2002 YOUTH DRUG SURVEY REPORT

By

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Since 1972, Substance Abuse Prevention Services (formerly The Drug Education Center) has implemented a countywide youth survey every two - three years. This data is collected to determine the current level of incidence and prevalence of alcohol, tobacco, marijuana, and other drug use. Due to the longitudinal nature of the research, changing local patterns and trends can be observed. In February 2002, Prevention Services in collaboration with Mecklenburg County's Area Mental Health Authority and the Charlotte-Mecklenburg Schools administered the self-report survey instrument to approximately 3,000 youth ages 12-18. The following is an overview of the key findings.

1. Introduction

The purpose of this report is to describe and analyze the drug usage pattern among middle and high school students in Charlotte-Mecklenburg County, North Carolina. This report is based on surveys conducted in 1979, 1983, 1989, 1992, 1995, 1998, and 2002.

This is a descriptive study. As such, no attempt is made to explain why students abuse drugs as they do. An explanatory level of analysis of this question is very complex and requires a refined theory and empirical demonstration. A research objective of this nature is not the purpose of this report. Rather, the concern is to chart the terrains of the prevalence and incidence of drug usage patterns among students in the county over a period of more than two decades.

More specifically, the kinds of questions asked in this study are:

(1) What kind of drugs or psychoactive substances are currently in use and how widespread are they among the student population?
(2) Is drug use increasing or decreasing during the period under investigation?
(3) Is the student drug use in Mecklenburg County more or less widespread than the national average in a similar group of students?
(4) Is drug use more widespread as one moves toward the higher-grade levels?
(5) At what age are youth most likely to experiment with drugs?
(6) Is drug use more prevalent among male than female students?
(7) Is there a difference is drug use among various ethnic groups?
(8) Is there a difference is drug use within the various districts within Mecklenburg County?

These are some of the fundamental questions that need to be answered and of which the community needs to be aware. In the process of answering these questions, we not only will be acquainted with the basic structure of drug abuse by the young, but also with the specific target population toward whom the primary prevention, intervention, and treatment services must be directed.

Questionnaire Administration

All drug surveys implemented by Prevention Services were anonymous, self-administered and self-reported by students during a normal class period. The complete survey questionnaire can be found in Appendix B.

Coverage of Population

The series of sample surveys conducted since 1995 cover students from 6-12 grade in public schools located in Charlotte-Mecklenburg County. In years prior to that the survey included students from 5-12 grade in public and private schools. In February

2002, the survey was implemented in regular classroom settings. Thus, students who were absent on the day the survey was implemented for whatever reason (e.g., sick, drop-outs, incarcerated, suspended, etc.) were not represented. Although the excluded students may have been small, the results of any survey are applicable only to the population from which the sample is drawn. The drug usage level across the aggregate of the excluded segment of students may or may not be similar in extent and character to the drug usage among the attendant population. Therefore, generalizations from the attendant sample to the total population in the county are inappropriate.

Inference from Sample to Population

As in any sample survey, the results presented in this report are estimates of the values that would be obtained if the data were collected from all members of the population from which the sample was drawn. Statistically, since the sample was drawn according to strict random (probability-based) procedures, each sample result is the single best estimate of the corresponding population value; this does not mean, of course, that the sample value is necessarily very close to the population value.

On the assumption that the effect of nonresponse is essentially random, the theory of sampling provides the basis for a procedures for estimating confidence limits that describe the relationship between sample estimates and population parameters – not with certainty, but with probability. Thus, it is possible to assert, with specified probability, that a percentage based on a sample of given design will fall within a calculable distance from the population value it is designed to estimate.

In Table 2.1, confidence limits are presented at the 95% level. This indicates that if the procedures for setting the confidence limits were followed in repeated sampling from the defined population, the statement that the population value lies between the confidnec limits would be correct 95 times out of 100. These limits represent a zone of uncertainty around the reported estimates and suggest the use of ranges in discussion of results. A detailed description of the procedure used to estimate these limits and an explanation of why they are asymmetric around sample values is beyond the scope of this report. However, the fundamentals of the population estimates are provided in Appendix A.

Sampling Procedure

Due to the limited availability of time, resources, and personnel, a cluster sampling procedure was utilized. This procedure simplifies the respondent selection and the questionnaire administration.

In drawing a representative sample of students in grades six through twelve in Mecklenburg County, the following sampling procedure has been used for the student drug survey since 1977:

(a) all middle and high schools were included in the sample
(b) all grade levels within each school were sampled

(c) all homerooms at each grade level were included in the sample pool
(d) <u>a targeted number of homerooms were randomly selected to produce the desired sample size</u>
(e) each student in the homeroom received a survey

The probability procedures used for the selection of schools was such that each school and each student had, overall, an equal chance to be included in the sample.

<u>Accuracy of the Sample</u>

<u>Validity of Survey Results</u>

2. Prevalence of Drug Use in 2002

2.1. Life-time Exposure

Table 2.1 illustrates the 2002 prevalence of various drugs as reported by sixth through twelth grade students in Mecklenburg County public schools.

The kinds of drugs used by the students were numerous and somewhat ubiquitous with regard to what have been traditionally referred to as "gateway drugs," i.e., alcohol, cigarettes, and marijuana. As usual, alcohol ranks first as the drug most abused by the student population followed by cigarettes and marijuana use.

Nearly 44% of students have tried alcohol, i.e., life-time exposure. Next are cigarettes (27%), followed by marijuana (24%), **binge drinking (19%), cigars (14%), stimulants (9%), inhalants (7%), snuff (6%), ecstasy (6%), hallucinogens (5%), amphetamines (5%), chewing tobacco (4%), tranquilizers (4%), cocaine/crack (4%), steroids (3%), opiates (2%), rohypnol (2%), barbiturates, PCP, and use of drugs with a needle (1%).

**Binge Drinking (4 drinks for females at one time and 5 for males)

2.2 Dimensionality of Student Using Behavior

In order to explore and determine the sub-dimensions in drug using behavior, all 21 drug types were varimax-rotated factor analysis. The drug usage is operationalized in terms of the values assigned to the response type which represent frequency of drug use for drug type. The frequency values are assigned as follows: 1 = never used; 2 = no longer use; 3 = use once or twice a year; 4 = use once or twice a month; 5 = use once or twice a week; 6 = use once or twice a day; and 7 = use often each day.

2.3 Frequency of Illegal Drug Use

More detailed information of frequency of drug use is depicted in Table 2.3. It shows the percent of students who use drugs in terms of daily, weekly, monthly, and yearly use. In terms of daily usage, cigarettes (6%) are most popular, followed by marijuana (3%), binge drinking (1%), stimulants (1%), alcohol (.7%) and, etc. With regard to weekly usage, alcohol (6%) is most popular, followed by marijuana (5%), binge drinking (3%), cigarettes (3%), cigars (1%), stimulants (1%), and, etc.

2.4 Current Users and Students at Risk

In Table 2.4, the percent of students who are current users and the projected number of students at risk are enumerated. Students at risk are arbitrarily defined as those who use a particular drug or drugs monthly or more often. From the table, it may be observed that approximately 20% of students are current users of alcohol. This is followed by marijuana (13%), cigarettes (12%), binge drinking (11%), cigars (5%), stimulants (4%), inhalants (2%), snuff (2%), ecstasy (2%), hallucinogens (2%), amphetamines (1%), chewing tobacco (1%), tranquilizers (1%), cocaine/crack (1%), steroids (1%), opiates (1%), rohypnol (1%), barbiturates, PCP, and use of drugs with a needle (less than .5%).

3. Longitudinal Observations

3.1 Comparison Between 1998 and 2002: Life-Time Users

Within the class of gateway drugs (i.e., alcohol, cigarettes, and marijuana), it may be observed from Table 3.1 that there have been significant reductions across all three substances with cigarettes (10%) having the most significant reduction, followed by binge drinking (9%), marijuana (3%), and alcohol (2%). Fifteen of the twenty-one substances had reduced usage. The five substances that showed an increase in usage were all at a rate of 1% or less.

3.2 Comparison Between 1998 and 2002: Current Users

As in the case of lifetime exposure, there has also been a general decline in the proportion of current drug users in 2002 compared to 1998. Table 3.2 shows a significant reduction of the current users of cigarettes (7%), cigars (4%), and binge drinking (4%). Twelve of the twenty-one substance showed a reduction of usage

among current users. The nine substances that showed an increase in usage among current users were all at a rate of 1% or less with ecstasy and tranquilizers showing the largest increase of usage (.6%).

4. Prevalence of Drug Use in 2002: A Comparison Between Mecklenburg County and National Surveys

4.1 Comparison between 2002 National Household Survey with 2002 Mecklenburg County Survey

Is student drug abuse in Mecklenburg County more widespread than a similar group of students at the national level? In order to answer this question, we have included only those drug types for which there are comparable data, i.e., alcohol, cigarettes, marijuana, inhalants, stimulants, cocaine*, tranquilizers, hallucinogens, and PCP.

The data are provided on Table 4.1. This table shows that drug usage levels among students in Mecklenburg County is more widespread than the national averages in several of the drug types for which there are comparable data (44% vs. 40% for alcohol; 24% vs. 19% for marijuana, 9% vs. 2% for stimulants, 4% vs. 2% for tranquilizers.

Complete after receiving updated info.

5. Student Drug Use and Grade Level

5.1 Percent of Youth Who Have Used Drugs By Grade

The data presented in table 5.1 depict the rate of usage by grade level. In fourteen of the twenty-one drug types, eleventh grade students showed the highest rate of usage. The usage rate of "gateway" drugs by eleventh graders was significantly higher than the usage rate among all other grade levels. There was at least a 10% increase in usage by eleventh graders for cigarettes and marijuana above all other grade levels. The only drug type, which has widespread usage among all grade levels that is not highest among eleventh graders, is inhalants which shows the highest rate of usage by seventh graders (10%).

6. Student Drug Use and Gender

In this section, inquiry is made to determine (1) whether drug use is more prevalent among male or female students and (2) to detect any gender-related issues over time.

6.1 Percent of Youth Who Have Used Drugs By Gender

Table 6.1 shows percent of students who have used drugs (i.e., life-time users) broken down by gender. It shows that there is not a significant difference in the rate of usage between male and female students across almost all drug types particularly among the "gateway" drugs with females showing a higher rate of usage for binge drinking (20% vs. 17%) than males and also a slightly higher rate of usage for alcohol (44.2% vs. 43.7%) than males. The greatest gap between the sexes is found marijuana, snuff, chewing tobacco, and cigars with males using those substances at a significantly higher rate. Additionally, among current users, females use stimulants at a significantly higher rate than males.

6.2 Percent of Youth Who Are Current Users of Drugs By Gender

Table 6.2 shows percent of students who are current users of drugs (i.e., monthly or more often) broken down by gender. It also shows that there is not a significant difference in the rate of current usage between male and female students across almost all drug types particularly among the "gateway" drugs. The greatest gap between the sexes is found marijuana, snuff, chewing tobacco, and cigars with males using those substances at a significantly higher rate. Additionally, among current users, females use stimulants at a significantly higher rate than males.

6.3 Longitudinal Changes between the Sexes: A Highlight

7. Student Drug Use and Ethnicity

7.1 Percent of Youth Who Have Used Drugs By Ethnicity

Table 7.1 shows percent of students who have used drugs (i.e., life-time users) broken down by ethnicity. Due to the small sample size pertaining to some of the demographic groupings (Native Americans, Asian Americans, and Hispanic Americans), caution is called for in the interpretation of these estimates.

In almost every category of drug type, Anglo American students report a significantly higher rate of usage than all other ethnic groups. Anglo American students report a 21% higher rate of alcohol usage than African American and a 15% higher rate of alcohol usage than Hispanic American students. African American students report

the lowest rate of usage in ten of the twenty-one categories and the second lowest rate of usage in the other eleven categories with their rate of usage being only slightly higher than that of Asian American students which was the lowest in those categories.

7.2 Percent of Youth Who Are Current Users of Drugs By Ethnicity

8. Drug Use and Area of Residency

8.1 Percent of Youth Who Have Used Drugs By Area of Residency

Table 8.1 depicts the percent of youth who have used “gateway” drugs by area of residency.

8.2 Percent of Youth Who Have Used Drugs By Area of Residency