

Prevalence of the Improper Use of Alcohol, Tobacco, and Drugs in the Ecuadorian Population

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An epidemiologic investigation was conducted in 1988 to measure prevalences of the improper use of alcohol, tobacco, and drugs in the Ecuadorian population. This research was based on a structured interview survey of 6,000 individuals representative of the country's entire population between the ages of 10 and 65. The relative frequency of the various common forms of consumption of these substances was also investigated.

Overall, the substances used by the highest percentages of study subjects at least once in their lives were alcohol (by 75%) and tobacco (by 54%). Lesser percentages had used medically prescribed psychotropic drugs (for example, 16% reported using tranquilizers at least once). The percentages using the same drugs illegally, without prescription, were lower (for example, 4% in the case of tranquilizers), and the percentages reporting use of outlawed drugs were also small (the respective percentages reporting use of marijuana, inhalants, native plant drugs, cocaine, and cocaine base were 4%, 2%, 1%, 1%, and 1%). The study also found that the prevalences of addiction to substances other than alcohol and tobacco were relatively low, ranging from 0.8% for tranquilizers taken without prescription to 0.01% for cocaine.

In 1988 the Mental Health Division of Ecuador's Ministry of Public Health, working jointly with the Our Youth Foundation (Fundación Nuestros Jóvenes), carried out an epidemiologic investigation to assess the prevalences of alcohol, tobacco, and drug use in the Ecuadorian population. Efforts were also made to assess the extent of the following forms of consumption: cultural consumption—mass drug consumption, especially when practiced as a custom, as exemplified by the chewing of coca leaves in Bolivia; experimental consumption—use motivated by simple curiosity or desire to experience the effects of the substance; recreational consumption—use for the purpose of enjoyment at parties or social gatherings; anesthetizing con-

sumption—use directed at hiding very difficult economic or social problems; consumption for stimulation—use meant to enhance physical or intellectual performance in sports or work activities; and psychopathologic consumption—use related to conditions of mental illness preceding drug dependence. To the extent possible, the percentages of users practicing these various forms of consumption were determined for each of the various substances involved.

MATERIALS AND METHODS

A structured survey was performed that was based upon a model developed by the United Nations.² The survey questionnaire included 185 questions request-

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²Organización de las Naciones Unidas, *Manual de evaluación del uso indebido de drogas, segunda parte*, Vienna, 1985.

ing sociodemographic information about the subject interviewed as well as information about his or her use of dependence-producing substances.

The study universe corresponded to the Ecuadorian population between 10 and 65 years of age, a total of 4,671,113 inhabitants. The entire country was canvassed, with representative samples being selected in the two major cities of Quito and Guayaquil as well as in rural and other urban areas of the mountainous, coastal, and Amazon regions. In addition, special foci involved in the production, consumption, and trafficking of drugs were identified, such as areas near the northern and southern borders. The only area not covered was the Galápagos Islands.

In all, 6,000 study subjects were selected from the noninstitutional civilian population. These subjects were distributed as follows: from Quito, 700; from Guayaquil, 800; from urban parts of the mountainous zone, 810; from urban parts of the coastal zone, 790; from urban parts of the Amazon region, 100; from special areas (ones bordering Colombia to the north or Peru to the south) with more than 30,000 inhabitants, 450; from special areas with fewer than 30,000 inhabitants, 850; from rural parts of the coastal zone, 640; and from rural parts of the mountainous zone and the Amazon region, 860.

For purposes of analysis the study subjects were segregated by sex and also by age, using the age ranges 10-17 years, 18-24 years, 25-34 years, and 35-65 years. In the first group a subsample was taken as well.

Selection of the samples was probabilistic and random. The populations of Quito and Guayaquil were previously classified as having three socioeconomic strata, and an attempt was made to achieve maximum homogeneity within each stratum and maximum heteroge-

neity between the strata. The sampling was done in several stages: First, primary units (corresponding to cities and specific rural areas) within zones were selected; then sectors within these units were chosen; then blocks or small sections within these segments; and then groups of six dwellings within the blocks or small sections. Within each group of six dwellings, one household was selected for observation, and one person within the age range being considered was selected by age and sex according to a controlled process so that the sample would be as representative as possible of the population's age and sex distribution.

Selection of the specific person to be interviewed involved the following steps: location of the relevant block or small section on the map; verification of the list of six selected residences in the block; application of a table of random numbers for selection of the residence to be visited; implementation of the procedure used to control probabilistic selection by age and sex; and delivery of a reference card and confidential answer sheet (provided in a sealed envelope) in order to help the interviewers obtain the most valid possible information from the subject.

The resulting survey data were analyzed and processed by means of the Statistical Package for the Social Sciences (SPSS-PC).

RESULTS

This complex investigation produced a wealth of data. In this brief article, which is not intended to serve as a full report of the results, we will limit ourselves to summarizing findings relating to the prevalences of improper alcohol, tobacco, and drug use by type of substance and form of consumption.

The results showed that the drugs used by the most survey subjects at least once

in their lives (that is, with the highest lifetime user prevalences) were alcohol (used by 75%) and tobacco (used by 54%). Far smaller percentages indicated they had used psychotropic drugs. In all, the percentages acknowledging use of medically prescribed tranquilizers, opiates, and barbiturates were 16%, 12%, and 7%, respectively, while the percentages indicating unprescribed (illegal) use of tranquilizers, amphetamines, barbiturates, and opiates were lower (4%, 4%, 4%, and 2%, respectively), and the percentages acknowledging use of outlawed drugs (marijuana—4%, inhalants—2%, native plant drugs—1%, cocaine—1%, and cocaine base—1%) were also low.

The criteria used for estimating addiction to the various substances were exclusively quantitative. That is, a person using psychotropic drugs daily was considered addicted, as was a person who imbibed alcohol daily or who smoked more than 17 cigarettes a day.

The prevalences found for addiction to alcohol (13%) and tobacco (13%) were substantial. Much lower prevalences were found for addiction to tranquilizers used without medical prescription (0.8%), opiates used without prescription (0.4%), barbiturates used without prescription (0.2%), marijuana (0.2%), cocaine base (0.11%), amphetamines (0.08%), inhalants (0.01%), and cocaine (0.01%). Applying the criteria employed to define addiction, no addiction was encountered to native plant drugs or to drugs prescribed by physicians.

Of the forms of consumption previously described, cultural forms were excluded because of their limited representation in the survey. The most common form of consumption reported was experimental (by 33% of the users). This was followed by recreational use (by 24%), psychopathologic use (by 16%), use as a stimulant (by 15%), and anesthetizing use (by 12%).

With regard to relationships between forms of consumption and lifetime prevalences, it was found that experimental and recreational forms of consumption generally predominated—especially among users of marijuana and cocaine base—whereas the psychopathologic form predominated among users of unprescribed tranquilizers and barbiturates and prescribed narcotics.

Regarding relationships between forms of consumption and the prevalence of addiction, the following forms of consumption were pointed up as being important: the experimental use of marijuana, tranquilizers, cocaine base, and narcotics; the recreational use of marijuana, cocaine base, and tranquilizers; the anesthetizing use of tranquilizers; and the psychopathologic use of marijuana, tranquilizers, barbiturates, and narcotics.

CONCLUSIONS

It appears that a reasonably good degree of accuracy was attained by this epidemiologic survey regarding prevalences of alcohol, tobacco, and drug use.

The two dependence-producing substances that were found to have the highest lifetime user prevalences were alcohol and tobacco. The survey also indicated that relatively high percentages of the population were using prescription tranquilizers, opiates, and barbiturates—a finding that suggests medical prescriptions are perhaps becoming a frequent path to addiction in Ecuador.

The highest prevalences of addiction were recorded for alcohol and tobacco, the survey indicating relatively low indexes of addiction for the other substances involved.

The fact that different forms of consumption were found at about the frequencies expected within the study population suggests that the method used to distinguish between these different

forms of consumption was valid. Also, it was found that some of the substances investigated were related especially strongly to certain specific forms of consumption, a finding that should assist with future development of policies for prevention, treatment, and rehabilitation.

Acknowledgments. The author wishes to thank Drs. Polibio Córdova, Albert Narváez, and Paul Bonilla for their collaboration in performing the survey and analyzing the results, and Dr. Lloyd Johnston for his advice during the investigation.



Smoking in the United States

A 1989 Report of the U.S. Surgeon General, "Reducing the health consequences of smoking: 25 years of progress," reviews the changes in smoking behavior that have occurred since 1964. Some encouraging findings are reported: The prevalence on smoking among U.S. adults decreased from 40% in 1965 to 29% in 1987, and nearly half of all living adults who ever smoked have quit. Between 1964 and 1985, about 750,000 smoking-related deaths were avoided or postponed by quitting smoking or deciding not to start, each representing an average gain in life expectancy of 20 years. However, smoking prevalence remains higher among blacks, blue-collar workers, and persons with less education than in the overall population. Smoking among women has declined substantially slower than among men. Given these facts, prevention and cessation interventions need to target specific population groups. Also, the age of smoking initiation has fallen over time, particularly among females. One-quarter of high school seniors who have ever smoked had their first cigarette by sixth grade, one-half by eighth grade. Thus, smoking prevention education needs to begin in elementary school, and cessation programs are needed for children and adolescents addicted to nicotine.