

# The NSDUH Report

March 15, 2007

## Patterns and Trends in Inhalant Use by Adolescent Males and Females: 2002-2005

### In Brief

- Inhalant use in the past year among youths aged 12 to 17 remained stable overall and for males between 2002 and 2005; however, the rate of past year inhalant use among females increased from 4.1 percent in 2002 to 4.9 percent in 2005
- Combined data from 2002 to 2005 indicate that recent female inhalant initiates aged 12 to 17 were more likely than their male counterparts to have used glue, shoe polish, or toluene (34.9 vs. 25.8 percent); spray paints (26.1 vs. 20.8 percent); aerosol sprays other than spray paints (23.0 vs. 16.4 percent); correction fluid, degreaser, or cleaning fluid (23.4 vs. 13.6 percent); and amyl nitrite, “poppers,” locker room odorizers, or “rush” (18.2 vs. 11.6 percent). Recent male inhalant initiates were more likely than their female counterparts to have used nitrous oxide or whippets (29.0 vs. 19.3 percent)
- Among recent inhalant initiates, use of nitrous oxide or whippets declined from 31.6 percent in 2002 to 21.3 percent in 2005, while use of aerosol sprays other than spray paints increased from 12.6 percent in 2002 to 25.4 percent in 2005

Inhalants are common household substances that are sniffed or “huffed” to give the user an immediate high. Their easy accessibility, low cost, and ease of concealment make inhalants one of the most commonly used substances among adolescents.<sup>1</sup>

The National Household Survey on Drug Use and Health (NSDUH) asks respondents aged 12 or older questions related to their use of inhalants during their lifetime and in the past year. Inhalants are defined as “liquids, sprays, and gases that people sniff or inhale to get high or to make them feel good.” The categories of inhalants asked about in the survey are (a) amyl nitrite, “poppers,” locker room odorizers, or “rush”; (b) correction fluid, degreaser, or cleaning fluid; (c) gasoline or lighter fluid; (d) glue, shoe polish, or toluene; (e) halothane, ether, or other anesthetics; (f) lacquer thinner or other paint solvents; (g) lighter gases, such as butane or propane; (h) nitrous

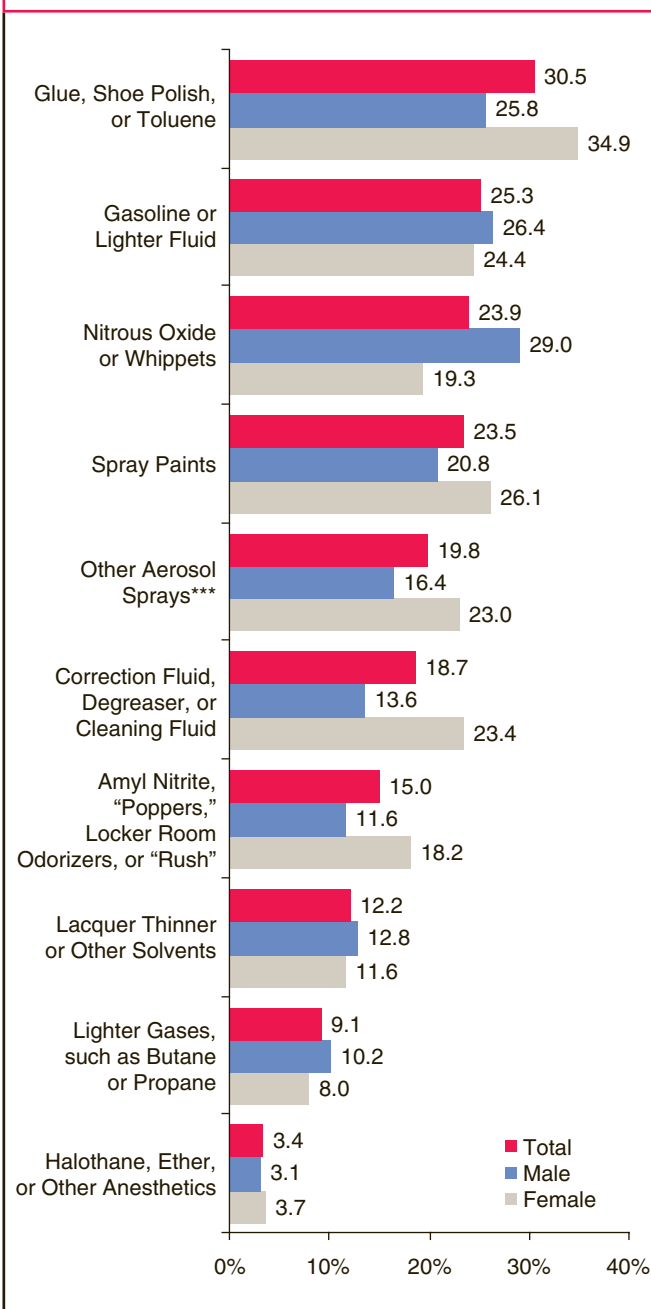
oxide or whippets; (i) spray paints; and (j) other aerosol sprays. *Other aerosol sprays* include products such as aerosol air fresheners, aerosol hair spray, and aerosol cleaning products (e.g., dusting sprays, furniture polish); the category excludes spray paint. Respondents who used inhalants were asked when they first used them; responses to this question were used to identify persons who had initiated use in the 12 months before the survey.<sup>2</sup> This report examines patterns and trends in rates of inhalant use among youths aged 12 to 17 based on data from the 2002, 2003, 2004, and 2005 NSDUHs.

### Inhalant Use, by Gender

Combined data from 2002 to 2005 indicate that an annual average of 4.5 percent of youths aged 12 to 17 (an estimated 1.1 million adolescents) used inhalants in the past year, with males and females being equally likely to report such use. Combined data also indicate that an annual average of 600,000 youths (289,000 males and 311,000 females) were recent initiates of inhalants (i.e., they used inhalants for the first time in the 12 months before the survey); this represents 2.6 percent of all youths who had not previously used inhalants (2.5 percent of males and 2.7 percent of females).

Combined data from 2002 to 2005 indicate that 30.5 percent of recent inhalant initiates used glue, shoe polish, or toluene in the past year; 25.3 percent used gasoline or lighter fluid; 23.9 percent used nitrous oxide or whippets; and 23.5 percent used spray paints (Figure 1). There were some differences in the types of inhalants used by gender. Recent female initiates were more likely than their male counterparts to have used glue, shoe polish, or toluene (34.9 vs. 25.8 percent); spray paints (26.1 vs. 20.8 percent); other aerosol sprays<sup>3</sup> (23.0 vs. 16.4 percent); correction fluid, degreaser, or cleaning fluid (23.4 vs. 13.6 percent); and amyl nitrite, “poppers,” locker room odorizers, or “rush” (18.2 vs. 11.6 percent). Recent male initiates were more likely than their female counterparts to have used nitrous oxide or whippets (29.0 vs. 19.3 percent).

**Figure 1. Percentages of Past Year Use of Specific Types of Inhalants among Recent Inhalant Initiates Aged 12 to 17: 2002-2005<sup>\*,\*\*</sup>**

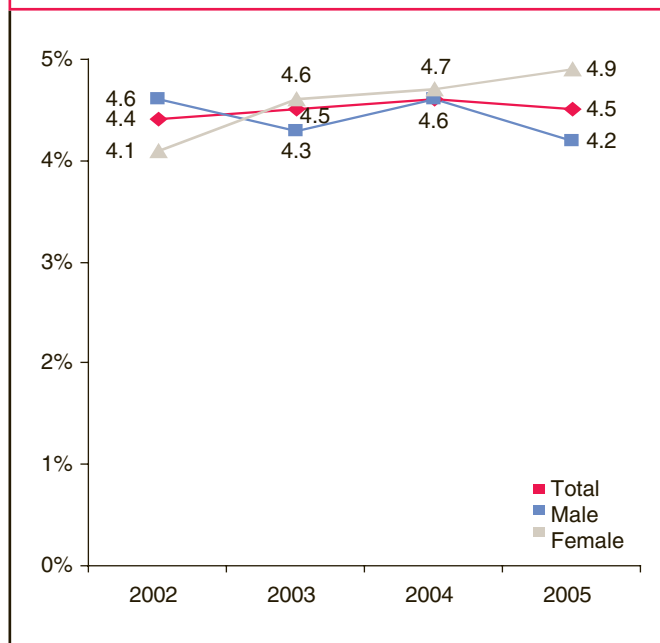


Source: SAMHSA, 2002-2005 NSDUHs.

### Trends in Inhalant Use

Inhalant use in the past year among youths aged 12 to 17 remained stable overall and for males between 2002 and 2005 (Figure 2). However,

**Figure 2. Trends in Past Year Inhalant Use among Youths Aged 12 to 17, by Gender: Percentages, 2002-2005**



Source: SAMHSA, 2002-2005 NSDUHs.

**Table 1. Trends in Past Year Use of Specific Types of Inhalants among Past Year Inhalant Initiates Aged 12 to 17: Percentages, 2002-2005<sup>\*,\*\*</sup>**

Type of Inhalant	2002	2003	2004	2005
Amyl Nitrite, "Poppers," Locker Room Odorizers, or "Rush"	14.0	17.0	12.6	16.4
Correction Fluid, Degreaser, or Cleaning Fluid	15.7	19.7	19.6	19.6
Gasoline or Lighter Fluid	26.2	23.2	25.3	26.7
Glue, Shoe Polish, or Toluene	32.9	30.2	27.7	31.3
Halothane, Ether, or Other Anesthetics	2.9	2.9	4.5	3.4
Lacquer Thinner or Other Paint Solvents	13.9	10.7	10.8	13.3
Lighter Gases, such as Butane or Propane	9.3	9.7	9.2	8.1
Nitrous Oxide or Whippets	31.6	23.0	20.1	21.3
Spray Paints	21.4	23.3	25.4	23.9
Other Aerosol Sprays <sup>***</sup>	12.6	17.6	23.6	25.4

Source: SAMHSA, 2002-2005 NSDUHs.

the rate of past year inhalant use among females increased from 4.1 percent in 2002 to 4.9 percent in 2005. The number of recent inhalant initiates remained relatively stable between 2002 and 2005, with 591,000 youths initiating use of inhalants in 2002 and 605,000 youths initiating use of inhalants in 2005 (for males: 306,000 in 2002 and 268,000 in 2005; for females: 285,000 in 2002 and 337,000 in 2005).

### Trends in Specific Types of Inhalant Use

Among recent inhalant initiates, trends in the use of most of the specific types of inhalants remained relatively stable; however, there were a few exceptions (Table 1). Among recent inhalant initiates, use of nitrous oxide or whippets declined from 31.6 percent in 2002 to 21.3 percent in 2005, and use of other aerosol sprays<sup>3</sup> increased from 12.6 percent in 2002 to 25.4 percent in 2005. Among recent initiates, the rate of use of nitrous oxide or whippets declined among males from 40.2

percent in 2002 to 26.4 percent in 2005, but it remained stable for females. Rates of use of other aerosol sprays<sup>3</sup> among recent inhalant initiates increased for both males (10.9 percent in 2002 to 19.3 percent in 2005) and females (14.3 percent in 2002 to 30.2 percent in 2005).

#### End Notes

<sup>1</sup> Office of Applied Studies. (2006). *Results from the 2005 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 06-4194, NSDUH Series H-30). Rockville, MD: Substance Abuse and Mental Health Services Administration.

<sup>2</sup> Respondents whose age at first inhalant use was equal to or 1 year less than their current age were asked to indicate the month in which they initiated their inhalant use.

<sup>3</sup> Other aerosol sprays includes products such as aerosol air fresheners, aerosol hair spray, and aerosol cleaning products (e.g., dusting sprays, furniture polish); the category excludes spray paint.

#### Figure and Table Notes

\* Recent inhalant initiates are defined as youths who used inhalants for the first time during the 12 months prior to the survey.

\*\* Respondents could report using more than one type of inhalant. Therefore, percentages sum to more than 100 percent.

\*\*\* See end note 3.

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Research findings from the SAMHSA 2002-2005 National Surveys on Drug Use and Health (NSDUHs)

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The National Survey on Drug Use and Health (NSDUH) is an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). Prior to 2002, this survey was called the National Household Survey on Drug Abuse (NHSDA). The 2002, 2003, 2004, and 2005 data used in this report are based on information obtained from 91,145 persons aged 12 to 17, including 46,431 males and 44,714 females. The survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their place of residence.

The NSDUH Report is prepared by the Office of Applied Studies (OAS), SAMHSA, and by RTI International in Research Triangle Park, North Carolina. (RTI International is a trade name of Research Triangle Institute.)

Information on NSDUH used in compiling data for this issue is available in the following publications:

Office of Applied Studies. (2006). *Results from the 2005 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 06-4194, NSDUH Series H-30). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Office of Applied Studies. (2005). *Results from the 2004 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 05-4062, NSDUH Series H-28). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Office of Applied Studies. (2004). *Results from the 2003 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 04-3964, NSDUH Series H-25). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Office of Applied Studies. (2003). *Results from the 2002 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 03-3836, NSDUH Series H-22). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Also available online: <http://www.oas.samhsa.gov>.

Because of improvements and modifications to the 2002 NSDUH, estimates from the 2002, 2003, 2004, and 2005 surveys should not be compared with estimates from the 2001 or earlier versions of the survey to examine changes over time.



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