

# Methodology

## Sample Description

Site: All Schools - Jamaica

## School Type

All schools comprising grades 7-13 with 40 or more students in each class were included in the sampling frame. A two-staged cluster sample design was used to produce a representative sample of students in grades 7-13. In the sample, 98.2% of the respondents were in grades 7-10.

**School Level** - The first stage sampling frame consisted of all schools containing any grades 7-13. Schools were selected with probability proportional to school enrollment size.

**Class Level** - The second sampling stage consisted of systematic equal probability sampling (with a random start) of classes from each school that participated in the survey. All 2nd period classes in the selected schools were included in the sampling frame. All students in the selected classes were eligible to participate in the survey.

## Overall Response Rates

**Schools:** 100% - 50 of the 50 sampled schools participated.

**Students:** 86.49% - 1,742 of the 2,014 sampled students completed usable questionnaires.

**Overall response rate:** 86.49%; n = 2,014.

## Questionnaire Development

The questionnaire used in the Jamaican study was comprised of 58 questions which were predominantly core questions.

## Data Collection

Prior to the initiation of data collection, discussions were held between officials of the Ministries of Health and Education and Culture to obtain their agreement and endorsement regarding the project. Correspondence was sent to the relevant senior personnel of the Ministry of Education and Culture and school principals pertaining to the survey and agreement was reached for it to be conducted.

Following the agreement to participate in the survey, a letter was sent to the principals of selected schools indicating the classes in which the survey would be administered to students, with a copy of a parent notification form for each proposed student participant attached.

Training workshops were held for Survey Administrators - Health Education Officers of the Health Promotion and Protection Division. Each Survey Administrator was responsible for conducting the survey by appointment in several schools located in each parish to which he/she was assigned.

After the answer sheets were filled out utilizing the special pencil provided, they were collected and checked for adequacy and accuracy of completion as well as to ensure that the number of questionnaires tallied with the number of students to whom they had been administered.

Questionnaires and answer sheets were then placed in envelopes which were sealed and delivered to the Director of the Health Education Section, Ministry of Health. Subsequently, they were couriered to the Office on Smoking and Health, Centers for Disease Control and Prevention, USA, where the data was entered.

In general, schools were very co-operative throughout this exercise.

## **Analysis**

### **Weighting**

A weight has been associated with each questionnaire to reflect the likelihood of sampling each bias by compensating for differing patterns of non-response and for the diverse probabilities of selection. The weight used for estimation is given by:

$$W = W1*W2*F1*F2*F3*F4$$

W1 = the inverse of the probability of selecting the school

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

F1 = a school-level non-response adjustment factor calculated by school size category (small, medium, large)

F2 = a classroom adjustment factor calculated by school

F3 = a student-level non-response adjustment factor calculated by class

F4 = A post stratification adjustment factor calculated by gender and grade

### **Use of the Weighted Results**

The weighted results can be used to make important inferences concerning tobacco use risk behaviours of all grades (7-13).

Prevalence Rates and Confidence Intervals:

Prevalence Rates were derived with 95% Confidence Intervals for the estimates utilizing Epi-Info, a series of Statistics, Database and Word processing microcomputer programmes which handle epidemiologic data in questionnaire format and arrange study designs and results into texts which comprise a component of written reports.

Only statistically significant differences between Prevalence Estimates were mentioned, that is, if the 95% Confidence Intervals did not overlap.