The Growth in Marijuana Use Among American Youths During the 1990s and the Extent of Blunt Smoking

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SUMMARY

Marijuana use among American youths and young adults increased substantially during the 1990s. This paper reviews that trend using data collected 1979-2003 by the National Survey on Drug Use and Health (NSDUH). The data suggest that the increase in marijuana use started first among persons age 12-20. Among 18-20 year-olds, the increase started earlier among whites and blacks than Hispanics, among males before females, and surprisingly in areas that are not part of an MSA as opposed to those with a population in excess of a million.

Much of the increase in marijuana use could have been attributable to the growing popularity of blunts. Starting in 2000, the NSDUH explicitly asked youths age 12-17 (but not older respondents) about smoking blunts. Of the 9% of youths who reported past-30-day use of marijuana 2000-03, more than half reported smoking blunts. On the other hand, the data also indicate that blunts have not fully supplanted other ways that youths consume marijuana. Blunts were more common among youths that were black, older, male, and from metropolitan areas. Many blunt smokers reported they had not used marijuana, which suggests that they did not define smoking blunts as marijuana use. Even fewer reported that they had used cigars, suggesting they did not define smoking blunts as cigar use.

Keywords

Marijuana; blunts; drug eras; youth

INTRODUCTION

During the 1990s, the use of marijuana increased substantially, especially among youths (Gfroerer, Wu & Penne, 2002; Golub & Johnson, 2001; Golub et al., 2004; Johnston, O'Malley, & Bachman, 2003). This paper reviews this finding using data collected by the National Survey on Drug Use and Health (NSDUH, formerly the National Household Survey on Drug Abuse or NHSDA) from 1979 to 2003 and explores the extent to which this increase may have been

associated with the growing popularity of blunts using data collected by the NSDUH from 2000 to 2003.

A Conceptual Model of a Drug Era

The interpretation of marijuana use trends was guided by our conceptual model for the natural course of a drug era (see Golub, Johnson, & Dunlap, 2005). Based on empirical and theoretical research, we conceptualize four distinct phases to drug eras: incubation, expansion, plateau and decline. This framework has been previously used to analyze the Heroin Injection Era prevailing in the 1960s and early 1970s (Golub & Johnson, 2005; Johnson & Golub, 2002), the Crack Era of the late 1980s and early 1990s (Golub & Johnson, 1997), the Marijuana/Blunts Era of the 1990s (Golub & Johnson, 1999, 2001; Golub et al., 2004; Johnson, Golub, & Dunlap, 2000), and a modest rise in use of hallucinogens such as MDMA in the 1990s (Golub et al., 2001).

A drug era typically starts among a highly limited subpopulation participating in a specific social context (*incubation phase*). The Marijuana/Blunts Era was based in the hip-hop movement (Sifaneck et al., 2003). Sometimes, the pioneering drug users successfully introduce the practice to wider subgroups of users and to the broader population (*expansion phase*). When ideas spread, they tend to spread with increasing rapidity (Alwin & McCammon, 2003; Rogers, 1995). Eventually, everyone most at risk of the new drug practice (typically users of other illicit drugs) has either initiated use or at least had the opportunity to do so. For a time, widespread use prevails (*plateau phase*). During this period, youths typically initiate use of the currently popular drug(s), if any. These users form the core of a drug generation for whom the drug has particularly symbolic significance based in their social activities and relationships (see Alwin & McCammon, 2003). Eventually, the use of an illicit drug tends to go out of favor (*decline phase*). During the decline phase, a decreasing proportion of youths coming of age develop into users. However, the overall use of the drug endures for many years as some members of a drug generation continue their habits.

The Role of Blunt Smoking in the Latest Marijuana Era

A few scattered bits of qualitative research and journalistic references suggested that much of the recent increase in marijuana use may have involved smoking blunts, an inexpensive cigar in which the tobacco filler is replaced with marijuana (Boehlert, 1994; Community Epidemiology Work Group 1999; Sifaneck et al., 2003; Yerger, Pearson, & Malone, 2001). References to blunts regularly appeared in rap music, music videos showed rappers and others smoking cigars (presumably blunts), and T-shirts sporting the Phillies Blunt logo sold widely among youths (Sifaneck et al., 2003). The collection of evidence suggested that an interest in smoking blunts and their symbolic importance to youth subculture could be associated with the increase in marijuana use during the 1990s. Until recently, explicit information about the prevalence of blunt smoking was unavailable. During the 1990s, major drug surveys asked about the use of marijuana but not specifically about the use of blunts; this included the NSDUH (Substance Abuse and Mental Health Services Administration, SAMHSA, 2002a) and Monitoring the Future (MTF) (Johnston, Bachman, & O'Malley, 1999).

Estimates for marijuana use may have been biased downward to the extent that youths did not define blunt smoking as marijuana use. The authors of this paper regard blunt smoking as use of marijuana because marijuana is the primary psychoactive substance in a blunt. On the other hand, smoking a blunt does not as clearly constitute cigar use because most of the cigar contents are discarded in preparing a blunt. Yerger et al. (2001) examined youths perceptions of the word "cigar." In 1999, they held six focus groups with 50 African Americans youths age 14-18 in the San Francisco area. They found that youths were confused about whether the term cigar applied to use of small cigars like "Black and Mild" and blunts. One participant said, "When

I hear *cigar*, I think old people with them big ones." In 2001, Soldz, Huyser, and Dorsey (2003) explicitly tested whether 5,016 Massachusetts students in grades 7-12 defined blunt smoking as cigar use. They were interested in determining whether increases in youthful cigar use during the 1990s might have been caused by blunt smokers reporting their behavior as cigar smoking. Early in their questionnaire, they asked, "Have you ever smoked a cigar, cigarillo, or little cigar?" Subsequent sections asked about use of blunts and cigars. The cigar use section started with the explanation, "The next questions ask about cigar use. THEY DO NOT INCLUDE BLUNTS" (emphases in original). They found strong agreement (95%) between responses to the two lifetime cigar use questions and concluded that the increase in youthful cigar use during the 1990s was not simply an artifact of blunt smoking being reported as cigar use. Their study also provided some of the most explicit evidence that blunt smoking is quite widespread among youths; 20% reported lifetime use and 10% reported past-30-day use. They found higher rates of blunt smoking among older students and males.

In 2000, the NSDUH introduced several questions regarding the use of blunts that were asked only of respondents age 12-17. Primary reports from the NSDUH program have not yet reported on the use of blunts (Gfroerer et al., 2002; SAMHSA, 2001, 2002b, 2003c). This paper examines responses to questions about smoking blunts as well as use of marijuana and cigars to identify (1) the extent to which youthful marijuana use nationwide involves smoking blunts and the covariates of use; (2) the extent to which youths define blunt smoking as marijuana use; and (3) the extent to which youths define blunt smoking as cigar use.

METHODS

The National Survey on Drug Use and Health

The NSDUH was designed to "serve as the primary source of information on the prevalence and incidence of illicit drugs, alcohol, and tobacco use in the civilian non-institutionalized population aged 12 or older in the United States" and has been conducted since 1971 (SAMHSA, 2003a, p. 1). The survey was conducted in 1971 and 1972 and then every two or three years until 1990 when it became an annual survey. The marijuana trend analyses presented in this report are based on the 512,169 responses available in public use data files for surveys conducted in 1979, 1982, 1985, 1988, and 1990-2003.

Various factors can potentially affect the drug use trends measured with the NSDUH including the following (Biemer et al., 1991; Del Bocca & Noll, 2000): sampling plans exclude groups of persons; individuals decline to participate; non-disclosure; distortions to responses; changes in survey procedures across years; and others. These imperfections are less of a problem for analysis of trends to the extent that the characteristics of the survey remained constant over time. However, the NSDUH program has clearly evolved over time. When examining findings, it is important to evaluate whether programmatic changes can potentially account for differences recorded across years.

From 1979 through 1990, the NSDUH sampled non-institutionalized household members in the 48 contiguous states (SAMHSA, 2003b). Starting in 1991, the target population was expanded to include all 50 states and residents of non-institutional group quarters (e.g., college dormitories, group homes, military installations). Persons with no fixed residence, residents of institutions (e.g., jails and hospitals), and active military personnel were still excluded from the sampling frame. In 1994, a dramatically revised questionnaire and new procedures for logical editing of responses were introduced (SAMHSA, 1996). A split sample procedure was employed to test the impact of the redesign. Many of the estimates obtained using the old and new procedures were quite similar–within two percentage points of each other. Generally, estimates obtained using the new instrument were higher for alcohol and tobacco use but lower for illicit drugs.

In 1999, the survey was greatly expanded in order to support state-level estimates of drug use (Gfroerer, Eyerman, & Chromy, 2002). Computer-assisted personal interviewing (CAPI), in which the interviewer records responses in a computer, was introduced for less sensitive information. Audio computer-assisted self-interviewing (ACASI), in which the respondent listens to recorded questions and enters their responses into a computer, was introduced to increase the level of accurate disclosure of illicit drug use and other sensitive behaviors. Prior to 1999, respondents would privately record their responses to alcohol and drug questions on separate sheets not visible to the interviewer.

The NSDUH employs hierarchical stratified sampling to select a representative sample of eligible participants. The NSDUH datafiles include sample weights and respondent strata to account for the complex sampling procedure. Sample weights were used in all calculation presented in this paper to yield unbiased estimates. However, conventional tests of statistical significance that do not account for design effects were used. Typically, clustered samples yield less reliable estimates. Because of such design effects and because of the large number of cases in the sample, the $\alpha = .01$ level was used in all tests of statistical significance. Sample sizes reported represent unweighted counts.

Analysis of Blunt Smoking

The analysis of blunt smoking was based on information collected 2000-03 from 72,772 respondents age 12-17 (see SAMHSA, 2001, 2002b, 2003c). The NSDUH questions regarding marijuana use mentioned a variety of common techniques for consuming marijuana but did not explicitly mention blunts (SAMHSA, 2002c, pp. 73-76):

> The next questions are about marijuana and hashish. Marijuana is also called pot or grass. Marijuana is usually smoked, either in cigarettes, called joints, or in a pipe. It is sometimes cooked in food. Hashish is a form of marijuana that is also called "hash." It is usually smoked in a pipe. Another form of hashish is hash oil. Have you ever, even once, used marijuana or hashish? … During the past 30 days …? What is your best estimate of the number of days …?

Conceivably, blunt smokers that did not know that blunts contain marijuana may have reported they had not used marijuana. Even blunt smokers aware of the contents may have interpreted the marijuana use question as limited to marijuana consumed alone as in joints or pipes.

The NSDUH questions on blunts explicitly indicated that a blunt contains marijuana. However, the blunt questions appeared after the marijuana questions–too late to possibly clarify for the interviewee whether smoking a blunt constitutes marijuana use (SAMHSA, 2002c, p. 440):

> Sometimes people take some tobacco out of a cigar and replace it with marijuana. This is called a "blunt" or sometimes a "blob." Have you ever smoked part or all of a cigar with marijuana in it? During the past 30 days …? On how many of the past 30 days …?

A similar lack of explicit guidance potentially affected the interpretation of the NSDUH cigar questions. The following cigar questions appeared before the blunt questions and did not identify whether smoking a blunt constituted cigar use (SAMHSA, 2002c, pp. 60-62):

> The next questions are about smoking cigars. By cigars we mean any kind, including big cigars, cigarillos, and even little cigars that look like cigarettes. Have you ever smoked part or all of any type of cigar? … During the past 30 days …?

The percentage of blunt smokers among past-30-day marijuana users was estimated as follows:

$$\frac{\text{Number of respondents that smoked a blunt in past 30 days}}{\text{Number of respondents that used marijuana or blunts in past 30 days}} \times 100\%$$

An analogous formula was used for prevalence among lifetime marijuana users. The denominator included all respondents that reported use of either marijuana, blunts, or both (hereafter marijuana/blunts). Some respondents reported use of blunts but not marijuana. These cases could possibly represent individuals that did not define blunt smoking as marijuana use. In fact, this calculation may provide an underestimate. Youths that smoke both blunts and marijuana in other forms (such as joints) will report smoking both blunts and marijuana, even if they do not define smoking blunts as marijuana use.

Three logistic regression models were estimated to examine whether the covariates of marijuana and marijuana/blunt use differed, and to identify which marijuana/blunt users were more likely to use blunts. The first model examined the extent to which past-30-day marijuana use varied with standard demographic variables: age, race/ethnicity, gender, MSA size, and interview year. The second model examined the covariates of marijuana/blunt use. Differences between these models suggested the extent to which estimates for covariates of marijuana use may have been distorted by not explicitly asking about blunts. The last model examined which marijuana/blunt users were more likely to have smoked blunts. Respondents that did not use marijuana/blunts in the past-30-days were excluded from this analysis. For each model, the Wald statistic was used to identify which covariates were statistically significant and as a rough indication of their relative importance (Hosmer & Lemeshow, 1989).

FINDINGS

Trends in Marijuana Use

Figure 1 indicates the trends in marijuana use over time and by age group. Back in 1979, the overall prevalence of marijuana use within the general population was 13%. The variation with age followed an inverted U-shaped curve with a peak rate among 18-20 year-olds (40% in 1979) followed by 21-25 year-olds (33%). Rates were substantially lower among older (6% among those age 26+) and younger respondents (17% among those age 12-17). During the 1980s, marijuana use declined overall and within each age category. During the 1990s, the overall rate of marijuana use was about 5%. The decreasing marijuana use in the 1980s represents a decline phase to the widespread popularity of marijuana that prevailed during the 1960s and 1970s that we refer to as the marijuana/joints era to distinguish it from the current period of increased marijuana use.

In 1993, marijuana use started to increase among persons age 12-20. Among 18-20 year-olds, marijuana use increased from 11% in 1992 to 17% in 1996. A similar time trend prevailed among 12-17 year-olds, although the prevalence of marijuana use was lower in each year. Of note, the prevalence among respondents age 21-25 and age 26+ remained generally stable throughout the 1990s. From 1996 to 2000, the prevalence of marijuana use among 12-17 and 18-20 year-olds leveled off at about 8% and 18%, respectively. Based on NSDUH data through 1999, the authors had previously interpreted this stability as suggesting the marijuana upsurge had reached a plateau by 1996 (Golub & Johnson, 2001; Golub et al., 2004). This paper extends that analysis by incorporating four additional years of data continuing through 2003. The designation of a plateau phase in the 2000s is partially supported by a stable rate of marijuana use of 8% among youths age 12-17. However, use had not yet reached peak levels among older age groups: among 18-20 year olds, marijuana use increased from 17% in 2000 up to 20% in 2003; among 21-25 year olds, prevalence jumped from 11% in 2000 to 16% in 2002; and among respondents age 26+ the prevalence increased modestly from 3% in 2000 to 4% in 2003. These increases would appear to represent an aging of the marijuana/blunts generation. Thus, based on the NSDUH data extending through 2003 we generally concur with our previous conclusion that the marijuana/blunts era entered a plateau around 1996 and that by 2003 the era was still in a plateau phase.

The use of blunts was reputedly centered among black males from the inner-city, especially those involved in the New York Hip Hop scene. Golub and Johnson (2001) examined location specific data regarding marijuana use among arrestees across the U.S. Surprisingly, that analysis revealed that the growth in marijuana use started among arrestees in about 1992 in all regions of the country. The following figures use the NSDUH data to examine the extent to which the growth in marijuana use among 18-20 year olds in the general population started earlier among blacks (Figure 2), males (Figure 3) or in metropolitan areas (Figure 4).

The prevalence of marijuana use increased 7 percentage points from 1992 to 1996 among both white and black 18-20 year olds (Figure 2). During the 1990s, white young adults were always a few percentage points more likely to have used marijuana than were blacks. This disparity increased in the 2000s, as the prevalence among white young adults increased from 19% in 2000 to 23% in 2003 but the prevalence among black young adults fluctuated around 15-18%. Thus, the new increase in marijuana use 2000-03 among young adults appears to have been primarily among whites. The increase among Hispanic young adults was not as consistent; a 2 percentage point increase in 1992, and a 4 percentage point increase in 1998. The data indicate that marijuana use is less common among Hispanic young adults and that the marijuana/blunts era may have diffused to this population slightly later than among whites and black.

In 1992, marijuana use was somewhat more common among male young adults (13%) than females (8%). The increase in use started among males in 1993, a year before females. However, both male and female young adults were affected by the increase in marijuana use; by 2003, the prevalence was 24% among males and 16% among females.

There was substantial variation in the timing of the marijuana/blunts era across MSA size, but not in the expected direction (Figure 4).[1] The prevalence of use among young adults in smaller MSAs (with a population of less than 1 million people) varied erratically from 1988 to 1999. We have no clear explanation for why this should be the case. However, as a result it is difficult to definitively identify when the increase in marijuana use started in these areas. Our best guess would be 1993 but perhaps as early 1989. The increase in marijuana use in non-SMA areas appears to have started back in 1991. The increase in larger metropolitan MSAs started in 1993. This was completely unexpected. We have no hypothesis as to why the increase in marijuana use may have started in less densely populated areas before moving to larger MSAs.

Blunt Smoking Among Youths Age 12-17

Table 1 reports the prevalence of lifetime (21%) and past-30-day (9%) marijuana/blunt use among youths age 12-17. By the 2000s, blunts had already become a common method for consuming marijuana; more than half (54-55%) the marijuana/blunt users reported using blunts. Combining the marijuana and blunts responses increased the prevalence of past-30-day use from 8% to 9%, an increase of 16%. An analogous calculation increased the prevalence of lifetime marijuana use by 7%. This suggests that self-reports of marijuana use by 12-17 year olds tend to undercount use because some blunt smokers do not define their behavior as marijuana use.

Table 2 examines this definitional issue further. Among past-30-day blunt smokers, more than a quarter (26%) reported they did not smoke marijuana. The reporting rate was lower among lifetime blunt smokers (12%). These estimates of blunt smoking that do not define their behavior as marijuana use are likely to be lower bounds because some youths may have used both blunts and marijuana in other forms, especially when it comes to questions of lifetime

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[1]From 1990 to 1998, the NSDUH distinguished five categories of MSA size, but only three in other years. The "1/4 to 1 million" and "less than 1/4 million" categories were combined to match the "less than 1 million" category. The "rural area, not in an MSA" and "not in an MSA but not rural" rural categories were combined to match the "not in an MSA" category.

use. The percentage of blunt smokers that define this behavior as cigar use appears to be much lower. Among past-30-day blunt smokers, over two-thirds (68%) reported they had not smoked cigars. Among lifetime blunt smokers, the rate was 41%. Again, these rates are likely to be under-estimates.

The regression models in the first two columns of Table 3 indicate that age was the factor most associated with variation in marijuana and marijuana/blunt use (Wald Statistics of 2,284.4 and 2,570.2).[2] Use of marijuana and marijuana/blunts both increased with age and increased at nearly the same rate for each. The variations associated with age, gender, MSA size and interview year were quite similar for the two models. The modest differences in prevalence rates between whites and blacks and between whites and Hispanics diminished with the inclusion of blunt use.

The regression analysis of blunt smoking among marijuana/blunt users in the third column of Table 3 indicates the most variation was associated with race/ethnicity (Wald statistic = 152.0). Black youths that smoked marijuana/blunts were substantially more likely to smoke blunts than youths of other race/ethnicities (Odds Ratio = 2.8). The prevalence of blunt use was also somewhat higher for older respondents, males, and youths from metropolitan areas.

Table 4 presents the bivariate variations in marijuana use, marijuana/blunt use, and blunt use among marijuana/blunt users associated with each of the demographic factors considered in Table 3. Marijuana use increased steadily with age from about 1% to over 16%. Marijuana/ blunt use was slightly higher than marijuana use at each age reaching more than 18% at age 17. About half the marijuana/blunt users at each age smoked blunts; the rates were slightly higher among 16-17 year olds (56-58%) than among 12-15 year olds (48-52%).

Most blacks (almost three quarters) who used marijuana/blunts smoked blunts, as opposed to about half among whites and Hispanics. Conversely, black blunt smokers may have been less likely to have consumed marijuana in other forms (lower bound of 26%) than white blunt smokers (49%). Moreover, black blunt smokers were more likely to define their activity as not marijuana use than were white blunt smokers. Marijuana/blunt use was 2.4 percentage points higher than marijuana use among black youths (see Table 4). In contrast, the difference for white youths was only 1.1 percentage points. The difference for Hispanic youths (1.4 percentage points) was slightly greater than for white youths but substantially less than for black youths.

DISCUSSION

This analysis indicates that smoking blunts is a popular way to consume marijuana among youths nationwide. In 2000-03, about half of all marijuana users age 12-17 smoked blunts. Moreover, according to the 2002 NSDUH, more youths smoked blunts (5.1%) in the past-30-days than used cocaine in any form (1.2%), crack (0.2%), heroin (0.1%), ecstasy (0.4%) or methamphetamine (0.4%). Blunts were more common among blacks, older teens, males, and in metropolitan areas. These findings are consistent with qualitative evidence suggesting that smoking blunts has been centered in the inner-city Hip Hop culture. However, blunt smoking was also quite common among whites, females and in non-metropolitan areas indicating that by 2000 this practice had diffused widely. Moreover, the analysis of marijuana trend data indicated that the increase in marijuana use started at roughly the same time for blacks and whites, and that the increase may have started earlier in areas that are not part of an MSA than in larger urban MSAs.

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[2]Given the large samples involved in these analyses, even small variations were identified as statistically significant, like the odds ratios of 0.9 associated with variation across interview years.

These results are consistent with the idea that the increase in youthful marijuana use during the 1990s was partially associated with the growing symbolic importance of blunts. However, it would appear that the popularity of marijuana use in other forms may have also been increasing and that the increase was not necessarily centered in the inner-city Hip Hop culture. To further investigate the role of blunts in fueling the increase in marijuana use, it would be very useful to ask young adults who reached their teens in the 1990s (currently age 18-35) if they ever smoked a blunt, their age at their first use, whether blunts were the first form in which they used marijuana, and the extent to which they consumed marijuana in other forms.

The NSDUH and other survey programs likely underestimated the increase in youthful marijuana use during the 1990s. Many youthful blunt smokers, especially blacks, appeared not to define blunt smoking as marijuana use when responding to the NSDUH; many respondents reported smoking blunts but not consuming marijuana. Adding in these respondents increased the prevalence of past-30-day marijuana use among 12-17 year olds by 16%. This addition also reduced the disparity in marijuana use between whites and blacks. These results suggest the NSDUH should be revised to explicitly indicate that marijuana can be smoked in a blunt or preferably to include parallel questions regarding use of blunts and of marijuana in other forms. Moreover, the data in Table 4 suggests that blunts use may be even more common among marijuana/blunts users who are age 18 and older. NSDUH (and other major surveys) should ask questions about blunt use among respondents 18 and older in the future.

Our findings also corroborated prior research that found youths tend not to define smoking blunts as cigar use (Yerger et al., 2001; Soldz et al., 2003). These findings provide further evidence that the increase in youthful cigar use during the 1990s was probably not due to youths reporting their smoking blunts as cigar use. It is possible, however, that youths' experiences with blunts and the popular culture references to these objects that look like cigars could have increased youths' familiarity and interest in cigars, as well as cigarettes and other conventional tobacco products. Further research into this topic is needed.

The current popularity of blunts has important implications for drug abuse prevention and treatment programs, particularly those that include a social behavior component. These programs typically seek to teach clients to deal with situations in which drug use may occur. This study suggests that to have credibility, especially among African American youths, these scenarios should address smoking blunts. More broadly, public health agencies need to identify the physical and mental health sequelae of blunt smoking and prepare to deal with them. The consequences of blunt smoking may differ from those associated with other forms of marijuana use. Moreover, there appears to be a large and growing cohort of blunt smokers that are accumulating years of this health risk behavior.

Acknowledgements

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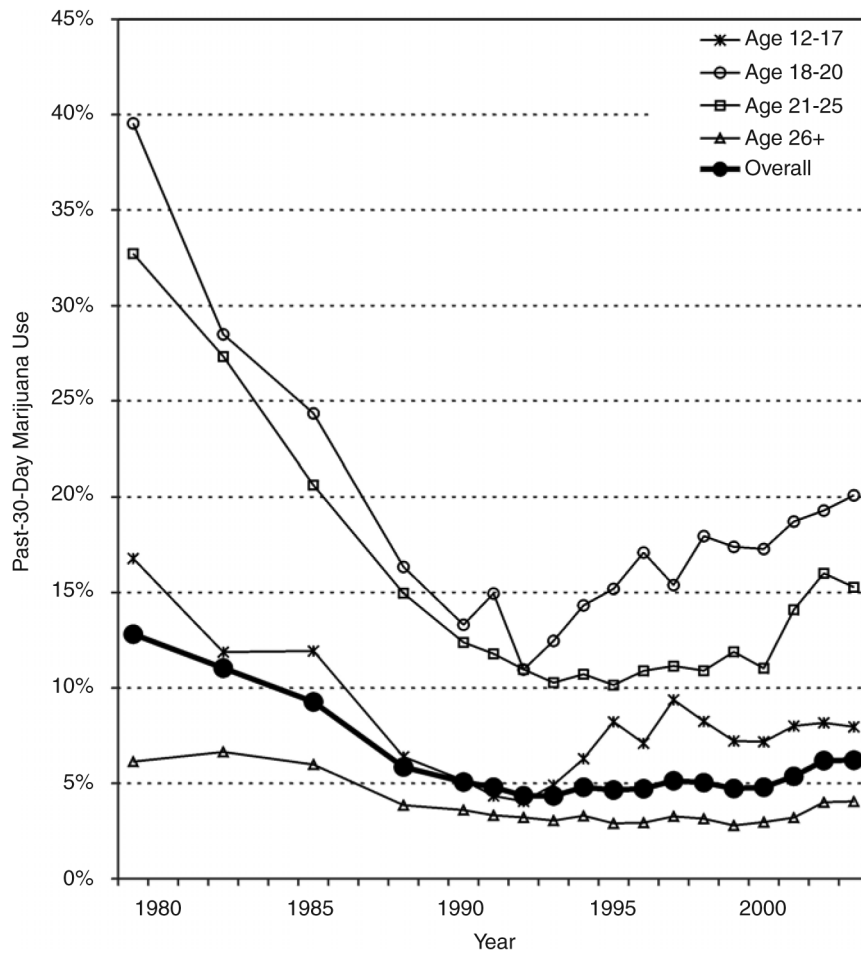
FIGURE 1.
Variation Over Time in Past-30-Day Marijuana Use by AGE, NSDUH 1979-2003
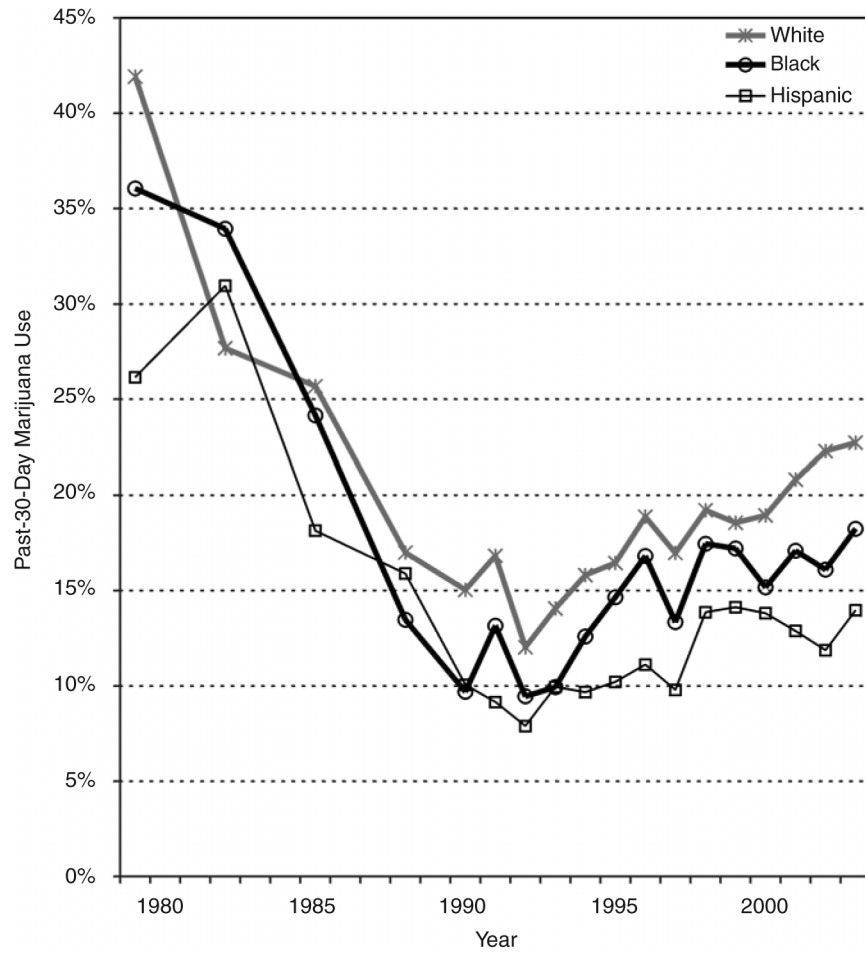
FIGURE 2.
Variation Over Time in Past-30-Day Marijuana Use by RACE/ETHNICITY, NSDUH
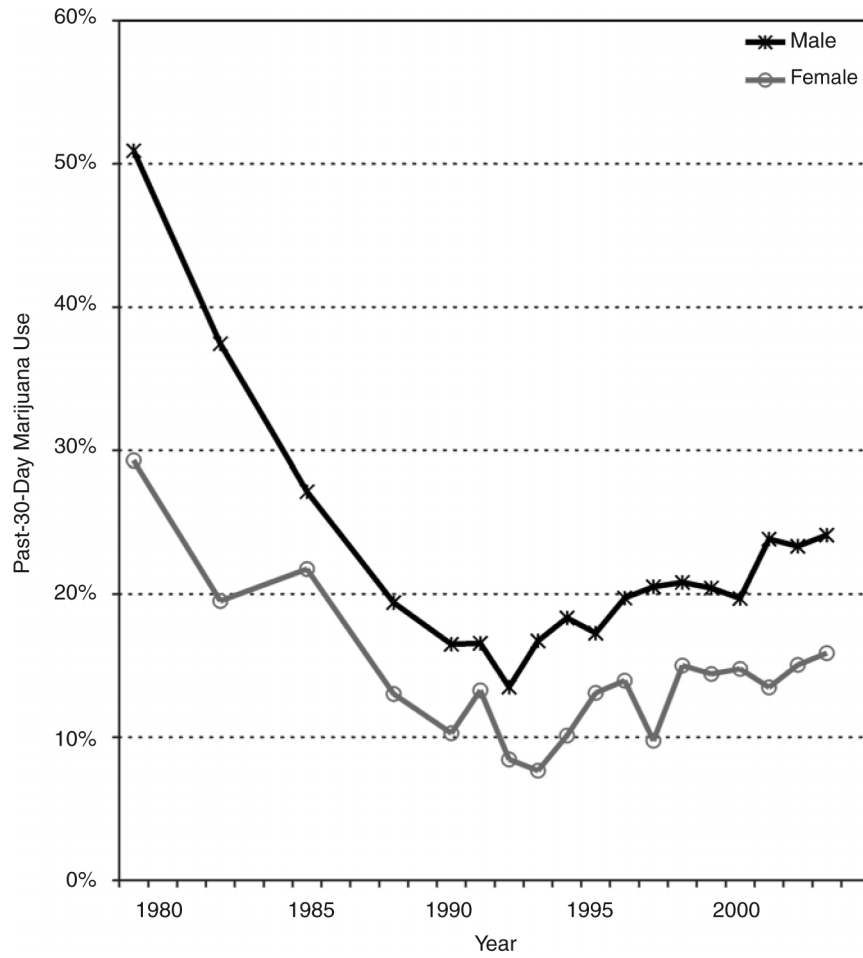1979-2003 Respondents Age 18-20

FIGURE 3.
Variation Over Time in Past-30-Day Marijuana Use by GENDER, NSDUH 1979-2003
Respondents Age 18-20
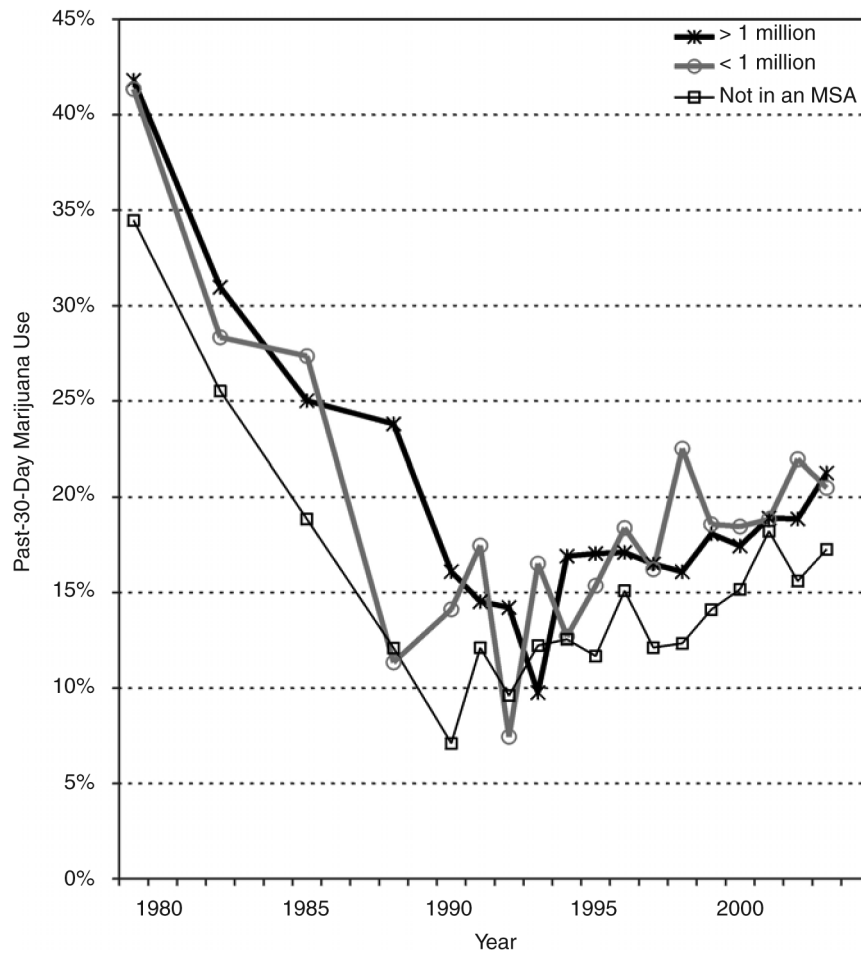
FIGURE 4.
Variation Over Time in Past-30-Day Marijuana Use by MSA SIZE, NSDUH 1979-2003
Respondents Age 18-20

TABLE 1

Prevalence of Marijuana and Blunt Use Among American Youths Age 12-17, NSDUH 2000-2003

	Lifetime	Past 30 Days
(A) Marijuana	19.6%	7.8%
(B) Blunts	11.3%	5.0%
(C) Marijuana/blunts (A or B)	20.9%	9.1%
Increase in marijuana/blunts use over marijuana use (C ÷ A − 1)	6.9%	16.1%
Blunt use among marijuana/blunt users (B ÷ C)	53.9%	54.7%

TABLE 2

Percentage of Blunt Smokers Who Reported Marijuana and Cigar Use NSDUH Respondents 2000-2003, Age 12-17

	Lifetime Blunt Users	Past 30 Day Blunt Users
Report marijuana use		
Yes	87.6%	73.5%
No	12.4%	26.5%
Report cigar use		
Yes	59.1%	32.4%
No	40.9%	67.6%

TABLE 3

Covariates of Past-30-Day Marijuana and Blunt Use, NSDUH Respondents 2000-2003, Age 12-17

	Odds Ratios (Wald Statistics)		
	Marijuana Use	Marijuana/Blunt Use	Blunt Use Given Marijuana/Blunt Use
Age	(2,284.4)[**]	(2,570.2)[**]	(32.5)[**]
12 years old	0.03	0.05	0.6
13 years old	0.1	0.1	0.8
14 years old	0.3	0.3	0.7
15 years old	0.6	0.6	0.7
16 years old	0.8	0.8	0.9
17 years old[a]	1.0	1.0	1.0
Race/Ethnicity	(89.2)[**]	(152.0)[**]	(80.8)[**]
White[a]	1.0	1.0	1.0
Black	0.7	0.9	2.8
Hispanic	0.8	0.9	1.2
Other	0.7	0.7	1.1
Gender	(65.0)[**]	(76.9)[**]	(29.2)[**]
Male[a]	1.0	1.0	1.0
Female	0.8	0.8	0.8
MSA Size	(18.5)[**]	(26.4)[**]	(24.3)[**]
Over 1 million[a]	1.0	1.0	1.0
Under 1 million	1.1	1.1	1.1
Not an MSA	0.9	0.9	0.8
Interview Year	(17.5)[**]	(14.4)[**]	(13.8)[**]
2000	0.9	0.9	1.1
2001	1.0	1.0	0.9
2002	1.0	1.0	1.2
2003[a]	1.0	1.0	1.0
Constant	0.24	0.27	1.4
Sample size	72,772	72,430	6,750

[**] Wald statistic significant at the $\alpha = .01$ level.

[a] Reference category.

TABLE 4

Bivariate Variation in Past-30-Day Marijuana/Blunt Use Across Demographic Characteristics, NSDUH Respondents 2000-2003, Age 12-17

	Marijuana Use	Marijuana/Blunt Use	Blunt Use Given Marijuana/Blunt Use
Age			
12 years old	0.7%	1.0%	48.4%
13 years old	1.9%	2.7%	52.3%
14 years old	5.2%	6.2%	50.5%
15 years old	9.8%	11.3%	50.3%
16 years old	13.3%	15.2%	56.4%
17 years old	16.4%	18.5%	58.4%
Race/Ethnicity			
White	8.5%	9.6%	50.7%
Black	6.1%	8.5%	74.3%
Hispanic	6.9%	8.3%	56.0%
Other	6.5%	6.9%	52.2%
Gender			
Male	8.6%	9.9%	57.8%
Female	7.0%	8.2%	50.9%
MSA Size			
Over 1 million	7.5%	8.7%	57.0%
Under 1 million	8.4%	9.9%	56.2%
Not an MSA	7.5%	8.7%	47.9%
Interview Year			
2000	7.2%	8.4%	54.9%
2001	8.0%	9.2%	51.2%
2002	8.2%	9.3%	58.1%
2003	8.0%	9.3%	54.7%