## A Review and Analysis of Recent Changes in Marijuana Use by American Young People

Lloyd D. Johnston, Ph.D. Program Director The Institute for Social Research The University of Michigan Ann Arbor, Michigan

There is no question that marijuana use moved in the 1970s from being a deviant, minority behavior among American young people in their late teens and early twenties to become a normative, majority behavior. Our own national surveys of high school seniors show that among male seniors in the Class of '69 about one-fifth (20.7%) reported having ever tried marijuana: while in 1979-just 10 years later-that proportion had more than tripled (to 65.0% for males) (Johnston, 1973; Johnston, Bachman, and O'Malley, 1979.) The national household surveys show similar rates of growth among young people in their early twenties, though the increase started earlier in that age group (Fishburne, Abelson, and Cisin, 1980). These are truly remarkable changes in an important social behavior in a span of just 10 to 15 years ones with which it has taken society's mechanisms for controlling and modifying youthful behavior some time to catch up. The fact that there has been a severe generational schism over the morality of this behavior has not helped partly because that made marijuana use an effective means for youthful defiance of the older generation and "the system" in general, partly because it lowered the credibility young people could attach to any warning messages from their elders about the potential hazards of marijuana, and partly because those warning messages themselves more often reflected the moral fervor of the senders than the scientific credibility of the facts they purported to present.

Now, however, we have entered quieter times than existed in the late sixties and early seventies. There have been no massive social dislocations of the scale of Watergate, Vietnam, the urban riots, or the campus confrontations; and intergenerational conflicts appear to have cooled, as a result. Further, marijuana use has been around long enough for young people to see its effects on their peers, and for their

elders to put together a more reasoned and less totally visceral response to the phenomenon. (Parents have become more informed and more organized, while schools have entered drug abuse and smoking prevention into their curricula.) And finally, scientific evidence has begun to accrue slowly—as is generally the nature of good scientific evidence—and has been disseminated widely, for the most part in a relative objective manner, through the media.

Is there any evidence that all of these changes have had the salutory impact on marijuana use that most would hope for them? The answer, I am glad to say, is yes—though a substantial task remains. I will cite some statistics to substantiate this conclusion, but first let me tell you enough

about their source to make them meaningful.

Nearly all of the data I will be presenting derive from an ongoing series of surveys of high school seniors in the coterminous United States, entitled "Monitoring the Future." These surveys, which began in 1975 and have been conducted every year since, were launched with support from the White House Special Action Office for Drug Abuse Prevention and the National Institute on Drug Abuse, and have been directed by two other social psychologists (Jerald G. Bachman and Patrick M. O'Malley) and myself at the University of Michigan's Survey Research Center.

About 130 high schools, and some 17,000 seniors in them, participate each year. (Over the last six years about 500 high schools and 100,000 seniors have assisted in this work.) Group administered questionnaires are completed in classrooms, with convincing assurances of confidentiality protection. They cover a broad array of topics, but contain a fair amount about drug use and directly related factors. Because these nationally representative samples of seniors in public and private high schools are so large, we are not only able to characterize rather accurately usage levels and trends in use, but also to study a substantial number of frequent marijuana users—something which can seldom be done on representative samples from the normal population because of their relatively low proportions in those populations.

Now, to return to the story, I noted that things have begun to improve in recent years. What is the evidence?

First, and most importantly, the proportion of seniors who report smoking pot on a daily or near-daily basis has begun to decline. There was considerable alarm aroused in 1975, when we first reported usage statistics, that fully 6% of all seniors were smoking pot daily or near-daily (which we define as on 20 or more occasions per month). But that was

only the beginning: in the three short years which followed daily use nearly doubled to 11%—or to about one in every nine seniors. (Over this same interval, the frequency of lifetime use rose from 47% of all seniors to about 60%.) (Johnston et al., 1979, 1980.) But 1978 appears to have been the peak in terms of active use. Over the next two years the proportion reporting any use in the month prior to the survey dropped slowly but steadily from 37% to 34% and more importantly, the proportion reporting daily use dropped somewhat from 10.7% to 9.1%. The results of the more recent 1981 survey are not yet ready for release, but I can tell you that preliminary analyses show these downward trends continuing in 1981.

What happened to suddenly halt an almost meteoric rise in marijuana use—particularly daily use—and to start a significant reversal? Well, as with most social phenomena, no one can say with 100% certainty; but because we have been systematically collecting information on related factors from this population over the same historical period, we can do a lot more than simply guess (which is the usual fallback).

One related factor which I can tell you has not changed is availability. Since 1975 about 90% of each graduating class have told us that they think marijuana would be "very easy" or "fairly easy" for them to get, if they wanted some (Johnston et al., 1980). And fewer of the abstainers or quitters today list price as a deterrent to their own use than was true in 1976. Obviously, as a society we have not been very successful at controlling the supply of this illicit drug. Therefore, the reduction in use—particuarly heavy use—must be explained by a reduction in demand. In this study we measure a number of factors which might account for a reduction in demand including the respondent's own attitudes about the drug, beliefs about its harmfulness, perceptions of friends' acceptance of the behavior, and so on.

The indicators on which we have seen the most substantial change concerns the beliefs young people hold about the potential harmfulness of using certain substances. Across recent graduating classes we have observed a substantial increase in the harmfulness perceived to be associated with regular marijuana use. From 1978 to 1980 the proportion of seniors attributing "great risk of harm (physically, and in other ways)" to regular marijuana use rose from 35% to 50%. (The numbers continue to climb in 1981.) This is a large change and contrasts sharply to a relative stability in beliefs about the harmfulness of all other illicit drugs. Further, while concern initially increased for regular

marijuana use, this concern is now radiating out to include occasional use, as well.

Further evidence of the importance of these beliefs about health risks comes from the answers of young people who have either quit or abstained from using marijuana. On a long and comprehensive list of reasons they could check as contributing to their decision not to use, those most frequently chosen by abstainers are concern about possible physical effects (71% mentioned), and concern about possible psychological effects (68%)—more than mention any moral, legal, or social constraints. And among the fairly frequent users who have quit (that is, among those who used 40 or more times) concern about physical and psychological effects are also frequently mentioned as reasons for quitting (41% and 38%, respectively). Also ranked high is the specific concern about loss of energy (41%).

A further examination of the *trends* observed in reasons for quitting reveals that health concerns are mentioned considerably more often among quitters in 1980 than they were in 1976. The proportion of all quitters mentioning concerns about physical health jumped by a full 22% between 1976 and 1980 (from 35% to 57%), while those concerned about psychological damage jumped 19% (from 34% to 53%). While a number of other reasons for quitting were mentioned increasingly often, as well, these were the largest jumps. So concerns about possible health effects certainly seem to play a major role in young people abstaining from or giving up the drug.

All in all, I believe that changing beliefs about the harmfulness of the drug—particularly when used regularly—has been an important determinant of the sharp reversal in the usage statistics, and I further believe that the cumulating body of scientific evidence of effects, and the heavy and relatively objective media coverage of that evidence, have played an important role in bringing about this change in beliefs.

Also playing an important role, very likely, have been the actual experiences of heavy users—which have not only affected their own behavior, but the behavior of others who observe them. We ask students to indicate what problems they see as having resulted from their own use of various classes of drugs. Looking at the current daily marijuana users in the Classes of 1980 and 1981 combined (N = 414)\*, we find

<sup>\*</sup> Total N is based on cases available from one of five questionnaires administered as part of the total survey.

that a substantial proportion mention difficulties related to their physical, psychological, or social functioning. Heading the list of perceived problems is:

• loss of energy (43% mention), followed by

• hurt relationship with parents (39%)

• interfered with ability to think clearly (37%)

• caused less interest in other activities (37%), and

 hurt performance in school and/or on the job (34%).

These are quite substantial proportions to not only be aware of, but to be willing to admit, these problems to be resulting to from their drug use.

The other related factor-in addition to health concerns—on which we have observed an important change. perhaps brought about by the increased concern about health hazards, is the perceived acceptance of the behavior among L peers. Since 1977 we have observed a gradual increase in the proportion of seniors who themselves disapprove of regular marijuana use (75% disapproved in 1980 vs. 66% in 1977) and, perhaps as important, an increase in the proportion who think that their friends disapprove of such behavior (Johnston et al., 1980). In other words peer norms are shifting away from acceptance, after a long period of moving in that direction. There also appears to be decreased acceptance of occasional and even experimental marijuana use, though these lesser degrees of involvement with the drug are far more widely accepted than regular use. (As an aside, I might add that parents have consistently been seen by seniors as highly disapproving of marijuana use at any level. The generation gap on this subject has become rather modest in relation to regular use, but there still remains a very substantial gap on the issues of experimental or occasional use.)

Younger Age Groups

Since all of my discussion so far about trends has concentrated on high school seniors, on whom our survey focuses primarily, let me say a few words about younger age groups. Each year, when we survey seniors, we not only ask them about their current marijuana use, but also about when that use started. Using these retrospective reports, we are able to reconstruct how many of them had used by junior year, sophomore year, freshman year, etc.

What we have found is that very few of our respondents (around 2%) reported starting in grade school, about half of the eventual users started using by the end of 9th grade, and the remainder first used during high school. What we also have found from the trends across time which we can

reconstruct for earlier grade levels is that marijuana use gives every indication of beginning to level off there as well (Johnston et al., 1980). Because our indicators of use at earlier grade levels are lagged, I cannot give you an up-to-the-minute trend report for these younger ages—a forthcoming national household survey hopefully will do that—but our data give every indication that the leveling (and probably the decline) in use is not specific to seniors.

Current Levels

Now, while the general situation with marijuana seems to be improving, I do not want to leave the impression that the problem is near to disappearing. The downward trends are slow and starting from a very high base. A few sobering facts should dissipate any such misconception. In the Class of 1980,

• 60% of seniors reported having had at least some

experience with marijuana.

 Half of all seniors (49%) had smoked it in the last year, and

 one out of every three (34%) were current users that is, they had smoked it in the preceding month.

• Finally, 9%-or one in every eleven seniors-

were still using on a daily basis.

There are high numbers indeed, whether compared to other countries in the world, or to nearly all other decades in the history of this country. The high rates of daily use should remain of particular concern to health professionals, educators, parents, and policy-makers. While there has been a definite turnaround in the last few years, the declines we have observed still pale in comparison to the extent of the problem which remains.