

The Global Youth Tobacco Survey (GYTS – Oman)

1. Determine the level of tobacco use.
2. Estimate the age of initiation of cigarettes use.
3. Estimate the levels of susceptibility to become a cigarette smoker.
4. Estimate the exposure to tobacco advertising.
5. Identify key intervening variables such as attitudes and beliefs norms with regard to tobacco use among people, which can be used in prevention programs.
6. Assess the extent to which major prevention programs are reaching school-based populations and establish the subjective opinions of these populations regarding such intervention.

Methods

The GYTS in Oman is a cross-sectional school based survey, which employed a two-stage cluster sampling design to produce a nationally representative sample of students in grades 8-10 in governmental schools. The final sample selected is a “self-weighting” sample meaning that each student has an equal probability or chance to be selected to perform the survey.

Study design and sampling

Stage 1: Selection of schools

A list of governmental schools eligible to participate in the survey was collected in coordination with Ministry of Education (MOE). Private schools were excluded because of the small number of students’ population in these schools and the need of further precautions and permission to conduct the survey.

The list of eligible schools was forwarded to CDC to draw the sample. The sample was selected with a probability proportional to enrollment size. This meant that large schools (with more students) were more likely to be selected than small ones. A total of 50 schools were selected with no replacement or substitution allowed for schools that did not agree to participate. Due to the low students’ population in some regions, only nine out of eleven educational regions were included in the sample (table 2).

Table 2: The Nine Regions Involved in the Oman GYTS, 2003.

Regions Surveyed
1. Muscat
2. Dakhliyah
3. North Batinah
4. South Batinah
5. North Sharqiyah
6. South Sharqiyah
7. North Dhahirah
8. South Dhahirah
9. Dhofar

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Stage 2: Selection of classes and students

This stage consisted of systematic equal probability sampling (with a random start) of classes from each school that participated in the survey. All classes in the selected schools were included in the sampling frame. All students in the selected classes were eligible to participate in the survey. So in each school, depending on the number of classes listed, one or two or three of those classes were selected and all students in the selected classes were eligible to participate in the survey. In three schools, the actual size of the classes was very high, thus the total number of classes is small and the randomly selected class did not exist. We selected one class in each school randomly.

A weighting factor was applied to each student's record to reflect the varying probabilities of selection and adjust for non-response patterns. SUDAAN and EPINFO Programs were used to compute the estimates and 95% confidence intervals around the estimates. The weight used for estimation is given by:

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

Where:

W1 = the inverse of the probability of selecting the schools.

W2 = the inverse of the probability of selecting the classes within the school.

F1= a school level non-response adjustment factor calculated by school size category.

F2= a classroom level non-response factor calculated for each school.

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

F4 = a post stratified adjustment factor calculated by gender and grade.

Study questionnaire

The Omani version of the GYTS questionnaire consisted of 72 questions. It was a self-administrated type that consisted of core component and an optional component. The core component allowed for comparison between other countries that have performed GYTS. The optional questionnaire allow for specific issues according to the situation in Oman. The questionnaire was translated in Arabic and reviewed by the Technical Office in the MOE.

Data collection

Survey procedures were designed to protect students' privacy by allowing for anonymous and voluntary procedures.

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A one-day training workshop was conducted in the capitol Muscat in March 2003. It aimed to standardize the research methodology. A guidebook was prepared in Arabic and distributed to all research administrators. During the training workshop, the survey was conducted in two schools in the Muscat area (not included in the sample) in order to pilot the survey and assure the research administrators.

A survey team was established in each of the nine regions. It consisted of the school health in-charge as head of the team and 2-3 school health nurses. Each team member was assigned to specific schools and was responsible for delivery and collection of all survey documentations. All necessary materials and copies of papers, envelopes, pens and pencils were offered, free of charge, to the survey administration according to their duties and needs.

Permission to enter the schools and run the survey procedures was granted through an official letter to all educational regions and schools in co-ordination with MOE.

Parents' written consent was obtained. Data collection completed in two weeks time. The research coordinator reviewed the packages of answer sheets, header sheets (containing class code and school code), classroom level forms and school level forms. This was done to establish quality data management throughout the data gathering process. All these packages were collected and sent to CDC for data entry.

Analysis

Analysis was done using EPINFO 2002, a soft ware package that accounted for the complex sampling design and weighing factors in the data set, to calculate standard errors and prevalence estimates. Statistical differences included in this report were determined by comparing the range of 95% confidence interval (95% CI) for the estimates. If the ranges for the 95% CI did not overlap the difference were statistically significant.

Results

A total of 2024 students were invited to participate and 1,962 of them completed the survey. The school response rate was 100%, the student response rate was 96.9% and the overall response rate was 96.9%. Table below illustrates the study subjects by school grade and gender. (44students have no response to this question)

Table 3: Number of respondents in the Oman GYTS, 2003.

<i>Grade</i>	<i>Boys (%)</i>	<i>Girls (%)</i>	<i>Total</i>
Eighth	264 (39.1)	412 (60.9)	676
Ninth	291 (59.4)	199 (40.6)	490
Tenth	450 (59.8)	302 (40.2)	752
Total	1005	913	1918