  
[https://pubs.niaaa.nih.gov/publications/underagedrinking/Underage\\_Fact.pdf](https://pubs.niaaa.nih.gov/publications/underagedrinking/Underage_Fact.pdf)
3. National Institute on Alcohol Abuse and Alcoholism (NIAAA). Underage Drinking: Why Do Adolescents Drink, What are the Risks, and How Can Underage Drinking Be Prevented?. November 2006. Alcohol Alert. Number 67.
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6. Mohd Ramlan Mohd Arshad, Munirah Omar, and Nurul Afiqah Shahdan, "Alcoholism among Youth: A Case Study in Kuala Lumpur, Malaysia," International Journal of Culture and History vol. 1, no. 1, pp. 21-28, 2015.

**Table 3.2.1: Prevalence of ever alcohol use among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	619	70,290	35.5	27.10	44.98
<b>Locality of school</b>					
Urban	324	38,683	39.6	32.03	47.67
Rural	295	31,607	31.6	18.45	48.52
<b>Sex</b>					
Male	370	39,672	40.1	30.94	50.06
Female	249	30,618	31.0	22.30	41.19
<b>Form</b>					
Form 1	95	9,995	22.7	16.49	30.48
Form 2	100	14,517	35.8	21.57	53.03
Form 3	149	14,162	35.7	26.26	46.39
Form 4	137	14,873	39.7	26.90	54.16
Form 5	138	16,743	46.3	34.97	58.05

**Table 3.2.2: Prevalence of current drinker in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	344	38,286	19.4	13.99	26.18
<b>Locality of school</b>					
Urban	167	19,585	20.0	16.09	24.67
Rural	177	18,701	18.7	9.88	32.58
<b>Sex</b>					
Male	217	22,978	23.2	16.92	31.04
Female	127	15,308	15.5	10.64	22.02
<b>Form</b>					
Form 1	60	6,243	14.2	9.27	21.26
Form 2	54	7,746	19.1	10.49	32.22
Form 3	85	8,105	20.4	13.72	29.31
Form 4	76	8,098	21.6	12.78	34.22
Form 5	69	8,095	22.4	15.85	30.65

**Table 3.2.3: Percentage of drunkenness among ever alcohol drinkers among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	227	25,499	36.3	30.90	42.13
<b>Locality of school</b>					
Urban	104	12,337	32.0	27.91	36.34
Rural	123	13,161	41.6	33.94	49.77
<b>Sex</b>					
Male	150	16,036	40.5	32.84	48.70
Female	77	9,463	30.9	25.11	37.37
<b>Form</b>					
Form 1	40	4,200	42.0	27.90	57.57
Form 2	38	5,219	36.0	25.21	48.32
Form 3	46	4,390	31.0	18.33	47.35
Form 4	53	5,718	38.7	30.93	47.09
Form 5	50	5,972	35.7	23.23	50.40

**Table 3.2.4: Initiation age of alcohol drinking among ever alcohol drinkers among Form 1 to Form 5 students in Sarawak, 2017**

	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
7 years old or younger	38	3,900	5.6	3.52	8.67
8 or 9 years old	32	3,492	5.0	3.44	7.14
10 or 11 years old	66	7,340	10.5	8.60	12.65
12 or 13 years old	257	29,939	42.7	38.02	47.42
14 or 15 years old	151	17,269	24.6	20.44	29.30
16 years old or older	-	-	-	-	-
Unknown	74	8,250	11.8	7.95	17.04

**Table 3.2.5: Source of getting alcohol among current drinker among Form 1 to Form 5 students in Sarawak, 2017**

	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
I bought in a store	84	9,215	29.5	24.32	35.18
I gave someone money to buy	17	1,887	6.0	3.69	9.71
I got it from my friends	65	7,577	24.2	19.83	29.22
I got it from my family	86	9,870	31.5	24.87	39.09
I stole it	4	411	1.3	0.37	4.58
I got it some other way	22	2,323	7.4	5.22	10.46

**Table 3.2.6: Prevalence of social problems (got into trouble with family or friends, missed school, or got into fights) as a result of drinking alcohol among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	132	14,813	7.5	5.81	9.64
<b>Locality of school</b>					
Urban	55	6,642	6.8	5.02	9.18
Rural	77	8,171	8.2	5.60	11.79
<b>Sex</b>					
Male	82	8,668	8.8	6.69	11.48
Female	50	6,145	6.2	4.26	8.97



### **3.3. Dietary Behaviours**

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#### **3.3.1 Introduction**

Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances important for adolescent's 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.

#### **3.3.2 Objectives**

To describe the prevalence of:

- i. Students who had gone hungry most of the time or always in the past 30 days.
- ii. Fruits intake of at least twice daily in the past 30 days.
- iii. Vegetables intake of at least three times daily in the past 30 days.
- iv. Fruits and vegetables intake of at least five times daily in the past 30 days.
- v. Carbonated drinks consumption of at least once daily in the past 30 days.
- vi. Plain water intake of five times or more daily in the past 30 days.
- vii. Milk or milk products intake of at least two times daily in the past 30 days.
- viii. Food consumption from fast food restaurant of at least three days in the past seven days

### 3.3.3 Variable Definitions

- **Gone hungry:** students who had gone hungry most of the time or always because there was not enough food at home for the past 30 days or living without financial means to access enough food for active and healthy living.
- **Fruits intake:** fruits intake of at least twice daily in the past 30 days, inclusive of various types of local fruit, seasonal fruit and imported fruit.
- **Vegetables intake:** vegetables intake of at least three times daily in the past 30 days, either eaten raw or cooked.
- **Plain water intake:** Includes mineral water, boiled water, or tap water
- **Carbonated drinks intake:** carbonated drinks consumption of at least once daily in the past 30 days (except mentioned as diet soft drinks).
- **Dairy products intake:** milk or milk products intake at least two times daily in the past 30 days.
- **Fast food intake:** consuming food from fast food restaurants at least three days in the past seven days

### 3.3.4 Findings

#### Hunger

The overall prevalence of students who reported being hungry most of the time or always in the past 30 days was 2.4% (95% CI: 1.71, 3.35) with an estimated projection to 11,707 school-going adolescents. There was no significant difference in the prevalence of being hungry by school location and sex. Form 4 students showed the highest prevalence of being hungry [5.2% (95% CI: 2.78, 9.65)] (**Table 3.3.1**).

#### Fruits intake

The overall prevalence of consuming fruits at least twice daily in the past 30 days was 50.0% (95% CI: 44.69, 55.31) with an estimated projection to 98,946 school-going adolescents. There was no significant difference in the prevalence of consuming fruits at least twice daily by school location and sex. Form 3 students showed the lowest frequency in consuming fruits [45.7% (95% CI: 38.09, 53.57)] (**Table 3.3.2**).

### **Vegetables intake**

The overall prevalence of consuming vegetables at least three times daily in the past 30 days was 42.7% (95%CI: 36.66, 48.88) with an estimated projection to 84,423 school-going adolescents. Urban school-going adolescents reported vegetables intake as 39.6 % (95% CI: 32.60, 47.00) while students in the rural areas at 45.7 % (95% CI: 36.69, 54.95). There was no significant difference in the prevalence of consuming vegetables at least three times daily by sex and forms (**Table 3.3.3**).

### **Fruits and vegetables intake at least five time daily**

The overall prevalence of consuming fruits and vegetables at least five times daily in the past 30 days was 28.1% (95% CI: 22.69, 34.3) with an estimated projection to 55,671 school-going adolescents. There was no difference in fruits and vegetables intake at least five times daily by school locality, school levels and form and sex of the students (**Table 3.3.4**).

### **Carbonated soft drinks intake**

The overall prevalence of consuming carbonated drinks at least once daily in the past 30 days was 57.4% (95%CI: 50.37, 64.17) with an estimated projection to 113,609 school-going adolescents. There was no significant difference in consuming carbonated drinks by school location. Male students reported prevalence of consuming carbonated drinks at 61.7% (95% CI: 53.69, 69.05) while female students at 53.2% (95% CI: 45.69, 60.49). Form 2 students reported the highest prevalence of carbonated drinks consumption [66.5% (95% CI: 58.80, 73.37)] compared to other forms. (**Table 3.3.5**).

### **Plain water intake**

The overall prevalence of drinking plain water five times or more daily in the past 30 days was 54.9% (95%CI: 50.37, 59.40) with an estimated projection to 108,279 school-going adolescents. In terms of school locality, the rural school-going adolescents reported drinking plain water at 51.6% (95% CI: 46.45, 56.76) as compared to the students in the urban areas at 58.3% (95% CI: 51.92, 64.41). Male students reported a lower frequency of drinking plain water five times or more daily of 52.6 % (95% CI: 47.70, 57.39), as compared to the females at 57.3% (95% CI: 50.67, 63.65). Form 1 students reported the lowest prevalence of drinking plain water [47.7 % (95% CI: 40.74, 54.78)] as compared to other forms. (**Table 3.3.6**).

### **Milk and milk products intake**

The overall prevalence of milk or milk products intake at least two times daily in the past 30 days was 33.3% (95%CI: 29.09, 37.79) with an estimated projection to 65,810 school-going adolescents. There was no significant difference in taking milk or milk products by sex and location. Form 2 students reported the highest milk or milk products intake at 40.1% (95% CI: 31.5, 49.4) as compared to other forms. **(Table 3.3.7).**

### **Fast food intake**

The overall prevalence of consuming food from fast food restaurants of at least three days in the past seven days was 16.3% (95%CI: 12.20, 21.36) with an estimated projection to 32,128 school-going adolescents. Urban school-going adolescents reported prevalence of 18.1% (95% CI: 11.61, 27.06) while students in the rural areas at 14.5% (95% CI: 10.35, 19.91). Male students showed prevalence of 19.8% (95% CI: 14.05, 27.15) compared to females at 12.7% (95% CI: 9.65, 16.62). Form 2 students showed the highest frequency of consuming food from fast food restaurants of 19.6% (95% CI: 14.94, 25.20). **(Table 3.3.8).**

### **3.3.5 Discussion/ Conclusion**

The prevalence of being hungry most of the time or always during the past 30 days in Sarawak was 2.4% (95% CI: 1.71, 3.35) which showed no significant difference with the national prevalence [3.9% (95% CI: 3.53, 4.24)] but decreased from the previous Sarawak GSHS 2012<sup>1</sup> [4.7% (95% CI: 3.81, 5.83)]. Students in Sarawak reported lower prevalence of consuming fruits at least twice daily in 2017 [50.0% (95% CI: 44.69, 55.31)] comparable to Sarawak GSHS 2012<sup>1</sup> [54.4% (95% CI: 47.65, 61.00)], however higher to national prevalence [46.8% (95% CI: 45.09, 48.53)] in 2017. For vegetables intake at least three times per day, the prevalence was higher [42.7% (95% CI: 36.66, 48.88)] than Sarawak GSHS 2012<sup>1</sup> [37.6% (95% CI: 33.60, 41.77)] and the 2017 national prevalence [36.0% (95% CI: 34.45, 37.52)]. For fruits and vegetable intake, the prevalence was lower [28.1% (95% CI: 22.69, 34.30)] than Sarawak GSHS 2012<sup>1</sup> [35.9% (95% CI: 31.74, 40.20)] and higher than 2017 national prevalence [23.5% (95% CI: 22.20, 24.94)]. For consumption of carbonated drink once daily [57.4% (95% CI: 50.37, 64.17)], it has increased from the prevalence of Sarawak GSHS 2012<sup>1</sup> [45.0% (95% CI: 40.08, 50.06)], and also significantly higher compared to the national prevalence [36.9% (95% CI: 0.95,

35.04)]. There were no significant changes for drinking plain water five times or more daily in the past 30 days. As for consumption of food from fast food restaurants of at least three days in the past seven days, the prevalence for Sarawak GSHS 2012<sup>1</sup> [6.6% (95% CI: 5.39, 7.99)] was significantly lower than the year of 2017 [16.3% (95% CI: 12.20, 21.36)] however, it was significantly higher when compared to the national prevalence [11.1% (95% CI: 10.24, 12.01)].

### **3.3.6 Recommendations**

In view of the findings highlighted above, Malaysian students need more attention towards a healthy eating habit. Parents play an important role to ensure that healthy and nutritious food such as fruits, yogurt, and high fibre snacks are available on shelves and in fridges at home. Appropriate nutrition education program with creative and innovative approaches should be carried out in promoting healthy diet, specifically eating more fruits and vegetables, drinking more plain water, consuming more milk/milk products and reducing fast food intake and carbonated soft drinks intake. Further research should be conducted to identify underlying causes of food insecurity and unhealthy eating habits among students in Malaysia.

### **3.3.7 References**

1. Institute for Public Health (IPH). 2012. National Health and Morbidity Survey, NHMS 2012: Malaysia Global School-based Student Health Survey 2012. Kuala Lumpur Ministry of Health Malaysia.

**Table 3.3.1: Prevalence of students who had gone hungry \*(most of the time or always) because there was not enough food in his/her home, in the past 30 days, among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	*Most of the time or always				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	44	4,749	2.4	1.71	3.35
<b>Locality of school</b>					
Urban	21	2,444	2.5	1.79	3.49
Rural	23	2,305	2.3	1.27	4.15
<b>Sex</b>					
Male	25	2,423	2.5	1.46	4.08
Female	19	2,326	2.4	1.44	3.82
<b>School level</b>					
Lower secondary	22	2,277	1.8	1.37	2.46
Upper secondary	22	2,472	3.4	1.70	6.50
<b>Form</b>					
Form 1	10	1,168	2.7	1.54	4.57
Form 2	1	124	0.3	0.03	2.67
Form 3	11	986	2.5	1.52	4.04
Form 4	18	1,959	5.2	2.78	9.65
Form 5	4	513	1.4	0.43	4.59

**Table 3.3.2: Prevalence of fruit intake of at least twice daily in the past 30 days, among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Yes (at least twice daily)				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	888	98,946	50.0	44.69	55.31
<b>Locality of school</b>					
Urban	394	46,836	47.9	41.07	54.86
Rural	494	52,109	52.0	44.43	59.53
<b>Sex</b>					
Male	453	47,454	47.9	41.79	54.17
Female	435	51,492	52.1	44.65	59.37
<b>School level</b>					
Lower secondary	567	62,982	50.7	45.26	56.14
Upper secondary	321	35,964	48.8	40.87	56.82
<b>Form</b>					
Form 1	213	22,569	51.3	43.93	58.67
Form 2	153	22,271	54.9	45.53	63.93
Form 3	201	18,142	45.7	38.09	53.57
Form 4	169	17,876	47.8	39.87	55.77
Form 5	152	18,088	49.9	40.09	59.71

**Table 3.3.3: Prevalence of vegetable intake of at least three times daily in the past 30 days, among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Yes (at least three times daily)				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	763	84,423	42.7	36.66	48.88
<b>Locality of school</b>					
Urban	323	38,674	39.6	32.60	47.00
Rural	440	45,749	45.7	36.69	54.95
<b>Sex</b>					
Male	399	41,696	42.1	35.71	48.82
Female	364	42,727	43.2	36.04	50.65
<b>School level</b>					
Lower secondary	477	52,750	42.5	35.26	50.01
Upper secondary	286	31,673	43.0	37.46	48.70
<b>Form</b>					
Form 1	175	18,873	42.9	37.97	48.03
Form 2	123	17,591	43.4	30.60	57.06
Form 3	179	16,285	41.0	32.85	49.78
Form 4	158	16,505	44.1	37.55	50.87
Form 5	128	15,167	41.8	35.12	48.88

**Table 3.3.4: Prevalence of fruits and vegetables intake at least five times daily in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	505	55,671	28.1	22.69	34.30
<b>Locality of school</b>					
Urban	208	24,778	25.4	19.62	32.09
Rural	297	30,893	30.8	22.48	40.68
<b>Sex</b>					
Male	256	26,786	27.1	21.42	33.57
Female	249	28,885	29.2	22.71	36.67
<b>School level</b>					
Lower secondary	314	34,639	27.9	22.46	34.05
Upper secondary	191	21,033	28.5	22.18	35.91
<b>Form</b>					
Form 1	118	12,689	28.9	24.25	33.95
Form 2	80	11,434	28.2	19.08	39.52
Form 3	116	10,515	26.5	18.96	35.72
Form 4	112	11,754	31.4	25.55	37.93
Form 5	79	9,279	25.6	17.70	35.50

**Table 3.3.5: Prevalence of at least once a day consumption of carbonated soft drinks in the past 30 days, among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Yes (at least once a day)				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI Lower	95% CI Upper
<b>SARAWAK</b>	1021	113,609	57.4	50.37	64.17
<b>Locality of school</b>					
Urban	456	54,149	55.4	46.78	63.72
Rural	565	59,460	59.4	48.55	69.34
<b>Sex</b>					
Male	581	61,030	61.7	53.69	69.05
Female	440	52,579	53.2	45.69	60.49
<b>School level</b>					
Lower secondary	679	75,079	60.4	53.47	67.01
Upper secondary	342	38,530	52.3	42.59	61.84
<b>Form</b>					
Form 1	243	25,571	58.2	49.38	66.45
Form 2	188	26,970	66.5	58.80	73.37
Form 3	248	22,538	56.8	45.23	67.68
Form 4	179	19,090	51.0	42.58	59.38
Form 5	163	19,440	53.6	38.81	67.83

**Table 3.3.6: Prevalence of plain water intake 5 times or more per day in the past 30 days, among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Yes (at least 5 times daily)				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI Lower	95% CI Upper
<b>SARAWAK</b>	962	108,279	54.9	50.37	59.40
<b>Locality of school</b>					
Urban	470	56,837	58.3	51.92	64.41
Rural	492	51,442	51.6	46.45	56.76
<b>Sex</b>					
Male	495	51,924	52.6	47.70	57.39
Female	467	56,355	57.3	50.67	63.65
<b>School level</b>					
Lower secondary	564	63,350	51.2	44.65	57.62
Upper secondary	398	44,929	61.3	55.54	66.73
<b>Form</b>					
Form 1	192	20,920	47.7	40.74	54.78
Form 2	138	20,572	50.9	39.69	62.04
Form 3	234	21,858	55.2	47.17	63.01
Form 4	210	21,955	58.9	50.12	67.07
Form 5	188	22,974	63.8	58.74	68.56



**Table 3.3.7: Prevalence of milk or milk products intake at least two servings per day in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Unweighted Count	Estimated Population	Prevalence %	95% CI	
				Lower	Upper
<b>SARAWAK</b>	580	65,810	33.3	29.09	37.79
<b>Locality of school</b>					
Urban	257	31,463	32.2	26.83	38.08
Rural	323	34,347	34.4	28.28	41.04
<b>Sex</b>					
Male	304	31,691	32.0	26.99	37.51
Female	276	34,119	34.6	30.27	39.17
<b>School level</b>					
Lower secondary	386	43,800	35.3	30.44	40.47
Upper secondary	194	22,010	29.9	24.96	35.41
<b>Form</b>					
Form 1	139	14,652	33.4	26.17	41.54
Form 2	110	16,279	40.1	31.50	49.41
Form 3	137	12,869	32.4	26.12	39.47
Form 4	102	10,940	29.2	21.18	38.84
Form 5	92	11,070	30.6	24.17	37.98

**Table 3.3.8: Prevalence of consuming food from a fast food restaurant of at least three days in the past 7 days, among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Yes (at least three days)				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	283	32,128	16.3	12.20	21.4
<b>Locality of school</b>					
Urban	146	17,649	18.1	11.61	27.1
Rural	137	14,480	14.5	10.35	19.9
<b>Sex</b>					
Male	184	19,546	19.8	14.05	27.1
Female	99	12,582	12.7	9.65	16.6
<b>School level</b>					
Lower secondary	176	20,345	16.4	12.86	20.7
Upper secondary	107	11,783	16.0	10.42	23.8
<b>Form</b>					
Form 1	343	7,131	16.3	9.88	25.7
Form 2	227	7,914	19.6	14.94	25.2
Form 3	378	5,300	13.4	8.97	19.4
Form 4	294	5,957	15.9	11.27	22.0
Form 5	251	5,826	16.1	8.38	28.6

### **3.4 Drug Use**

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#### **3.4.1 Introduction**

According to the World Drug Report 2017, an estimated quarter of a billion people, or around five per cent of the global adult population, used drugs at least once in 2015. Even more worrisome is the fact that about 29.5 million of those drug users, or 0.6 percent of the global adult population, suffer from drug use disorders.<sup>1</sup> This means that their drug use is harmful to the point that they may experience drug dependence and require treatment.

Marijuana or cannabis remains the world's most widely used drug, with an annual prevalence of 3.8 per cent of the adult population, or an estimated 183 million people (range 128 million to 238 million), having used marijuana in the past year.<sup>2</sup> Amphetamines remain the second most commonly used drug worldwide, with an estimated 35 million past-year users (range 13 million to 58 million), and the use of amphetamines, particularly methamphetamine, is perceived to be increasing in many regions, including most parts of Asia.

This drug menace contributes to various social and medical ill health implications particularly among adolescents. The broad range of problems reported by young people include deteriorating family relations, truancy, poorer performance in school, mental disorders such as depression and anxiety, drug induced psychosis particularly with the New Psychoactive Substances (NPS), unwanted and unprotected sexual activity, accidents, violence and increased risk of blood-borne viral diseases such as HIV and Hepatitis C for those injecting drug users (IDU). Some youth engaging in heavy substance use will continue to do so into adulthood and will experience various longer-term health and social problems.

### 3.4.2 Objectives

- i. To determine the prevalence of ever and current drug use among Form 1 to Form 5 students
- ii. To describe the socio-demographic characteristics of ever and current drug use among Form 1 to Form 5 students
- iii. To determine the prevalence of ever and current marijuana use among Form 1 to Form 5 students
- iv. To describe the socio-demographic characteristics of ever and current marijuana use among Form 1 to Form 5 students
- v. To determine the prevalence and socio-demographic characteristics of ever amphetamines or methamphetamines use among Form 1 to Form 5 students
- vi. To identify the age of initiation and the sources of obtaining drugs among Form 1 to Form 5 students

### 3.4.3 Variable Definitions

- **Drug use:** taking of heroin, morphine, glue, amphetamine or methamphetamines (ecstasy, syabu, ice), marijuana/*ganja* (except prescribed medicine).
- **Ever drug use:** students who had history of drug use in their lifetime
- **Current drug use:** students who used drugs in the past 30 days
- **Ever Marijuana use:** students who had history of marijuana use in their lifetime
- **Current Marijuana use:** students who used marijuana in the past 30 days
- **Ever Amphetamine or Methamphetamines use:** students who had history of amphetamine or methamphetamines use in their lifetime.

#### 3.4.4 Findings

Overall, the prevalence of ever drug use among students from Form 1 to form 5 in Sarawak was 5.1% (95% CI: 3.31, 7.77) with estimated population of 10,084 students. The prevalence of ever drug use was higher among those who studied in rural areas [5.6% (95% CI: 3.26, 9.39)], male students [7.2% (95% CI: 4.54, 11.32)] and among Form 4 students [8.7% (95% CI: 3.68, 19.35)] (**Table 3.4.1**). The prevalence of current drug use in the past 30 days among Form 1 to Form 5 students in Sarawak was 4.0% (95%CI: 2.43, 6.60). The prevalence of current drug user was higher among those who studied in rural areas [4.6% (95% CI: 2.33, 8.77)], among males [6.0% (95% CI: 3.66, 9.83)] and Form 4 students [6.2% (95% CI: 1.99, 17.57)] (**Table 3.4.2**). The prevalence of ever used marijuana in lifetime was 3.2% (95% CI: 1.72, 5.88) among Form 1 to Form 5 students in Sarawak (**Table 3.4.3**) and 3.1% (95% CI: 1.75, 5.55) of the students were current marijuana users in the past 30 days (**Table 3.4.4**). About 2.7% (95% CI: 1.49, 4.72) students reported that they had ever used amphetamines or methamphetamines during lifetime (**Table 3.4.5**).

Among current drug users, most of the students obtained their drug by buying from someone [26.9% (95% CI: 21.00, 33.74)]. Other than that, gave someone else money to buy it [13.4% CI: 7.24, 23.48), obtained them by stealing or got without permission [14.4% (95%CI: 5.16, 34.12)] and got it from friends [7.9% (95% CI: 2.71, 20.67)] (**Table 3.4.6**). Among the ever drug users, about 19.7% (95% CI: 12.40, 29.83) had initiated drug use at the age of seven years or younger with percentage of rural areas was 1.0% (95% CI: 0.34, 3.12) and urban areas was 1.0% (95% CI: 0.42, 2.24) (**Table 3.4.7**).

#### 3.4.5 Discussion/ Conclusion

The prevalence of ever drug use and current drug use in Sarawak did not significantly different with the national prevalence. As for ever marijuana use, current marijuana use and ever use of amphetamines or methamphetamine, there were also no difference in the prevalence of the national figures. Among those who ever used drug, majority of students admitted that they had been using drugs at the age of seven years or younger. Most of those were current drug users had obtained their drugs by buying from someone.

### **3.4.6 Recommendations**

Prevention and control measures of drug use among adolescents in Malaysia needs to be strengthened and started early from the primary school level. New strategies and approaches must be developed to address this issue. Health education and the dangers of drug abuse should be emphasized. Early detection and intervention also needs to be given priority.

### **3.4.7 References**

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2. United Nations Office on Drugs and Crime, *World Drug Report 2017: Global Overview*. (ISBN: 978-92-1-148291-1, eISBN: 978-92-1-060623-3, United Nations publication, Sales No. E.17.XI.6).

**Table 3.4.1 : Prevalence of ever used drugs in a life time among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	91	10,084	5.1	3.31	7.77
<b>Locality of school</b>					
Urban	38	4,498	4.6	2.30	9.00
Rural	53	5,586	5.6	3.26	9.39
<b>Sex</b>					
Male	66	7,148	7.2	4.54	11.32
Female	25	2,936	3.0	1.56	5.57
<b>Form</b>					
Form 1	27	2,739	6.2	2.34	15.56
Form 2	15	1,970	4.9	2.70	8.59
Form 3	9	897	2.3	1.17	4.33
Form 4	29	3,269	8.7	3.68	19.35
Form 5	11	1,210	3.3	1.82	6.08

**Table 3.4.2 : Prevalence of current drug use in the Past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	72	7,957	4.0	2.43	6.60
<b>Locality of school</b>					
Urban	29	3,386	3.5	1.65	7.13
Rural	43	4,571	4.6	2.33	8.77
<b>Sex</b>					
Male	55	5,979	6.0	3.66	9.83
Female	17	1,978	2.0	0.90	4.39
<b>Form</b>					
Form 1	23	2,340	5.3	2.01	13.38
Form 2	13	1,713	4.2	2.28	7.70
Form 3	6	621	1.6	0.63	3.85
Form 4	21	2,309	6.2	1.99	17.57
Form 5	9	973	2.7	1.25	5.72

**Table 3.4.3 : Prevalence of ever used marijuana in a life time among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	59	6,324	3.2	1.72	5.88
<b>Locality of school</b>					
Urban	25	2,856	2.9	1.27	6.57
Rural	34	3,467	3.5	1.41	8.30
<b>Sex</b>					
Male	47	4,926	5.0	2.62	9.25
Female	12	1,397	1.4	0.57	3.48
<b>Form</b>					
Form 1	17	1,687	3.8	1.11	12.44
Form 2	10	1,311	3.2	1.43	7.16
Form 3	5	487	1.2	0.62	2.43
Form 4	19	1,968	5.3	1.80	14.47
Form 5	8	871	2.4	1.07	5.34

**Table 3.4.4 : Prevalence of current marijuana use in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	57	6,189	3.1	1.75	5.55
<b>Locality of school</b>					
Urban	21	2,363	2.4	0.94	6.05
Rural	36	3,827	3.8	1.87	7.66
<b>Sex</b>					
Male	42	4,445	4.5	2.46	8.09
Female	15	1,744	1.8	0.81	3.78
<b>Form</b>					
Form 1	17	1,666	3.8	1.33	10.31
Form 2	9	1,174	2.9	1.24	6.60
Form 3	6	621	1.6	0.63	3.85
Form 4	17	1,858	5.0	1.51	15.08
Form 5	8	871	2.4	1.07	5.34

**Table 3.4.5 : Prevalence of ever amphetamines/metaphetamines use in a life time among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	49	5,271	2.7	1.49	4.72
<b>Locality of school</b>					
Urban	17	1,954	2.0	0.72	5.44
Rural	32	3,317	3.3	1.71	6.33
<b>Sex</b>					
Male	30	3,060	3.1	1.42	6.63
Female	19	2,211	2.2	1.20	4.13
<b>Form</b>					
Form 1	17	1,710	3.9	1.23	11.62
Form 2	6	751	1.9	0.52	6.38
Form 3	6	562	1.4	0.75	2.65
Form 4	16	1,830	4.9	1.48	14.98
Form 5	4	418	1.2	0.47	2.83

**Table 3.4.6 : Source of getting drugs in the past 30 Days among current drug user among Form 1 to Form 5 students in Sarawak, 2017**

	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
I bought them from someone	19	2,140	26.9	21.00	33.74
I gave someone else money to buy it for me	10	1,066	13.4	7.24	23.48
I stole it or got it without permission	11	1,143	14.4	5.16	34.12
I got it from my friend	6	625	7.9	2.71	20.67
I got it from my family	4	430	5.4	1.81	15.05
I got it some other ways	4	459	5.8	2.03	15.32



**Table 3.4.7 : Age of initiation of first used drugs among ever drug user among Form 1 to Form 5 students in Sarawak, 2017**

	Total					Urban				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
7 years old or younger	18	1,986	19.7	12.40	29.83	8	953	1.0	0.42	2.24
8 or 9 years old	5	569	5.6	2.12	14.17					
10 or 11 years old	9	936	9.3	4.13	19.55	4	457	0.5	0.22	0.97
12 or 13 years old	8	872	8.7	4.16	17.11	4	488	0.5	0.16	1.52
14 or 15 years old	9	995	9.9	4.56	20.06	5	614	0.6	0.28	1.39
16 years old or older	7	769	7.6	3.50	15.85	3	331	0.3	0.08	1.44

**Table 3.4.7 : Age of initiation of first used drugs among ever drug user in students Form 1 to Form 5, Sarawak 2017**

	Rural				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
7 years old or younger	10	1,033	1.0	0.34	3.12
8 or 9 years old	5	569	0.6	0.24	1.32
10 or 11 years old	5	480	0.5	0.09	2.48
12 or 13 years old	4	384	0.4	0.17	0.85
14 or 15 years old	4	382	0.4	0.12	1.18
16 years old or older	4	439	0.4	0.12	1.61

### **3.5 Hygiene (Including Oral Health)**

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#### **3.5.1 Introduction**

Dental caries has substantial impact to children, families, and health systems, including dental and medical consequences, loss of working time on the part of caregivers and increased expenditures. It is a multi-factorial infectious disease that leads to pain and infection, consequently affecting the quality of life, general health, productivity and educational performance of the child.<sup>1</sup> Daily tooth brushing with a fluoridated toothpaste and regular dental check-up at least once a year can help prevent dental caries and periodontal disease.

Clean hands can stop spread of parasites from one person to another. These parasites consume nutrients from children they infect, causing abdominal pain and can impair learning by slowing cognitive development. Hand washing is one of the most effective ways to prevent the spread of parasites, especially during these key times: before, during and after preparing food, before eating and after using the toilet.<sup>2,3</sup>

#### **3.5.2 Objectives**

To describe the prevalence of:

- i. Tooth brushing frequency in the past 30 days
- ii. Fluoridated toothpaste usage
- iii. Dental floss usage
- iv. Timing of last visit to a dentist or dental nurse
- v. Having missed class due to toothache in the past 12 months
- vi. Avoidance of smiling or laughing due to the appearance of their teeth
- vii. Using soap during hand washing in the past 30 days
- viii. Hand washing before eating in the past 30 days
- ix. Hand washing after using the toilet in the past 30 days

### 3.5.3 Variable Definitions

- **Clean or brush teeth:** Regular tooth brushing using toothbrush and toothpaste to keep the mouth, teeth and gums clean and healthy
- **Last saw a dentist or dental nurse:** Seen a dentist or dental nurse for a check-up, scaling or other dental treatment

### 3.5.4 Findings

#### Cleaning or brushing teeth during the past 30 days

Overall, 1.9% (95%CI: 1.09, 3.30) of students reported they had never cleaned or brushed their teeth during the past 30 days. About 2.1% (95%CI: 1.56, 2.74) reported they had cleaned or brushed their teeth less than once daily, 7.4% (95%CI: 5.54, 9.76) once daily and 88.6% (95%CI: 86.42, 90.55) at least twice daily (**Table 3.5.1**).

#### Use of fluoridated toothpaste

Overall, only 64.4% (95%CI: 58.91, 69.58) of students reported use of fluoridated toothpaste. About 10.5% (95%CI: 8.42, 12.97) claimed that they were not using fluoridated toothpaste and about 25.1% (95%CI: 20.63, 30.16)] reported not knowing whether their toothpaste contained fluoride (**Table 3.5.2**).

#### Use of dental floss for cleaning teeth

Overall, only 22.7% (95%CI: 19.68, 26.01) of students reported that they use dental floss for cleaning their teeth and 77.3% (95%CI: 73.99, 80.32) claimed that they do not use dental floss to clean their teeth (**Table 3.5.3**).

#### Last dental visit

Overall, only 28.0% (95%CI: 24.30, 32.10) of students reported that they had their last dental visit (inclusive of both dental treatment and dental check-up) in the past 12 months. The prevalence of students who had their last dental visit between 12-24 months was 11.4% (95%CI: 9.02, 14.25) while those with their last dental visit more than 24 months was 7.3% (95%CI: 5.21, 10.05). About 13.2% (95%CI: 11.36, 15.30) of students claimed that had never

ever had a dental visit while a substantial proportion [40.1% (95%CI: 35.73, 44.67)] did not know when was their last dental visit (**Table 3.5.4**).

#### **Missing class or school due to toothache**

Overall, 10.4% (95%CI: 7.73, 13.80) of students had missed class or school due to toothache in the past 12 months (**Table 3.5.5**).

#### **Avoid smiling or laughing due to the appearance of their teeth**

Overall, 16.5% (95%CI: 14.26, 19.01) of students reported that they avoided smiling or laughing due to the appearance of their teeth (**Table 3.5.6**).

#### **Use of soap when washing hands during the past 30 days**

Overall in the past 30 days, about 12.2% (95%CI: 9.99, 14.83) of students reported that they never or rarely used soap when washing their hands, 25.1% (95%CI: 22.49, 28.00) reported they had only used soap sometimes when washing their hands while a fairly high proportion of 62.7% (95%CI: 58.14, 66.95) had always or most of the times used soap when washing their hands (**Table 3.5.7**).

#### **Washing hand before eating during the past 30 days**

Overall in the past 30 days, about 7.7% (95%CI: 6.17, 9.51) of students never or rarely washed their hands before eating, 10.8% (95%CI: 9.22, 12.68) had only sometimes washed their hands before eating while a high proportion of 81.5% (95%CI: 78.64, 84.05) had always washed their hands before eating (**Table 3.5.8**).

#### **Washing hand after using the toilet or latrine during the past 30 days**

Overall in the past 30 days, about 4.1% (95%CI: 3.18, 5.22) of students reported they had never or rarely washed their hands after using the toilet, 7.0% (95%CI: 5.21, 9.34) had only washed their hands sometimes after using the toilet, while 88.9% (95%CI: 86.05, 91.26) claimed that they had always or most of the times washed their hands after using the toilet (**Table 3.5.9**).

### 3.5.5 Discussion/ Conclusion

The above findings related to the oral hygiene practices and hand hygiene of students in the age group of 13-17 years in Sarawak. Overall, the proportion of students who had cleaned or brushed their teeth less than one time per day during the past 30 days in this survey (2.1%) was lower than the national prevalence (2.4%) and was similar with the findings for Sarawak (2.1%) in GSHS 2012.<sup>4</sup> This survey also found the proportion of students using fluoridated toothpaste (64.4%) was higher than the national prevalence (58.3%), but lower than the findings for Sarawak (65.7%) in GSHS 2012.<sup>4</sup> The prevalence of students who did not know whether their toothpaste contained fluoride was lower (25.1%) than the national prevalence (31.8%), but higher than the findings for Sarawak (21.7%) in GSHS 2012.<sup>4</sup> There was a higher proportion of students who reportedly used dental floss to clean their teeth in this survey (22.7%) as compared to the national prevalence (19.3%). The use of dental floss to clean their teeth among the students in Sarawak, however, was not studied in the first Malaysian GSHS in 2012 for comparison.

This survey also found that a proportion of students who had never or rarely used soap when washing their hands during the past 30 days was slightly higher (12.2%) in comparison with the national prevalence (11.6%) but slightly lower than the findings for Sarawak (12.6%) in GSHS 2012.<sup>4</sup> The proportion of students who had never or rarely washed their hands before eating (7.7%) was slightly higher than national prevalence (6.1%), as well as than the findings for Sarawak (4.9%) in GSHS 2012.<sup>4</sup> In this survey, the proportion of students who reportedly never or rarely washed their hands after going to the toilet (4.1%) was slightly lower, in comparison to the national prevalence (4.8%) and the findings for Sarawak (4.8%) in GSHS 2012.<sup>4</sup>

Overall, the findings in relation to hand hygiene and oral hygiene practises of students in the age group of 13-17 years in Sarawak showed that there is still room for further improvement. In terms of oral hygiene, there is still a very small proportion of students (2 in 100) who reported not brushing their teeth every day during the past 30 days before the survey. Only about 6 in 10 students reported using a fluoridated toothpaste and about 1 in 4 reported not knowing whether their toothpaste contained fluoride. In terms of hand hygiene, it was found that about 1 in 10 students had never or rarely used soap when washing their hands during

the past 30 days, about 8 in 100 students never or rarely washed their hands before eating and 4 in 100 never or rarely washed their hands after going to the toilet.

### **3.5.6 Recommendations**

Taking cognizance of these findings, there is a need to emphasis on promoting hygiene among school-going adolescents through attitude and behavioural changes in maintenance of personal hygiene. Thus, the following recommendations are made:

1. More effort is needed to strengthen health education on oral and hand hygiene habits in schools and at home.
2. There is a need to further promote toothpaste literacy in our oral health promotion efforts.
3. Surveillance of hygiene habits and practices among adolescents need to be continued at regular intervals.
4. Further studies are recommended to study the factors contributing to poor hygiene habits among adolescents.

### **3.5.7 References**

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**Table 3.5.1: Prevalence of brushing teeth in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Never clean or brush the teeth					Less than 1 day				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	33	3,771	1.9	1.09	3.31	37	4,085	2.1	1.56	2.74
<b>Locality of the school</b>										
Urban	18	2,177	2.2	1.14	4.32	18	2,162	2.2	1.63	3.00
Rural	15	1,594	1.6	0.63	3.97	19	1,923	1.9	1.19	3.11
<b>Sex</b>										
Male	24	2,534	2.6	1.52	4.29	27	2,827	2.9	2.10	3.88
Female	9	1,237	1.3	0.54	2.86	10	1,257	1.3	0.62	2.58
<b>Form</b>										
Form 1	13	1,332	3.0	1.15	7.80	14	1,390	3.2	2.05	4.90
Form 2	4	629	1.6	0.66	3.61	6	819	2.0	0.94	4.27
Form 3	6	566	1.4	0.50	4.00	4	464	1.2	0.38	3.59
Form 4	8	993	2.7	0.82	8.28	11	1,209	3.2	1.46	6.97
Form 5	2	251	0.7	0.17	2.83	2	202	0.6	0.14	2.19

**Table 3.5.1: Prevalence of brushing teeth in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017 (Cont.)**

Socio-demographic characteristics	Once per day					2 times or more per day (at least twice daily)				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	140	14,575	7.4	5.54	9.76	1,566	175,185	88.6	86.42	90.55
<b>Locality of the school</b>										
Urban	71	8,080	8.3	5.63	11.99	713	85,309	87.3	84.23	89.83
Rural	69	6,495	6.5	4.38	9.54	853	89,876	90.0	87.11	92.26
<b>Sex</b>										
Male	82	85,001	8.6	6.06	12.07	810	84,953	86.0	82.22	89.04
Female	53	6,074	6.1	4.13	9.05	756	90,232	91.3	88.28	93.64
<b>Form</b>										
Form 1	38	3,955	9.0	5.78	13.85	345	37,099	84.7	78.63	89.35
Form 2	16	2,114	5.2	2.84	9.38	255	37,009	91.2	85.14	94.96
Form 3	52	4,577	11.6	8.16	16.14	371	33,986	85.8	81.48	89.31
Form 4	13	1,346	3.6	1.59	7.91	319	33,878	90.5	83.01	94.92
Form 5	21	2,583	7.1	2.71	17.43	276	33,213	91.6	82.67	96.17

**Table 3.5.2: Prevalence of use of fluoridated toothpaste among Form 1 to Form 5 students in Sarawak, NHMS 2017**

Socio-demographic characteristics	Yes					No				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	1,155	127,362	64.4	58.91	69.58	183	20,722	10.5	8.42	12.97
<b>Locality of the school</b>										
Urban	490	57,678	59.1	50.63	67.03	85	10,564	10.8	7.96	14.55
Rural	665	69,684	69.6	65.42	73.52	98	10,158	10.1	7.41	13.75
<b>Sex</b>										
Male	585	60,036	60.8	56.26	65.10	104	11,045	11.2	8.88	13.99
Female	570	67,326	68.1	60.74	74.59	79	9,676	9.8	7.26	13.07
<b>Form</b>										
Form 1	259	27,305	62.2	52.71	70.86	59	6,365	14.5	8.20	24.37
Form 2	165	23,905	58.9	51.40	66.05	38	5,451	13.4	9.90	17.98
Form 3	282	25,640	64.6	57.63	71.04	37	3,294	8.3	5.50	12.35
Form 4	244	25,692	68.6	54.78	79.83	30	3,230	8.6	5.05	14.37
Form 5	205	24,821	68.7	55.39	79.47	19	2,382	6.6	3.09	13.48

**Table 3.5.2: Prevalence of use of fluoridated toothpaste among Form 1 to Form 5 students in Sarawak, NHMS 2017 (Cont.)**

Socio-demographic characteristics	Don't Know				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	439	49,620	25.1	20.63	30.16
<b>Locality of the school</b>					
Urban	244	29,379	30.1	23.47	37.67
Rural	195	20,240	20.2	16.94	23.95
<b>Sex</b>					
Male	259	27,709	28.0	24.02	32.46
Female	180	21,911	22.2	16.71	28.75
<b>Form</b>					
Form 1	93	10,220	23.3	17.35	30.49
Form 2	78	11,215	27.6	20.07	36.77
Form 3	115	10,741	27.1	21.94	32.89
Form 4	77	8,504	22.7	13.58	35.50
Form 5	76	8,940	24.7	17.30	34.05



**Table 3.5.3: Prevalence of use of dental floss among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Yes					No				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	401	44,850	22.7	19.68	26.01	1,376	152,802	77.3	73.99	80.32
<b>Locality of the school</b>										
Urban	188	22,266	22.8	21.53	24.15	631	75,325	77.2	75.85	78.47
Rural	213	22,583	22.6	17.04	29.27	745	77,477	77.4	70.73	82.96
<b>Sex</b>										
Male	231	23,758	24.0	20.76	27.63	718	75,117	76.0	72.37	79.24
Female	170	21,092	21.4	17.28	26.09	658	77,685	78.6	73.91	82.72
<b>Form</b>										
Form 1	113	11,692	26.6	20.78	33.35	299	32,274	73.4	66.65	79.22
Form 2	64	9,639	23.8	18.81	29.54	217	30,933	76.2	70.46	81.19
Form 3	95	9,034	22.8	17.78	28.85	338	30,505	77.2	71.15	82.22
Form 4	73	7,818	20.9	14.88	28.65	277	29,507	79.1	71.35	85.12
Form 5	56	6,667	18.4	14.68	22.79	245	29,583	81.6	77.21	85.32

**Table 3.5.4: Timing of last dental visit among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	During past 12 months					Between 12-24 months ago				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	497	55,406	28.0	24.30	32.10	207	22,475	11.4	9.02	14.25
<b>Locality of the school</b>										
Urban	227	26,857	27.6	23.29	32.27	92	10,989	11.3	7.61	16.40
Rural	270	28,549	28.5	22.63	35.20	115	11,486	11.5	8.85	14.73
<b>Sex</b>										
Male	259	27,040	27.4	23.12	32.12	114	11,413	11.6	8.97	14.78
Female	238	28,365	28.7	24.39	33.38	93	11,062	11.2	7.93	15.55
<b>Form</b>										
Form 1	123	13,500	30.7	25.31	36.69	55	5,775	13.1	7.67	21.58
Form 2	59	8,576	21.1	12.56	33.35	25	3,965	9.8	6.06	15.39
Form 3	116	10,577	26.8	20.51	34.09	59	5,182	13.1	8.89	18.92
Form 4	90	9,638	25.8	20.80	31.41	36	3,844	10.3	6.20	16.54
Form 5	109	13,116	36.3	29.94	43.16	32	3,708	10.3	5.44	18.53

**Table 3.5.4: Timing of last dental visit among Form 1 to Form 5 students in Sarawak, 2017 (Cont.)**

Socio-demographic characteristics	More than 24 months ago					Never				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	133	14,362	7.3	5.21	10.05	235	26,099	13.2	11.36	15.30
<b>Locality of the school</b>										
Urban	60	6,925	7.1	3.99	12.33	114	13,431	13.8	11.19	16.85
Rural	73	7,436	7.4	5.18	10.54	121	12,668	12.6	10.19	15.59
<b>Sex</b>										
Male	82	8,265	8.4	5.97	11.63	141	14,995	15.2	13.07	17.59
Female	51	6,096	6.2	3.84	9.76	94	11,104	11.2	8.26	15.09
<b>Form</b>										
Form 1	39	3,824	8.7	5.44	13.62	62	6,387	14.5	9.37	21.85
Form 2	26	3,444	8.5	3.89	17.54	42	5,896	14.5	9.44	21.71
Form 3	26	2,334	5.9	3.04	11.15	41	3,762	9.5	6.82	13.13
Form 4	20	2,139	5.7	3.71	8.70	57	6,077	16.2	10.96	23.38
Form 5	22	2,621	7.3	4.85	10.72	33	3,977	11.0	6.76	17.42

**Table 3.5.4: Timing of last dental visit among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Don't know				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	705	79,291	40.1	35.73	44.67
<b>Locality of school</b>					
Urban	325	39,270	40.3	34.74	46.10
Rural	380	40,021	40.0	33.31	46.99
<b>Sex</b>					
Male	352	37,006	37.5	33.47	41.68
Female	353	42,286	42.8	36.69	49.03
<b>Form</b>					
Form 1	133	14,481	32.9	27.26	39.16
Form 2	129	18,691	46.1	37.02	55.39
Form 3	191	17,677	44.7	36.62	53.10
Form 4	148	15,727	42.0	32.81	51.83
Form 5	104	12,715	35.2	25.52	46.24

**Table 3.5.4.1: Prevalence of last dental visit within the last 24 months among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	704	77,881	39.4	35.40	43.60
<b>Locality of the school</b>					
Urban	319	37,847	38.8	35.00	42.80
Rural	385	40,035	40.0	33.10	47.30
<b>Sex</b>					
Male	373	38,454	39.0	35.60	42.40
Female	331	39,427	39.9	34.50	45.50
<b>Form</b>					
Form 1	178	19,275	43.8	37.50	50.40
Form 2	84	12,541	30.9	21.60	42.00
Form 3	175	15,759	39.9	32.60	47.70
Form 4	126	13,482	36.0	27.40	45.70
Form 5	141	16,824	46.6	40.30	52.90

**Table 3.5.5: Prevalence of having missed class due to toothache in the past 12 months among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Yes					No				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	190	20,523	10.4	7.73	13.80	1,587	177,140	89.6	86.20	92.27
<b>Locality of school</b>										
Urban	67	8,050	8.2	4.71	14.06	752	89,566	91.8	85.94	95.29
Rural	123	12,473	12.5	9.58	16.07	835	87,575	87.5	83.93	90.42
<b>Sex</b>										
Male	111	11,099	11.2	7.88	15.74	838	87,764	88.8	84.26	92.12
Female	79	9,424	9.5	6.69	13.43	749	89,376	90.5	86.57	93.31
<b>Form</b>										
Form 1	50	5,097	11.6	6.55	19.78	361	38,757	88.4	80.22	93.45
Form 2	29	4,133	10.2	6.42	15.78	252	36,439	89.8	84.22	93.58
Form 3	50	4,676	11.8	8.25	16.56	384	34,999	88.2	83.44	91.75
Form 4	46	4,943	13.2	8.36	20.24	305	32,483	86.8	79.76	91.64
Form 5	15	1,675	4.6	2.61	8.11	285	34,462	95.4	91.89	97.39

**Table 3.5.6: Prevalence of avoidance of smiling or laughing due to the appearance of their teeth among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Yes					No				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	293	32,583	16.5	14.26	19.01	1,482	164,927	83.5	80.99	85.74
<b>Locality of school</b>										
Urban	128	15,466	15.86	12.78	19.51	690	82,068	84.14	80.49	87.22
Rural	165	10,831	15.25	13.48	17.21	792	60,186	84.75	82.79	86.52
<b>Sex</b>										
Male	147	15,248	15.45	12.53	18.90	800	83,451	84.55	81.10	87.47
Female	146	17,117	17.12	14.06	20.68	682	82,860	82.88	79.32	85.94
<b>Form</b>										
Form 1	71	7,313	16.67	12.23	22.30	340	36,558	83.33	77.70	87.77
Form 2	47	6,534	16.10	10.76	23.41	234	34,038	83.90	76.59	89.24
Form 3	74	6,989	17.65	12.59	24.19	359	32,603	82.35	75.81	87.41
Form 4	54	5,988	16.08	10.92	23.06	295	31,239	83.92	76.94	89.08
Form 5	47	5,760	15.89	11.90	20.90	254	30,489	84.11	79.10	88.10

**Table 3.5.7: Prevalence of use of soap during hand washing in the past 30 days among Form 1 to Form 5 in Sarawak, 2017**

Socio-demographic characteristics	Never or rarely use soap during hand washing					Sometimes				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	221	24,129	12.2	9.99	14.83	450	49,706	25.1	22.49	28.00
<b>Locality of school</b>										
Urban	83	9,799	10.0	7.36	13.57	191	22,338	22.9	21.01	24.91
Rural	138	14,330	14.3	11.58	17.54	259	27,368	27.3	23.16	31.93
<b>Sex</b>										
Male	135	13,947	14.1	11.44	17.31	268	28,141	28.5	24.69	32.62
Female	86	10,181	10.3	7.78	13.49	182	21,566	21.8	18.16	25.94
<b>Form</b>										
Form 1	64	6,427	14.7	10.57	19.96	87	9,401	21.4	16.73	27.02
Form 2	46	6,467	15.9	11.50	21.68	84	11,739	28.9	21.75	37.35
Form 3	46	4,059	10.2	7.29	14.17	113	10,251	25.8	22.54	29.43
Form 4	42	4,431	11.8	6.96	19.44	83	8,740	23.4	19.26	28.02
Form 5	23	2,744	7.6	4.35	12.92	83	9,576	26.5	19.42	35.02

**Table 3.5.7: Prevalence of use of soap during hand washing in the past 30 days among Form 1 to Form 5 in Sarawak, 2017 (Cont.)**

Socio-demographic characteristics	Most of the time or Always				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	1,106	123,851	62.7	58.14	66.95
<b>Locality of school</b>					
Urban	544	65,389	67.0	63.14	70.73
Rural	562	58,462	58.4	51.99	64.47
<b>Sex</b>					
Male	545	56,685	57.4	51.41	63.16
Female	561	67,166	67.9	63.35	72.14
<b>Form</b>					
Form 1	260	28,043	63.9	57.10	70.23
Form 2	151	22,365	55.1	44.69	65.13
Form 3	275	25,365	63.9	59.15	68.45
Form 4	226	24,255	64.8	58.38	70.74
Form 5	194	23,822	65.9	54.47	75.76

**Table 3.5.8: Prevalence of handwashing before eating in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Never or rarely wash hands before eating					Sometimes				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	137	15,180	7.7	6.17	9.51	193	21,430	10.8	9.22	12.68
<b>Locality of school</b>										
Urban	56	6,835	7.0	5.18	9.37	83	9,736	10.0	7.65	12.88
Rural	81	8,345	8.3	6.17	11.16	110	11,694	11.7	9.74	13.94
<b>Sex</b>										
Male	90	9,369	9.5	6.96	12.75	109	11,364	11.5	8.89	14.71
Female	47	5,810	5.9	4.46	7.70	84	10,066	10.2	8.40	12.28
<b>Form</b>										
Form 1	45	4,717	10.7	7.46	15.19	45	4,722	10.7	7.23	15.66
Form 2	22	3,294	8.1	4.87	13.23	41	5,759	14.2	10.14	19.52
Form 3	30	2,652	6.7	4.34	10.15	45	4,036	10.2	7.55	13.57
Form 4	27	2,902	7.8	4.87	12.14	34	3,622	9.7	7.54	12.35
Form 5	13	1,615	4.5	2.96	6.66	28	3,290	9.1	6.38	12.76

**Table 3.5.8: Prevalence of handwashing before eating in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017 (Cont.)**

Socio-demographic characteristics	Most of the time or Always				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	1,449	161,278	81.5	78.64	84.05
<b>Locality of school</b>					
Urban	681	81,157	83.0	79.60	86.01
Rural	768	80,121	80.0	75.69	83.69
<b>Sex</b>					
Male	751	78,241	79.1	74.75	82.79
Female	698	83,037	83.9	81.20	86.37
<b>Form</b>					
Form 1	322	34,527	80.1	71.19	86.75
Form 2	218	31,519	77.7	69.89	83.93
Form 3	359	32,987	83.1	78.17	87.17
Form 4	290	30,900	82.6	76.99	87.02
Form 5	260	31,344	86.5	82.26	89.80

**Table 3.5.9: Prevalence of handwashing after using the toilet in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Never or rarely wash hands after using the toilet					Sometimes				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	72	8,067	4.1	3.18	5.22	123	13,836	7.0	5.21	9.34
<b>Locality of school</b>										
Urban	27	3,372	3.5	2.19	5.40	57	6,663	6.8	5.64	8.24
Rural	45	4,694	4.7	3.72	5.90	66	7,173	7.2	4.17	12.07
<b>Sex</b>										
Male	44	4,509	4.6	3.25	6.35	75	7,779	7.9	6.48	9.50
Female	28	3,557	3.6	2.34	5.52	48	6,056	6.1	3.67	10.09
<b>Form</b>										
Form 1	23	2,457	5.6	3.52	8.81	43	4,477	10.2	7.04	14.57
Form 2	14	2,028	5.0	3.25	7.61	23	3,191	7.9	4.17	14.33
Form 3	12	1,064	2.7	1.41	5.06	23	2,259	5.7	3.42	9.34
Form 4	16	1,733	4.6	2.58	8.22	20	2,210	5.9	3.15	10.86
Form 5	7	784	2.2	1.01	4.57	14	1,698	4.7	2.74	7.89

**Table 3.5.9: Prevalence of handwashing after using the toilet in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017 (Cont.)**

Socio-demographic characteristics	Most of the time or Always				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	1,582	175,754	88.9	86.05	91.26
<b>Locality of school</b>					
Urban	735	87,577	89.7	87.60	91.51
Rural	847	88,178	88.1	82.62	92.07
<b>Sex</b>					
Male	831	86,687	87.6	85.11	89.69
Female	751	89,068	90.3	85.18	93.73
<b>Form</b>					
Form 1	345	36,917	84.2	78.23	88.75
Form 2	244	35,352	87.1	80.77	91.61
Form 3	399	36,351	91.6	87.01	94.70
Form 4	314	33,366	86.6	82.46	89.81
Form 5	280	33,768	93.2	90.20	95.26

### **3.6 Internet Use and Addiction**

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#### **3.6.1 Introduction**

Internet use has grown rapidly in Malaysia parallel with an increasing number of households having computers and mobile gadgets that are linked to internet access. It has been reported that the increase in internet use is more pronounced in urban than in rural areas. Major online activities include information seeking for educational, vocational and socializing purposes. Internet usage affects both adult and adolescent age groups equally compared to older age group.<sup>1</sup> Internet usage could be harmful to adolescents when it is not monitored or supervised by an adult. Uncontrolled use of internet has been linked to psychosocial problems such as addiction to online gaming, pornographic websites and social networking sites, not to mention exposing the adolescents to cyber-bullying environments. Excessive internet use and cyber bullying may in turn further worsen the mental health condition of these adolescents and predisposed them to depression, anxiety and stress.<sup>2</sup>

The terminology of internet addiction to describe excessive internet use has been debated and various tools have been developed to measure the internet addiction. The most widely used tool was the Internet Addiction Test (IAT) developed by Kimberly S. Young.<sup>3</sup> The questionnaire consists of 20 items measured using a 5-point Likert scale (1=rarely, 2=occasionally, 3=frequently, 4=often and 5=always) with the highest possible score of 100. Internet addiction is defined as a person scoring 43 points or above. This questionnaire was validated in Bahasa Malaysia by Chong Guan et al in 2012 and was named Malay Version Internet Addiction Test (MVIAT).<sup>4</sup> The (MVIAT) showed a good internal consistency (Cronbach's  $\alpha = 0.91$ ,  $P < 0.001$ ), parallel reliability (intra-class coefficient correlation= 0.88,  $P < 0.001$ ) and concurrent validity with Compulsive Internet Use Scale (Pearson's correlation= 0.84,  $P < 0.00$ ).



### 3.6.2 Objectives

- i. To identify the prevalence of internet use among adolescents in the past 30 days
- ii. To identify the prevalence of internet addiction among adolescents
- iii. To identify the type of devices used by internet users and addicts

### 3.6.3 Variable Definitions

- **Internet Use:** Internet access using any internet connecting devices for the past 30 days.
- **Internet Addiction:** Using a self-administered 20-item Malay Version Internet Addiction Test (MVIAT) questionnaire, respondents with a total score of 43 or above (all items answered) were defined as having internet addiction.

### 3.6.4 Findings

There were 1,778 secondary school students in Sarawak who responded to this module, of which 347 students did not surf the internet for the past 30 days and 1,396 students completed the MVIAT. The overall prevalence of internet use was 80.8% (95% CI: 74.22, 86.00) with an estimated projection to 159,765 school-going adolescents. In terms of school locality, there was no significant difference in internet usage between students studying in urban areas (83.8%; 95% CI: 73.56, 90.60) and students from rural areas (77.8%; 95% CI: 69.66, 84.32). There were 78.3% (95% CI: 71.84, 83.67) male students and 83.2% (95% CI: 75.97, 88.65) female students used internet in the past 30 days in Sarawak. There was no significant difference in the prevalence of internet use by form in this study (**Table 3.6.1**).

The prevalence of internet addiction among school-going adolescents in Sarawak was 27.7% (95% CI: 22.40, 33.75). In terms of school locality, there was no significant difference in the internet addiction between students studying in urban areas (30.4%; 95% CI: 24.67, 36.77) and students from rural areas (25.1%; 95% CI: 17.22, 35.12). There were 26.7% (95% CI: 21.56, 32.61) of male students and 28.7% (95% CI: 22.53, 35.81) of female students with positive MVIAT (**Table 3.6.2**). Students in higher forms were observed as having a higher prevalence of internet addiction in Sarawak. Smartphone was the most prevalent device used by the internet users and addicts

followed by the computer, laptop or notebook group and tablet or iPad group (**Table 3.6.3 & Table 3.6.4**).

### **3.6.5 Discussion/ Conclusion**

The prevalence of internet usage and internet addiction in Sarawak did not differ significantly with the national prevalence. There was no significant difference in the prevalence of internet usage in terms of school locality, form and sex of the respondents. There was also no significant difference in the prevalence of internet addiction by school locality and sex of the respondents. However, students in higher forms were observed as having higher prevalence of internet addiction. Most of the students used smartphones to surf the internet.

### **3.6.6 Recommendations**

1. The internet addiction problems among Malaysian students is considered as new health risk behaviour that needs further in-depth understanding on internet accessibility, usage, difference in type of content viewed by age, gender and ethnicity, psychosocial factors and role of significant adult supervision, peers and environment to assist in designing specific strategies in prevention program.
2. As internet use and addiction increase with age, it is important that adolescents develop self-awareness on sign of internet addiction and develop self-control against excessive internet usage. It is proposed that the component of self-awareness and control against excessive internet usage is to be integrated into the 'Click Wisely Program' which was introduced by the Malaysian Communication Multimedia Commission (MCMC).
3. Parents should be made aware on dangers of excessive internet usage by secondary students and its detrimental effects on students' health and social development. It is proposed that development of health-related information on the internet addiction should be designed specifically for students and parents. To ensure wide circulation of the messages, it is recommended that the Ministry of Health to collaborate with MCMC in disseminating the information through MCMC social network and Malaysian ICT volunteer (MIV) programs.

4. Smart partnerships with various agencies (governments, NGOs and private sectors) need to be enhanced to disseminate greater awareness on dangers of internet addiction and safe usage of internet to children, adolescents, parents, teachers and the community at large to assist in promotive, preventive and early intervention of internet addiction.

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**Table 3.6.1: Prevalence of internet use in the past 30 days mong Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Internet User				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	1,431	159,765	80.8	74.22	86.00
<b>Locality of school</b>					
Urban	681	81,794	83.8	73.56	90.60
Rural	750	77,971	77.8	69.66	84.32
<b>Sex</b>					
Male	742	77,424	78.3	71.84	83.67
Female	689	82,341	83.2	75.97	88.65
<b>Form</b>					
Form 1	291	31,578	71.8	61.26	80.43
Form 2	202	29,638	73.3	58.75	84.09
Form 3	365	33,567	84.6	76.66	90.19
Form 4	301	32,117	85.8	77.71	91.30
Form 5	272	32,865	90.7	74.59	96.98

**Table 3.6.2: Prevalence of positive Malay Version Internet Addiction Test (MVIAT) mong Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Positive MVIAT				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	487	54,817	27.7	22.40	33.75
<b>Locality of school</b>					
Urban	248	29,652	30.4	24.67	36.77
Rural	239	25,165	25.1	17.22	35.12
<b>Sex</b>					
Male	248	26,414	26.7	21.56	32.61
Female	239	28,403	28.7	22.53	35.81
<b>Form</b>					
Form 1	68	7,095	16.1	11.52	22.13
Form 2	66	9,640	23.8	15.68	34.50
Form 3	118	10,940	27.6	20.95	35.36
Form 4	115	12,426	33.2	27.39	39.57
Form 5	120	14716	40.6	28.73	53.68

**Table 3.6.3: Percentage of reported devices used by internet user mong Form 1 to Form 5 students in Sarawak, 2017**

Type of Devices	Unweighted Count	Percentage (%)	95% CI	
			Lower	Upper
Smartphone	1,340	94.1	91.56	95.84
Computer, Laptop, Notebook	731	52.2	45.22	59.00
Tablet, Ipad use	368	26.4	22.00	31.31

**Table 3.6.4: Percentage of reported devices used by internet addict mong Form 1 to Form 5 students in Sarawak, 2017**

Type of Devices	Unweighted Count	Percentage (%)	95% CI	
			Lower	Upper
Smartphone	459	94.3	88.49	97.24
Computer, Laptop, Notebook	271	57.2	49.51	64.60
Tablet, Ipad use	138	29.0	23.46	35.34

### 3.7 Mental Health Problems

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#### 3.7.1 Introduction

The World Health Organisation (WHO) estimates that one in five adolescents and children suffer from mental health problem and half of all mental illnesses begin by the age of 14.<sup>1</sup> In Malaysia, the National Health and Morbidity Survey (NHMS) 2015 reported prevalence of mental health problems among 16 to 19 years old of 34.7%, while among 10-15 years the prevalence was 11.4%.<sup>2</sup> In particular, WHO reported that suicide is the second leading cause of death among those youth.<sup>3</sup> In 2011, NHMS observed that 2.4% of youth 16-24 years reported suicidal ideation.<sup>4</sup>

#### 3.7.2 Objectives

- i. To identify the prevalence of loneliness in the past 12 months
- ii. To identify the prevalence of inability to sleep due to worry in the past 12 months
- iii. To identify the prevalence of suicidal ideation in the past 12 months
- iv. To identify the prevalence of suicidal plan in the past 12 months
- v. To identify the prevalence of suicidal attempt in the past 12 months
- vi. To identify the prevalence of not having close friend

#### 3.7.3 Variable definitions

- **Lonely “most of the time or always”**: Responded either “most of the time” or “always” for felt lonely during past 12 months prior to the survey.
- **Unable to sleep “most of the time or always” due to worry**: Responded either “most of the time” or “always” for being worried about something that he/she could not sleep at night during past 12 months prior to the survey.
- **Suicidal ideation**: ever seriously considered attempting suicide in the past 12 months prior to the survey.
- **Suicidal plan**: made a plan of attempted suicide in the past 12 months prior to the survey.

- **Suicidal attempt:** attempted suicide at least once in the past 12 months prior to the survey.
- **No close friend:** Do not have any close friend

### 3.7.4 Findings

Overall, 10.1% (95%CI: 8.54, 11.99) of secondary school students in Sarawak reported felt lonely “most of the time or always” (**Table 3.7.1**). A total of 7.7% (95% CI: 6.21, 9.53) of students reported unable to sleep “most of the time or always” due to worry (**Table 3.7.2**). In the past 12 months prior to the survey, suicidal ideation, plan and attempt, were reported by 10.9% (95% CI: 9.19, 12.83), 7.9% (95% CI: 6.07, 10.31), and 8.8% (95% CI: 6.69, 11.48) of students, respectively. **Table 3.7.6** showed that 4.3% (95% CI: 3.24, 5.72) of the students had no close friend. There is no significant difference in the prevalence by locality, sex or form for all these conditions.

### 3.7.5 Discussion/ Conclusion

The prevalence of being lonely and “inability to sleep due to worry” among secondary school students in Sarawak increased from 7.3% and 5.2% in 2012<sup>5</sup> to 10.1% and 7.7% in this current survey. Furthermore, this survey noted worsening of suicidal behaviours as compared to the prevalence in 2012.<sup>5</sup> Suicidal ideation, plan and attempts increased from 7.5% to 10.9%, 6.0% to 7.9%, and 7.2% to 8.8%, respectively. The prevalence of suicidal behaviours in 2017 was comparable to the national figures.

### 3.7.6 Recommendations

1. Screening of at-risk students by School Health Teams and referral for further management
2. Holistic intervention programmes targeted to students at risk of suicide
3. Strengthen students coping skills and resilience through interactive health promotion activities

### 3.7.7 References

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**Table 3.7.1: Prevalence of loneliness "most of the time or always" in the past 12 months among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Unweighted count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	174	20,027	10.1	8.54	11.99
<b>Locality of school</b>					
Urban	82	10,104	10.3	8.72	12.22
Rural	92	9,924	9.9	7.35	13.29
<b>Sex</b>					
Male	75	7,944	8.0	6.31	10.21
Female	99	12,083	12.2	9.27	15.94
<b>Form</b>					
Form 1	40	4,388	10.0	6.95	14.12
Form 2	24	3,767	9.3	5.64	14.91
Form 3	36	3,340	8.4	5.78	12.10
Form 4	38	4,043	10.9	8.89	13.26
Form 5	36	4,490	12.4	8.96	16.88

**Table 3.7.2: Prevalence of inability to sleep "most of time or always" due to worry in the past 12 months among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Unweighted count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	130	15,201	7.7	6.20	9.53
<b>Locality of school</b>					
Urban	72	8,970	9.2	7.07	11.84
Rural	58	6,231	6.3	4.87	8.00
<b>Sex</b>					
Male	59	6,362	6.5	4.83	8.58
Female	71	8,839	8.9	6.28	12.59
<b>Form</b>					
Form 1	31	3,222	7.3	4.52	11.67
Form 2	22	3,646	9.0	3.95	19.17
Form 3	31	2,879	7.3	4.79	10.90
Form 4	18	1,988	5.4	3.26	8.71
Form 5	28	3,466	9.6	6.92	13.16

**Table 3.7.3: Prevalence of suicidal ideation in the past 12 months among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Unweighted count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	195	21,432	10.9	9.19	12.83
<b>Locality of school</b>					
Urban	102	11,966	12.3	9.87	15.21
Rural	93	9,467	9.5	7.83	11.47
<b>Sex</b>					
Male	101	10,391	10.6	8.33	13.34
Female	94	11,041	11.2	8.50	14.56
<b>Form</b>					
Form 1	55	5,794	13.2	7.84	21.43
Form 2	22	3,199	7.9	5.05	12.11
Form 3	51	4,744	12.0	8.64	16.50
Form 4	39	4,409	11.9	6.53	20.72
Form 5	28	3,285	9.1	5.89	13.78

**Table 3.7.4: Prevalence of suicidal plan in the past 12 months among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Unweighted count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	141	15,680	7.9	6.07	10.31
<b>Locality of school</b>					
Urban	73	8,598	8.8	6.33	12.13
Rural	68	7,083	7.1	4.68	10.58
<b>Sex</b>					
Male	79	8,122	8.2	5.79	11.53
Female	62	7,559	7.6	5.11	11.31
<b>Form</b>					
Form 1	41	4,285	9.7	5.06	17.96
Form 2	21	2,974	7.3	4.17	12.58
Form 3	32	3,036	7.7	5.46	10.68
Form 4	29	3,260	8.7	3.17	21.74
Form 5	18	2,126	5.9	3.41	9.94

**Table 3.7.5: Prevalence of suicidal attempt "at least once" in the past 12 months among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Unweighted count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	156	17,369	8.8	6.69	11.48
<b>Locality of school</b>					
Urban	79	9,436	9.7	6.68	13.79
Rural	77	7,933	7.9	5.37	11.60
<b>Sex</b>					
Male	83	8,488	8.6	6.26	11.71
Female	73	8,881	9.0	6.20	12.86
<b>Form</b>					
Form 1	48	5,041	11	6.89	18.48
Form 2	21	3,128	8	5.43	10.83
Form 3	37	3,541	9	6.29	12.57
Form 4	30	3,288	9	2.91	23.84
Form 5	20	2,372	7	3.97	10.66

**Table 3.7.6: Prevalence of not having any close friend among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	Unweighted count	Estimated population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	80	8,506	4.3	3.24	5.72
<b>Locality of school</b>					
Urban	42	4,792	4.9	3.06	7.79
Rural	38	3,714	3.7	3.20	4.35
<b>Sex</b>					
Male	50	5,060	5.1	3.21	8.10
Female	30	3,446	3.5	2.46	4.97
<b>Form</b>					
Form 1	16	1,648	3.7	2.23	6.24
Form 2	11	1,440	3.6	1.05	11.43
Form 3	22	1,991	5.0	3.13	8.03
Form 4	20	2,152	5.8	2.78	11.69
Form 5	11	1,275	3.5	1.96	6.28

### 3.8 Physical Activity

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#### 3.8.1 Introduction

Physical inactivity is a public health problem worldwide and is the fourth leading cause of death worldwide.<sup>1</sup> It is an important contributor to major non-communicable diseases.<sup>2,3</sup> Sufficient physical activity has substantial health benefits for children and adolescents in terms of improving cardiovascular health<sup>4</sup>, mental health<sup>5</sup> and academic performance<sup>6</sup>. Despite these established benefits, a substantial proportion of young people fail to meet physical activity guidelines.

#### 3.8.2 Objectives

1. To identify the prevalence of being physically active for a total of at least 60 minutes daily for five days or more in the past seven days,
2. To identify the prevalence of spending at least three hours in sitting activities in a typical or usual day

#### 3.8.3 Variable Definitions

- **Physical activity:** any activity that increases the heart rate and makes one breathe hard. Examples of physical activities include sports, playing with friends, walking to school, running, fast walking, biking or dancing.
- **Physically active:** physically active for at least 60 minutes per day, for a minimum of five days per week (sum of all the time spent in any kind of physical activity each day).

#### 3.8.4 Findings

There were 1,772 secondary school students who responded to this module. The prevalence of being physically active for a total of at least 60 minutes daily for five days or more in the past seven days was 16.1% (95% CI: 14.49, 17.90), with an estimated projection to 31,791 school-going adolescents. In terms of school locality, it was higher in urban areas [17.0% (95% CI: 14.56, 19.74)] compared to rural areas [15.3% (95% CI: 13.18, 17.65)]. By sex, the prevalence was significantly

higher in males [20.9% (95% CI: 18.36, 23.62)] than in females [11.4% (95% CI: 9.40, 13.75)]. Form 3 had the highest prevalence [19.9% (95% CI: 16.47, 23.94)], followed by Form 5 [19.7% (95% CI: 15.58, 24.57)] and Form 4 [17.3% (95% CI: 13.74, 21.58)] (**Table 3.8.1**).

Regarding sitting activities, the prevalence of spending at least three hours in a typical or usual day in sitting activities was 44.5% (95% CI: 42.15, 46.79). In terms of school locality, it was higher in urban areas [46.6% (95% CI: 43.25, 50.04)] compared to rural areas [42.3% (95% CI: 39.20, 45.53)]. By sex, the prevalence among males [41.5% (95% CI: 38.43, 44.72)] was lower than females [47.4% (95% CI: 44.00, 50.82)]. Form 5 had the highest prevalence [61.0% (95% CI: 55.35, 66.35)], followed by Form 4 [48.7% (95% CI: 43.52, 53.92)] and Form 3 [45.4% (95% CI: 40.71, 50.13)] (**Table 3.8.2**).

### **3.8.5 Discussion/ Conclusion**

The prevalence of school-going adolescents being physically active for a total of at least 60 minutes daily for five days or more in the past seven days in Sarawak [16.1% (95% CI: 14.49, 17.90)] was lower than the national prevalence [19.8% (95% CI: 19.21, 20.40)] and the previous Sarawak GSHS 2012<sup>7</sup> [20.5% (95% CI: 16.69, 24.80)]. Male students were more active than female students. However, there were no significant differences in terms of school locality and form. The prevalence of students who spent at least three hours on sitting activities in a typical or usual day [44.5% (95% CI: 42.15, 46.79)] was significantly lower than the national prevalence [50.1% (95% CI: 49.38, 50.85)] but higher than the previous Sarawak GSHS 2012<sup>7</sup> [39.8% (95% CI: 34.96, 44.87)]. There were no significant differences in terms of locality, sex and form of the students.

### **3.8.6 Recommendations**

Schools represent an important setting for promoting physical activity as the adolescents spend approximately half of their waking day at school. Development of creative and innovative “school-based interventions” such as engaging social media to promote healthy lifestyles particularly on increasing physical activity need to be explored.

### 3.8.7 References

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**Table 3.8.1 : Prevalence of being physically active (60 minutes daily) for a total of at least 5 days or more among Form 1 to Form 5 students in Sarawak 2017**

Socio-demographic characteristics	Physically Active for at least 5 days or more				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	295	31,791	16.1	14.49	17.90
<b>Locality of school</b>					
Urban	142	16,522	17.0	14.56	19.74
Rural	153	15,269	15.3	13.18	17.65
<b>Sex</b>					
Male	197	20,548	20.9	18.36	23.62
Female	98	11,242	11.4	9.40	13.75
<b>Form</b>					
Form 1	46	4,972	11.3	8.57	14.84
Form 2	38	5,353	13.3	9.84	17.70
Form 3	88	7,898	19.9	16.47	23.94
Form 4	63	6,431	17.3	13.74	21.58
Form 5	60	7,138	19.7	15.58	24.57

**Table 3.8.2: Prevalence of spending at least 3 hours in sitting activities, Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic characteristics	spending at least 3 hours on sedentary activities				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	780	87,547	44.5	42.15	46.79
<b>Locality of school</b>					
Urban	381	45,481	46.6	43.25	50.04
Rural	399	42,066	42.3	39.20	45.53
<b>Sex</b>					
Male	385	40,997	41.5	38.43	44.72
Female	395	46,551	47.4	44.00	50.82
<b>Form</b>					
Form 1	129	14,119	32.6	28.06	37.38
Form 2	104	15,199	37.6	31.98	43.57
Form 3	196	17,937	45.4	40.71	50.13
Form 4	169	18,184	48.7	43.52	53.92
Form 5	182	22,108	61.0	55.35	66.35

### 3.9. Protective Factors

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#### 3.9.1 Introduction

According to Centre for Disease Control and Prevention (CDC), protective factors are individual or environmental characteristics, conditions, or behaviours that reduce the effects of stressful life events.<sup>1</sup> Important protective factors such as parental attachment and peer support especially for adolescence could influence their attitude and behaviour. Research has shown that adolescent attachment and relationships with parents and peers as well as schools they attend is a predictor of their psychological well-being.<sup>2</sup> Protective factor could help avoid unhealthy behaviours such as violence, sexual risk behaviours, tobacco use and drug abuse.<sup>3</sup> In order to measure the level of protective factors among school students, truancy is seen as an indicator, which is monitored by lower prevalence, as truancy often acts as the initial behaviour that can lead to other risky behaviour.<sup>4</sup>

#### 3.9.2 Objectives

To identify prevalence of:

- i. Truancy in the past 30 days
- ii. Peer support in the past 30 days
- iii. Parental or guardian supervision in the past 30 days
- iv. Parental or guardian connectedness in the past 30 days
- v. Parental or guardian bonding in the past 30 days
- vi. Parental or guardian respect for privacy in the past 30 days

#### 3.9.3 Variable Definitions

- **Truancy:** missed class or school without permission for at least one day in the past 30 days. (This variable is monitored with lower prevalence to define as protective factors)
- **Peer support:** students in their school were kind and helpful most of the time or always during the past 30 days.
- **Parental or guardian supervision:** parents or guardians had always or most of the time, checked to see if their homework was done in the past 30 days.



- **Parental or guardian connectedness:** parents or guardians had always or most of the time, understood their problems and worries in the past 30 days.
- **Parental or guardian bonding:** parents or guardians had always or most of the time, really knew what they were doing with their free time in the past 30 days.
- **Parental or guardian respect for privacy:** parents or guardians had never or rarely gone through their things without their approval in the past 30 days.

### 3.9.4 Findings

In Sarawak, the prevalence of truancy among students in the past 30 days was 25.1% (95% CI: 20.77, 29.98) of which males was 28.0% (95% CI: 24.16, 32.11) and females was 22.2% (95% CI: 16.70, 28.96). Prevalence of truancy according to forms was 23.3% (95% CI: 18.11, 29.55), 23.6% (95% CI: 16.54, 32.62), 26.1% (95% CI: 17.48, 36.96), 30.6% (95% CI: 20.90, 42.28) and 22.2% (95% CI: 12.95, 35.35) from Form 1 to Form 5 respectively. In terms of school locality, prevalence of truancy in rural areas was 23.7% (95% CI: 17.17, 31.84) and urban areas was 26.4% (95% CI: 21.47, 32.07) (**Table 3.9.1**).

Overall, prevalence of having peer support among students in Sarawak was 44.6% (95% CI: 40.11, 49.14); of which 38.1% (95% CI: 34.33, 42.05) in males, 51.0% (95% CI: 44.09, 57.96) in females (**Table 3.8.2**). Total prevalence of having parental or guardian supervision was 15.2% (95% CI: 11.81, 19.34) which was 14.6% (95% CI: 10.42, 20.15) in males, 15.8% (95% CI: 12.11, 20.28) in females (**Table 3.9.3**). The overall prevalence of having parental or guardian connectedness was 27.6% (95% CI: 24.05, 31.48) of which 24.3% (95% CI: 19.91, 29.23) in males and 31.0% (95% CI: 25.5, 37.02) in females. In term of school locality, prevalence of having parental or guardian connectedness was 25.5% (95% CI: 20.19, 31.60) in urban areas and 29.7% (95% CI: 25.81, 33.90) in rural areas (**Table 3.9.4**). The overall prevalence of having parental or guardian bonding was 39.2% (95% CI: 35.39, 43.12) which was 35.9% (95% CI: 33.03, 38.78) in males, 42.5% (95% CI: 35.97, 49.39) in females. (**Table 3.9.5**). A total of 70.1% (95% CI: 65.49, 74.27) students reported having parental or guardian respect for privacy, 69.7% (95% CI: 63.95, 74.84) in males, 70.5% (95% CI: 66.01, 74.57) in females (**Table 3.9.6**).

### **3.9.5 Discussions/ Conclusion**

Prevalence of truancy and protective factors (peer support, parental or guardian supervision, parental or guardian connectedness, parental or guardian bonding and parental or guardian respect for privacy) among students in Sarawak within the past 30 days showed no significant difference from the national prevalence. There were also no significant difference in the prevalence of truancy and protective factors reported between the national AHS 2017 and Sarawak GSHS 2012.<sup>5</sup>

### **3.9.6 Recommendations**

1. Monitoring attendance closely by participation of schools, parent and local organizations through enforcement of mandatory attendance law allows identification of at risk and truancy behaviour among school students.
2. Positive reinforcement which focuses on the positive points of behavior will encourage children to improve peer support, self-control and respect for others.
3. Establishment of school programs that need parent's supervision will help in improving the parenting skills especially in parental attachment.
4. Development of interventions that strengthen the protective factors among school students is important and more effective in reducing risk in order to improve the outcomes experienced by the students

### **3.9.7 References**

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5. Institute for Public Health (IPH) 2012. The National Health and Morbidity Survey: Malaysia Global School-based Student Health Survey 2012. Kuala Lumpur: Ministry of Health Malaysia.

**Table 3.9.1 : Prevalence of truancy \*(one or more days) in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic Characteristics	Truancy				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	451	49,584	25.1	20.77	29.98
<b>Locality of school</b>					
Urban	197	23,165	23.7	17.17	31.84
Rural	254	26,420	26.4	21.47	32.07
<b>Sex</b>					
Male	265	27,650	28.0	24.16	32.11
Female	186	21,935	22.2	16.70	28.96
<b>Form</b>					
Form 1	100	10,239	23.3	18.11	29.55
Form 2	66	9,594	23.6	16.54	32.62
Form 3	109	10,338	26.1	17.48	36.96
Form 4	105	11,368	30.6	20.90	42.28
Form 5	71	8,045	22.2	12.95	35.35

**Table 3.9.2 : Prevalence of peer support in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic Characteristics	*Most of the time or always				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	793	88,079	44.6	40.11	49.14
<b>Locality of school</b>					
Urban	343	40,977	42.0	35.39	48.88
Rural	450	47,102	47.1	41.96	52.32
<b>Sex</b>					
Male	364	37,654	38.1	34.33	42.05
Female	429	50,425	51.0	44.09	57.96
<b>Form</b>					
Form 1	145	15,992	36.6	28.87	45.00
Form 2	111	16,158	39.8	31.09	49.27
Form 3	209	18,489	46.6	38.37	55.03
Form 4	171	17,952	48.1	41.07	55.18
Form 5	157	19,487	53.8	41.03	66.01

**Table 3.9.3 : Prevalence of parental or guardian supervision in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic Characteristics	*Most of the time or always				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	277	30,028	15.2	11.81	19.34
<b>Locality of school</b>					
Urban	102	11,720	12.0	8.49	16.71
Rural	175	18,308	18.3	13.92	23.72
<b>Sex</b>					
Male	142	14,463	14.6	10.42	20.15
Female	135	15,565	15.8	12.11	20.28
<b>Form</b>					
Form 1	88	9,539	21.7	15.66	29.38
Form 2	38	5,315	13.1	7.31	22.38
Form 3	59	5,075	12.8	8.62	18.57
Form 4	57	5,920	15.9	9.75	24.88
Form 5	35	4,179	11.5	5.16	23.79

**Table 3.9.4 : Prevalence of parental or guardian connectedness in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic Characteristics	*Most of the time or always				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	495	54,495	27.6	24.05	31.48
<b>Locality of school</b>					
Urban	211	24,825	25.5	20.19	31.60
Rural	284	29,669	29.7	25.81	33.90
<b>Sex</b>					
Male	232	23,996	24.3	19.91	29.23
Female	263	30,499	31.0	25.51	37.02
<b>Form</b>					
Form 1	114	12,545	28.5	20.81	37.76
Form 2	68	9,634	23.8	17.04	32.29
Form 3	117	10,340	26.1	20.05	33.13
Form 4	98	10,065	27.1	19.14	36.74
Form 5	98	11,911	33.0	26.77	39.88

**Table 3.9.5 : Prevalence of parental or guardian bonding in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic Characteristics	*Most of the time or always				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	699	77,212	39.2	35.39	43.12
<b>Locality of the school</b>					
Urban	333	39,156	40.2	33.61	47.13
Rural	366	38,056	38.2	34.76	41.80
<b>Sex</b>					
Male	344	35,416	35.9	33.03	38.78
Female	355	41,796	42.5	35.97	49.39
<b>Form</b>					
Form 1	146	16,021	36.7	26.83	47.85
Form 2	87	12,517	31.0	23.47	39.64
Form 3	169	15,003	37.8	29.30	47.16
Form 4	155	16,356	44.0	35.25	53.06
Form 5	142	17,315	48.0	38.52	57.58

**Table 3.9.6 : Prevalence of parental or guardian respect for privacy in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic Characteristics	Never or rarely				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	1,235	137,914	70.1	65.49	74.27
<b>Locality of school</b>					
Urban	596	71,435	73.5	69.71	77.05
Rural	639	66,478	66.7	59.79	72.93
<b>Sex</b>					
Male	656	68,566	69.7	63.95	74.84
Female	579	69,348	70.5	66.01	74.57
<b>Form</b>					
Form 1	270	28,684	65.8	60.16	71.08
Form 2	201	29,231	72.8	62.94	80.83
Form 3	320	29,178	73.5	70.50	76.38
Form 4	241	26,067	69.8	58.68	79.03
Form 5	203	24,754	68.6	61.69	74.74

### **3.10 Sexual Behaviours that contribute to HIV Infection, Other STIs and Unintended Pregnancy**

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#### **3.10.1 Introduction**

The WHO reported that 10% to 40% of young unmarried girls aged 13 to 19 years to have had an unintended pregnancy.<sup>1</sup> It was also reported that the highest rate of Sexual Transmitted Illness (STI) worldwide are among young people aged 15 to 24 years.<sup>2</sup> In Malaysia, Ministry of Health revealed that 12,492 teenage pregnancies were recorded in 2016. Therefore, sexual intercourse among school aged students is a public health concern in Malaysia due to the alarming numbers of the teenage unintended pregnancies and Sexual Transmitted Illness (STI) from this age group.<sup>2,3</sup>

#### **3.10.2 Objectives**

To identify prevalence of:

- i. Current sexual intercourse in the past 30 days among Form 1 to Form 5 students in Malaysia.
- ii. Ever having sexual intercourse among Form 1 to Form 5 students in Malaysia.
- iii. First sexual experience before the age 14 years among those who ever had sex.
- iv. Having at least two sexual partners among those who ever had sex.
- v. Condom use during the last sexual intercourse among those who ever had sex.
- vi. Use of "other birth control methods" during the last sexual intercourse among those who ever had sex.

#### **3.10.3 Variable Definitions**

- **Sexual intercourse:** sexual acts of penetration of penis into vagina or anus.
- **Safe sexual practice:** sexual contact that doesn't involve the exchange of semen, vaginal fluids or blood between partners.

### 3.10.4 Findings

Prevalence of ever-had sex among Form 1 to Form 5 students in Sarawak was 7.6% (95% CI: 5.52, 10.44). Prevalence of ever-had sex among male students was 8.4% (95% CI: 5.77, 10.15) while female students was 6.8% (95% CI: 4.46, 10.30). Form 1 students showed the highest prevalence of 12.3% (95% CI: 6.12, 23.33) (**Table 3.10.1**). The prevalence of Form 1 to Form 5 students that were currently having sexual intercourse in Sarawak was 6.0% (95% CI: 4.37, 8.22). Form 1 students showed the highest prevalence of 9.9% (95% CI: 5.10, 18.49) compared to other forms (**Table 3.10.2**).

Of those who ever-had sex, 31.1% (95% CI: 22.28, 41.57) of them had sex before the age of 14 years. Form 1 students showed the highest percentage at 42.9% (95% CI: 29.18, 57.83) (**Table 3.10.3**). It was noted that 19.0% (95% CI: 11.04, 30.57) of those who were ever-had sex, had at least two sexual partners in which, male students were 22.6% (95% CI: 13.66, 35.06) and females were 14.4% (95% CI: 5.38, 33.32) (**Table 3.10.4**). Only 13.8% (95% CI: 7.48, 24.17) of those who ever-had sex used a condom during their last sexual intercourse while 7.6% (95% CI: 3.63, 15.24) used other birth control methods (**Table 3.10.5 & Table 3.10.6**).

### 3.10.5 Discussion/ Conclusion

The prevalence of ever-had sexual intercourse in Sarawak AHS 2017 (7.6%) was higher as compared to the national prevalence in 2017 (7.3%) however the prevalence was lower than the previous Sarawak GSHS in 2012<sup>4</sup> (8.7%).

### 3.10.6 Recommendations

1. To strengthen sexual health education especially among students and to educate them regarding the complications of unsafe sex.
2. To conduct more studies especially qualitative studies in exploring the sexual orientation of the students, abortion and unintended pregnancy.
3. To strengthen and actively provide services of our adolescent health screening (BSSK) in schools.



### 3.10.7 References

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4. Institute for Public Health(IPH) 2012.The National Health and Morbidity Survey: Malaysia Global School Based Student Health Survey 2012.Kuala Lumpur: Ministry of Health Malaysia

Table 3.10.1 : Prevalence of ever had sexual intercourse among students Form 1 to Form 5 Sarawak 2017

Socio-demographic characteristics	ever had sexual intercourse				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	137	15,068	7.6	5.52	10.44
<b>Locality of school</b>					
Urban	64	7,515	7.7	4.73	12.32
Rural	73	7,553	7.5	4.50	12.38
<b>Sex</b>					
Male	81	8,329	8.4	5.77	12.15
Female	56	6,739	6.8	4.46	10.30
<b>Form</b>					
Form 1	51	5,391	12.3	6.12	23.33
Form 2	11	1,627	4.0	2.04	7.75
Form 3	23	2,127	5.4	3.57	7.98
Form 4	33	2,127	5.4	3.57	7.98
Form 5	19	2,190	6.0	3.34	10.67

Table 3.10.2 : Prevalence of current sexual intercourse in the past 30 days among students Form 1 to Form 5, Sarawak 2017

Socio-demographic characteristics	current sexual intercourse				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	109	11,900	6.0	4.37	8.22
<b>Locality of school</b>					
Urban	55	6,387	6.5	4.03	10.42
Rural	54	5,514	5.5	3.33	8.96
<b>Sex</b>					
Male	65	6,678	6.7	4.65	9.68
Female	44	5,223	5.3	3.38	8.16
<b>Form</b>					
Form 1	41	4,370	9.9	5.10	18.49
Form 2	8	1,193	2.9	1.64	5.22
Form 3	21	1,968	5.0	3.18	7.66
Form 4	26	2,888	7.7	2.94	18.75
Form 5	13	1,480	4.1	2.37	6.96

**Table 3.10.3 : Percentage of first sex before the age of 14 years among those who ever had sex among students Form 1 to Form 5 Sarawak 2017**

Socio-demographic characteristics	Percentage of first sex before the age 14 years among those who ever had sex				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	43	4,650	31.1	22.28	41.57
<b>Locality of school</b>					
Urban	19	2,229	29.7	18.52	43.88
Rural	24	2,421	32.1	18.40	49.68
<b>Sex</b>					
Male	24	2,380	28.6	17.76	42.56
Female	19	2,270	33.7	21.83	48.02
<b>Form</b>					
Form 1	22	2,313	42.9	29.18	57.83
Form 2	1	133	8.2	0.87	47.47
Form 3	3	248	11.7	3.19	34.59
Form 4	12	1,386	37.1	23.79	52.74
Form 5	5	570	26.0	16.86	37.91

**Table 3.10.4 : Percentage of having at least two sexual partners among students who ever had sex Form 1 to Form 5, Sarawak 2017**

Socio-demographic characteristics	Percentage of having at least two sexual partners among those who ever had sex				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	26	2,856	19.0	11.04	30.57
<b>Locality of school</b>					
Urban	10	1,130	15.0	6.45	31.26
Rural	16	1,726	22.8	10.66	42.35
<b>Sex</b>					
Male	18	1,884	22.6	13.66	35.06
Female	8	972	14.4	5.38	33.32
<b>Form</b>					
Form 1	9	939	17.4	7.84	34.35
Form 2	2	273	16.8	6.08	38.65
Form 3	1	94	4.4	0.53	28.83
Form 4	9	995	26.6	10.76	52.26
Form 5	5	554	25.3	7.69	57.95

Table 3.10.5 : Percentage of reported condom use during the last sexual intercourse among students who ever had sex Form 1 to Form 5, Sarawak 2017

Socio-demographic characteristics	condom use				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	19	2,085	13.8	7.48	24.17
<b>Locality of school</b>					
Urban	7	781	10.4	3.29	28.35
Rural	12	1,303	17.3	7.62	34.50
<b>Sex</b>					
Male	10	980	11.8	6.27	21.02
Female	9	1,104	16.4	6.33	36.24
<b>Form</b>					
Form 1	12	1,250	23.2	11.26	41.78
Form 2	2	293	18.0	6.69	40.25
Form 3	-	-	-	-	-
Form 4	5	542	14.5	7.13	27.31
Form 5					

Table 3.10.6 : Percentage of reported using "other birth control methods" during the last sexual intercourse among students who ever had sex Form 1 to Form 5, Sarawak 2017

Socio-demographic characteristics	other birth control methods				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	11	1,147	7.6	3.63	15.24
<b>Locality of school</b>					
Urban	4	451	6.0	1.80	18.16
Rural	7	696	9.2	3.96	19.99
<b>Sex</b>					
Male	9	922	11.1	5.91	19.77
Female	2	225	3.3	0.38	23.86
<b>Form</b>					
Form 1	4	407	7.5	2.71	19.26
Form 2	1	133	8.2	0.87	47.47
Form 3	1	94	4.4	0.53	28.83
Form 4	3	291	7.8	3.90	15.00
Form 5	2	222	10.1	1.13	52.67

### **3.11 Tobacco Use**

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#### **3.11.1 Introduction**

Most smokers experimented and started smoking during their school aged days. For example, in Malaysian Global Adults Tobacco Survey (GATS) 2011, 51.8% of the smokers started smoking daily before the age of 18.<sup>1</sup> Therefore, monitoring tobacco use among Malaysian adolescents is an important process in tobacco control. Malaysia is committed with the implementation of the WHO Framework Convention on Tobacco Control to achieve targeted lower smoking prevalence and creating smokefree Malaysian generations.

#### **3.11.2 Objectives**

To identify the prevalence of:

- i. Current smokers
- ii. Current cigarette smokers
- iii. Current E-cigarette/vape users
- iv. Current any tobacco product users
- v. Current smoke and smokeless tobacco product use by types
- vi. Having tried a cigarette before the age of 14 years, among ever cigarette smokers
- vii. Having tried E-cigarettes or vape before the age of 14 years, among ever E-cigarette or vape users
- viii. Quit smoking attempt in the past 12 months among those who ever smoked cigarettes
- ix. Quit E-cigarettes or vape attempt in the past 12 months among those who ever used E-cigarettes or vape
- x. Having been exposed to people smoking in their presence for at least one day in the past seven days

- xi. Having parents or guardians who used any form of tobacco products
- xii. Having parents or guardians who used E-cigarettes or vape

### 3.11.3 Variable Definitions

- **Current smoker:** Used any smoked tobacco products in the past 30 days (Manufactured cigarette, Roll-your-own cigarette, Traditional hand-rolled cigarette, Shisha, Cigar, or Pipe).
- **Current cigarette smoker:** smoked manufactured cigarette, rolled-your-own, or traditional hand roll cigarette in the past 30 days.
- **Current E-cigarette/Vape user:** Used E-cigarette/Vape in the past 30 days.
- **Current any tobacco product user:** Used any tobacco products in the past 30 days (Manufactured cigarette, Roll-your-own cigarette, Traditional hand-rolled cigarette, Shisha, Cigar, and Pipe, E-cigarette/Vape, Chewing tobacco or Snuff)

### 3.11.4 Findings

The prevalence of current smokers was 20.1% (95% CI: 15.31, 25.82) (**Table 3.11.1**). The prevalence was significantly higher among males (32.6%; 95% CI: 25.18, 41.08) as compared to females (7.5%; 95% CI 5.49, 10.14). Form 4 students had the highest prevalence of 22.1% (95% CI: 13.85, 33.40) with no significant difference across all forms.

The prevalence of current cigarettes smokers was 17.7% (95% CI: 13.25, 23.33) (**Table 3.11.2**). The prevalence was significantly higher in males (29.6%; 95% CI: 22.35, 37.96) than females (5.9%; 95% CI: 4.08, 8.50). Form 4 students reported highest prevalence (20.4%; 95% CI 12.31, 31.93) but no significant difference compared to the other forms. Among those who ever smoked cigarettes, 69.7% (95%CI: 60.76, 77.32) had first tried a cigarette before the age of 14 years, with no significant difference by gender (**Table 3.11.6**).

Overall, 24.6% (95% CI: 19.57, 30.49) currently use any tobacco products (**Table 3.11.3**). Males (39.1%; 95% CI: 30.75, 48.09) had significantly higher prevalence compared to females (10.2%; 95% CI: 8.08, 12.75). Form 3 students reported highest prevalence (26.8%; 95% CI 17.44, 38.83) compared to the other forms.

The prevalence of using shisha/hookah in the past 30 days was 7.6% (95% CI: 5.55, 10.32) **(Table 3.11.5)**. Males (11.3%; 95% CI: 8.71, 14.56) had significantly higher prevalence compared to females (3.9%; 95% CI: 2.33, 6.41). The prevalence of traditional rolled cigarette use was 5.4% (95% CI: 4.02, 7.30) **(Table 3.11.5)**. Males (8.3%; 95% CI: 6.70, 10.28) had significantly higher prevalence compared to females (2.6%; 95% CI: 1.39, 4.64). The prevalence of rolled your own was 5.2% (95% CI: 4.06, 6.65) **(Table 3.11.5)**. Males (7.5%; 95% CI: 5.81, 9.74) had significantly higher prevalence compared to females (2.9%; 95% CI: 1.77, 4.65). 5.2% (95% CI: 4.02, 6.80) of the students used **cigar (Table 3.11.5)**. Males (7.8%; 95% CI: 6.25, 9.62) had significantly higher prevalence compared to females (2.7%; 95% CI: 1.54, 4.76). The prevalence of using pipe was 4.2% (95% CI: 2.94, 6.02) with no significant difference across gender **(Table 3.11.5)**.

Among those who smoked cigarettes in the past 12 months, 75.1% (95% CI: 66.91, 81.87) had tried to stop smoking **(Table 3.11.8)**. Males (79.7%; 95% CI: 71.65, 85.88) had significantly higher prevalence compared to females (51.1%; 95% CI: 32.68, 69.16). Form 5 students had the highest prevalence (82.2%; 95% CI 59.23, 93.59) compared to the other forms.

A total of 38.9% (95% CI: 33.64, 44.43) reported having been exposed to people who smoked in their presence in the past 7 days **(Table 3.11.10)**. Males (49.2%; 95% CI: 42.45, 55.89) had significantly higher prevalence compared to females (28.6%; 95% CI: 24.09, 33.68). Form 5 students reported highest prevalence (47.7%; 95% CI 38.21, 57.37) compared to other forms.

Overall, 37.9% (95% CI: 34.35, 41.65) of students reported having parents or guardian who used any form of tobacco products with no significant difference across gender **(Table 3.11.11)**. Form 3 students had the highest prevalence (43.6%; 95% CI 36.36, 51.20) compared to other forms.

The prevalence of current E-cigarette use was 12.0% (95% CI: 9.41, 15.23) **(Table 3.11.4)**. Males reported significantly higher prevalence 20.1% (95% CI: 15.19, 26.12) compared to females 3.9% (95% CI: 2.56, 5.97). Form 2 students had the highest prevalence (13.5%; 95% CI 8.75, 20.32) compared to the other forms. Among those who ever smoked e-cigarette/vape, 43.1% (95%CI: 32.08, 54.75) had first tried e-cigarette/vape before the age of 14 years, with no significant difference by gender **(Table 3.11.7)**.

Among those who used e-cigarette/vape in the past 12 months, 58.5% (95% CI: 48.23, 68.09) had tried to stop using e-cigarette/vape (**Table 3.11.9**). There was no significant difference across gender. Form 5 students had the highest prevalence (67.3%; 95% CI 34.80, 88.79) compared to other forms.

Overall, 13.1% (95% CI: 10.94, 15.64) of students reported having parents or guardian who used e-cigarette/vape with no significant difference across gender (**Table 3.11.12**). Form 1 students had the highest prevalence (16.6%; 95% CI 13.23, 20.69) compared to other form.

The prevalence of chewing tobacco was 3.9% (95% CI: 2.68, 5.70) with no significant difference across gender (**Table 3.11.5**). The prevalence of snuff use was 7.7% (95% CI: 5.97, 9.78) (**Table 3.11.5**). Males (11.0%; 95% CI: 8.85, 13.66) had significantly higher prevalence compared to females (4.3%; 95% CI: 2.80, 6.58)

### **3.11.5 Discussion/Conclusion**

The prevalence of cigarette smoking in Sarawak was not significantly different compared to the national prevalence. Similarly, the prevalence of having tried a cigarette before the age of 14 among ever cigarette smokers and the prevalence of having been exposed to people who smoke in their presence in the past seven days showed no significant difference compared to the national prevalence.

### **3.11.6 Recommendations**

All screening, prevention and intervention programmes among adolescents must be strengthened and delivered in synergy by all governmental and non-governmental agencies. Interventions should also be targeted to higher risk groups such as states with high prevalence, males and Form 1 students. The rise of prevalence of smoking among females should also be a concern for additional interventions to halt this increment. Overall national tobacco control programmes have to be amplified to achieve denormalization of public smoking, and to help reduce exposure to cigarette smoke among our youth. These would help to achieve the medium and long-term targets as stipulated in the National Strategic Plan for Tobacco Control.



### **3.11.7 References**

1. Institute for Public Health (IPH). Report of the Global Adult Tobacco Survey (GATS) Malaysia, 2011, Ministry of Health Malaysia, 2012.

**Table 3.11.1: Prevalence of current smoker among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Current Smokers				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	372	39,673	20.1	15.31	25.82
<b>Locality of school</b>					
Urban	167	18,839	19.3	13.92	26.07
Rural	205	20,835	20.8	13.62	30.49
<b>Sex</b>					
Male	308	32,265	32.6	25.18	41.08
Female	64	7,408	7.5	5.49	10.14
<b>Form</b>					
Form 1	87	8,751	19.9	14.16	27.24
Form 2	59	8,120	20.0	14.22	27.41
Form 3	91	8,496	21.4	13.64	31.98
Form 4	81	8,277	22.1	13.85	33.40
Form 5	54	6,029	16.7	9.92	26.68

**Table 3.11.2: Prevalence of current cigarette smokers among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Current Cigarette Smokers				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	330	35,077	17.7	13.25	23.33
<b>Locality of school</b>					
Urban	149	16,620	17.0	11.80	23.89
Rural	181	18,457	18.4	11.78	27.71
<b>Sex</b>					
Male	278	29,226	29.6	22.35	37.96
Female	52	5,851	5.9	4.08	8.50
<b>Form</b>					
Form 1	72	7,209	16.4	11.04	23.66
Form 2	52	7,064	17.4	11.81	24.91
Form 3	82	7,726	19.5	12.17	29.68
Form 4	75	7,643	20.4	12.31	31.93
Form 5	49	5,436	15.0	8.78	24.56

**Table 3.11.3: Prevalence of current any tobacco product use among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	458	48,707	24.6	19.57	30.49
<b>Locality of school</b>					
Urban	199	22,571	23.1	17.04	30.51
Rural	259	26,136	26.1	18.69	35.23
<b>Sex</b>					
Male	371	38,635	39.1	30.75	48.09
Female	87	10,072	10.2	8.08	12.75
<b>Form</b>					
Form 1	108	10,904	24.8	18.02	33.10
Form 2	76	10,434	25.7	19.03	33.78
Form 3	115	10,633	26.8	17.44	38.83
Form 4	92	9,409	25.1	16.87	35.73
Form 5	67	7,327	20.3	13.24	29.74

**Table 3.11.4: Prevalence of current E-cigarettes/Vape use among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Current e-Cigarette Users				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	221	23,733	12.0	9.41	15.23
<b>Locality of school</b>					
Urban	101	11,647	11.9	8.52	16.45
Rural	120	12,086	12.1	8.47	17.02
<b>Sex</b>					
Male	188	19,861	20.1	15.19	26.12
Female	33	3,872	3.9	2.56	5.97
<b>Form</b>					
Form 1	48	4,834	11.1	6.90	17.32
Form 2	40	5,486	13.5	8.75	20.32
Form 3	51	4,868	12.3	7.68	19.03
Form 4	43	4,337	11.6	6.40	20.09
Form 5	39	4,208	11.6	6.78	19.26

**Table 3.11.5: Prevalence of current smoke and smokeless tobacco product use by types (except manufactured cigarette and E-cigarette/Vape) among Form 1 to Form 5 students in Sarawak, 2017**

	Total					Male				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
Shisha Use	138	14,974	7.6	5.55	10.32	105	11,138	11.3	8.71	14.56
Traditional Rolled Cigarette Use	101	10,717	5.4	4.02	7.30	79	8,193	8.3	6.70	10.28
Roll-Your-Own" With Cigarette Paper Use"	97	10,269	5.2	4.06	6.65	72	7,428	7.5	5.81	9.74
Cigar Use	97	10,345	5.2	4.02	6.80	73	7,657	7.8	6.25	9.62
Pipe Smoking Use	80	8,332	4.2	2.94	6.02	55	5,486	5.6	3.78	8.10
Chewing Tobacco Use	75	7,744	3.9	2.68	5.70	52	5,142	5.2	3.52	7.65
Snuff Use	142	15,106	7.7	5.97	9.78	104	10,844	11.0	8.85	13.66

**Table 3.11.5: Prevalence of current smoke and smokeless tobacco product use by types (except manufactured cigarette and E-cigarette/Vape) among Form 1 to Form 5 students in Sarawak, 2017 (Cont.)**

	Female				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
Shisha Use	33	3,836	3.9	2.33	6.41
Traditional Rolled Cigarette Use	22	2,524	2.6	1.39	4.64
Roll-Your-Own" With Cigarette Paper Use"	25	2,841	2.9	1.77	4.65
Cigar Use	24	2,688	2.7	1.54	4.76
Pipe Smoking Use	25	2,846	2.9	1.56	5.26
Chewing Tobacco Use	23	2,602	2.6	1.35	5.05
Snuff Use	38	4,262	4.3	2.80	6.58

**Table 3.11.6: Prevalence of having tried a cigarette before the age of 14 years among ever smokers among Form 1 to Form 5 students in Sarawak, 2017**

	Total					Male				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
Yes	213	23,379	69.7	60.76	77.32	192	21,005	70.6	61.69	78.24
No	96	10,176	30.3	22.68	39.24	85	8,729	29.4	21.76	38.31

**Table 3.11.6: Prevalence of having tried a cigarette before the age of 14 years among ever smokers among Form 1 to Form 5 students in Sarawak, 2017 (Cont.)**

	Female				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
Yes	21	2,374	62.1	40.29	79.95
No	11	1,447	37.9	20.05	59.71

**Table 3.11.7: Prevalence of having tried a E-cigarette/Vape before the age of 14 years among ever E-cigarette/Vape users among Form 1 to Form 5 students in Sarawak, 2017**

	Total					Male				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
Yes	105	11,693	43.1	32.08	54.75	91	10,142	43.9	33.24	55.14
No	144	15,468	56.9	45.25	67.92	126	12,964	56.1	44.86	66.76

**Table 3.11.7: Prevalence of having tried a E-cigarette/Vape before the age of 14 years among ever E-cigarette/Vape users among Form 1 to Form 5 students in Sarawak, 2017 (Cont.)**

	Female				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
Yes	14	1,551	38.2	17.35	64.63
No	18	2,504	61.8	35.37	82.65

**Table 3.11.8: Prevalence of quit smoking attempt in the past 12 month among those who ever smoked among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Quit Smoking Attempts In The Past 12 Months Among Those Who Ever Smoked Cigarettes				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	231	24,767	75.1	66.91	81.87
<b>Locality of school</b>					
Urban	118	13,348	77.1	66.39	85.17
Rural	113	11,419	73.0	60.85	82.39
<b>Sex</b>					
Male	207	22,097	79.7	71.65	85.88
Female	24	2,670	51.1	32.68	69.16
<b>Form</b>					
Form 1	38	3,833	66.7	53.10	78.06
Form 2	41	5,573	75.9	65.86	83.76
Form 3	66	6,218	82.1	65.41	91.74
Form 4	42	4,178	66.7	48.26	81.15
Form 5	44	4,964	82.2	59.23	93.59

**Table 3.11.9: Prevalence of quit E-cigarette/ Vape attempt in the past 12 month among those who ever used E-Cigarette/Vape among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Stop Using e-Cigarettes In The Past 12 Months Among Those Who Ever Smoked e-Cigarettes				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	169	18,062	58.5	48.23	68.09
<b>Locality school</b>					
Urban	85	9,721	68.4	58.70	76.69
Rural	84	8,341	50.1	40.05	60.10
<b>Sex</b>					
Male	141	14,803	63.3	52.71	72.74
Female	28	3,259	43.5	27.41	61.14
<b>Form</b>					
Form 1	40	4,006	64.7	49.66	77.27
Form 2	30	4,074	57.0	45.46	67.77
Form 3	34	3,104	51.8	34.37	68.85
Form 4	29	2,917	51.6	33.96	68.86
Form 5	36	3,961	67.3	34.80	88.79

**Table 3.11.10: Prevalence of being expose to people smoking in their presence for at least one day in the past 7 days among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Having Been Exposed To People Smoking In Their Presence For At Least One Days In The Past 7 Days				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	696	76,840	38.9	33.64	44.43
<b>Locality of school</b>					
Urban	323	38,138	39.0	32.60	45.86
Rural	373	38,702	38.8	30.69	47.53
<b>Sex</b>					
Male	460	48,543	49.2	42.45	55.89
Female	236	28,297	28.6	24.09	33.68
<b>Form</b>					
Form 1	108	11,090	25.2	20.55	30.55
Form 2	121	17,154	42.4	33.58	51.75
Form 3	188	17,568	44.3	34.35	54.69
Form 4	133	13,781	36.9	30.26	44.17
Form 5	146	17,247	47.7	38.21	57.37

**Table 3.11.11: Prevalence of having father or mother or guardian who used any form of tobacco product among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Either Father Or Mother Or Guardian				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	622	67,942	37.9	34.35	41.65
<b>Locality of school</b>					
Urban	266	31,202	35.2	31.75	38.91
Rural	356	36,741	40.6	35.20	46.14
<b>Sex</b>					
Male	332	33,958	38.5	34.02	43.27
Female	290	33,984	37.3	33.12	41.76
<b>Form</b>					
Form 1	139	14,470	37.3	33.08	41.68
Form 2	97	14,062	38.6	32.35	45.35
Form 3	175	15,577	43.6	36.36	51.20
Form 4	107	11,240	32.7	26.13	40.11
Form 5	104	12,594	37.2	31.92	42.71

**Table 3.11.12: Prevalence of having father or mother or guardian who used E-cigarette/ Vape among Form 1 to Form 5 students in Sarawak, 2017**

Socio-Demographic Characteristics	Either Father Or Mother Or Guardian				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	201	22,086	13.1	10.94	15.64
<b>Locality of school</b>					
Urban	83	9,643	11.3	9.20	13.91
Rural	118	12,443	14.9	11.79	18.67
<b>Sex</b>					
Male	110	11,462	13.7	11.53	16.20
Female	91	10,624	12.5	9.47	16.40
<b>Form</b>					
Form 1	59	6,180	16.6	13.23	20.69
Form 2	36	5,023	14.9	10.62	20.60
Form 3	48	4,324	12.9	9.28	17.78
Form 4	33	3,737	11.4	7.55	16.97
Form 5	25	2,822	8.9	4.86	15.80



### **3.12 Violence and Unintentional Injury**

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#### **3.12.1 Introduction**

The World Health Assembly through WHA 49.25 had declared violence to be a public health problem globally. Malaysia is committed towards resolving this issue, covering various aspects of interpersonal violence.<sup>1</sup> The prevalence of bullying varies between 9% to 25% in school-going adolescents in Western countries<sup>2</sup>, and 10.8% to 17.6% locally<sup>3</sup>, differences largely explained by linguistic and cultural factors.

Injuries are inevitable among anyone, including adolescents. Injuries however, may be due to intentional or unintentional causes. Unintentional injuries are caused by various factors and this leads to health problems and disability in an otherwise healthy population. Conflicts happen due to a wide spectrum ranging from physical fights to bullying. These may affect the mental health, well-being and healthy development of the adolescent.

This survey aims to examine the prevalence and distribution of unintentional injuries, physical attacks, physical fights, bullying, as well as physical and verbal abuse experienced by adolescents in Form 1 to Form 5 in Malaysia.

#### **3.12.2 Objectives**

To describe the prevalence of:

- i. Having been physically attacked at least once in the past 12 months
- ii. Involvement in a physical fight at least once in the past 12 months
- iii. Having been bullied at least once in the past 30 days
- iv. Physical abuse at home at least once in the past 30 days
- v. Verbal abuse at home at least once in the past 30 days
- vi. Having had a serious injury at least once in the past 12 months

### 3.12.3 Variable Definitions

- **Physical attack:** when one or more persons hurt another person with or without a weapon such as sticks or knives in the past 12 months. It is NOT a physical attack when two individuals or students of about the same strength or power choose to fight each other.
- **Physical fight:** when two individuals or students of about the same strength or power choose to fight each other in the past 12 months.
- **Bullying:** when a student or group of students say or do bad and unpleasant things to another student, such as teasing a lot in an unpleasant way or leaving out of things on purpose in the past 30 days. It is NOT bullying when two students of about the same strength or power argue or fight or when teasing is done in a friendly and fun way.
- **Physical abuse at home:** when someone is hit so hard that it left a mark OR caused an injury in the past 30 days
- **Verbal abuse at home:** when someone has had hurtful or insulting things said to them in the past 30 days
- **Unintentional injury:** a serious injury which makes the student miss at least one full day of usual activity (such as school, sports or a job) OR requires treatment by a doctor or a medical personnel in the past 12 months

### 3.12.4 Findings

Among the adolescents in this survey, 24.1% (95% CI: 22.10, 26.13) of them had been physically attacked, which was higher in males [25.7% (95% CI: 22.11, 29.70)] compared to females [22.4% (95% CI: 19.62, 25.43)]. There was no significant difference found between urban [22.8% (95% CI: 20.59, 25.70)] and rural [25.3% (95% CI: 22.49, 28.40)] localities. Adolescents from Form 1 reported the highest prevalence of having been physically attacked; 31.8% (95% CI: 22.69, 42.52)

while adolescents from Form 5 had the lowest prevalence at 13.6% (95% CI: 6.93, 24.91) (**Table 3.12.1**).

Similarly, 25.5% (95% CI: 21.78, 29.54) of adolescents claimed to have been involved in physical fight(s), with more males [30.2% (95% CI: 25.33, 35.59)] than females [20.7% (95% CI: 16.74, 25.39)] involved. There was no significant difference between urban and rural localities, with a reported prevalence of 24.3% (95% CI: 19.44, 29.90) and 26.6% (95% CI: 21.47, 32.47) respectively. Adolescents from Form 1 had the highest prevalence at 30.8% (95% CI: 21.34, 42.30) (**Table 3.12.1**).

With regards to bullying, 15.5% (95% CI: 12.99, 18.39) of adolescents reported to have been bullied and this was higher among males [17.6% (95% CI: 14.45, 21.28)] compared to females [13.4% (95% CI: 9.94, 17.80)]. There was no significant difference found between urban [14.7% (95% CI: 11.57, 18.40)] and rural [16.3% (95% CI: 12.69, 20.74)] localities. Adolescents from Form 1 reported the highest prevalence of have been bullied; 23.3% (95% CI: 15.81, 32.86) (**Table 3.12.2**).

The two most common forms of bullying were 'being made fun of because of how body or face looks' [14.0% (95% CI: 8.88, 21.40)] and 'made fun of with sexual jokes, comments or gestures' [11.4% (95% CI: 7.80, 16.31)]. Bullying in the form of 'being left out of activities on purpose or completely ignored' was the least common at 4.7% (95% CI: 1.98, 10.57) (**Table 3.12.3**).

Physical abuse at home was reported by 11.4% (95% CI: 9.19, 14.08) of the adolescents. Urban localities reported a prevalence of 10.1% (95% CI: 7.03, 14.42) with rural at 12.6% (95% CI: 10.10, 15.72). There was no significant difference between males and females with a prevalence of 12.7% (95% CI: 9.42, 17.03) and 10.1% (95% CI: 6.93, 14.41) respectively. Form 5 adolescents reported the lowest prevalence at 3.8% (95% CI: 2.16, 6.70) (**Table 3.12.4**).

It was reported that 38.9% (95% CI: 34.99, 42.93) of adolescents were abused verbally at home. The prevalence of verbal abuse was higher among females [42.2% (95% CI: 36.21, 48.47)] compared to males [35.6% (95% CI: 32.59, 38.65)]. There was no significant difference found between urban [39.6% (95% CI: 32.98, 46.53)] and rural [38.2% (95% CI: 34.23, 42.40)] localities. Adolescents from Form 5 had the highest prevalence of verbal abuse at home with a prevalence of 43.4% (95% CI: 34.71, 52.47) (**Table 3.12.4**).

It was found that 28.3% of adolescents in Sarawak (95% CI: 24.94, 31.88) had been seriously injured in the past 12 months. There was no significant difference found between urban [28.1% (95% CI: 23.87, 32.77)] and rural [28.5% (95% CI: 23.46, 34.03)] localities. Prevalence of serious injury was significantly higher among males [32.7% (95% CI: 28.46, 37.25)] as compared to females [23.9% (95% CI: 19.88, 28.38)]. Adolescents from Form 1 had the highest prevalence of serious injury at 35.6% (95% CI: 26.88, 45.49) while adolescents from Form 5 had the lowest prevalence at 23.2% (95% CI: 13.12, 37.55) (**Table 3.12.5**).

Among those who had been seriously injured, the two most common injuries were 'a cut or stab wound' [27.1% (95% CI: 21.75, 33.29)] and 'a broken bone/dislocated joint' [9.3% (95% CI: 7.35, 11.81)] (**Table 3.12.6**). The two most common causes of serious injury were falls [34.6% (95% CI: 28.22, 41.65)] and motor vehicle accidents [12.3% (95% CI: 8.65, 17.22)] (**Table 3.12.7**).

### **3.12.5 Discussion / Conclusion**

The prevalence of serious injury among school-going adolescents in Sarawak was lower than the national prevalence found in this study (28.3% vs. 29.9%) as well as the 38.1% reported in Sarawak in 2012<sup>4</sup>. The prevalence of being physically attacked among adolescents in Sarawak was lower than the national prevalence (24.1% vs 25.3%) as well as the 28.0% reported in Sarawak in 2012<sup>4</sup>, while those involved in physical fights was higher than the national prevalence (25.5% vs 24.9%) but lower than the 29.0% reported in Sarawak in 2012<sup>4</sup>.

The prevalence of bullying among school-going adolescents in Sarawak was lower than the reported national prevalence (15.5% vs 16.2%) as well as the 20.6% reported in Sarawak in 2012. The prevalence of physical abuse and verbal abuse at home among adolescents was lower in Sarawak compared to the national prevalence (11.4% vs 11.8% and 38.9% vs 43.2% respectively). Physical abuse was higher than that reported in Sarawak in 2012<sup>4</sup> (10.7%) while verbal abuse was lower than that reported in Sarawak in 2012<sup>4</sup> (46.7%).

Studies have shown that violence related behaviour is associated with other negative factors such as smoking, drug abuse, truancy and physical and mental health problems<sup>5</sup>. Thus, despite the successes achieved by our current programs, the relatively high prevalence found in this study reminds us that we should continue our efforts in addressing this issue.

### 3.12.6 Recommendations

1. Multiple factors are associated with the perpetuation and the victimization of bullying, violent behaviour and unintentional injuries among school-going adolescents. Although this study identified the prevalence and types of violent behaviour experienced, further studies may be conducted in these areas to better understand this problem. These should include risk factors such as health and sociocultural factors, help seeking behaviour and short and long term effects of engaging or being exposed to these situations.
2. Written policies and laws by themselves alone are not adequate to tackle the problem of physical attacks, physical fights, bullying, physical and verbal abuse experienced by school-going adolescents. Strategies should be developed with the involvement of parents, family, and the community. Support services for both perpetrator and victim at community and school levels should be developed. Increased efforts need to be directed towards male adolescents in the younger age group and within the Indian community. Helping them with counselling rather than punitive measures, besides early detection of underlying factors would aid better prevention strategies. Innovative measures including use of social media, need to be adapted in line with the problems faced by the current generation such as cyberbullying and online forms of abuse. An integrated, multifactorial and multisectoral approach from the family level to school environment is crucial in addressing this problem.
3. Unintentional injuries should be addressed by stepping up safety awareness programs. This should be targeted towards road and traffic safety, starting from the younger age group. This would help reduce the burden of avoidable and unintentional injuries. Measures to create a safe environment within the school, home and other areas should be implemented by all parties.

### 3.12.7 References

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**Table 3.12.1: Prevalence of involvement in violence and had serious injury at least once in the past 12 months among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic Characteristics	Having Been Physically Attacked At Least Once					Involvement In Physical Fight At Least Once				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	429	47,605	24.1	22.10	26.13	453	50,189	25.5	21.78	29.54
<b>Locality of school</b>										
Urban	188	22,235	22.8	20.59	25.07	198	23,655	24.3	19.44	29.90
Rural	241	25,370	25.3	22.49	28.40	255	26,534	26.6	21.47	32.47
<b>Sex</b>										
Male	244	25,457	25.7	22.11	29.70	282	29,707	30.2	25.33	35.59
Female	185	22,148	22.4	19.62	25.43	171	20,482	20.7	16.74	25.39
<b>Form</b>										
Form 1	135	13,977	31.8	22.69	42.52	131	13,535	30.8	21.34	42.30
Form 2	79	11,276	27.8	23.96	31.98	83	11,876	29.7	24.94	34.93
Form 3	92	8,677	21.9	17.39	27.12	92	8,940	22.5	14.59	33.13
Form 4	81	8,751	23.4	13.08	38.23	104	11,119	29.7	18.87	43.45
Form 5	42	4,924	13.6	6.93	24.91	43	4,719	13.1	8.24	20.10

**Table 3.12.2: Prevalence of being bullied at least once in the past 12 months among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic Characteristics	Having Been Bullied At Least Once				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	272	30,670	15.5	12.99	18.39
<b>Locality of school</b>					
Urban	121	14,326	14.7	11.57	18.40
Rural	151	16,343	16.3	12.69	20.74
<b>Sex</b>					
Male	163	17,425	17.6	14.45	21.28
Female	109	13,245	13.4	9.94	17.80
<b>Form</b>					
Form 1	99	10,228	23.3	15.81	32.86
Form 2	56	7,902	19.5	13.91	26.59
Form 3	52	5,010	12.6	8.61	18.14
Form 4	42	4,915	13.1	5.85	26.90
Form 5	23	2,615	7.2	4.51	11.35

**Table 3.12.3: Most common ways of being bullied in the past 30 days among Form 1 to Form 5 students in Sarawak, 2017**

	Unweighted Prevalence		95% CI	
	Count	(%)	Lower	Upper
Hit, kicked, pushed, shoved around or locked indoors	23	7.7	4.38	13.34
Made fun of because of race, nationality or colour	25	9.0	5.89	13.38
Made fun of because of religion	25	9.7	5.81	15.62
Made fun of with sexual jokes, comments or gestures	31	11.4	7.80	16.31
Left out of activities on purpose or completely ignored	13	4.7	1.98	10.57
Made fun of because of how body or face looks	38	14.0	8.88	21.40

**Table 3.12.4: Prevalence of being abused at least once in the past 12 months among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic Characteristics	Physical Abuse At Home At Least Once					Verbal Abuse At Home At Least Once				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI		Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper				Lower	Upper
<b>SARAWAK</b>	204	22,540	11.4	9.19	14.08	683	76,556	38.9	34.99	42.93
<b>Locality of school</b>										
Urban	83	9,899	10.1	7.03	14.42	322	38,509	39.6	32.98	46.53
Rural	121	12,641	12.6	10.10	15.72	361	38,048	38.2	34.23	42.40
<b>Sex</b>										
Male	120	12,579	12.7	9.42	17.03	333	35,048	35.6	32.59	38.65
Female	84	9,961	10.1	6.93	14.41	350	41,508	42.2	36.21	48.47
<b>Form</b>										
Form 1	78	8,063	18.4	11.39	28.38	155	16,728	38.4	30.78	46.54
Form 2	38	5,333	13.2	10.44	16.51	107	15,243	37.8	28.71	47.86
Form 3	42	4,030	10.2	6.50	15.53	168	15,340	38.7	33.94	43.78
Form 4	34	3,725	10.0	5.52	17.30	124	13,569	36.5	30.28	43.13
Form 5	12	1,389	3.8	2.16	6.70	129	15,676	43.4	34.71	52.47



**Table 3.12.5: Prevalence of had serious injury at least once in the past 12 months among Form 1 to Form 5 students in Sarawak, 2017**

Socio-demographic Characteristics	Having Had Serious Injury At Least Once				
	Unweighted Count	Estimated Population	Prevalence (%)	95% CI	
				Lower	Upper
<b>SARAWAK</b>	502	55,827	28.3	24.94	31.88
<b>Locality of school</b>					
Urban	231	27,405	28.1	23.87	32.77
Rural	271	28,422	28.5	23.46	34.03
<b>Sex</b>					
Male	309	32,214	32.7	28.46	37.25
Female	193	23,613	23.9	19.88	28.38
<b>Form</b>					
Form 1	153	15,603	35.6	26.88	45.49
Form 2	85	12,397	30.6	24.11	37.86
Form 3	112	10,610	26.8	20.20	34.61
Form 4	78	8,642	23.2	13.12	37.55
Form 5	74	8,575	23.7	16.76	32.46

**Table 3.12.6: Types of the most serious injury sustained in the past 12 months among those who were injured among Form 1 to Form 5 students in Sarawak, 2017**

	Unweighted Count	Prevalence (%)	95% CI	
			Lower	Upper
Broken bone / dislocated Joint	49	9.3	7.35	11.81
A cut or stab wound	138	27.1	21.75	33.29
Concussion / head or neck injury, knocked out or could not breathe	34	6.6	4.52	9.67
Bad burn	19	3.8	2.25	6.26
Poisoned	13	2.4	1.13	5.03

**Table 3.12.7: Major cause of the most serious injury sustained in the past 12 months among those who were injured among Form 1 to Form 5 students in Sarawak, 2017**

	Unweighted Count	Prevalence (%)	95% CI	
			Lower	Upper
In a motor vehicle accident or hit by a motor vehicle	66	12.3	8.65	17.22
Fell	174	34.6	28.22	41.65
Something fell or hit him/her	44	8.6	5.77	12.70
Attacked or abused or fighting with someone	17	3.2	1.82	5.63
In a fire or too near a flame or something hot	7	1.3	0.54	3.02
Inhaled or swallowed something bad	7	1.4	0.82	2.43

## **APPENDICES**

### **Appendix 1: Members of Steering Committee NHMS 2015-2018**

1. Director General of Health
2. Deputy Director General of Health (Public Health)
3. Deputy Director General of Health (Medical)
4. Deputy Director General of Health (Research & Tech. Support)
5. Director, Oral Health Division
6. Director, Pharmaceutical Services Division
7. Director, Food Safety and Quality Programme Division
8. Director, Medical Development Division
9. Director, Planning Division
10. Director, Health Education Division
11. Director, Disease Control Division
12. Director, Family Health Development Division
13. Director, Nutrition Division
14. Representative of State Directors
15. Director, Institute for Public Health
16. Dean Faculty of Medicine, University of Malaya
17. Dean Faculty of Medicine, National University of Malaysia
18. Principle Investigator, NHMS

## **Appendix 2: Term of Reference for NHMS 2015-2018 Steering Committee**

1. To approve the objectives and scopes of NHMS 2015-2018.
2. To facilitate inter and intra-sectorial collaboration.
3. To monitor the implementation of the NHMS 2015-2018.
4. To facilitate the utilisation of the NHMS 2015-2018 findings.

### **Appendix 3: List of members of Central Coordinating Committee, NHMS 2017**

1. Dr. Hj Tahir bin Aris, Director of Institute for Public Health
2. Dr. Muhammad Fadhli bin Mohd Yusoff, Coordinator of NHMS 2015-2018
3. Dr. S Maria binti Awaluddin, Principal Investigator of Adolescent Health Survey
4. Pn. Ruhaya binti Salleh, Principal Investigator of Adolescent Nutrition Survey
5. En. Mohamad Aznuddin bin Abd Razak, Principal Investigator of Healthy Mind Screening using DASS
6. Dr. Mohd Azahadi bin Omar, Head Data Processing and Data Management
7. Dr. Noor Ani binti Ahmad, Central Field Supervisor of Perlis & Kedah
8. Dr. Nor Asiah binti Mohamad, Central Field Supervisor of Johor, Melaka & Negeri Sembilan
9. Dr. Rajini a/p Sooryanarayana, Data Processing & Quality
- 10.Pn. Tee Guat Hiong, Central Field Supervisor of Sarawak
- 11.Dr. Nur Liana binti Ab. Majid, Central Field Supervisor of WP Kuala Lumpur, WP Putrajaya & Selangor
- 12.Cik Hasimah binti Ismail, Central Field Supervisor of Pahang, Kelantan & Terengganu
- 13.Pn. Norzawati binti Yoep, Central Field Supervisor of Perak & Kedah
- 14.Pn. Norazizah binti Ibrahim Wong, Data Processing & Quality
- 15.En. Mohd Hazrin bin Hasim @ Hashim, Central Field Supervisor of WP Labuan & Sabah
- 16.Pn. Lalitha a/p Palanivello, Person in charge for 24Hour Diet Recall
- 17.Pn. Siti Nor'Ain binti Hashim, Head of ICT Support
- 18.En. Lim Kuang Kuay, Logistic Support
- 19.Pn. Hamizatul Akmal binti Abd. Hamid, Project Manager
- 20.Pn. Wan Shakira binti Rodzlan Hasani, Project Manager
- 21.Pn. Cheong Siew Man, Person in-charge for Food Frequency Questionnaire
- 22.Pn. Nazirah Bt Alias, Data Processing & Quality
- 23.Dr. Fazila Haryati Ahmad, Data Processing &Quality

**Appendix 4: Terms of Reference for NHMS 2017 Central Coordinating Team**

No	Team	Duties	Officers
1	Project Management and Finance	<p>Work closely with recruitment group for employment of RA</p> <p>Prepare Questionnaires manual, Data collection manual</p> <p>Meeting with Liason Officers</p> <p>Planning for data collection training</p> <p>Prepare security cards/name tags for research team</p> <p>Arrangement for advanced payment for team managers, nurses and drivers</p> <p>Process claims of MOH staff</p> <p>Prepare tickets for travelling</p> <p>Monitor the expenditure/budget</p>	<p>Dr. Muhammad Fadhli bin Mohd Yusoff</p> <p>Dr. S. Maria Binti Awaluddin</p> <p>Pn. Hamizatul Akmal binti Abd Hamid</p> <p>Pn. Wan Shakira binti Rodzlan Hasani</p> <p>Cik Nur Hazwani Binti Mohd Hasri</p>
2	Survey Research Centre	<p>Calculate the sample size</p> <p>Determine the sample distribution by state</p>	<p>Dr. Muhammad Fadhli bin Mohd Yusoff</p> <p>Pn. Norazizah binti Ibrahim Wong</p> <p>Pn. Wan Shakira binti Rodzlan Hasani</p>
3	ICT Unit	<p>Maintenance of the scanning machine</p> <p>Daily back up for databases</p>	<p>Pn. Siti Nor'ain Binti Hashim</p> <p>En. Sulaiman Bin Harun</p> <p>En. Yusmirol Bin Yusop</p> <p>En. Andy Bin Mustaming</p>
4	Central Field Supervisors	<p><b><u>Before Data Collection</u></b></p> <p>Central Field Supervisors are expected to prepare for the initiation of data collection. The preparation tasks include:</p>	<p>Dr Nor Asiah Binti Muhamad</p> <p>Dr Nur Liana Binti Ab Majid</p>

		<p>Conduct meeting with State Education Office, School Principals, Teacher in-charged for the selected schools.</p> <p>To ensure adequate logistic support for the data collection and liaise with the District Education Office, District Health Office and other relevant departments to ensure that:</p> <ul style="list-style-type: none"> <li>• Human resources are available: Field Supervisors, Team leaders, Research Assistants and drivers.</li> <li>• Manage transport: Vehicles</li> <li>• Manage survey instruments and relevant form</li> <li>• Manage lodging for data collectors</li> </ul> <p><b><u>During Data Collection</u></b></p> <p>Gather feedback from the field on the data collection status and problems related to logistics.</p> <p>Visit the field to help data collectors solve the problem if necessary.</p> <p>To ensure all data collection monitoring forms have been received on time.</p> <p>To ensure bundle from field received by the Operation Centre by hand and by post (Sabah, Sarawak, WP Labuan)</p> <p>Updating the monitoring board for state achievement and attending CCT meeting.</p>	<p>Pn. Norzawati Binti Yeop</p> <p>Dr. Noor Ani Binti Ahmad</p> <p>Pn. Hasimah Binti Ismail</p> <p>Pn. Tee Guat Hiong</p> <p>En. Mohd Hazrin Bin Hashim @ Hashim</p>
5	Data Processing and management	<p>Setting up data processing facility</p> <p>Development of directory of variables database</p> <p>Development of quality control (QC) manual for data processing</p>	<p>Dr. Mohd Azahadi bin Omar</p> <p>Dr. Rajini a/p sooryanarayana</p>

		Specify data structure for data processing and data output requirement	Dr. Fazila Haryati Binti Ahmad
		Responsible for data entry and data cleaning	Pn. Nazirah Binti Alias
		Monitoring and evaluation of QC performance for data processing	
6	Operation Centre	<p>Arrange date and place of meeting</p> <p>Prepare and circulate briefing materials</p> <p>Prepare and circulate minutes of CCT meeting</p> <p>Prepare letters of appointment to state liaison officers, nurses, scouts and data collectors</p> <p>Prepare advertisement material for recruitment of data collectors, team leaders, and interviewers,</p> <p>Prepare letters of notifications for data collections</p> <p>Prepare manuals for field Supervisors and data collectors</p> <p>Develop a system/format and monitor the distribution of materials/equipment for field work</p> <p>Arrange transport/drivers for distribution and collection of materials</p>	<p>Pn. Hamizatul Akmal binti Abd Hamid</p> <p>En. Azli bin Baharudin</p> <p>Cik Nur Hazwani Binti Mohd Hasri</p> <p>Pn. Siti Noafika Binti Anwar</p> <p>En. Muhammad Suhaimi Bin Mohamad Idrus</p> <p>Cik Shahibul Bariah binti Mat Ghani</p> <p>Pn. Nur Fadzilla binti Mohd Radzi</p> <p>En. Muhammad Zuhdi Bin Khiruddin</p> <p>Cik Nurbaiti Binti Asmawi</p>

## **Appendix 5: List of Research Team Members, NHMS 2017**

### **Alcohol Use**

1. Dr. Muhammad Fadhli Mohd Yusoff
2. Dr. Tania Gayle Robert
3. Dr. Halizah Mat Rifin
4. Dr. Norli Abdul Jabbar
5. Dr. Rozanim Kamaruddin
6. Dr. Jane Ling Miaw Yn
7. Ms. Hasimah Ismail
8. Ms. Hamizatul Akmal Binti Abd Hamid
9. Mr. Mohd Hatta Mutalip
10. Ms. Wan Shakira Rodzlan Hasani

### **Dietary Behaviours**

1. Ms. Rashidah Ambak
2. Ms. Ruhaya Salleh
3. Ms. Norlida Zulkafly
4. Dr. S. Maria Awaluddin
5. Ms. Rusidah Selamat
6. Ms. Syafinaz Mohd Sallehuddin
7. Mr. Mohd Hasnan Ahmad
8. Ms. Cheong Siew Man

### **Drug Use**

1. Dr. Muhammad Fadhli Mohd Yusof
2. Dr. Rushidi Ramly
3. Dr. Norli Abdul Jabbar
4. Dr. Jane Ling Miaw Yn
5. Dr. Halizah Mat Rifin
6. Dr. Tania Gayle Robert



7. Dr. Thamil Arasu Saminathan
8. Dr. Nur Liana Ab. Majid
9. Ms. Hasimah Ismail
10. Ms. Hamizatul Akmal Abd Hamid
11. Ms. Wan Shakira Rodzlan Hasani

### **Hygiene (Including Oral Health)**

1. Dr. Yaw Siew Lian
2. Dr. Nurrul Ashikin Abdullah
3. Dr. Natifah Che Salleh
4. Ms. Norazizah Ibrahim Wong
5. Mr. Mohamad Fuad Mohamad Anuar
6. Mr. Sayan a/l Pan

### **Internet Use and Addiction**

1. Dr S. Maria Awaluddin
2. Prof Madya Dr. Normala Ibrahim
3. Ms. Chan Ying Ying
4. Dr. Rimah Melati Abd. Ghani
5. Dr. Amal Shamsuddin
6. Prof Madya Dr. Wan Salwina Wan Ismail
7. Dr. Norharlina Bahar
8. Dr. Saidatul Norbaya Binti Buang
9. Dr. Nik Rubiah Nik Abd. Rashid

### **Mental Health Problems**

1. Dr. Noor Ani Ahmad
2. Prof Dr. Sherina Mohd Sidik
3. Dr. Fazly Azry Abdul Aziz
4. Ms. Noraida Mohamad Kasim

5. Mr. Mohammad Aznuddin Abd Razak
6. Ms. Muslimah Yusof

### **Physical Activity**

1. Mr. Lim Kuang Kuay
2. Dr. Hj. Mohd Azahadi Omar
3. Ms. Chan Ying Ying
4. Dr. Chandrika A/p Jeevananthan
5. Mr. Azli Baharudin @Shaharuddin
6. Ms. Nazirah Alias

### **Protective Factors**

1. Pn Norzawati binti Yoep
2. Ms. Faizah Paiwai
3. Dr. Noor Aliza Lodz
4. Dr. S. Maria Awaluddin
5. Ms. Azna Ahmad
6. Dr. Nik Rubiah Nik Abd Rashid

### **Sexual Behaviour that contribute to HIV infection, other STI and unintended pregnancy**

1. Dr. Maisarah Omar
2. Dr. Noor Aliza Lodz
3. Dr. S.Maria Awaluddin
4. Dr. Noor Ani Ahmad
5. Dr. Nik Rubiah Nik Abdul Rashid
6. Ms. Noraida Mohamad Kasim

### **Tobacco Use**

1. Dr. Noraryana Hassan
2. Dr. Nizam Baharom
3. Dr. Muhammad Fadhli Mohd Yusoff,

4. Dr. Abdul Aiman Abd Ghani
5. Dr. Nur Liana Ab. Majid
6. Dr. Thamil Arasu Saminathan
7. Dr. Jane Ling Miaw Yn
8. Dr. Tania Gayle Robert
9. Dr. Halizah Mat Rifin
10. Ms. Tee Guat Hiong
11. Ms. Hasimah Ismail
12. Ms. Hamizatul Akmal Abd Hamid
13. Ms. Wan Shakira Rodzlan Hasani

#### **Violence and Unintentional Injury**

1. Dr. Rajini Sooryanarayana
2. Dr. Shubash Shander Ganapathy
3. Dr. Muhammad Fadhli Mohd Yusoff
4. Dr. S Maria Awaluddin
5. Dr. Thamil Arasu a/l Saminathan
6. Dr. Azriman Rosman
7. Dr. Fazila Haryati Ahmad
8. Mr. Mohamad Fuad Mohamad Anuar
9. Mr. Mohd Hazrin Bin Hasim@Hashim

## Appendix 6: List of Liaison Officer and Data Collection Teams

### SARAWAK

#### Liaison Officer

Mr. Tan Beng Chin

#### Field Supervisors

1. Mr. Mohamad Aznuddin Bin Abd Razak
2. Ms. Tilen Jok

#### Nutritionist

- |   |  |
|---|--|
| 1. Mr. Mackendy Manggis                     | 9. Ms. Oui Pek Geik                                |
| 2. Mr. Ahmad Khairul Zaman Bin Razak        | 10. Ms. Ellen Lee Lk Lin                           |
| 3. Mr. Jambai anak Endu                     | 11. Ms. Ariannie Charles                           |
| 4. Ms. Aiwen Tsen Oi Wen                    | 12. Ms. Nurul Shaidatul Nadia Binti Mohd Saifullah |
| 5. Ms. Jumainah Binti Isa                   | 13. Ms. Umi Zarifah Binti Mohd Khairi              |
| 6. Ms. Hairunnesa Binti Tan Mohamad Suhiri  | 14. Ms. Poh Wan Chien                              |
| 7. Mr. Muhamad Mursyid Bin Ismail           | 15. Ms. Mazuin anak Akai                           |
| 8. Ms. Nurul Syahida Binti Mohd Amin Albert | 16. Ms. Atonia Binti Dedo                          |

## **Research Assistants**

1. Ms. Maria Amella Anak Willing
2. Ms. Aelsa Anak Anthony
3. Ms. Remayah Ak Sadang
4. Mr. Donny Anak Nirau
5. Ms. Izzat Shyazani Bin Mohd Iswandy
6. Ms. Wenna Anak Anthony
7. Ms. Joan Tjirna Anak Ben
8. Mr. Nicholas Mikai Anak Dunning
9. Mr. Dominick Riyu Ak Ambau
10. Mr. Winston Bunyau Anak Jayan
11. Ms. Noor Rafidah Binti Abdul Karim
12. Mr. Joshua Anak Gassai
13. Ms. Daphne Anak Dingon
14. Mr. Muhammad Nazirul Bin Rosmadi
15. Mr. Clinttino Anak Philip Langut
16. Mr. Terry Neilson Anak Jelanie
17. Ms. Norliza Binti Hamdan
18. Ms. Doris Anak Sabat
19. Mr. Firtzgerald Jemutt Anak Joshua
20. Mr. Yohannes Bin Dominic

Appendix 7: Questionnaire & OMR



## PENGENALAN

Kementerian Kesihatan Malaysia dengan kerjasama Kementerian Pendidikan Malaysia sedang menjalankan tinjauan yang berkaitan kesihatan remaja. Tinjauan ini adalah berkenaan dengan kesihatan anda dan tindakan yang anda ambil yang memberi kesan kepada kesihatan anda.

Terima kasih kerana bersetuju untuk menyertai tinjauan ini. Tiada jawapan yang **BETUL** atau **SALAH**. Markah peperiksaan anda tidak akan terjejas sekiranya anda menjawab atau tidak menjawab soalan dalam tinjauan ini. Setiap jawapan yang anda berikan boleh membantu memantapkan program kesihatan untuk remaja. Oleh itu, sila jawab dengan ikhlas dan tepat.

Segala maklumat individu yang diberikan adalah RAHSIA kerana TIADA MAKLUMAT PENGENALAN DIRI DIAMBIL dan TIDAK AKAN DIDEBAHKAN. Tiada siapa akan tahu jawapan anda. Sila jawab berdasarkan apa yang anda tahu.

## INTRODUCTION

*The Ministry of Health Malaysia, with the cooperation of the Ministry of Education Malaysia is conducting a survey on adolescent health. This survey is about your health and the things that you do that may affect your health.*

*Thank you for agreeing to participate in this survey. There are no **CORRECT** or **WRONG** answers. None of your grades or marks will be affected whether or not you answer the questions. Each answer that you provide will help in the improvisation of health programs for adolescents. Therefore, please answer as honestly and accurately as possible.*

*All individual information given will be kept **SECRET** because **NO IDENTIFIERS ARE TAKEN** nor **WILL BE EXPOSED**. No one will know your answer. Answer the questions based on the best of your knowledge.*

**PANDUAN MENGISI BORANG (SILA BACA DENGAN TELITI)**

GUIDE ON FILLING THE QUESTIONNAIRE (PLEASE READ CAREFULLY)

a. **JANGAN** tulis **NAMA ANDA** pada kertas soalan mahupun kertas jawapan.

**DO NOT** write **YOUR NAME** on the questionnaire or the answer sheet.

b. Sila **BACA PERNYATAAN** untuk soalan yang memberikan pernyataan atau definisi sebelum menjawab soalan.

Please **READ STATEMENT** for questions with a preceding statement or definition before answering.

c. Sila **HITAMKAN** jawapan yang bersamaan jawapan anda pada kertas jawapan yang disediakan. Hanya hitamkan **SATU JAWAPAN** bagi setiap soalan. Sila gunakan pensel 2B yang disediakan. Sekiranya telah selesai, ikut arahan pegawai yang melakukan survei di sekolah/kelas anda.

Please **FILL IN THE CIRCLES** on your answer sheet that matches your answer. There can be **ONLY ONE ANSWER** for each question. Use only the provided 2B pencil. When you are done, follow the instructions of the person conducting the survey in your school/class

**BERIKUT ADALAH CONTOH BAGAIMANA MENGISI JAWAPAN**

**HERE IS AN EXAMPLE OF HOW TO FILL IN THE CIRCLE:**

ISIKAN BULATAN SEPERTI INI  
 FILL IN THE CIRCLES LIKE THIS



BUKAN SEPERTI INI  
 NOT LIKE THIS



ATAU  
 OR



TINJAUAN/SURVEY

1. Adakah ikan tinggal dalam air?

Do fish live in the water?

A. Ya

Yes

B. Tidak

No

Borang jawapan  
 Answer sheet

1.   B  C  D  E  F  G  H



**BAHAGIAN 1**  
**PART 1**

1. Berapakah umur anda?  
 How old are you?
  - a. 11 tahun atau ke bawah  
*11 years old or younger*
  - b. 12 tahun  
*12 years old*
  - c. 13 tahun  
*13 years old*
  - d. 14 tahun  
*14 years old*
  - e. 15 tahun  
*15 years old*
  - f. 16 tahun  
*16 years old*
  - g. 17 tahun  
*17 years old*
  - h. 18 tahun atau ke atas  
*18 years old or older*
  
2. Apakah jantina anda?  
 What is your sex?
  - a. Lelaki  
*Male*
  - b. Perempuan  
*Female*
  
3. Anda belajar di tingkatan/kelas apa?  
 In what form/class are you?
  - a. Kelas peralihan  
*Remove class*
  - b. Tingkatan 1  
*Form 1*
  - c. Tingkatan 2  
*Form 2*
  - d. Tingkatan 3  
*Form 3*
  - e. Tingkatan 4  
*Form 4*
  - f. Tingkatan 5  
*Form 5*
  
4. Apakah etnik anda?  
 What is your ethnicity?
  - a. Melayu  
*Malay*
  - b. Cina  
*Chinese*
  - c. India  
*Indian*
  - d. Bumiputera Sabah  
*Bumiputera Sabah*
  - e. Bumiputera Sarawak  
*Bumiputera Sarawak*
  - f. Lain-lain etnik  
*Some other ethnic*
  
5. Apakah status perkahwinan ibu bapa anda?  
 What is the marital status of your parents?
  - a. Berkahwin dan tinggal bersama  
*Married and living together*
  - b. Berkahwin tetapi tidak tinggal bersama atas dasar bekerja di tempat lain  
*Married but living apart due to working in other place*
  - c. Bercerai  
*Divorced*
  - d. Balu (ayah atau ibu telah meninggal)  
*Widower (my mother or father has died)*
  - e. Berpisah (ibu bapa tidak tinggal serumah)  
*Separated (my parent do not live together)*
  - f. Tidak tahu  
*I do not know*

**BAHAGIAN 2**  
**PART 2**

6. Dalam tempoh 30 hari yang lepas, berapa kerap anda kelaparan kerana tidak cukup makanan di rumah?

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

- a. Tidak pernah  
*Never*
- b. Jarang-jarang  
*Rarely*
- c. Kadang-kadang  
*Sometimes*
- d. Kebanyakan masa  
*Most of the time*
- e. Sentiasa  
*Always*

**Enam soalan yang berikutnya adalah berkenaan apa yang anda mungkin makan atau minum.**

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

7. Dalam tempoh 30 hari yang lepas, berapa kali dalam sehari anda **biasanya** makan buah?

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

- a. Saya tidak makan buah dalam 30 hari yang lepas  
*I did not eat fruits during the past 30 days*
- b. Kurang dari 1 kali sehari  
*Less than 1 time per day*
- c. 1 kali sehari  
*1 time per day*
- d. 2 kali sehari  
*2 times per day*
- e. 3 kali sehari  
*3 times per day*
- f. 4 kali sehari  
*4 times per day*
- g. 5 kali atau lebih sehari  
*5 or more times per day*

8. Dalam tempoh 30 hari yang lepas, berapa kali dalam sehari anda **biasanya** makan sayur?

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

- a. Saya tidak makan sayur dalam 30 hari yang lepas  
*I did not eat vegetables during the past 30 days*
- b. Kurang dari 1 kali sehari  
*Less than 1 time per day*
- c. 1 kali sehari  
*1 time per day*
- d. 2 kali sehari  
*2 times per day*
- e. 3 kali sehari  
*3 times per day*
- f. 4 kali sehari  
*4 times per day*
- g. 5 kali atau lebih sehari  
*5 or more times per day*

9. Dalam tempoh 30 hari yang lepas, berapa kali dalam sehari anda **biasanya** minum air berkarbonat seperti Coca Cola, Sprite, Pepsi dan lain-lain? (Air berkarbonat diet tidak termasuk dalam kumpulan ini)

*During the past 30 days, how many times per day did you **usually** drink carbonated soft drinks such as Coca Cola, Sprite, and Pepsi? (Do not include diet soft drinks)*

- a. Saya tidak minum air berkarbonat dalam 30 hari yang lepas  
*I did not drink carbonated soft drink during the past 30 days*
- b. Kurang dari 1 kali sehari  
*Less than 1 time per day*
- c. 1 kali sehari  
*1 time per day*
- d. 2 kali sehari  
*2 times per day*
- e. 3 kali sehari  
*3 times per day*
- f. 4 kali sehari  
*4 times per day*
- g. 5 kali atau lebih sehari  
*5 or more times per day*

10. Dalam tempoh 30 hari yang lepas, berapa kali dalam sehari anda **biasanya** minum air kosong seperti air mineral, air masak atau air paip?

*During the past 30 days, how many times per day did you **usually** drink plain water such as mineral water, boiled water, or tap water?*

- a. Saya tidak minum air kosong dalam 30 hari yang lepas  
*I did not drink plain water during the past 30 days*
- b. Kurang dari 1 kali sehari  
*Less than 1 time per day*
- c. 1 kali sehari  
*1 time per day*
- d. 2 kali sehari  
*2 times per day*
- e. 3 kali sehari  
*3 times per day*
- f. 4 kali sehari  
*4 times per day*
- g. 5 kali atau lebih sehari  
*5 or more times per day*

11. Dalam tempoh 30 hari yang lepas, berapa kali dalam sehari anda **biasanya** minum susu atau makan produk tenusu seperti susu, keju, yogurt dan lain-lain? (Ini tidak termasuk susu pekat manis)

*During the past 30 days, how many times per day did you **usually** drink milk or eat milk products, such as milk, cheese, and yogurt? (This does not include sweetened condensed milk)*

- a. Saya tidak minum susu atau makan produk tenusu dalam 30 hari yang lepas

*I did not drink milk or eat milks products during the past 30 days*

- b. Kurang dari 1 kali sehari  
*Less than 1 time per day*
- c. 1 kali sehari  
*1 time per day*
- d. 2 kali sehari  
*2 times per day*
- e. 3 kali sehari  
*3 times per day*
- f. 4 kali sehari  
*4 times per day*
- g. 5 kali atau lebih sehari  
*5 or more times per day*

12. Dalam tempoh 7 hari yang lepas, berapa hari anda makan makanan segera dari restoran **makanan segera** seperti McDonald, KFC, dan Pizza Hut?

*During the past 7 days, how many days did you eat food from a **fast food** restaurant, such as McDonalds, KFC and Pizza Hut?*

- a. 0 hari  
*0 day*
- b. 1 hari  
*1 day*
- c. 2 hari  
*2 days*
- d. 3 hari  
*3 days*
- e. 4 hari  
*4 days*
- f. 5 hari  
*5 days*
- g. 6 hari  
*6 days*
- h. 7 hari  
*7 days*

**BAHAGIAN 3**  
**PART 3**

6 soalan seterusnya adalah berkenaan amalan pembersihan gigi, lawatan pergigian anda dan juga bagaimana gigi anda memberi kesan kepada aktiviti-aktiviti anda.

*The 6 next question are about the cleaning of your teeth, your dental visits and also how your teeth affect your activities.*

13. Dalam tempoh 30 hari yang lepas, berapa kali dalam sehari anda membersihkan atau memberus gigi anda?  
*During the past 30 days, how many times per day did you usually clean or brush your teeth?*
- Saya tidak membersihkan atau memberus gigi dalam 30 hari yang lepas  
*I did not clean or brush my teeth during the past 30 days*
  - Kurang dari 1 kali sehari  
*Less than 1 time per day*
  - 1 kali sehari  
*1 time per day*
  - 2 kali sehari  
*2 times per day*
  - 3 kali sehari  
*3 times per day*
  - 4 kali atau lebih dalam sehari  
*4 or more times per day*
14. Adakah anda menggunakan ubat gigi berflourida?  
*Do you use toothpaste that contain fluoride?*
- Ya  
*Yes*
  - Tidak  
*No*
  - Tidak tahu  
*I do not know*
15. Adakah anda menggunakan flos/benang gigi untuk membersihkan gigi anda?  
*Do you use dental floss to clean your teeth?*
- Ya  
*Yes*
  - Tidak  
*No*
16. Bilakah kali terakhir anda berjumpa doktor gigi atau jururawat pergigian untuk pemeriksaan, pembersihan gigi atau rawatan pergigian yang lain?  
*When was the last time you saw a dentist or dental nurse for a check-up, teeth cleaning, or other dental treatment?*
- Dalam tempoh 12 bulan yang lepas  
*During the past 12 months*
  - Di antara 12 hingga 24 bulan yang lepas  
*Between 12 and 24 months ago*
  - Lebih daripada 24 bulan yang lepas  
*More than 24 months ago*
  - Tidak pernah  
*Never*
  - Tidak tahu  
*I do not know*
17. Dalam tempoh 12 bulan yang lepas, adakah sakit gigi menyebabkan anda tidak hadir ke kelas atau sekolah?  
*During the past 12 months, did a toothache cause you to miss classes or school?*
- Ya  
*Yes*
  - Tidak  
*No*
18. Adakah anda mengelak untuk senyum atau ketawa kerana risau dengan rupa gigi anda?  
*Do you avoid smiling or laughing because how your teeth look?*
- Ya  
*Yes*
  - Tidak  
*No*

**3 soalan seterusnya adalah berkenaan amalan membasuh tangan.**

***The next 3 questions are about your hand washing practices.***

19. Dalam tempoh 30 hari yang lepas, berapa kerap anda menggunakan sabun semasa membasuh tangan anda?

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

- a. Tidak pernah  
*Never*
- b. Jarang-jarang  
*Rarely*
- c. Kadang-kadang  
*Sometimes*
- d. Kebanyakan masa  
*Most of the time*
- e. Setiap kali  
*Always*

20. Dalam tempoh 30 hari yang lepas, berapa kerap anda membasuh tangan sebelum makan?

*During the past 30 days, how often did you wash your hands before eating?*

- a. Tidak pernah  
*Never*
- b. Jarang-jarang  
*Rarely*
- c. Kadang-kadang  
*Sometimes*
- d. Kebanyakan masa  
*Most of the time*
- e. Setiap kali  
*Always*

21. Dalam tempoh 30 hari yang lepas, berapa kerap anda membasuh tangan selepas menggunakan tandas?

*During the past 30 days, how often did you wash your hands after using the toilet?*

- a. Tidak pernah  
*Never*
- b. Jarang-jarang  
*Rarely*
- c. Kadang-kadang  
*Sometimes*
- d. Kebanyakan masa  
*Most of the time*
- e. Setiap kali  
*Always*

**BAHAGIAN 4**  
**PART 4**

**SILA BACA PERNYATAAN DI BAWAH:**

Soalan berikutnya adalah berkenaan serangan fizikal. Serangan fizikal berlaku apabila seseorang atau lebih ramai orang menyerang individu lain dengan anggota badan atau senjata seperti kayu dan pisau. Serangan fizikal tidak diambil kira jika dua individu atau pelajar yang sama saiz atau kekuatan bersetuju untuk bergaduh secara fizikal.

**PLEASE READ THE STATEMENT BELOW:**  
*The next question asks about physical attacks. A physical attack occurs when one or more people hurt another person with/without a weapon such as sticks and knife. It is not a physical attack when two individuals or students of about the same strength or power choose to fight each other.*

22. Dalam tempoh 12 bulan yang lepas, berapa kali anda telah diserang secara fizikal?

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

- a. 0 kali  
*0 times*
- b. 1 kali  
*1 time*
- c. 2 atau 3 kali  
*2 or 3 times*
- d. 4 atau 5 kali  
*4 or 5 times*
- e. 6 atau 7 kali  
*6 or 7 times*
- f. 8 atau 9 kali  
*8 or 9 times*
- g. 10 atau 11 kali  
*10 or 11 times*
- h. 12 kali atau lebih  
*12 or more times*

**SILA BACA PERNYATAAN DI BAWAH:**

Soalan seterusnya adalah berkaitan pergaduhan fizikal. Pergaduhan fizikal berlaku apabila dua individu atau pelajar yang sama saiz atau kekuatan bersetuju untuk bergaduh secara fizikal.

**PLEASE READ THE STATEMENT BELOW:**  
*The next question asks about physical fights. A physical fight occurs when two individuals or students of about the same strength or power choose to fight each other.*

23. Dalam tempoh 12 bulan yang lepas, berapa kali anda terlibat dalam pergaduhan secara fizikal?

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

- a. 0 kali  
*0 times*
- b. 1 kali  
*1 time*
- c. 2 atau 3 kali  
*2 or 3 times*
- d. 4 atau 5 kali  
*4 or 5 times*
- e. 6 atau 7 kali  
*6 or 7 times*
- f. 8 atau 9 kali  
*8 or 9 times*
- g. 10 atau 11 kali  
*10 or 11 times*
- h. 12 kali atau lebih  
*12 or more times*

**SILA BACA PERNYATAAN DI BAWAH:**

3 soalan seterusnya adalah berkenaan kecederaan serius yang pernah anda alami. Kecederaan serius berlaku apabila anda tidak hadir sekurang-kurangnya satu hari aktiviti yang biasa dilakukan (termasuk sekolah, sukan atau kerja) atau kecederaan yang memerlukan rawatan daripada doktor atau anggota kesihatan.

**PLEASE READ THE STATEMENT BELOW:**

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

24. Dalam tempoh 12 bulan yang lepas, berapa kali anda mengalami kecederaan serius?

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

- a. 0 kali  
*0 times*
- b. 1 kali  
*1 time*
- c. 2 atau 3 kali  
*2 or 3 times*
- d. 4 atau 5 kali  
*4 or 5 times*
- e. 6 atau 7 kali  
*6 or 7 times*
- f. 8 atau 9 kali  
*8 or 9 times*
- g. 10 atau 11 kali  
*10 or 11 times*
- h. 12 kali atau lebih  
*12 or more times*

25. Dalam tempoh 12 bulan yang lepas, apakah kecederaan yang **paling serius** yang anda pernah alami?

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

- a. Saya tidak mengalami kecederaan dalam tempoh 12 bulan yang lepas  
*I was not seriously injured during the past 12 months*
- b. Patah tulang atau sendi terkehel/terkeluar  
*I had a broken bone or a dislocated joint*
- c. Luka atau tikaman  
*I had a cut or stab wound*
- d. Gegaran (konkusi) kepala atau kecederaan leher, pengsan atau tidak boleh bernafas  
*I had a concussion or other head or neck injury, was knocked out or could not breathe*
- e. Kebakaran kulit yang serius  
*I had a bad burn*
- f. Diracun atau mengambil ubat berlebihan  
*I was poisoned or took too much of a drug*
- g. Sesuatu yang lain berlaku kepada saya  
*Something else happened to me*

26. Dalam tempoh 12 bulan yang lepas, apakah penyebab utama terhadap kecederaan serius yang anda alami?

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

- a. Saya tidak mengalami kecederaan dalam 12 bulan yang lepas  
*I was not seriously injured during the past 12 months*
- b. Saya terlibat dalam kemalangan melibatkan kenderaan  
*I was in a motor vehicle accident or hit by a motor vehicle*
- c. Saya terjatuh  
*I fell*
- d. Sesuatu telah jatuh atau terkena saya  
*Something fell on me or hit me*
- e. Saya telah diserang atau didera atau bergaduh dengan orang lain  
*I was attacked or abused or was fighting with someone*
- f. Saya terlibat dalam kebakaran atau berada terlalu dekat dengan api atau sesuatu yang panas  
*I was in the fire or too near a flame or something hot*
- g. Saya sedut atau telan sesuatu yang membahayakan saya  
*I inhaled or swallowed something bad for me*
- h. Sesuatu yang lain menyebabkan kecederaan saya  
*Something else caused my injury*

**SILA BACA PERNYATAAN BI BAWAH:**

**2 soalan seterusnya adalah berkenaan buli. Buli berlaku apabila seseorang atau sekumpulan pelajar mengata atau melakukan sesuatu yang tidak menyenangkan pelajar lain. Seseorang juga boleh dikatakan dibuli apabila dia diejek secara berterusan atau dipulaukan dengan sengaja. Buli tidak diambil kira apabila dua pelajar yang sama saiz atau kekuatan bergaduh atau ejekan dilakukan secara bergurau atau berseronok bagi kedua-dua pihak.**

**PLEASE READ THE STATEMENT BELOW:**

**The next 2 questions ask about bullying. Bullying occurs when a student or group of students say or do bad and unpleasant things to another student. It is also bullying when a student is teased a lot in an unpleasant way or when a student is left out of things on purpose. It is not bullying when two students of about the same strength or power argue or fight or when teasing is done in a friendly and fun way.**

27. Dalam tempoh 30 hari yang lepas, berapa hari anda telah dibuli?

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

- a. 0 hari  
*0 days*
- b. 1 atau 2 hari  
*1 or 2 days*
- c. 3 hingga 5 hari  
*3 to 5 days*
- d. 6 hingga 9 hari  
*6 to 9 days*
- e. 10 hingga 19 hari  
*10 to 19 days*
- f. 20 hingga 29 hari  
*20 to 29 days*
- g. Kesemua 30 hari  
*All 30 days*



28. Dalam 30 hari yang lepas, apakah perlakuan buli **paling kerap** anda alami?  
*During the past 30 days, how were you bullied **most often**?*
- Saya tidak dibuli dalam 30 hari yang lepas  
*I was not bullied during the past 30 days*
  - Saya telah dipukul, ditendang, ditolak atau dikunci dalam suatu tempat  
*I was hit, kicked, punched, shoved around, or locked indoors*
  - Saya telah diejek kerana bangsa, kerakyatan atau warna kulit saya  
*I was made fun of because of my race, nationality or colour*
  - Saya telah diejek kerana agama saya  
*I was made fun of because of my religion*
  - Saya telah diejek dengan ejekan seksual seperti secara komen, perilaku atau gurauan  
*I was made fun of with sexual jokes, comments or gestures*
  - Saya telah dipulau dari apa-apa aktiviti secara sengaja atau langsung tidak dipedulikan  
*I was left out of activities on purpose or completely ignored*
  - Saya diejek kerana bentuk badan atau paras rupa saya  
*I was made fun of because of how my body or face looks*
  - Saya telah dibuli dengan cara lain  
*I was bullied in some other way*

**SILA BACA PERNYATAAN BI BAWAH:**  
2 soalan berikutnya adalah berkenaan deraan fizikal dan lisan di rumah. Apabila seseorang memukul atau mengatakan ayat yang menyakitkan hati ia diambil kira sebagai deraan fizikal atau lisan.

**PLEASE READ THE STATEMENT BELOW:**  
The next 2 questions ask about physical and verbal abuse at home. When someone hits you or says hurtful or insulting things to you it is called physical abuse or verbal abuse.

29. Dalam tempoh 30 hari yang lepas, adakah anda telah dipukul di rumah sehingga meninggalkan kesan atau mengalami kecederaan?  
*During the past 30 days, how many times did someone at home hit you so hard that they left a mark or caused an injury?*
- 0 kali  
*0 times*
  - 1 kali  
*1 time*
  - 2 atau 3 kali  
*2 or 3 times*
  - 4 atau 5 kali  
*4 or 5 times*
  - 6 atau 7 kali  
*6 or 7 times*
  - 8 atau 9 kali  
*8 or 9 times*
  - 10 atau 11 kali  
*10 or 11 times*
  - 12 kali atau lebih  
*12 or more times*

30. Dalam tempoh 30 hari yang lepas, berapa kali seseorang di rumah menyatakan sesuatu yang menyakitkan hati atau menghina anda?

*During the past 30 days, how many times has someone at home said hurtful or insulting things to you?*

- a. 0 kali  
*0 times*
- b. 1 kali  
*1 time*
- c. 2 atau 3 kali  
*2 or 3 times*
- d. 4 atau 5 kali  
*4 or 5 times*
- e. 6 atau 7 kali  
*6 or 7 times*
- f. 8 atau 9 kali  
*8 or 9 times*
- g. 10 atau 11 kali  
*10 or 11 times*
- h. 12 kali atau lebih  
*12 or more times*

**BAHAGIAN 5**  
**PART 5**

**6 soalan seterusnya adalah berkenaan perasaan dan persahabatan anda.**  
*The next 6 questions ask about your feelings and friendships.*

31. Dalam tempoh 12 bulan yang lepas, berapa kerap anda merasa kesunyian?  
*During the past 12 months, how often have you felt lonely?*
- Tidak pernah  
*Never*
  - Jarang-jarang  
*Rarely*
  - Kadang-kadang  
*Sometimes*
  - Kebanyakan masa  
*Most of the time*
  - Setiap masa  
*Always*
32. Dalam tempoh 12 bulan yang lepas, berapa kerap anda merasa terlalu risau tentang sesuatu perkara sehingga anda tidak dapat tidur di waktu malam?  
*During the past 12 months, how often have you been so worried about something that you could not sleep at night?*
- Tidak pernah  
*Never*
  - Jarang-jarang  
*Rarely*
  - Kadang-kadang  
*Sometimes*
  - Kebanyakan masa  
*Most of the time*
  - Setiap masa  
*Always*
33. Dalam tempoh 12 bulan yang lepas, pernahkah anda terfikir secara serius untuk membunuh diri?  
*During the past 12 months, did you ever seriously consider attempting suicide?*
- Ya  
*Yes*
  - Tidak  
*No*
34. Dalam tempoh 12 bulan yang lepas, adakah anda membuat perancangan untuk membunuh diri?  
*During the past 12 months, did you make a plan about how you would attempt suicide?*
- Ya  
*Yes*
  - Tidak  
*No*
35. Dalam tempoh 12 bulan yang lepas, berapa kali anda telah cuba untuk membunuh diri?  
*During the past 12 months, how many times did you actually attempt suicide?*
- 0 kali  
*0 times*
  - 1 kali  
*1 time*
  - 2 atau 3 kali  
*2 or 3 times*
  - 4 hingga 5 kali  
*4 to 5 times*
  - 6 kali atau lebih  
*6 or more times*
36. Berapa ramai kawan rapat yang anda ada?  
*How many close friends do you have?*
- 0 kawan  
*0 friends*
  - 1 kawan  
*1 friend*
  - 2 kawan  
*2 friends*
  - 3 atau lebih  
*3 or more*

**BAHAGIAN 6**  
**PART 6**

**Rokok dan produk tembakau yang lain.**  
***Cigarettes and other cigarette products.***

37. Berapakah umur anda ketika kali pertama menghisap rokok?  
*How old were you when you first tried a cigarette?*

a. Saya tidak pernah merokok  
*I have never smoked cigarettes*

b.   tahun/ *years old*

38. Dalam tempoh 30 hari yang lepas, berapa hari anda merokok?  
*During the past 30 days, on how many days did you smoke cigarettes?*

- a. 0 hari  
*0 days*
- b. 1 atau 2 hari  
*1 or 2 days*
- c. 3 hingga 5 hari  
*3 to 5 days*
- d. 6 hingga 9 hari  
*6 to 9 days*
- e. 10 hingga 19 hari  
*10 to 19 days*
- f. 20 hingga 29 hari  
*20 to 29 days*
- g. Kesemua 30 hari  
*All 30 days*

39. Dalam tempoh 30 hari yang lepas, adakah anda menggunakan mana-mana produk seperti di bawah?  
*During the past 30 days, did you use any of the products listed below?*

39.1 Shisha/*Shisha*

- a. Ya/*Yes*
- b. Tidak/*No*

39.2 Rokok Daun/*Traditional hand-rolled cigarette*

- a. Ya/*Yes*
- b. Tidak/*No*

39.3 Rokok gulung sendiri dengan kertas rokok/*"Roll-your-own" with cigarette paper*

- a. Ya/*Yes*
- b. Tidak/*No*

39.4 Cerut/*Cigar*

- a. Ya/*Yes*
- b. Tidak/*No*

39.5 Hisap paip/*Pipe smoking*

- a. Ya/*Yes*
- b. Tidak/*No*

39.6 Rokok elektronik atau vape/*E-cigarettes or vape*

- a. Ya/*Yes*
- b. Tidak/*No*

39.7 Mengunyah tembakau (Sentil atau songel)/*Chewing tobacco*

- a. Ya/*Yes*
- b. Tidak/*No*

39.8 Menghidu tembakau/*Snuff*

- a. Ya/*Yes*
- b. Tidak/*No*

40. Dalam tempoh 12 bulan yang lepas, adakah anda cuba untuk berhenti merokok?  
*During the past 12 months, have you ever tried to stop smoking cigarettes?*

- a. Saya tidak pernah merokok  
*I have never smoked cigarettes*
- b. Saya tidak pernah merokok dalam tempoh 12 bulan yang lepas  
*I did not smoke cigarettes during the past 12 months*
- c. Ya  
*Yes*
- d. Tidak  
*No*

41. Dalam tempoh 7 hari yang lepas, berapa hari anda bersama dengan perokok yang sedang merokok?  
*During the past 7 days, on how many days have people smoked in your presence?*

- a. 0 hari  
*0 days*
- b. 1 atau 2 hari  
*1 or 2 days*
- c. 3 atau 4 hari  
*3 or 4 days*
- d. 5 atau 6 hari  
*5 or 6 days*
- e. Kesemua 7 hari  
*All 7 days*

42. Siapa antara bapa, ibu atau penjaga yang menggunakan produk tembakau termasuk rokok?  
*Which of your parents or guardians use any form of tobacco including cigarettes?*

- a. Kedua-duanya tidak merokok  
*Neither*
- b. Ayah atau penjaga lelaki  
*My father or male guardian*
- c. Ibu atau penjaga perempuan  
*My mother or female guardian*
- d. Kedua-duanya  
*Both*
- e. Tidak tahu  
*I do not know*

43. Berapakah umur anda ketika mula-mula menggunakan rokok elektronik/vape?  
*How old were you when you first tried using e-cigarettes/vape?*

- a. Saya tidak pernah gunakan rokok elektronik/vape  
*I have never tried using e-cigarettes/vape*
- b.  tahun/ years old

44. Dalam tempoh 30 hari yang lepas, berapa hari anda telah menggunakan rokok elektronik/vape?  
*During the past 30 days, on how many days did you use e-cigarettes/vape?*

- a. 0 hari  
*0 days*
- b. 1 atau 2 hari  
*1 or 2 days*
- c. 3 hingga 5 hari  
*3 to 5 days*
- d. 6 hingga 9 hari  
*6 to 9 days*
- e. 10 hingga 19 hari  
*10 to 19 days*
- f. 20 hingga 29 hari  
*20 to 29 days*
- g. Kesemua 30 hari  
*All 30 days*

45. Dalam tempoh 12 bulan yang lepas, adakah anda cuba untuk berhenti menggunakan rokok elektronik/vape?

*During the past 12 months, did you ever try to stop using e-cigarettes/vape?*

a. Saya tidak pernah menggunakan rokok elektronik/ vape

*I have never used e-cigarettes/vape*

b. Saya tidak pernah menggunakan rokok elektronik/ vape dalam tempoh 12 bulan yang lepas

*I don't use e-cigarettes/vape in the past 12 months*

c. Ya

*Yes*

d. Tidak

*No*

46. Siapakah antara bapa, ibu atau penjaga anda menggunakan rokok elektronik/vape?

*Which of your parents or guardians use e-cigarettes/vape?*

a. Kedua-duanya tidak merokok

*Neither*

b. Ayah atau penjaga lelaki

*My father or male guardian*

c. Ibu atau penjaga perempuan

*My mother or female guardian*

d. Kedua-duanya

*Both*

e. Tidak tahu

*I do not know*

**BAHAGIAN 7**  
**PART 7**

**SILA BACA PERNYATAAN DI BAWAH:**

6 soalan berikutnya adalah berkenaan meminum minuman beralkohol. Satu “minuman merujuk kepada satu gelas wain, tuak, lihing, bahar, ijuk atau todi; sebotol bir, segelas kecil arak, langkau, montoku; atau minuman campuran. Minuman beralkohol tidak termasuk beberapa hirup wain untuk tujuan keagamaan.

**PLEASE READ THE STATEMENT BELOW:**

*The next 6 questions ask about drinking alcohol. A “drink’ is a glass of wine, tuak, lihing, bahar, ijuk or toddy; a bottle of beer, a small glass of liquor’ or mixed drink. Drinking alcohol does not include drinking a few sip of wine for religious purposes.*

47. Berapakah umur anda ketika kali pertama anda minum minuman beralkohol?

*How old were you when you had your first drink of alcohol?*

- a. Saya tidak pernah minum minuman beralkohol  
*I have never had a drink of alcohol*
- b. 7 tahun atau ke bawah  
*7 years old or younger*
- c. 8 atau 9 tahun  
*8 or 9 years old*
- d. 10 atau 11 tahun  
*10 or 11 years old*
- e. 12 atau 13 tahun  
*12 or 13 years old*
- f. 14 atau 15 tahun  
*14 or 15 years old*
- g. 16 tahun atau ke atas  
*16 years old or older*

48. Dalam tempoh 30 hari yang lepas, berapa hari anda mengambil sekurang-kurangnya satu minuman mengandungi alkohol?

*During the past 30 days, on how many days did you have at least one drink containing alcohol?*

- a. 0 hari  
*0 days*
- b. 1 atau 2 hari  
*1 or 2 days*
- c. 3 hingga 5 hari  
*3 to 5 days*
- d. 6 hingga 9 hari  
*6 to 9 days*
- e. 10 hingga 19 hari  
*10 to 19 days*
- f. 20 hingga 29 hari  
*20 to 29 days*
- g. Kesemua 30 hari  
*All 30 days*

49. Dalam tempoh 30 hari yang lepas, pada hari anda minum minuman alkohol; berapa banyak minuman yang anda **biasa** ambil dalam sehari?

*During the past 30 days, on the day you drank alcohol, how many drinks did you usually drink per day?*

- Saya tidak minum minuman beralkohol dalam 30 hari yang lepas  
*I did not drink alcohol during the past 30 days*
- Kurang dari 1 minuman  
*Less than one drink*
- 1 minuman  
*1 drink*
- 2 minuman  
*2 drinks*
- 3 minuman  
*3 drinks*
- 4 minuman  
*4 drinks*
- 5 minuman atau lebih  
*5 or more drinks*

50. Dalam tempoh 30 hari yang lepas, biasanya bagaimana anda mendapatkan minuman beralkohol? **SILA PILIH SATU JAWAPAN SAHAJA**

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

- Saya tidak minum minuman beralkohol dalam 30 hari yang lepas  
*I did not drink alcohol during the past 30 days*
- Saya beli dari kedai atau gerai  
*I brought it in a store, shop or from a street vendor*
- Saya beri duit kepada orang lain untuk membeli  
*I gave someone else money to buy it for me*
- Saya dapat daripada kawan  
*I got it from my friend*
- Saya dapat daripada keluarga saya  
*I got it from my family*
- Saya curi atau ambil tanpa kebenaran  
*I stole it or got it without permission*
- Saya perolehi dari cara lain  
*I got it some other way*

**SILA BACA PERNYATAAN DI BAWAH:**  
 Terhuyung-hayang semasa berjalan, tidak mampu bercakap dengan betul, dan muntah adalah tanda seseorang itu terlalu mabuk.

**PLEASE READ THE STATEMENT BELOW?**  
 Staggering when walking, not being able to speak right, and throwing up are some signs of being really drunk.

51. Sepanjang hidup anda berapa kali anda minum minuman beralkohol berlebihan sehingga betul-betul mabuk?

*During your life, how many times did you drink so much alcohol that you were really drunk?*

- 0 kali  
*0 times*
- 1 atau 2 kali  
*1 or 2 times*
- 3 hingga 9 kali  
*3 or 9 times*
- 10 kali atau lebih  
*10 or more times*

52. Sepanjang hidup anda, berapa kali anda mendapat masalah dengan ahli keluarga atau kawan, tidak ke sekolah, atau bertumbuk, akibat daripada minum minuman beralkohol?

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

- 0 kali  
*0 times*
- 1 atau 2 kali  
*1 or 2 times*
- 3 hingga 9 kali  
*3 or 9 times*
- 10 kali atau lebih  
*10 or more times*



**BAHAGIAN 8  
 PART 8**

**SILA BACA PERNYATAAN DI BAWAH:**

4 soalan berikutnya adalah berkenaan penggunaan dadah termasuk heroin, morfin, gam, amfitamin, ecstasy, syabu, ice dan ganja. Ini tidak termasuk ubat-ubatan preskripsi.

**PLEASE READ THE STATEMENT BELOW:**

*The next 4 questions ask about drug use. This include heroin, morphine, glue, amphetamine, ecstasy, methamphetamine, ice and marijuana . This does not include prescribed medicine.*

53. Berapakah umur anda ketika **pertama kali** anda menggunakan dadah?

*How old were you when you **first** used drugs?*

- a. Saya tidak pernah menggunakan dadah  
*I have never used drugs*
- b. 7 tahun atau ke bawah  
*7 years old or younger*
- c. 8 atau 9 tahun  
*8 or 9 years old*
- d. 10 atau 11 tahun  
*10 or 11 years old*
- e. 12 atau 13 tahun  
*12 or 13 years old*
- f. 14 atau 15 tahun  
*14 or 15 years old*
- g. 16 tahun atau ke atas  
*16 years old or older*

54. Sepanjang hidup anda, berapa kali anda telah menggunakan dadah?

*During your life, how many times have you used drugs?*

- a. 0 kali  
*0 times*
- b. 1 atau 2 kali  
*1 or 2 times*
- c. 3 hingga 9 kali  
*3 or 9 times*
- d. 10 hingga 19 kali  
*10 to 19 times*
- e. 20 kali atau lebih  
*20 or more times*

55. Dalam tempoh 30 hari yang lepas, berapa kali anda menggunakan dadah?

*During the past 30 days, how many times have you used drugs?*

- a. 0 kali  
*0 times*
- b. 1 atau 2 kali  
*1 or 2 times*
- c. 3 hingga 9 kali  
*3 or 9 times*
- d. 10 hingga 19 kali  
*10 to 19 times*
- e. 20 kali atau lebih  
*20 or more times*

56. Dalam tempoh 30 hari yang lepas, bagaimana biasanya anda mendapatkan dadah yang anda gunakan? SILA PILIH SATU JAWAPAN SAHAJA

*During the past 30 days, how did you usually get the drugs used? SELECT ONLY ONE RESPONSE*

- a. Saya tidak menggunakan dadah dalam 30 hari yang lepas  
*I did not use drugs during the past 30 days*
- b. Saya beli dari orang lain  
*I bought them from someone*
- c. Saya beri duit kepada orang lain untuk membeli  
*I gave someone else money to buy it for me*
- d. Saya mencuri atau mengambil tanpa kebenaran  
*I stole it or got it without permission*
- e. Saya mendapatkannya daripada kawan saya  
*I got it from my friend*
- f. Saya mendapatkannya daripada keluarga saya  
*I got it from my family*
- g. Saya memperolehi dari cara lain  
*I got it some other ways*

57. Sepanjang hidup anda, berapa kali anda telah menggunakan ganja?

*During your life, how many times have you used marijuana?*

- a. 0 kali  
*0 times*
- b. 1 atau 2 kali  
*1 or 2 times*
- c. 3 hingga 9 kali  
*3 or 9 times*
- d. 10 hingga 19 kali  
*10 to 19 times*
- e. 20 kali atau lebih  
*20 or more times*

58. Dalam tempoh 30 hari yang lepas, berapa kali anda menggunakan ganja?

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

- a. 0 kali  
*0 times*
- b. 1 atau 2 kali  
*1 or 2 times*
- c. 3 hingga 9 kali  
*3 or 9 times*
- d. 10 hingga 19 kali  
*10 to 19 times*
- e. 20 kali atau lebih  
*20 or more times*

59. Sepanjang hidup anda, berapa kali anda telah menggunakan amfetamin atau metamfetamin (meth, syabu, ice, chase the dragon)?

*During your life, how many times have you used amphetamines or metamphetamines (meth, syabu, ice, chase the dragon)?*

- a. 0 kali  
*0 times*
- b. 1 atau 2 kali  
*1 or 2 times*
- c. 3 hingga 9 kali  
*3 or 9 times*
- d. 10 hingga 19 kali  
*10 to 19 times*
- e. 20 kali atau lebih  
*20 or more times*

**BAHAGIAN 9**  
**PART 9**

**SILA BACA PERNYATAAN DI BAWAH:**

5 soalan berikutnya adalah berkenaan hubungan seksual. Hubungan seksual adalah perlakuan seks yang melibatkan memasukkan zakar ke dalam faraj atau dubur.

**PLEASE READ THE STATEMENT BELOW:**

*The next 5 questions ask about sexual intercourse. Sexual intercourse is defined as sexual acts of penetration of penis into vagina or anus.*

60. Pernahkah anda melakukan hubungan seksual/persetubuhan dalam 30 hari yang lepas ?

*Have you ever had sexual intercourse in the past 30 days?*

- a. Ya  
Yes
- b. No  
Tidak

61. Berapa umur anda ketika kali pertama melakukan hubungan seksual/persetubuhan?

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

- a. Saya tidak pernah melakukan hubungan seksual/persetubuhan  
*I have never had sexual intercourse*
- b. 11 tahun atau ke bawah  
*11 years old or younger*
- c. 12 tahun  
*12 years old*
- d. 13 tahun  
*13 years old*
- e. 14 tahun  
*14 years old*
- f. 15 tahun  
*15 years old*
- g. 16 tahun atau ke atas  
*16 years old or older*

62. Sepanjang hidup anda, berapa ramai orang yang telah anda lakukan hubungan seksual/persetubuhan?

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

- a. Saya tidak pernah melakukan hubungan seksual/persetubuhan  
*I have never had sexual intercourse*
- b. 1 orang  
*1 person*
- c. 2 orang  
*2 people*
- d. 3 orang  
*3 people*
- e. 4 orang  
*4 people*
- f. 5 orang  
*5 people*
- g. 6 orang atau lebih  
*6 or more people*

63. Kali terakhir anda melakukan hubungan seksual/persetubuhan; adakah anda atau pasangan anda menggunakan kondom?

*The last time you had sexual intercourse; did you or your partner use a condom?*

- a. Saya tidak pernah melakukan hubungan seksual/persetubuhan  
*I have never had sexual intercourse*
- b. Ya  
Yes
- c. Tidak  
No

64. Kali terakhir anda melakukan hubungan seksual/persetubuhan, adakah anda atau pasangan anda menggunakan kaedah pencegahan kehamilan lain seperti teknik pancutan luar, masa selamat, pil pencegah kehamilan, ataupun kaedah lain?

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

- a. Saya tidak pernah melakukan hubungan seksual/persetubuhan  
*I have never had sexual intercourse*
- b. Ya  
*Yes*
- c. Tidak  
*No*
- d. Tidak tahu  
*I do not know*

**BAHAGIAN 10**  
**PART 10**

**SILA BACA PERNYATAAN DI BAWAH:**

3 soalan seterusnya adalah berkenaan aktiviti fizikal. Aktiviti fizikal adalah apa-apa aktiviti yang meningkatkan kadar denyutan jantung dan menyebabkan kita bernafas dengan kuat. Aktiviti fizikal boleh dilakukan dalam sukan, bermain dengan kawan, atau berjalan ke sekolah. Contoh aktiviti fizikal termasuklah berlari, berjalan pantas, berbasikal, menari, dan bola sepak.

**PLEASE READ THE STATEMENT BELOW:**

*The next 3 questions ask about physical activity. Physical activity is any activity that increases your heart rate and makes you breathe hard. 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, and football.*

65. Dalam tempoh 7 hari yang lepas, berapa hari anda melakukan aktiviti fizikal untuk sekurang-kurangnya 60 minit setiap hari? **JUMLAHKAN MASA ANDA MELAKUKAN APA-APA AKTIVITI FIZIKAL SETIAP HARI**

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

- a. 0 hari  
0 days
- b. 1 hari  
1 day
- c. 2 hari  
2 days
- d. 3 hari  
3 days
- e. 4 hari  
4 days
- f. 5 hari  
5 days
- g. 6 hari  
6 days
- h. 7 hari  
7 days

66. Dalam tempoh 7 hari yang lepas, berapa hari anda berjalan kaki atau berbasikal ke sekolah atau balik ke rumah?

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

- a. 0 hari  
0 days
- b. 1 hari  
1 day
- c. 2 hari  
2 days
- d. 3 hari  
3 days
- e. 4 hari  
4 days
- f. 5 hari  
5 days
- g. 6 hari  
6 days
- h. 7 hari  
7 days

**SILA BACA PERNYATAAN DIBAWAH:**

Soalan berikutnya adalah berkenaan masa yang anda habiskan dengan duduk semasa tidak di sekolah atau semasa membuat kerja rumah.

**PLEASE READ THE STATEMENT BELOW:**

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

67. Biasanya berapa masa yang anda habiskan untuk duduk sama ada untuk menonton televisyen, bermain permainan komputer, berbual dengan kawan atau apa-apa aktiviti yang memerlukan anda duduk?

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

- a. Kurang dari 1 jam sehari  
*Less than 1 hour per day*
- b. 1 hingga 2 jam sehari  
*1 to 2 hours per day*
- c. 3 hingga 4 jam sehari  
*3 to 4 hours per day*
- d. 5 hingga 6 jam sehari  
*5 to 6 hours per day*
- e. 7 hingga 8 jam sehari  
*7 to 8 hours per day*
- f. Lebih dari 8 jam sehari  
*More than 8 hours per day*

**BAHAGIAN 11**  
**PART 11**

**6 soalan seterusnya adalah berkenaan pengalaman anda di sekolah dan di rumah.**  
*The next 6 questions ask about your experiences at school and at home.*

68. Dalam tempoh 30 hari yang lepas, berapa hari anda tidak hadir ke kelas atau sekolah tanpa kebenaran?

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

- a. 0 hari  
*0 days*
- b. 1 atau 2 hari  
*1 or 2 days*
- c. 3 hingga 5 hari  
*3 to 5 days*
- d. 6 hingga 9 hari  
*6 to 9 days*
- e. 10 hari atau lebih  
*10 or more days*

69. Dalam tempoh 30 hari yang lepas, berapa kerap rakan sekolah anda bersikap baik hati dan suka membantu?

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

- a. Tidak pernah  
*Never*
- b. Jarang-jarang  
*Rarely*
- c. Kadang-kadang  
*Sometimes*
- d. Kebanyakan masa  
*Most of the time*
- e. Sentiasa  
*Always*

70. Dalam tempoh 30 hari yang lepas, berapa kerap ibu bapa atau penjaga anda menyemak kerja sekolah anda?

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

- a. Tidak pernah  
*Never*
- b. Jarang-jarang  
*Rarely*
- c. Kadang-kadang  
*Sometimes*
- d. Kebanyakan masa  
*Most of the time*
- e. Sentiasa  
*Always*

71. Dalam tempoh 30 hari yang lepas, berapa kerap ibu bapa atau penjaga anda cuba memahami masalah dan kebimbangan anda?

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

- a. Tidak pernah  
*Never*
- b. Jarang-jarang  
*Rarely*
- c. Kadang-kadang  
*Sometimes*
- d. Kebanyakan masa  
*Most of the time*
- e. Sentiasa  
*Always*

72. Dalam tempoh 30 hari yang lepas, berapa kerap ibu bapa atau penjaga anda benar-benar tahu apa yang anda lakukan pada masa lapang?

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

- a. Tidak pernah  
*Never*
- b. Jarang-jarang  
*Rarely*
- c. Kadang-kadang  
*Sometimes*
- d. Kebanyakan masa  
*Most of the time*
- e. Sentiasa  
*Always*

73. Dalam tempoh 30 hari yang lepas, berapa kerap ibu bapa atau penjaga anda memeriksa barangan anda tanpa kebenaran?

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

- a. Tidak pernah  
*Never*
- b. Jarang-jarang  
*Rarely*
- c. Kadang-kadang  
*Sometimes*
- d. Kebanyakan masa  
*Most of the time*
- e. Sentiasa  
*Always*



**BAHAGIAN 12**  
**PART 12**

**Penggunaan internet di kalangan remaja.**  
***The use of internet among adolescents.***

74. Adakah anda melayari internet dalam 30 hari yang lepas?  
*Did you surf the internet in the past 30 days?*

- a. Ya  
Yes
- b. Tidak (**Terus ke BAHAGIAN 13, soalan No. 78**)  
*No (Go to PART 13, question No. 78)*

**75. Apakah alat yang anda gunakan bagi melayari internet?**

*Which devices that you use for surfing internet?*

75.1 Telefon pintar/ *smartphone*

- a. Ya/Yes
- b. Tidak/No

75.2 Komputer, Komputer Riba/  
*Computer, Laptop, Notebook*

- a. Ya/Yes
- b. Tidak/No

75.3 Papan Elektronik Mudah Alih/  
*Tablet, Ipad*

- a. Ya/Yes
- b. Tidak/No

76. Pernahkah anda belajar menggunakan internet dengan bijak dari.....?

*Have you ever learned how to use the internet wisely from.....?*

76.1 Ibubapa/penjaga/ *parents/guardian*

- a. Ya/Yes
- b. Tidak/No

76.2 Guru/ *teacher*

- a. Ya/Yes
- b. Tidak/No

76.3 Kawan/ *friend*

- a. Ya/Yes
- b. Tidak/No

76.4 Lain-lain sumber (cth: melalui pembelajaran sendiri, kempen/iklan)  
*Other sources (eg: through self-learning, campaign/advertisement)*

- a. Ya/Yes
- b. Tidak/No

77. Ujian saringan penggunaan internet.  
*Internet usage screening test.*

Arahan: Sila nilaikan setiap soalan dengan menggunakan pilihan “a” sehingga “e” daripada skala dibawah untuk menilai ketepatan fakta tersebut bagi diri anda dalam tempoh **30 HARI YANG LALU**. Sila bulatkan jawapan anda untuk semua soalan.

		Tidak pernah	Kadang-kadang	Agak Kerap	Sederhana Kerap	Sangat Kerap
77.1	Berapa kerapkah anda mendapati yang anda melayari internet lebih lama dari masa yang dirancang? <i>How often do you find that you stay on-line longer than you intended?</i>	a	b	c	d	e
77.2	Berapa kerapkah anda mengabaikan tugas pelajaran/ kerja rumah anda untuk menghabiskan lebih banyak masa melayari internet? <i>How often do you neglect household chores to spend more time on-line?</i>	a	b	c	d	e
77.3	Berapa kerapkah anda memilih keseronokan internet berbanding hubungan rapat yang terjalin dengan kawan/pasangan anda? <i>How often do you prefer the excitement of the Internet to intimacy with your partner?</i>	a	b	c	d	e
77.4	Berapa kerapkah anda memulakan hubungan baru dengan pengguna internet yang lain? <i>How often do you form new relationships with fellow on-line users?</i>	a	b	c	d	e
77.5	Berapa kerapkah orang-orang didalam hidup anda mengadu kepada anda mengenai jumlah masa yang anda gunakan untuk melayari internet? <i>How often do others in your life complain to you about the amount of time you spend on-line?</i>	a	b	c	d	e
77.6	Berapa kerapkah pelajaran kamu terjejas (cth. ponteng kelas, menangguhkan kerja, tidak menyiapkan tugas tepat pada masa, dll) disebabkan oleh masa yang anda habiskan untuk melayari internet? <i>How often do your grades or school work suffers because of the amount of time you spend on-line?</i>	a	b	c	d	e
77.7	Berapa kerapkah anda memeriksa email anda sebelum anda melakukan perkara lain? <i>How often do you check your email before something else that you need to do?</i>	a	b	c	d	e
77.8	Berapa kerapkah pencapaian akademik atau produktiviti anda terjejas disebabkan oleh penggunaan internet? <i>How often does your job performance or productivity suffer because of the Internet?</i>	a	b	c	d	e
77.9	Berapa kerapkah anda cuba mempertahankan diri atau berahsia apabila seseorang bertanyakan mengenai aktiviti anda (apa yang anda lakukan) di internet?	a	b	c	d	e

	<i>How often do you become defensive or secretive when anyone asks you what you do on-line?</i>					
77.10	Berapa kerapkah anda cuba melupakan pemikiran yang terganggu mengenai kehidupan anda dengan pemikiran yang boleh menenangkan di internet? <i>How often do you block out disturbing thoughts about your life with soothing thoughts of the Internet?</i>	a	b	c	d	e
77.11	Berapa kerapkah anda mendapati diri anda tertunggu-tunggu atau mengharapkan untuk segera menggunakan internet lagi apabila anda tidak menggunakannya? <i>How often do you find yourself anticipating when you will go on-line again?</i>	a	b	c	d	e
77.12	Berapa kerapkah anda merasa bimbang apabila memikirkan kehidupan tanpa internet akan menjadi bosan, kosong dan tidak menyeronokkan? <i>How often do you fear that life without the Internet would be boring, empty, and joyless?</i>	a	b	c	d	e
77.13	Berapa kerapkah anda marah, menjerit atau menunjukkan reaksi tidak gembira kepada seseorang yang mengganggu anda ketika anda melayari internet? <i>How often do you snap, yell, or act annoyed if someone bothers you while you are on-line?</i>	a	b	c	d	e
77.14	Berapa kerapkah anda kurang tidur disebabkan melayari internet hingga lewat malam? <i>How often do you lose sleep due to late-night log-ins?</i>	a	b	c	d	e
77.15	Berapa kerapkah anda asyik terfikir tentang internet atau berkhayal melayarinya walaupun anda tidak menggunakan internet pada masa itu? <i>How often do you feel preoccupied with the Internet when off-line, or fantasize about being on-line?</i>	a	b	c	d	e
77.16	Berapa kerapkah anda berkata kepada diri sendiri "sekejap lagi/ beberapa minit lagi" apabila anda melayari internet? <i>How often do you find yourself saying "just a few more minutes" when on-line?</i>	a	b	c	d	e
77.17	Berapa kerapkah anda cuba untuk mengurangkan masa anda melayari internet tetapi tidak berjaya? <i>How often do you try to cut down the amount of time you spend on-line and fail?</i>	a	b	c	d	e
77.18	Berapa kerapkah anda cuba menyorokkan daripada orang lain mengenai jumlah masa yang anda gunakan untuk melayari internet? <i>How often do you try to hide how long you've been on-line?</i>	a	b	c	d	e
77.19	Berapa kerapkah anda memilih untuk menghabiskan lebih banyak masa melayari internet berbanding keluar bersosial dengan rakan-rakan anda?	a	b	c	d	e

	<i>How often do you choose to spend more time on-line over going out with others?</i>					
77.20	<p>Berapa kerapkah anda merasa sedih, berperasaan tidak menentu dan gementar apabila tidak melayari internet, di mana semua perasaan ini akan hilang sebaik saja anda menggunakan internet semula?</p> <p><i>How often do you feel depressed, moody or nervous when you are off-line, which goes away once you are back on-line?</i></p>	a	b	c	d	e

**BAHAGIAN 13**  
**PART 13**

78. Saringan Minda Sihat  
*Healthy Mind Screening*

Sila baca setiap kenyataan di bawah dan **HITAMKAN** jawapan anda pada KERTAS JAWAPAN berdasarkan jawapan **a, b, c,** atau **d** bagi menggambarkan keadaan anda sepanjang minggu yang lalu. Tiada jawapan betul atau salah. Jangan mengambil masa yang terlalu lama untuk menjawab mana-mana kenyataan.

*Please read each statement and **SHADE** numbers **a, b, c,** or **d** which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.*

Skala pemarkahan adalah seperti berikut:  
*The rating scale is as follow:*

- a. **Tidak langsung** menggambarkan keadaan saya  
*Did not apply to me at all*
- b. **Sedikit atau jarang-jarang** menggambarkan keadaan saya  
*Applied to me to some **degree** or **some of the time***
- c. **Banyak atau kerap kali** menggambarkan keadaan saya  
*Applied to me to a **considerable degree** or a **good part of time***
- d. **Sangat banyak atau sangat kerap** menggambarkan keadaan saya  
*Applied to me **very much,** or **most of the time***

78.1	Saya dapati diri saya sukar ditenteramkan <i>I found it hard to wind down</i>	a	b	c	d
78.2	Saya sedar mulut saya terasa kering <i>I was aware of dryness of my mouth</i>	a	b	c	d
78.3	Saya tidak dapat mengalami perasaan positif sama sekali <i>I couldn't seem to experience any positive feeling at all</i>	a	b	c	d
78.4	Saya mengalami kesukaran bernafas (contohnya pernafasan yang laju, tercungap-cungap walaupun tidak melakukan senaman fizikal) <i>I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)</i>	a	b	c	d
78.5	Saya sukar untuk mendapatkan semangat bagi melakukan sesuatu perkara <i>I found it difficult to work up the initiative to do things</i>	a	b	c	d

78.6	Saya cenderung untuk bertindak keterlaluan dalam sesuatu keadaan <i>I tended to over-react to situations</i>	a	b	c	d
78.7	Saya rasa mengeletar (contohnya pada tangan) <i>I experience trembling (e.g. in the hands)</i>	a	b	c	d
78.8	Saya rasa saya menggunakan banyak tenaga dalam keadaan cemas <i>I felt that I was using a lot of nervous energy</i>	a	b	c	d
78.9	Saya bimbang keadaan di mana saya mungkin menjadi panik dan melakukan perkara yang membodohkan diri sendiri <i>I was worried about situation in which I might panic and make a fool of myself</i>	a	b	c	d
78.10	Saya rasa saya tidak mempunyai apa-apa untuk diharapkan <i>I felt that I had nothing to look forward to</i>	a	b	c	d
78.11	Saya mendapati diri saya semakin gelisah <i>I found myself getting agitated</i>	a	b	c	d
78.12	Saya rasa sukar untuk relaks <i>I found it difficult to relax</i>	a	b	c	d
78.13	Saya rasa sedih dan murung <i>I felt down-hearted and blue</i>	a	b	c	d
78.14	Saya tidakdapat menahan sabar dengan perkara yang menghalang saya meneruskan apa yang saya lakukan <i>I was intolerant of anything that kept me from getting on with what I was doing</i>	a	b	c	d
78.15	Saya rasa hampir-hampir menjadi panik/cemas <i>I felt I was close to panic</i>	a	b	c	d
78.16	Saya tidak bersemangat dengan apa jua yang saya lakukan <i>I was unable to become enthusiastic about anything</i>	a	b	c	d
78.17	Saya tidak begitu berharga sebagai seorang individu <i>I felt I wasn't worth much as a person</i>	a	b	c	d

78.18	Saya rasa yang saya mudah tersentuh <i>I felt that I was rather touchy</i>	a	b	c	d
78.19	Saya sedar tindakbalas jantung saya walaupun tidak melakukan aktiviti fizikal (contohnya kadar denyutan jantung bertambah, atau denyutan jantung berkurangan) <i>I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)</i>	a	b	c	d
78.20	Saya berasa takut tanpa sebab yang munasabah <i>I felt scared without any good reason</i>	a	b	c	d
78.21	Saya rasa hidup ini tidak bermakna <i>I felt that life was meaningless</i>	a	b	c	d



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50590 Kuala Lumpur



TINJAUAN KEBANGSAAN KESIHATAN DAN MORBIDITI 2017  
KERTAS JAWAPAN TINJAUAN KESIHATAN REMAJA

ID PELAJAR

NEGERI	STRATA	KATEGORI SEKOLAH	KOD SEKOLAH	KELAS	PELAJAR
0 1 2 3 4 5 6 7 8 9	1 2	1 2	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9

1 (A B C D E F G H)	34 (A B)	60 (A B)
2 (A B)	35 (A B C D E)	61 (A B C D E F G)
3 (A B C D E F)	36 (A B C D)	62 (A B C D E F G)
4 (A B C D E F)	37 (A B)	63 (A B C)
5 (A B C D E F)	38 (A B C D E F G)	64 (A B C D)
6 (A B C D E)	39.1 (A B)	65 (A B C D E F G H)
7 (A B C D E F G)	39.2 (A B)	66 (A B C D E F G H)
8 (A B C D E F G)	39.3 (A B)	67 (A B C D E F)
9 (A B C D E F G)	39.4 (A B)	68 (A B C D E)
10 (A B C D E F G)	39.5 (A B)	69 (A B C D E)
11 (A B C D E F G)	39.6 (A B)	70 (A B C D E)
12 (A B C D E F G H)	39.7 (A B)	71 (A B C D E)
13 (A B C D E F)	39.8 (A B)	72 (A B C D E)
14 (A B C)	40 (A B C D)	73 (A B C D E)
15 (A B)	41 (A B C D E)	74 (A B)
16 (A B C D E)	42 (A B C D E)	75.1 (A B)
17 (A B)	43 (A B)	75.2 (A B)
18 (A B)	44 (A B C D E F G)	75.3 (A B)
19 (A B C D E)	45 (A B C D)	76.1 (A B)
20 (A B C D E)	46 (A B C D E)	76.2 (A B)
21 (A B C D E)	47 (A B C D E F G)	76.3 (A B)
22 (A B C D E F G H)	48 (A B C D E F G)	76.4 (A B)
23 (A B C D E F G H)	49 (A B C D E F G)	77.1 (A B C D E)
24 (A B C D E F G H)	50 (A B C D E F G)	77.2 (A B C D E)
25 (A B C D E F G)	51 (A B C D)	77.3 (A B C D E)
26 (A B C D E F G H)	52 (A B C D)	77.4 (A B C D E)
27 (A B C D E F G)	53 (A B C D E F G)	77.5 (A B C D E)
28 (A B C D E F G H)	54 (A B C D E)	77.6 (A B C D E)
29 (A B C D E F G H)	55 (A B C D E)	77.7 (A B C D E)
30 (A B C D E F G H)	56 (A B C D E F G)	77.8 (A B C D E)
31 (A B C D E)	57 (A B C D E)	77.9 (A B C D E)
32 (A B C D E)	58 (A B C D E)	77.10 (A B C D E)
33 (A B)	59 (A B C D E)	77.11 (A B C D E)
		77.12 (A B C D E)
		77.13 (A B C D E)
		77.14 (A B C D E)
		77.15 (A B C D E)
		77.16 (A B C D E)
		77.17 (A B C D E)
		77.18 (A B C D E)
		77.19 (A B C D E)
		77.20 (A B C D E)





Ministry of Health Malaysia



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