

Methods

The 1999 Venezuelan 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 was obtained from the Venezuelan Ministry of Education's SISE project. This is a electronic data based with national data on every register school in Venezuela.

Sample description

The first-stage sampling frame consisted of all schools containing any of six to nine grades. Schools were selected with probability proportional to school enrollment size. One hundred and four 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 103.

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 translate 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 Venezuela. This group was formed by people and organizations from the public and the private sector, NGO's, civil and the military. This group built a strategic alliance and group motivation, one objective of the GYTS project. Here is a partial list of the members of the Venezuelan strategic alliance: ASCARDIO, UNICEF (Venezuelan Office), OPS-WHO (Venezuelan Office), Venezuelan Heart Foundation, Ministry of Health, Ministry of Education, Venezuelan Foundation Against Tobacco, Venezuelan Society of Cardiology and Inter-American Heart Foundation,

To undertake EMTAJOVEN (GYTS) in Venezuela, the country was divided into regions, each one with a regional co-ordinator. Here are the regions (their regional co-ordinator and main affiliation): Zulia State (Gloria Vergara, Hospital Universitario de Maracaibo), Distrito Federal and Miranda State (Valle Castillo, Fundación Together), Oriental Region (José Ruiz, ASOCOR), Cojedes State and Guárico State (Gerardo Uzcátegui, Centro Cardiovascular Cojedes), Mérida State (Dilia Tallaferro, Universidad de los Andes), Falcón State (Francisco Leal, Servicio Autónomo de Sanidad Estado Falcón), Barinas State (Jaime Marín, Centro Cardiovascular Barinas), Táchira State (Marianela Rivas, FUNDACOR), Aragua State (Igor Morr, FUNDA-PROCECA), Carabobo State (Jorge Melet, Servicio de Cardiología CHET, INSALUD), Central-Western Region (Magda Sánchez, ASCARDIO), Trujillo State (Martha Isaac) and Aideé Zerpa (Departamento de Psicología del Ejército), this group took over several schools in difficult to reach areas of the country.

Between March and April 1999, there were workshops on each region where field researchers were instructed on standard procedures to assure comparability on data collection. Data collection began on April and concluded on June 1999.

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: $W = W1 * W2 * f1 * f2 * f3 * f4$.

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 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.