

# A FOLLOW-UP STUDY OF NONRESPONDENTS TO THE 1990 NATIONAL HOUSEHOLD SURVEY ON DRUG ABUSE

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## INTRODUCTION

Little is known about the drug use patterns of persons who are nonrespondents to the National Household Survey of Drug Abuse (NHSDA).<sup>1</sup> Age, sex, race, and Hispanic origin, are known from screening information for individual nonrespondents,<sup>2</sup> but these data provide only minimal guidance in assessing the drug use patterns of persons who are not directly included in the regular survey estimates. To the extent that nonrespondents differ from respondents in their drug use and to the extent that NHSDA nonresponse adjustment procedures fail to take account of this difference, estimates from the NHSDA will be subject to nonresponse bias. The issue of potential nonresponse bias is not a trivial one. The overall interview nonresponse rate in the 1990 NHSDA was 18 percent, with considerably higher rates in many locales. In the Washington, D.C., metropolitan area, for example, the nonresponse rate was 27 percent.

To assess the impact of such nonresponse, a follow-up study was undertaken of a subset of nonrespondents to the 1990 survey. For logistical reasons the study was conducted in a single metropolitan area with a relatively high nonresponse rate. By offering nonrespondents a shortened questionnaire and monetary incentive, we hoped to convince as many as possible to participate in the follow-up study. Our aim was to understand the reasons people chose not to participate-or are unavailable to participate in the survey-and to use this information in assessing the extent of the bias, if any, that nonresponse introduced into the 1990 NHSDA estimates. Because we could not follow up all nonrespondents, the assessment of nonresponse bias provided by this method is, of necessity, incomplete. Nevertheless, it can indicate the potential impact on NHSDA prevalence estimates of alternative survey procedures (e.g., selective use of monetary incentives) to increase response rates.

## METHODS

Because of the difficulties of staffing a nationwide nonresponse study in which individual interviewing assignments might be small, and thus quite costly, we decided to limit the follow-up study to the greater Washington, D.C., metropolitan area. We chose Washington because of the oversampling that had been done in this area: we expected to be able to contact a large enough number of nonrespondents to make the follow-up study feasible and not prohibitively expensive.

To maximize the likelihood of participation, we sought ways to make the study more appealing. Changes to the regular NHSDA design, as well as decisions regarding which nonrespondents would be eligible for the study, are discussed below. Aside from these changes, the procedures for conducting follow-up interviews were the same as those used in the NHSDA study itself.

### *Nonrespondents Eligible for Follow-up*

We would have liked to include all nonrespondents in the follow-up study, but this plan was judged not to be cost-efficient. Both the cost and the time involved in screening nonrespondents were expected to be great, and we were concerned that the majority of staff time would be spent in screening nonrespondent households (which might not yield an eligible sample person) rather than in following up those individual nonrespondents who had already been identified.<sup>3</sup> Thus, followup was confined to sample person nonrespondents only.

Only a subset of this group of nonrespondents was chosen for the follow-up study. The subset included all nonrespondents in the following categories: refusals; parental refusals for 12- to 17-year olds; cases in which no one was at home after repeated visits; and sample person nonrespondents who were unavailable after repeated visits.

Respondents with partial interviews were excluded because of the confusion expected from persons who might consider themselves respondents to the original study and thus ineligible for nonrespondent followup. Those who had been deemed physically or mentally incompetent and those who were unable to complete the interview in English were also excluded. Persons with language barriers were excluded because a negligible increase in overall response was expected for a sizable increase in costs.

At the time the sample was defined, 680 nonrespondents were identified; 426 were eligible for the follow-up after applying the above criteria.<sup>4</sup> We adjusted for the absence, of the 254 cases purposely excluded in the weighting process.

### *Changes from Standard NHSDA Procedures*

*Incentives.* One of the most common methods of increasing response rates is to provide respondents with some incentive for participating in a study. An incentive may be something tangible, such as a monetary payment or a nonmonetary reward (e.g., a coffee mug or tote bag), or something intangible, such as the knowledge that participation in the study may contribute to the betterment of society. The current NHSDA methodology relies on the latter type of incentive. Interviewers are trained to stress the importance of study results for the respondents as well as for their families and communities.

To convince NHSDA nonrespondents to participate in the follow-up, we felt that a more tangible incentive was necessary. A monetary incentive of \$10 was chosen. This amount, in combination with other changes made to NHSDA methodology, was considered sufficient to convince a substantial proportion of sample person nonrespondents to participate in the follow-up. We feared that greatly increasing the size of the incentive would produce only modest increases in response rates yet greatly increase both the cost of the study and the possibility that individuals would consent to the interview but then conceal their drug use.

*Questionnaire Length.* Both staff and interviewers who have worked on previous rounds of the NHSDA have informally voiced the opinion that a major reason for nonparticipation is that the questionnaire is too long (the interview lasts approximately one hour). Thus, we suspected that use of a significantly shortened questionnaire might induce some nonrespondents to participate in the follow-up study.

In collaboration with NIDA staff members, RTI analysts and survey methodologists shortened the NHSDA questionnaire to include only a core set of items deemed to be essential. The resultant questionnaire included the following groups of items: general tobacco use (8 questions); general alcohol use (12 questions); marijuana use (9 questions); cocaine use (11 questions); specific drug consequences (5 questions); and social and demographic characteristics of the respondents and their households (44 questions). A pretest of this instrument indicated the interview would take approximately 20 minutes.

*Data Collection.* The follow-up study staff comprised nine interviewers (six women and three men) who had worked on the original 1990 NHSDA study. A supervisor on site in the Washington D.C. area recruited interviewers who had been especially competent in working on the original NHSDA; several of these interviewers had also worked as "refusal converters" in the Washington, D.C., area. The proximity of an interviewer's home to areas in which nonrespondents were located was another selection criterion (to minimize driving time, yet ensure that the size of the assignment was sufficient to keep an interviewer busy).

Interviewers used a Case Control Form to record all attempts to contact nonrespondents. The first page of the form included the assignment label as well as information needed by interviewers to ensure that they had located the correct household and person. Space was also provided for the interviewer to record that the individual no longer resided at the address given. No attempts were made to trace persons who had moved between the time the NHSDA study ended and the follow-up began. The form also included several questions for interviewers to answer if people refused to take part in the study. These questions were designed to provide more detailed information about the reasons for refusal and what, if anything, might have convinced an individual to participate.

## RESULTS

Field work began on July 9, 1990, and continued through September 2, 1990. Table 1 summarizes the final results of attempts to obtain interviews. Of the 426 eligible cases, we completed interviews with 144. In 50 cases, the person was no longer living at the address given at the time of the original screening. In calculating a response rate, we excluded these cases from the denominator, leaving 376 cases. Thus, an overall response rate of 38 percent was obtained.

The average number of visits per household was three. Nearly one-third (28%) of all cases were finalized after just one visit. Close to half (49%) were finalized after two visits. In Table 2, completed cases are categorized by the 1990 NHSDA final result code. Not surprisingly, interviewers were more successful in converting previous noncontact cases than refusal cases. Nearly half (45%) of the 192 noncontact cases were converted, compared with only 25 percent of the 234 refusals.

### *Characteristics of Nonrespondents*

Three sets of results from the follow-up study are presented here. The first comes from an interviewer debriefing at the end of the field period. The second is from questions included in the Case Control Form about why a person refused to take part in the follow-up. Results from these sources are essentially qualitative and are presented primarily to permit insight into how well procedures of the follow-up study worked, what additional procedures might have been implemented to convince more nonrespondents to take part, and what characteristics distinguished "hard-core" nonrespondents. The final set of results comes from analyses that attempt to gauge the impact of nonresponse on the accuracy of 1990 NHSDA estimates of the prevalence of drug use in the Washington D.C., metropolitan area. Information supplied by follow-up respondents is used in these analyses to estimate the extent of the bias introduced by this nonresponse in the 1990 NHSDA.

### *Interviewer Debriefing Conference*

Seven of the nine interviewers who worked on the follow-up study attended an interviewer debriefing held approximately two weeks after the end of data collection. Selected observations made by these interviewers during the debriefing are reported below.

All interviewers agreed that the \$10 incentive had played a significant role in persuading previous nonrespondents to participate in the follow-up study. During training, the recommendation had been made that if a person was reluctant to accept payment, the interviewer should suggest the respondent donate the money to charity. This occurred in only a few cases, and interviewers reported no problems with this type of situation. The incentive proved particularly effective in convincing children to participate in the study. Interviewers felt that some adults, unlike most children, were reluctant to admit that \$10 could make a difference in their lives.

Interviewers reported no problems either in completing the payment forms or in carrying cash in the neighborhoods in which they worked. For the most part, \$10 was seen as

an acceptable amount for the task respondents were being asked to perform. When a person complained that the incentive was too low, interviewers pointed out that \$10 for 20 minutes of work was the equivalent of \$30 an hour. In all but the most affluent neighborhoods, this explanation seemed effective. Interviewers who worked in affluent areas felt, however, that the incentive would have had to be as high as \$50 to sway the refusals there. A nonmonetary incentive was not viewed as a useful tool for converting any of these cases.

*Other Issues.* Frequently, it was difficult to gain the cooperation of persons who said at the outset that they had never used drugs. In many instances, these people could not understand the need to interview anyone who was not a drug user and believed they were saving us time by providing this information up front so the interviewer could move on to more "productive" households. Interviewers spent a great deal of time explaining the importance of talking to nonusers as well as users. Several observed that collecting data for the National Institute of Drug Abuse, in a study entitled the National Household Survey of Drug Abuse, did not help with these reluctant respondents. All interviewers agreed that the title of the study (if not the name of the agency) should be changed to something less judgmental, such as the National Household Survey of Drug Use. Interviewers believed that referring to the study as one of drug abuse made nonusers even less likely to feel their participation was necessary.

Several interviewers reported situations in which persons appeared to refuse because they were afraid of having to read. Interviewers working in low-income areas felt that some respondents feared their illiteracy would be discovered, which led many of them to refuse to participate in the study. Some individuals voiced a fear that they would "flunk the test." In these cases the interviewers placed extra emphasis on the way questions would be administered (i.e., the interviewer would read the questions and the respondent needed only to mark a box to answer) and on the fact that this was not a test. However, interviewers were not always able to overcome such reluctance in this manner. Several interviewers also noted that in low-income areas, some individuals appeared to refuse because they did not want interviewers to see the condition of their homes. When interviewers felt that this might be the case, they emphasized that the interview could be conducted at another location.

Interviewers also noted difficulties with the parents of children who has been selected. Once the \$10 incentive was mentioned, most children wanted to participate, but gaining parental approval still proved difficult. Many parents were afraid that the data were not really confidential. Given the increasing scope of computer databases, a number of parents questioned whether the data might not be used for other purposes as well. Some refused to give consent so as to protect their children from any adverse "side effects" of being in the study. Although they did not always view the follow-up study negatively, they

were concerned about potential consequences of their child's participation.

#### *Interviewer Documentation on the Case Control Form*

The Case Control Form included seven questions that interviewers were instructed to complete if an individual refused to participate in the study. These questions were designed to provide further details about the reasons for refusal and what, if anything, might have persuaded the person to participate. In addition, one question asked interviewers what factor(s) had caused respondents to change their minds and participate in the study. Most of the questions were open-ended, allowing the interviewer to record whatever seemed useful or relevant. A summary of the interviewers' responses to these questions is presented below.

From a list summarized in Table 3, interviewers were asked to choose the one reason that came closest to that given by the individual for choosing not to participate. In nearly half of the cases (43%), individuals had stated that they simply were not interested, and no further details were provided. Interestingly, none of these persons gave as their reason for refusal the fact that neither they nor the members of their household were drug users. This would seem to support the idea that interviewers are capable of explaining the importance of interviewing nonusers as well as users. Other reasons accounted for smaller numbers of refusals, as indicated in Table 3.

Interviewers were required to record verbatim a respondent's stated reason(s) for refusing to participate. These verbatim responses indicate that the reasons shown in Table 3 are, in most cases, an accurate portrayal of the attitude expressed by those who were sampled. However, in 30 percent of the cases, the interviewer felt that the expressed reason for refusing was not, in fact, the real reason. In most of these cases, interviewers considered the real reason to be that the individual felt threatened by the survey topic. Although certainly not conclusive, such information suggests that drug use may be more prevalent in this group of nonrespondents. A possible secondary reason was that another member of the household did not want the person to participate (this was true for adults as well as children).

In all but a few of the refusals, the offer of an incentive resulted in a total lack of interest. The majority of the people who refused were neither excited nor upset by the offer of \$10. According to interviewers, in several cases the individual questioned whether the interviewer was trying to "buy me off"; in a few other cases the person indicated that \$10 was not enough. Overall, however, these "hard-core" refusals appeared to be quite unwavering. In fact, interviewers felt that the vast majority of this group would be unlikely ever to participate in a study such as this. When asked what could be done to persuade this group to participate, interviewers suggested that the questionnaires be left with respondents for them to mail back when completed. Other ideas included providing more positive information about the study from the beginning and stressing the respondents' right to skip any questions that they preferred not an answer.

Interviewers were also asked to indicate on the Case Control Form why a person chose to participate in the follow-up study. The reason cited most often by the interviewer (accounting for 33% of the total) was simply that the person had never been available for the interview until that time. This finding was not surprising, given that the final result codes of almost half the cases in the follow-up (45%) indicated that the person had never been available during the original NHSDA.

The incentive payment was the second most common reason cited by interviewers for participation, accounting for 23 percent of the total. Surprisingly, the shortened length of the questionnaire appeared to be of less importance in converting people. The shorter length accounted for just 13 percent of the total number of reasons. For a small percentage (4.8%), interviewers attributed successful conversion to something they had done. Reasons here included the feeling that the person was not intimidated by a female interviewer or that the interviewer had a common interest with the person that created some sort of shared background.

#### *Demographic Comparisons and Indicators of Bias*

Regular NHSDA respondents (from the Washington subsample) were compared with follow-up respondents on a number of key demographic and substantive variables contained in the questionnaire. Analyses were kept as similar as possible to the 1990 NHSDA, but this was impossible for some demographic variables because of the small number of cases available in the follow-up. For these cases, further collapsing of categories within a variable was necessary for analyses to be meaningful. Results from these analyses are presented below. We also conducted an analysis to show how the estimates from the Washington, D.C., portion of the NHSDA would have been altered had the alternative procedures of the follow-up been incorporated into the original study.

*Demographic Comparisons.* Table 4 compares demographic characteristics of respondents to the 1990 NHSDA (Washington, D.C., subsample) with those of nonrespondents who were interviewed in the follow-up. No significant differences were found between the two groups for any of these demographic variables. Although in some cases the differences are relatively large, the standard error (se) is also large because of the small sample size in the follow-up. Data on total family income for the two groups (not shown in the table) indicate little difference between them. The median family income for follow-up respondents is \$56,577 (se=3,671) versus \$60,370 (se=2,419) for the original NHSDA respondents.

*Reported Drug Use.* One statistically significant difference was found for the two groups in terms of drug use. Small cell sizes and large standard errors contributed to the lack of significant results, which are summarized in Table 5 for all substances asked about in the follow-up.

When overall drug use is considered, we do find a reliable difference between samples. Overall drug use is a dichotomous variable indicating whether or not there is an indication of any type of drug use anywhere in the

respondent's questionnaire. Results indicate that a significantly larger percentage of follow-up respondents reported drug use at some time in their lives (93.6% versus 90.1% for the original NHSDA respondents). The 3.5 percentage point difference between the two groups is statistically significant ( $p \leq .05$ ). No statistically reliable differences were found for overall drug use in the past 12 months or the past 30 days.

#### *Impact of Current Versus Enhanced Procedures*

The follow-up study added time and expense to the NHSDA project. Specifically, approximately two months were added to the NHSDA field period, and the cost of interviewer training and fieldwork was roughly \$140 per case completed. When the costs for activities such as questionnaire development, data entry programming, sample selection, and coding and keying of data are included, the cost per case completed increases to approximately \$375 to \$425.<sup>5</sup>

The question of interest, then is whether the additional time and money made a difference in overall drug use estimates. Table 6 indicates how estimates for the Washington, D.C., metropolitan area would have changed if the follow-up procedures with incentives and shortened questionnaires had been used as a final stage of the 1990 NHSDA data collection.<sup>6</sup> The results show only very small changes in drug use estimates after follow-up cases are added to the original NHSDA sample for the Washington, D.C., metropolitan area.

## CONCLUSIONS

The results of the follow-up study do not definitively demonstrate either the presence or the absence of a serious nonresponse bias in the 1990 NHSDA. For reasons of cost, the follow-up study was confined to the Washington, D.C., metropolitan area, and the results may not be generalizable to other areas of the country. Similarly, with a response rate of 38 percent, there remains a sizable majority of sample nonrespondents for whom no information was obtained. Anecdotal information from follow-up interviewers suggests that these hard-core nonrespondents may differ significantly in their drug use behaviors from persons interviewed as part of either the regular NHSDA or the follow-up study.

In terms of demographic characteristics, follow-up respondents appeared to be similar to the original NHSDA respondents. Estimates of drug use for follow-up respondents show patterns similar to the regular NHSDA respondents. Only one statistically significant difference was found between the two groups: for the composite measure of drug use at anytime during their lives.

What would convince reluctant respondents to take part in the NHSDA? A greater cash incentive or more impressive promotional materials might have some effect, but in most cases the refusals appeared to be fairly definite. If another follow-up study were attempted, an incentive as high as \$50 might be offered. It might also be helpful to increase the salaries of interviewers working on the follow-up to motivate them further (although interviewers employed in the follow-up reported that the challenge of the

work alone was a strong motivating factor). In addition, it could be worthwhile to target different incentives to different types of nonrespondents.

From both the qualitative and the quantitative data presented here, it would appear that the NHSDA nonrespondents who were interviewed in the follow-up study were quite similar to the respondents interviewed as part of the regular NHSDA data collection. Interviewers working on the follow-up noted that persons who continued to refuse to participate appeared to have something to hide and to be afraid of answering questions about drugs. Whether this is indicative of higher rates of drug use among hard-core nonrespondents is unknown. Adding the follow-up cases to the regular NHSDA sample made little difference to the NHSDA estimates of drug use prevalence. We do not know, however, how convincing these remaining hard-core nonrespondents would affect the NHSDA's estimates.

#### FOOTNOTES

<sup>1</sup>For additional background information on the NHSDA, please refer to J. Gfroerer's paper in this section.

<sup>2</sup>Area of residence and some information on household composition are also available.

<sup>3</sup>Subsequently, staff at the Bureau of the Census offered us the opportunity to learn more about characteristics of 1990 NHSDA screening nonrespondents by anonymously matching them to their 1990 census forms. This was viewed as a better way of studying that subgroup of nonrespondents. A report of that study should be available in 1993.

<sup>4</sup>Of the 426 cases selected for follow-up, 186 (44%) were coded as refusals in the 1990 NHSDA; 48 (11%) were coded as parental refusals for 12- to 17-year-old target respondents; 59 (14%) were coded to indicate that no one was at home after repeated visits to the household; and 133 (31%) were coded to indicate that the respondent was unavailable after repeated visits during the 1990 NHSDA.

<sup>5</sup>The per-case cost of these activities is higher than for the regular NHSDA primarily because the cost is spread over a smaller number of cases.

<sup>6</sup>Estimates in column 1 of Table 6 have been adjusted for nonresponse based on the procedures described in National Institute of Drug Abuse (1991) National Household Survey on Drug Abuse: Main Findings, 1990. DHHS Publication No. ADM 91-1788. Thus, these estimates should be nearly identical to those published in that report. (The only differences would be due to limited editing done to the regular D.C. NHSDA data in order for it to be comparable to the follow-up data). Estimates from the combined data in column 3 were adjusted to take account of the remaining nonresponse using the same procedures described in the above referenced document.

Table 1. Final Result Codes for Follow-up Study Cases

	Percent	N
(Unweighted)		
Final Result		
Completed interview	33.7	144
No one at home after repeated visits	14.1	60
Respondent unavailable after repeated visits	7.7	33
Language barrier, Spanish speaker	.2	1
Refusal	25.5	109
Parental refusal for 12-17 year old	4.9	21
Other	1.9	8
Sample person or family moved	11.8	50
Total	100.0	426

Table 2 Percent of 1990 NHSDA Nonrespondents Who Completed Interview in Follow-up Study by 1990 NHSDA Final Result Code (Unweighted)

1990 NHSDA Final Result	Percent	Base N
Refusal	27.4	186
Parental refusal for 12-17 year old	14.6	48
No one at home after repeated visits	54.2	59
Respondent unavailable after repeated visits	40.6	133
All 1990 NHSDA Nonrespondents	33.8	426

Table 3 Reason Given for Sampled Persons' Refusal (Unweighted)

Reason for Refusal	Percent	N
Sampled person doesn't want to answer that kind of question	11.1	13
Sampled person not interested	42.7	50
Sampled person doesn't use drugs or no one here uses drugs	--	0
Another person won't allow sampled person to participate	11.1	13
Survey is invasion of sampled person's privacy	10.3	12
Sampled person is too busy	11.1	13
Survey is waste of government money/resources	.9	1
Sampled person never participates in surveys	4.3	5
Other reason given	8.5	10
Total	100.0	117

Note: Thirteen cases were excluded from this analysis due to missing data.

Table 4. Comparison of Social and Demographic Characteristics of Respondents to 1990 NHSDA (in Washington Metropolitan Area) and 1990 Nonrespondents Interviewed in Follow-up Study

CHARACTERISTIC	Regular NHSDA		Follow-up		Difference
	Percent (se)	N	Percent (se)	N	Percentage Pts. (se)
<b>GENDER</b>					
Male	46.0 (2.02)	836	40.9 (5.62)	64	5.1 (5.97)
Female	54.0 (2.02)	1,043	59.1 (5.62)	79	-5.1 (5.97)
<b>RACE</b>					
White	72.3 (2.18)	1,029	73.5 (5.00)	81	-1.2 (5.45)
Non-White	27.7 (2.18)	688	26.5 (5.00)	52	1.2 (5.45)
<b>AGE</b>					
12-17 years	10.5 (0.92)	436	6.3 (1.74)	22	4.2 (1.97)
18-25 years	16.2 (1.31)	450	14.4 (3.59)	32	1.8 (3.82)
26-34 years	19.6 (1.28)	500	23.9 (4.41)	47	-4.3 (4.59)
35+ years	53.7 (2.75)	501	55.4 (6.34)	43	-1.7 (6.91)
<b>EDUCATION</b>					
H.S. graduate or less	38.9 (2.74)	671	38.4 (5.94)	56	.5 (6.54)
Some college	22.1 (1.97)	336	23.7 (5.22)	34	-1.6 (5.58)
College graduate or more	39.0 (2.52)	434	37.9 (6.36)	29	1.1 (7.03)
<b>EMPLOYMENT</b>					
Works full- or part-time	70.4 (1.98)	1,205	75.0 (5.04)	108	-4.6 (5.41)
Not working (a)	29.6 (1.98)	663	25.0 (5.04)	34	4.6 (5.41)

(a) Not working includes the unemployed, homemakers, students, and retired persons.

Table 5. Comparison of Prevalence of Self-Reported Use of Licit and Illicit Drugs by Respondents to 1990 NHSDA (in Washington Metropolitan Area) and 1990 Nonrespondents Interviewed in Follow-up Study

DRUG USE	Regular NHSDA		Follow-up		Difference
	Percent (se)	(se)	Percent (se)	(se)	Percent (se) Pts.
<b>CIGARETTES</b>					
In the past month	27.2	(1.8)	23.6	(4.4)	3.6 (4.8)
In the past year	32.0	(2.0)	31.8	(5.2)	.2 (5.5)
In lifetime	73.6	(1.8)	78.0	(5.2)	-4.4 (5.3)
<b>ALCOHOL</b>					
In the past month	60.4	(1.6)	56.0	(6.2)	4.4 (6.3)
In the past year	73.6	(1.3)	70.8	(5.5)	2.8 (5.6)
In lifetime	87.2	(1.0)	88.8	(3.3)	-1.6 (3.4)
<b>MARIJUANA OR HASHISH</b>					
In the past month	5.1	(.7)	4.6	(1.5)	.5 (1.7)
In the past year	9.1	(1.0)	8.0	(1.9)	1.1 (2.2)
In lifetime	33.3	(1.8)	35.9	(5.9)	-2.6 (6.3)
<b>COCAINE USE</b>					
In the past month	1.0	(.3)	1.8	(0.9)	-.8 (0.9)
In the past year	3.9	(0.6)	4.2	(1.4)	-.3 (1.5)
In lifetime	12.8	(1.1)	18.1	(3.6)	-5.3 (3.7)
<b>ANY DRUG USE (a)</b>					
In the past month	69.3	(1.6)	62.8	(5.7)	6.5 (5.9)
In the past year	78.6	(1.3)	73.7	(5.5)	4.9 (5.7)
In lifetime	90.1	(.9)	93.6	(2.2)	-3.5* (2.1)

Note: Sample sizes used in estimates for NHSDA ranged from 1,871 to 1,887. Sample size for follow-up study was 144. Analyses are weighted to reflect differing probabilities of selection and standard adjustments for nonresponse.

(a) Drugs included cigarettes, alcohol, marijuana or hash, cocaine or crack, and nonmedical use of sedatives, tranquilizers, stimulants, analgesics, inhalants, hallucinogens, and heroin.

\*  $p \leq 0.05$  one-tailed based on the hypothesis that nonrespondents to the NHSDA would be individuals who had higher levels of drug use.

Table 6. Comparison of Estimates from 1990 NHSDA (for Washington DC Metropolitan Area) and Estimates Derived by Adding Cases from Follow-up Study to 1990 NHSDA.

DRUG USE	NHSDA Only		NHSDA & Follow-up	
	Percent (se)	(se)	Percent (se)	(se)
<b>CIGARETTES</b>				
In past month	27.2	(1.8)	26.6	(1.7)
In past year	32.0	(2.0)	32.0	(1.9)
In lifetime	73.6	(1.8)	74.3	(1.8)
<b>ALCOHOL</b>				
In past month	60.4	(1.6)	59.6	(1.7)
In past year	73.6	(1.3)	73.1	(1.5)
In lifetime	87.2	(1.0)	87.5	(1.1)
<b>MARIJUANA OR HASHISH</b>				
In past month	5.1	(.7)	5.0	(.6)
In past year	9.1	(1.0)	8.9	(.9)
In lifetime	33.4	(1.8)	33.8	(1.8)
<b>COCAINE</b>				
In past month	1.0	(.3)	1.1	(2.7)
In past year	3.9	(.6)	3.9	(.5)
In lifetime	12.8	(1.1)	13.7	(1.2)
<b>ANY DRUG USE (a)</b>				
In lifetime	90.1	(.9)	90.7	(.9)

Note: Sample sizes used in estimated for regular NHSDA ranges from 1,871 to 1,887. Sample sizes for combined NHSDA ranged from 2,015 to 2,031. Analyses are weighted to reflect differing probabilities of selection and standard adjustments for nonresponse.

(a) Drugs included cigarettes, alcohol, marijuana or hash, cocaine or crack, and nonmedical use of sedatives, tranquilizers, stimulants, analgesics, inhalants, hallucinogens, and heroin.