Methods

The 2000 Lara State (Venezuela) GYTS is a cross sectional school-based survey which employed a two-stage cluster sample design to produce a nationally representative sample of students in grades six to nine. Data about school's were obtained from the Venezuelan Ministry of Education's SISE project. This is an electronic database with national data on every register school in Venezuela.

Sample description

The first-stage sampling frame consisted of all schools containing any of grades six to nine. Schools were selected with probability proportional to school enrollment size. One hundred and three schools were selected. All schools containing Grades 6, 7, 8, or 9 were included in the sampling frame except for those schools in the rural area who had a total enrollment of less than 40 students. The sampling frame was split into four areas based on school type and urban/rural geographic location. The four areas were: Urban/Public, Urban/Private, Urban/Marginal and Rural. For each area, a two-stage cluster sample design was used to produce a representative sample of students in these schools. Within each area, the first-stage sampling frame consisted of all schools containing any of Grades 6, 7, 8, or 9. Schools were selected with probability proportional to school enrollment size. Sixty schools were selected in the Urban/Public area, twenty three in the Urban/Private area, seven in the Urban/Marginal area, and thirteen schools in the Rural area which sums to a total of 63.

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 classes in the selected schools were included in the sampling frame. All students in the selected classes were eligible to participate in the survey.

The questionnaire

A group of experts on tobacco addiction from the first group of countries selected to undertake GYTS, and staff members of WHO/TFI and UNICEF, wrote the 57 questions of the "core" part of GYTS. In addition, each participant country were allowed to include questions dealing with local tobacco used issues. The Venezuelan "local" part of GYTS consisted of 12 questions, they were put together by a team of researchers from ASCARDIO, an NGO selected to assume GYTS in Venezuela, and from OPS/WHO Venezuelan office. The Venezuelan "local" GYTS includes items about chimó, a mixture of tobacco and other ingredients to be applied orally.

The core part was translated into Spanish by staff members of ASCARDIO. EMTAJOVEN (Encuesta Mundial Sobre Tabaquismo en Jóvenes), that is the name of GYTS in Spanish, was pilot tested in the city of Barquisimeto, Venezuela in a group of youth. The pilot test was followed by focus groups to discuss each question and their answers. To assess comparability between GYTS and its Spanish version, EMTAJOVEN were translated back into English by an independent translator not related to ASCARDIO.

Data Collection

Survey procedures were designed to protect the students' privacy by allowing for anonymous and voluntary participation. The self-administered questionnaire was administered in the classroom. Students recorded their responses directly on an answer sheet that could be scanned by a computer. A group of organizations and independent researchers were called upon to undertake EMTAJOVEN (GYTS) in Lara State Venezuela under the co-ordination of Magda Sánchez BEdu. of ASCARDIO, a community based non for profit organization devoted to the control and prevention of cardiovascular diseases. These group was conformed by people and organizations from the public and the private sector, NGO's, civil and the military.

Analysis

For the analysis, a weighting factor was applied to each student record to adjust for non response and for the varying probabilities of selection. The programs SUDAAN and Epi-Info were used to compute rates and 95% confidence intervals for the estimates. A weight has been associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of non-response. The weight used for estimation is given by: W=Wl*W2*fl*f2*f3*f4.

WI = 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 class-level non-response adjustment factor calculated for each school.
f3= a student-level non-response adjustment factor calculated by class.
f4 = a post stratification adjustment factor calculated by grade.