

OAS DATA REVIEW

OFFICE OF APPLIED STUDIES

AUGUST 2009

An Examination of Trends in Illicit Drug Use among Adults Aged 50 to 59 in the United States

Authors

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Abstract

Objective. This report examines the trends, patterns, and characteristics of illicit drug use among persons aged 50 to 59 in the United States.

Methods. Data were analyzed from 51,474 respondents born during the 1943 to 1962 time period and 16,656 respondents aged 50 to 59 from the 2002 to 2007 National Surveys on Drug Use and Health. Multivariate logistic regression modeling was applied.

Results. Increases in past year illicit drug use among persons aged 50 to 59 between 2002 and 2007 have been driven primarily by the aging of the baby boom cohort, which has a much higher lifetime illicit drug use rate than earlier cohorts, representing an increasing proportion of persons aged 50 to 59. Almost 90 percent of past year users initiated drug use before age 30, with initiation after age 50 being extremely rare. About 1 in 7 lifetime drug users used drugs in the past year at age 50 to 59. Characteristics associated with continued use of illicit drugs among this age group are male gender, unmarried status, early age of drug initiation, living in the West region, having low education and income, unemployed due to disability, using alcohol and tobacco in the past year, having past year major depressive episode, and rarely attending religious services.

Conclusions. With current and anticipated future increases in the numbers and proportions of aging adults using illicit drugs, the United States faces the challenge of reducing drug use and treating drug use disorders and associated health conditions in this segment of the population.

Introduction

Substance abuse among older Americans has become a major concern in recent years as members of the baby boom cohort (persons born between 1946 and 1964) reach their 50s and 60s. In 1996, the oldest members of the baby boom cohort reached the age of 50. By 2007, all persons aged 50 to 59 in the United States were baby boomers. Among persons aged 50 to 59, the rate of current illicit drug use increased from 2.7 percent in 2002 to 5.0 percent in 2007.¹ The number of adults aged 50 or older with past year substance use disorder (SUD) is projected to more than double from 2.8 million (annual average) in 2002 to 2006 to 5.7 million in 2020 in the United States.² To address this potential surge in treatment need in the next decade, it is critical to understand the nature of the current trends and patterns of use among the baby boomers and subsequent generations as they age.

Illicit drug use contributes to a broad range of health and social problems and substantial excess mortality.³⁻¹⁷ Importantly, age-related physiological, psychological, and social changes make older persons more vulnerable to the detrimental effects of illicit drug use. Because of their decreased metabolism and reduced body water content, older adults can have higher blood substance levels for a longer time than younger people after using illicit drugs, affecting their cognitive and motor functions and increasing their risks of having accidents, falls, injuries, or impairments of activities of daily living. Older adults can feel the effects with less drug use (increased sensitivity) and cannot use as much as they used to (decreased tolerance). Moreover, many prescription and over-the-counter (OTC) medications commonly used by older adults interact adversely with illicit drugs.

The increase in illicit drug use among persons aged 50 to 59 and their potential future treatment needs has become a growing public health concern. The purposes of this report are (1) to present the most recent trends in the prevalence of illicit drug use among persons aged 50 to 59 in the United States; (2) to examine whether the increase in illicit drug use in this age group is driven by the aging of cohorts with high rates of use or an increase in use within cohorts; (3) to investigate how much of the increase in illicit drug use among persons aged 50 to 59 is due to initiation, continuing use, and resumption of use; and (4) to examine the characteristics associated with past year illicit drug use among lifetime users aged 50 to 59. The results of this report can help identify the illicit drug use problem among persons aged 50 to 59 in the United States. Our results also can help draw attention to potential problems among subsequent cohorts who have even higher illicit drug use rates than the cohort currently aged 50 to 59.

Methods

Data Sources

This report analyzed data from 51,474 persons born during the 1943 to 1962 time period representing four 5-year birth cohorts and 16,656 persons aged 50 to 59 who participated in the 2002, 2003, 2004, 2005, 2006, and 2007 (2002 to 2007) National Surveys on Drug Use and Health (NSDUHs), which are nationally representative surveys of the civilian, noninstitutionalized population of the United States. NSDUH is a face-to-face survey conducted at each sampled person's home, and each interview takes approximately 1 hour to complete. Audio computer-assisted self-interviewing is used, providing respondents with a private, confidential way to record answers. Further description of the data source is available from the Substance Abuse and Mental Health Services Administration (SAMHSA) website.¹⁸

Analytic Strategy

First, we analyzed trends in prevalence rates of past year illicit use of any drug, marijuana use, and nonmedical use of prescription drugs among persons aged 50 to 59 and among persons aged 50 to 54 and aged 55 to 59 between 2002 and 2007. Then we examined trends in these measures by selected 5-year birth cohorts during this time period to assess

whether the increases from 2002 to 2007 in rates of drug use among persons aged 50 to 59 were present within cohorts or whether population dynamics over the 6-year period (i.e., shifts in the representation of different birth cohorts) could explain the trends.

Next, we investigated the distribution of age at first illicit drug use among past year illicit drug users aged 50 to 59 to determine whether the increase in prevalence could be partly attributed to adults recently initiating drug use. In a related analysis, we looked at the age at onset of nonmedical use of prescription drugs among past year users of any illicit drugs who had ever used prescription drugs nonmedically in order to shed light on concerns that older Americans may start to engage in nonmedical use of prescription drugs in later life.¹⁹ We also looked at transitions over time in somewhat greater detail to determine whether past year marijuana users primarily represented (1) continuing users, (2) new initiates, or (3) persons who initiated drug use earlier in their lives, stopped using, and then resumed use recently. This latter analysis addresses concerns that the new generation of older adults who have used drugs but discontinued use may start using again after age 50. It also assesses resumption of use by examining nonuse of marijuana in the period 13 to 24 months prior to the survey interview among persons aged 50 to 59 who used marijuana in the past year.

Because only a minority of persons who have used illicit drugs in their lifetime continued use into the past year, it is important to examine what characteristics differentiate lifetime users who do and do not continue use into the past year. The last analysis of the study applied multivariate logistic regression modeling to identify characteristics associated with past year illicit drug use among lifetime users aged 50 to 59. The Hosmer-Lemeshow goodness-of-fit tests for survey data were applied to determine the adequacy of the fit of the models.²⁰ These analyses used SUDAAN® software²¹ to account for the complex sample design and to apply NSDUH sampling weights.

Definitions

Past Year Substance Use. Past year illicit drug use (yes, no) was defined as any use of marijuana, cocaine, heroin, hallucinogens, inhalants, or nonmedical use of pain relievers, tranquilizers, stimulants, or sedatives in the past year. We included past year tobacco use (yes, no) and past year alcohol use (yes, no) as two of

the predicting variables for past year illicit drug use in the multivariate analysis because polysubstance use (including combinations of illicit drugs, alcohol, or tobacco) is common among illicit drug users.

Birth Cohort. Illicit drug use rates were examined according to the following 5-year birth cohorts: 1943-1947, 1948-1952, 1953-1957, and 1958-1962. The first cohort includes the trailing edge of the pre-baby-boom generation (born 1943-1945) and the leading edge of the baby boom generation (born 1946-1947). The other three cohorts are within the baby boom generation. Cohorts were defined in order to represent as closely as possible the 50 to 54 and 55 to 59 age groups in the end points of the available NSDUH data (2002 and 2007).^a

Age at First Illicit Drug Use. This report assessed the distribution of age at first illicit drug use by measuring the earliest age at initiation of marijuana, cocaine, heroin, hallucinogens, inhalants, or nonmedical use of pain relievers, tranquilizers, stimulants, or sedatives.

Marijuana Use 13 to 24 Months Prior to the Survey Interview. To help understand whether past year users have been continuing users, new initiates, or resuming users who initiated drugs during their youth, stopped using, and recently resumed use in their 50s, we examined marijuana use 13 to 24 months prior to the survey interview. We categorized users as having first used marijuana more than 2 years ago and used it 13 to 24 months ago, first used marijuana more than 2 years ago and did not use it 13 to 24 months ago, or first used marijuana in the past 24 months.

Mental Health Status. We included past year major depressive episode (MDE) in the regression analysis because psychiatric comorbidity is a significant risk factor for illicit drug use.^{22, 23} NSDUH defines MDE using the DSM-IV diagnostic criteria,²⁴ specifying a period of 2 weeks or longer in which there is either depressed mood or loss of interest or pleasure and at least four other symptoms that reflect a change

in functioning, such as problems with sleep, eating, energy, concentration, and self-image.

Attending Religious Services. The number of times that a respondent attended religious services in the past year (0-2, 3-24, ≥25) was assessed because religiosity has been reported to be associated with illicit drug use.^{25, 26, 27}

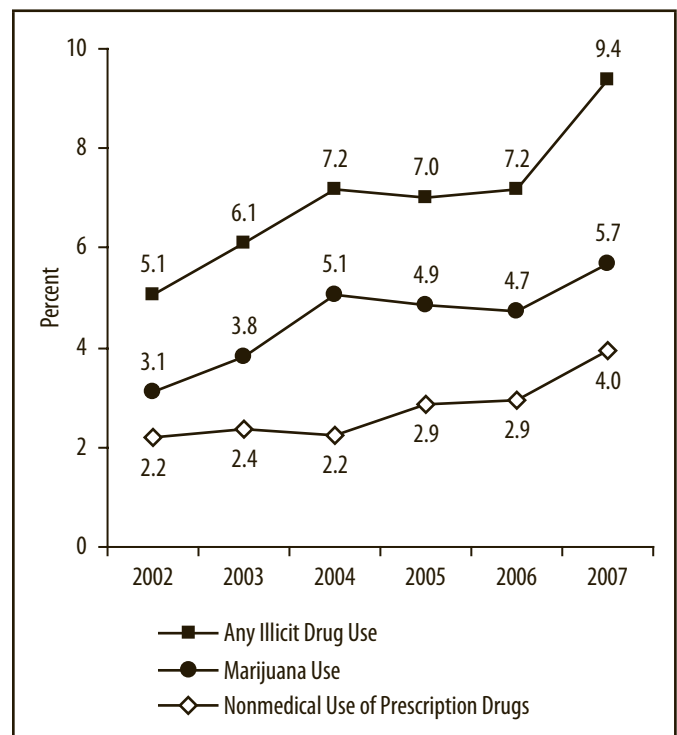
Sociodemographic Characteristics. The regression analysis also examined gender (male or female), race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, or other), years of education (<12, 12, >12), marital status (married or nonmarried), annual family income (<\$20,000, \$20,000-\$49,999, \$50,000-\$74,999, or ≥\$75,000), employment status (employed, homemaker, retired, disabled for work, looking for job/layoff, or other), and region (Northeast, Midwest, South, or West).

Results

Trends in Past Year Illicit Drug Use

Table 1 and Figure 1 show the trends in prevalence rates of past year any illicit drug use, marijuana use, and nonmedical use of prescription drugs among

Figure 1. Past Year Illicit Drug Use among Persons Aged 50 to 59: 2002-2007



Source: 2002 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

^a The estimates based on cohorts will not match estimates based on age groups because NSDUH interviews take place throughout the year. For example, when the sampled 1953-1957 birth cohort members were surveyed in 2002, they were mostly aged 45 to 49 at the time of the interview. However, about half of the 1953 cohort respondents would have been age 44 due to being interviewed before their 45th birthday in 2002. Similarly, only half of the 1957 cohort respondents would have been age 49 when they were interviewed in 2002. For clarity in presenting the results, we have ignored these slight discrepancies in age group coverage, referring simply to the age group 45 to 49 when discussing the 1953-1957 cohort data from 2002.

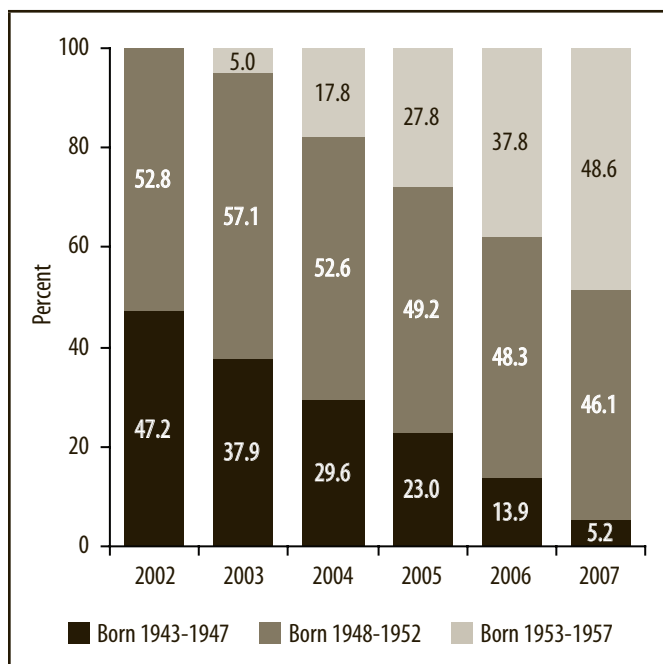
Table 1. Prevalence of Past Year Illicit Drug Use, Marijuana Use, and Nonmedical Use of Prescription Drugs among Persons Aged 50 to 59, Percentages (Standard Errors): 2002 to 2007

Age Group/ Drug Use	2002	2003	2004	2005	2006	2007
Aged 50 to 59						
Any Illicit Drug Use	5.1 (0.56)	6.1 (0.57)	7.2 (0.64)	7.0 (0.61)	7.2 (0.57)	9.4 (0.71)
Marijuana Use	3.1 (0.45)	3.8 (0.44)	5.1 (0.58)	4.8 (0.52)	4.7 (0.47)	5.7 (0.58)
Nonmedical Use of Prescription Drugs	2.2 (0.38)	2.4 (0.36)	2.2 (0.33)	2.9 (0.40)	2.9 (0.36)	4.0 (0.48)
Aged 50 to 54						
Any Illicit Drug Use	6.5 (0.84)	7.4 (0.84)	9.0 (0.99)	8.3 (0.87)	9.1 (0.87)	10.6 (1.06)
Marijuana Use	4.3 (0.71)	4.6 (0.64)	6.7 (0.90)	5.6 (0.72)	6.4 (0.75)	6.8 (0.90)
Nonmedical Use of Prescription Drugs	2.5 (0.55)	3.1 (0.55)	2.4 (0.47)	3.4 (0.58)	3.0 (0.49)	4.0 (0.66)
Aged 55 to 59						
Any Illicit Drug Use	3.3 (0.71)	4.4 (0.70)	5.1 (0.74)	5.6 (0.80)	4.9 (0.65)	8.0 (0.93)
Marijuana Use	1.6 (0.47)	2.8 (0.55)	3.1 (0.60)	3.8 (0.68)	2.7 (0.51)	4.5 (0.68)
Nonmedical Use of Prescription Drugs	1.8 (0.53)	1.5 (0.40)	2.1 (0.47)	2.3 (0.55)	2.9 (0.54)	3.9 (0.72)

Source: 2002 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

persons aged 50 to 59 between 2002 and 2007. Past year any illicit drug use jumped from 5.1 percent in 2002 to 9.4 percent in 2007; past year marijuana use increased from 3.1 to 5.7 percent during this time period; and past year nonmedical use of prescription drugs was up to 4.0 percent in 2007 from 2.2 percent in 2002. All of these increases in prevalence rates

among persons aged 50 to 59 were statistically significant. The trends in these three measures among persons aged 55 to 59 were also significant. However, among persons aged 50 to 54, only the trend in any illicit drug use was significant. In addition, the annual average prevalence rates of past year any illicit drug use and marijuana use for 2002 to 2007 among persons aged 50 to 54 were significantly higher than those among persons aged 55 to 59 over these years.

Figure 2. Percent Distribution of Persons Aged 50 to 59, by Birth Year Cohort: 2002 to 2007

Source: 2002 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

Cohort Dynamics among Persons Aged 50 to 59 from 2002 to 2007

In considering the basis of the increases from 2002 to 2007 in rates of drug use among persons aged 50 to 59, it is necessary to look at aging over the 6-year period and shifts in the representation of different birth cohorts. As shown in Figure 2, the portion of 50 to 59 year olds who were born in 1943-1947 declined from 47.2 percent in 2002 to 5.2 percent in 2007, while the portion born in 1953-1957 increased from 0.0 to 48.6 percent. If cohorts born later have higher rates of drug use and are replacing those born earlier, then such dynamics alone could result in increasing rates among the population aged 50 to 59 without new users or resumption of use by prior users who have quit.

Table 2. Prevalence of Past Year Illicit Drug Use, Marijuana Use, and Nonmedical Use of Prescription Drugs, by Selected Birth Cohorts, Percentages (Standard Errors): 2002 to 2007

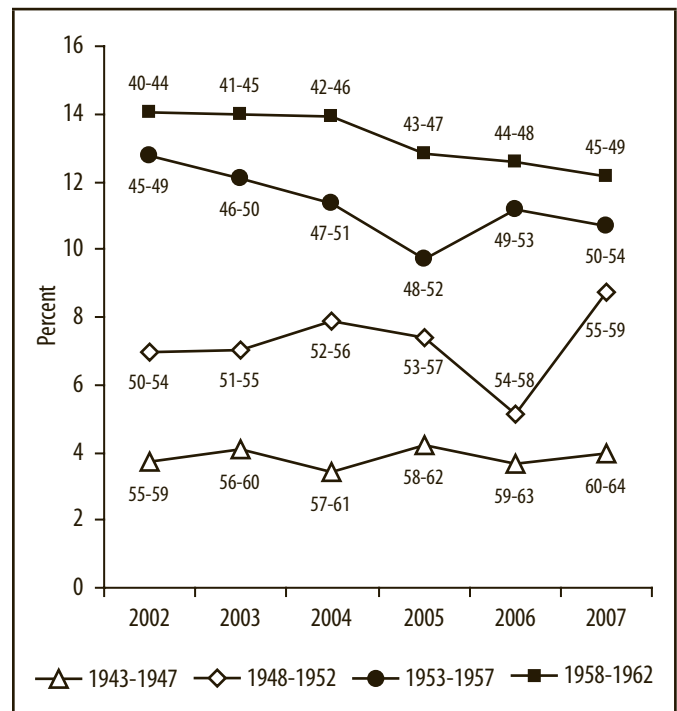
Drug Use/ Birth Cohort	2002	2003	2004	2005	2006	2007
Illicit Drug Use						
1958-1962	14.1 (0.78)	14.0 (0.72)	13.9 (0.76)	12.8 (0.70)	12.6 (0.77)	12.2 (0.70)
1953-1957	12.8 (0.76)	12.1 (0.85)	11.3 (0.82)	9.7 (0.75)	11.2 (0.88)	10.7 (1.03)
1948-1952	6.9 (0.83)	7.1 (0.82)	7.9 (0.94)	7.4 (0.88)	5.1 (0.69)	8.8 (0.98)
1943-1947	3.7 (0.73)	4.1 (0.68)	3.4 (0.65)	4.2 (0.79)	3.7 (0.69)	4.0 (0.80)
Marijuana Use						
1958-1962	9.2 (0.65)	9.8 (0.61)	9.2 (0.64)	8.7 (0.61)	7.8 (0.63)	7.9 (0.58)
1953-1957	8.6 (0.64)	7.1 (0.62)	8.0 (0.73)	6.6 (0.61)	7.6 (0.75)	6.9 (0.86)
1948-1952	4.7 (0.71)	4.5 (0.65)	5.6 (0.85)	5.1 (0.79)	3.0 (0.53)	5.2 (0.76)
1943-1947	2.0 (0.50)	2.4 (0.52)	2.0 (0.50)	2.7 (0.67)	2.1 (0.49)	1.5 (0.47)
Nonmedical Use of Prescription Drugs						
1958-1962	6.2 (0.53)	5.3 (0.47)	5.6 (0.50)	5.5 (0.48)	5.9 (0.51)	5.1 (0.42)
1953-1957	4.8 (0.50)	5.9 (0.63)	4.5 (0.55)	3.7 (0.51)	3.9 (0.51)	4.0 (0.64)
1948-1952	2.5 (0.53)	2.8 (0.53)	2.2 (0.45)	2.9 (0.54)	2.7 (0.51)	4.0 (0.72)
1943-1947	1.9 (0.54)	1.5 (0.42)	1.2 (0.33)	2.0 (0.55)	1.8 (0.52)	2.9 (0.70)

Source: 2002 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

Trends and Differentials in Past Year Illicit Drug Use, by Birth Cohort

Table 2 and Figure 3a show trends from 2002 to 2007 in past year any illicit drug use within 5-year birth cohorts from 1943 to 1962. Within the respective cohorts, differences in prevalence generally were not statistically significant. For example, among the cohort born during 1953-1957, the rate was 12.8 percent in 2002 (when they were aged 45 to 49) and 10.7 percent in 2007 (when they were aged 50 to 54). Among the cohort born during 1948-1952, the rate was 6.9 percent in 2002 (when they were aged 50 to 54) and 8.8 percent in 2007 (when they were aged 55 to 59). In both these cohorts, the past year illicit drug use rate remained stable from 2002 to 2007. However, the rate for the age group 50 to 54 in 2007 in the cohort born in 1953-1957 was significantly higher than the rate for that age group in 2002 among the cohort born in 1948-1952. It is also apparent from Table 2 and Figure 3a that the rates of illicit drug use were generally higher among the cohorts born later than among those born earlier.

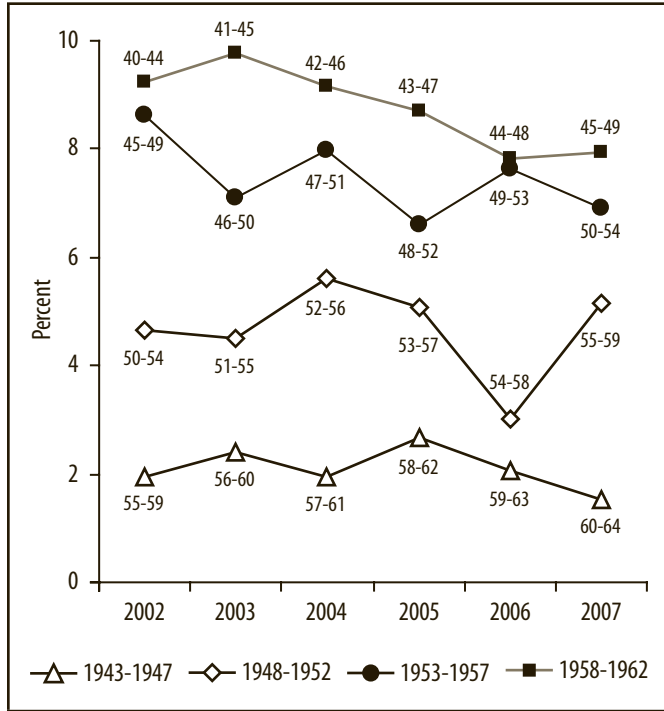
Taken together, the observations that rates within cohorts increased in only one of the three cohorts, that later cohorts are replacing earlier cohorts in the population aged 50 to 59, and that later cohorts had

Figure 3a. Past Year Any Illicit Drug Use, by Selected Birth Cohorts: 2002 to 2007

Note: The value near each data point indicates the age of the selected cohort in that survey year.

Source: 2002 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

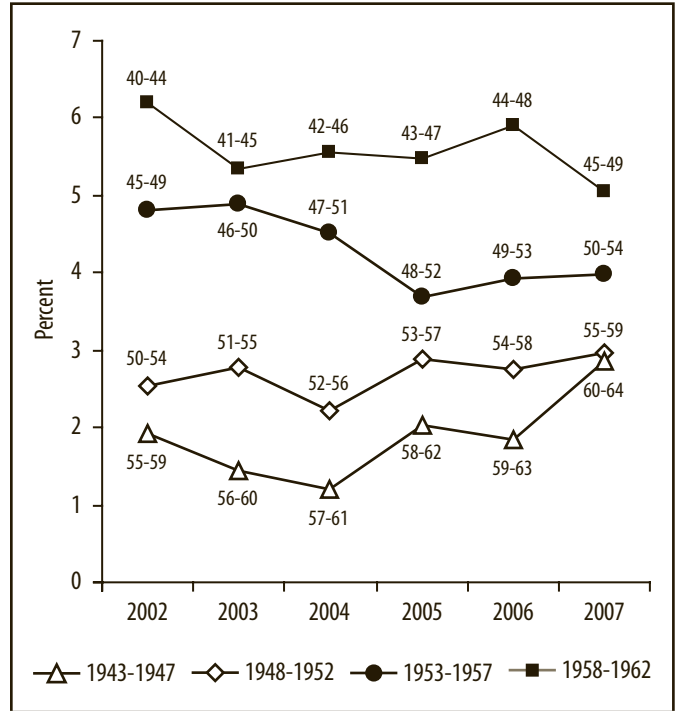
Figure 3b. Past Year Marijuana Use, by Selected Birth Cohorts: 2002 to 2007



Note: The value near each data point indicates the age of the selected cohort in that survey year.

Source: 2002 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

Figure 3c. Past Year Nonmedical Use of Prescription Drugs, by Selected Birth Cohorts: 2002 to 2007



Note: The value near each data point indicates the age of the selected cohort in that survey year.

Source: 2002 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

higher rates of drug use than earlier ones indicate that the increasing trend for the age group is primarily due to a cohort replacement effect rather than an increase in the rate of use in a standing population as it ages. This is exemplified in the finding that the 1953-1957 cohort members had a higher rate of use when they reached ages 50 to 54 (in 2007) than the 1948-1952 cohort members had when they were aged 50 to 54 (in 2002).

Figures 3b and 3c also show similar patterns suggesting the cohort effect on past year marijuana use and nonmedical use of prescription drugs. The younger cohort of baby boomers, born during 1958-1962 (aged 45 to 49 in 2007), will begin to enter the 50-plus age group in 2008 (data not yet available). This cohort had the highest prevalence rates of any of the four 5-year cohorts. The 1958-1962 cohort was 17 to 21 years old in 1979, when illicit drug use in the United States reached its peak.

Initiation, Continuation, or Resumption

Average estimates for 2002 through 2007 indicate that among persons aged 50 to 59, 50.7 percent (standard error, SE, 0.50) have never used illicit drugs;

42.2 percent (SE 0.50), or an estimated 15.3 million persons annually, used illicit drugs at least once in their lifetime but not in the past year; and 7.1 percent (SE 0.25), an estimated 2.6 million persons, used illicit drugs in the past year. Among lifetime users aged 50 to 59, about 1 in 7 (14.4 percent) used in the past year. The following analyses attempt to account for past year illicit drug use considering recent initiation, past initiation, continuation of use, and resumption of use.

Table 3 presents the distribution of age at first illicit drug use among past year users aged 50 to 59. Our results show that 65.0 percent initiated before age 20, 89.9 percent initiated before age 30, and 97.0 percent initiated before age 50. Only 3.0 percent of past year illicit drug users initiated drug use after reaching age 50. Thus, new initiation of drug use at age 50 does not play a significant role in use among persons aged 50 to 59 and could not have accounted for the significant increases seen in that age group from 2002 to 2007.

Among the past year users aged 50 to 59 in the United States, 29.1 percent had never used prescription drugs nonmedically in their lifetime. Table 3 shows that among the 70.9 percent of past

Table 3. Distributions of Age at First Illicit Drug Use among Past Year Users Aged 50 to 59 and Age at First Nonmedical Use of Prescription Drugs among Past Year Illicit Drug Users Aged 50 to 59 Who Had Ever Used Prescription Drugs Nonmedically: 2002 to 2007

Age	Percentage (Standard Error) of Age at First Illicit Drug Use	Cumulative Percentage of Age at First Illicit Drug Use	Percentage (Standard Error) of Age at First Nonmedical Use of Prescription Drugs	Cumulative Percentage of Age at First Nonmedical Use of Prescription Drugs
Under 15	11.7 (1.21)	11.7	3.4 (0.81)	3.4
15-19	53.3 (1.86)	65.0	31.3 (2.06)	34.7
20-24	19.4 (1.51)	84.4	27.8 (1.96)	62.5
25-29	5.5 (0.83)	89.9	9.5 (1.22)	72.0
30-34	1.9 (0.44)	91.8	5.6 (0.93)	77.6
35-39	1.8 (0.53)	93.6	2.9 (0.70)	80.5
40-44	1.6 (0.43)	95.2	4.5 (0.90)	85.0
45-49	1.8 (0.46)	97.0	6.0 (0.98)	91.0
50-59	3.0 (0.60)	100.0	9.0 (1.17)	100.0

Source: 2002 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

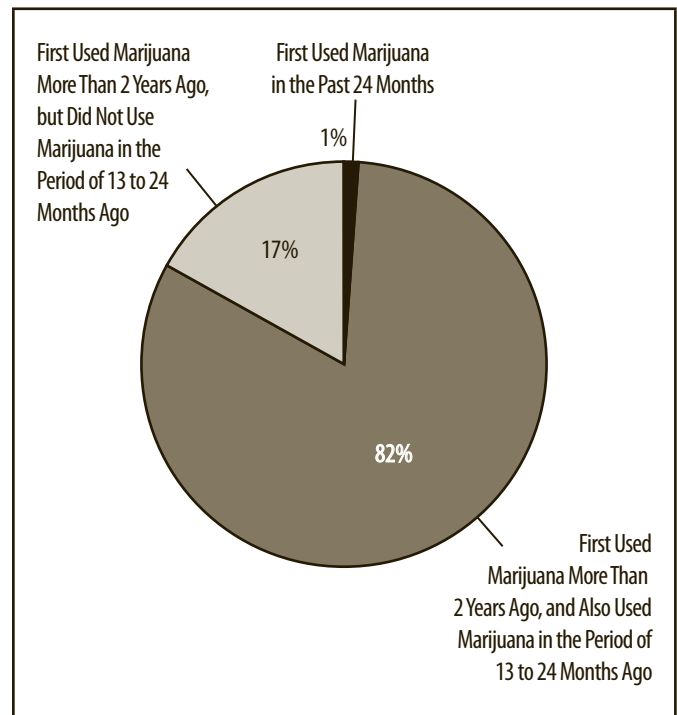
year illicit drug users aged 50 to 59 who had ever used prescription drugs nonmedically, 34.7 percent initiated before age 20, 72.0 percent initiated before age 30, and 91.0 percent initiated before age 50. Only about 9.0 percent of these past year illicit drug users who had ever used prescription drugs nonmedically initiated after reaching age 50, indicating that the initiation of nonmedical use of prescription drugs had a small impact on the overall increase in illicit drug use among adults aged 50 to 59.

Consistent with the above findings, Figure 4 also shows that 99 percent of past year marijuana users aged 50 to 59 initiated use more than 2 years ago. Therefore, initiation plays little role in the trends in past year marijuana use among persons aged 50 to 59. Moreover, most of the past year users had used marijuana during the year before that past year, suggesting that they have been continuing users, rather than the “resumers” who initiated during their youth, stopped using, and recently resumed use in their 50s.

Characteristics Associated with Past Year Illicit Drug Use

As indicated above, only 14.4 percent of persons aged 50 to 59 who had ever used illicit drugs used in the past year. Table 4 presents the results of our multivariate logistic regression model examining characteristics associated with past year illicit

Figure 4. Prior Marijuana Use among Past Year Marijuana Users Aged 50 to 59, Percentages: 2002 to 2007



Source: 2002 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

drug use among lifetime users aged 50 to 59.^b The multivariate results indicate that among these lifetime users, the likelihood of past year illicit drug use

^b The HL test indicates that this model has no evidence of lack of fit: HL $F_{Wald}(9) = 1.43, p = 0.17$.

Table 4. Logistic Regression Model for Past Year Illicit Drug Use among Lifetime Illicit Drug Users Aged 50 to 59 (n = 8,223): 2002 to 2007

Covariates	Odds Ratio (95% Confidence Interval)
Age	0.97 (0.94-0.99)
Gender	
Male versus Female	1.23 (1.04-1.45)
Race/Ethnicity	
Non-Hispanic Black versus Non-Hispanic White	1.10 (0.84-1.43)
Non-Hispanic Other versus Non-Hispanic White	0.95 (0.62-1.43)
Hispanic versus Non-Hispanic White	1.01 (0.56-1.82)
Years of Education	
<12 versus >12	1.38 (1.04-1.84)
12 versus >12	0.91 (0.75-1.11)
Marital Status	
No versus Yes	1.54 (1.27-1.86)
Family Income	
<\$20,000 versus ≥\$75,000	1.36 (1.01-1.83)
\$20,000-\$49,999 versus ≥\$75,000	1.36 (1.07-1.74)
\$50,000-\$74,999 versus ≥\$75,000	1.23 (0.96-1.57)
Region	
Northeast versus West	0.87 (0.67-1.12)
Midwest versus West	0.72 (0.57-0.91)
South versus West	0.74 (0.59-0.92)
Employment Status	
Homemaker versus Employed	1.02 (0.58-1.78)
Retired versus Employed	1.26 (0.89-1.79)
Disabled for Work versus Employed	1.36 (1.02-1.81)
Looking for Job/Layoff versus Employed	1.08 (0.70-1.67)
Other versus Employed	1.16 (0.71-1.90)
Age at First Illicit Drug Use	
≤16 versus ≥21	2.20 (1.76-2.76)
17-20 versus ≥21	1.11 (0.91-1.35)
Tobacco Use in the Past Year	
Yes versus No	1.50 (1.26-1.77)
Alcohol Use in the Past Year	
Yes versus No	1.71 (1.36-2.14)
Past Year Major Depressive Episode	
Yes versus No	1.41 (1.07-1.88)
Number of Times Attended Religious Services in the Past Year	
0-2 versus 25+	1.71 (1.36-2.16)
3-24 versus 25+	1.38 (1.06-1.79)

Source: 2002 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

decreased with each incremental increase in age. Among lifetime users aged 50 to 59, those who were male, those who were not married, and those who had less than 12 years of education were more likely to use illicit drugs in the past year. Lifetime users aged 50 to 59 with less than \$50,000 annual family income were 1.4 times more likely to use illicit drugs in the past year than their counterparts with an income of \$75,000 or more. Lifetime users aged 50 to 59 living in the Midwest or South were less likely to use illicit drugs in the past year than their counterparts in the West, and those who were disabled for work were more likely to use illicit drugs in the past year than their employed counterparts.

Lifetime users aged 50 to 59 who initiated illicit drug use before age 17 and those who used tobacco or alcohol in the past year were more likely to use illicit drugs in the past year. Persons with past year MDE were more likely to use illicit drugs in the past year than their counterparts without past year MDE, and those who rarely attended religious services in the past year were more likely to use illicit drugs in the past year than their counterparts who attended 25 or more times.

Discussion

This report presents the most recent trends that show increases in any illicit drug use, marijuana use, and nonmedical use of prescription drugs in the past year among persons aged 50 to 59 in the United States between 2002 and 2007. In 2007, the rate of past year use in this age group was 9.4 percent for any illicit drug, 5.7 percent for marijuana, and 4.0 percent for nonmedical use of prescription drugs. Analyses show that the observed increases are driven primarily by the aging of the baby boom cohort, which has a much higher lifetime illicit drug use rate than earlier cohorts, representing an increasing proportion of persons aged 50 to 59. Less than 3 percent of past year users initiated drug use at ages 50 to 59. Almost 90 percent of past year users initiated drug use before age 30, and many have been continuing users over the years. Looking at the broader population of persons aged 50 to 59, only about 14.4 percent of persons who had ever used drugs were using in the past year; most had discontinued use. With current and anticipated future increases in the numbers and proportions of aging adults using illicit drugs, the United States faces the challenge of reducing drug use and treating drug

use disorders and associated health conditions in this segment of the population.

Given the wide varieties of health and social problems affected by illicit drug use, particularly among older adults, it is important to develop effective screening and intervention strategies to address the needs of this population. Primary care physicians can play significant roles in screening for illicit drug use problems among older adults, using approaches such as SBIRT (Screening, Brief Intervention, and Referral to Treatment).²⁸⁻³² The American Medical Association recommends that physicians screen all patients for alcohol and drug abuse.³³

This report found that the characteristics associated with continued use of illicit drugs among lifetime users aged 50 to 59 are male gender, unmarried status, early age of drug initiation, living in the West region, having low education and income, unemployed due to disability, using alcohol and tobacco in the past year, having MDE in the past year, and rarely attending religious services. Older Americans with these characteristics may benefit from more intensive screening and intervention for illicit drug use by primary care physicians.

However, routine screening for illicit drug use is infrequent at primary care settings because of the lack of training in illicit drug intervention and treatment among primary care physicians and the lack of efficient drug screening instruments for the primary care settings.³⁴ The National Institute on Drug Abuse recently released a resource guide to provide clinicians serving adult populations in general medical settings with the screening tools and procedures necessary to conduct screening, brief intervention, and/or treatment referral for patients who may have or be at risk of developing an SUD.³⁵ Furthermore, only 7 percent of substance abuse treatment facilities in the United States in 2006 reported having a special program designed specifically for older adults.³⁶ Most of the current U.S. substance abuse treatment is separated from primary care and focused on younger patients.

Almost 60 percent of past year marijuana users in 1997 reported using marijuana to relax,³⁷ suggesting that illicit drug use may be a coping mechanism to deal with personal problems and related stress.³⁸ New prevention and treatment strategies are needed to target stress regulation and impulse control among chronic drug users and to help them develop effective coping mechanisms. The results of this report indicate

that regular attendance at religious services may contribute to the prevention of illicit drug use in the past year among lifetime illicit drug users. This link may reflect the effects of cohesive social networks and social support help cope with stress and deter illicit drug use.^{25,26}

This report has several limitations. First, NSDUH is based on self-report data, which may have recall bias, especially for age-at-first-use data, which, in many cases, require a recall of events from 40 or more years ago.³⁹ The prevalence rates of past year illicit drug use presented in this report are likely to be underestimates because respondents may be influenced by the need for social desirability in responding to survey questions, which may lead to underreporting of illicit drug use.⁴⁰ Second, this study could not examine whether other factors, such as personality (neuroticism), lifetime SUD, social support, and self-efficacy, are associated with past year illicit drug use among past year users aged 50 to 59 because these variables are unavailable in the existing NSDUH data. Finally, although NSDUH can provide suggestive evidence regarding changes in drug use, the cross-sectional nature of the data it collects cannot provide full information on relapse and remission of illicit drug use over the lifespan. Longitudinal studies are needed to fully understand the trajectory of illicit drug use among persons aged 50 to 59 following drug initiation.

Despite these limitations, this is the first report to examine trends in illicit drug use among persons aged 50 to 59 in the United States using the most recent nationally representative samples. Our results highlight current and anticipated future increases in the numbers and proportions of aging adults using illicit drugs; they point to a need to (1) develop effective illicit drug use screening instruments for primary care settings; (2) improve primary care physicians' training in illicit drug use screening, intervention, and treatment; (3) promote integrated care combining medical and behavioral health services to fully address the spectrum of problems that patients bring to the primary care settings; and (4) expand substance abuse treatment programs specially for the new generation of older Americans. These changes in clinical practice will be necessary to improve illicit drug use screening and provide appropriate treatment for the baby boom generation and subsequent cohorts as they enter the later stages of life.

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