

# The OAS Report

April 29, 2010

## A Day in the Life of American Adolescents: Substance Use Facts Update

In the United States in 2008, almost one third of adolescents aged 12 to 17 drank alcohol in the past year, around one fifth used an illicit drug, and almost one sixth smoked cigarettes.<sup>1</sup> Although the percentage of

adolescents using alcohol, cigarettes, and illicit drugs declined between 2002 and 2008, the percentage of persons aged 12 to 17 receiving substance abuse treatment remained relatively stable.<sup>2</sup> In addition, the number of adolescents seen in an emergency department (ED) for the use of illicit drugs or the misuse or abuse of pharmaceuticals remained stable from 2004 to 2008.<sup>3</sup> In 2008, 7.5 percent of all persons admitted to publicly funded treatment facilities were aged 12 to 17.<sup>4</sup>

The Office of Applied Studies (OAS) in the Substance Abuse and Mental Health Services Administration (SAMHSA) collects, analyzes, and disseminates critical public health data. OAS manages four national data collections that offer insight into adolescent substance use and treatment: the National Survey on Drug Use and Health (NSDUH), the Treatment Episode Data Set (TEDS), the National Survey of Substance Abuse Treatment Services (N-SSATS), and the Drug Abuse Warning Network (DAWN).<sup>5,6,7,8</sup>

### In Brief

- This issue of *The OAS Report* presents facts about adolescent substance use, including information on the initiation of substance use, past year substance use, emergency department visits, and receipt of substance use treatment
- The data presented in this report are from the 2008 National Survey on Drug Use and Health (NSDUH), the 2008 Treatment Episode Data Set (TEDS), the 2008 National Survey of Substance Abuse Treatment Services (N-SSATS), and the 2008 Drug Abuse Warning Network (DAWN)

This issue of *The OAS Report* presents facts about adolescent substance use, including initiation, receipt of treatment, and emergency department visits for substance use “on an average day.”<sup>9</sup> Data presented in this report from NSDUH, TEDS, and DAWN are for adolescents aged 12 to 17; data presented from N-SSATS are for youths under 18 years old.

### First Substance Use

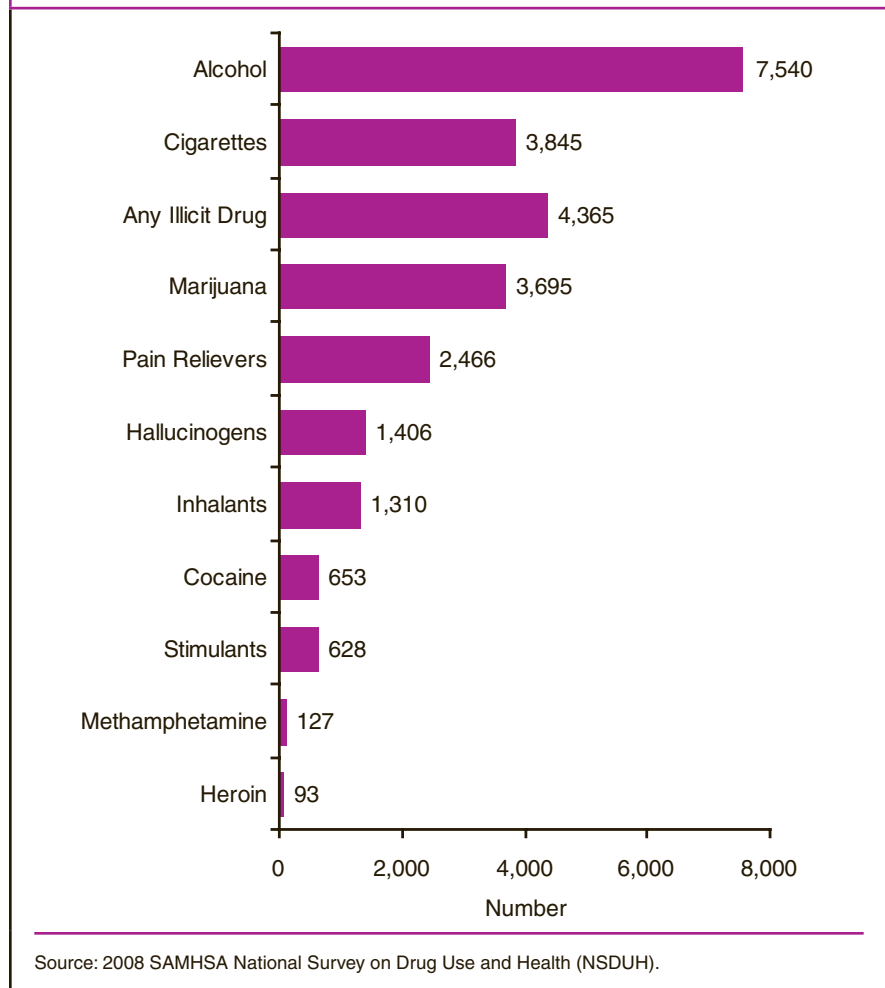
According to the 2008 NSDUH, 10.2 percent of adolescents aged 12 to 17 drank alcohol for the first time in the past year, and 6.0 percent used an illicit drug<sup>10</sup> for the first time. The 2008 NSDUH indicates that, on an average day during the past year, the following numbers of adolescents used the indicated substances for the first time (Figure 1):

- 7,540 drank alcohol for the first time;
- 3,845 smoked cigarettes for the first time;
- 4,365 used an illicit drug for the first time;
- 3,695 used marijuana for the first time;
- 2,466 used prescription pain relievers nonmedically for the first time;
- 1,406 used hallucinogens for the first time;
- 1,310 used inhalants for the first time;
- 653 used cocaine for the first time;
- 628 used licit or illicit stimulants nonmedically for the first time;
- 127 used methamphetamine for the first time; and
- 93 used heroin for the first time.

### Cigarette, Alcohol, and Illicit Drug Use

According to the 2008 NSDUH, 8 million adolescents aged 12 to 17 drank alcohol in the past year, nearly 5

**Figure 1. Number of Adolescents Aged 12 to 17 Who Used Cigarettes, Alcohol, or Illicit Drugs for the First Time on an Average Day: 2008 NSDUH**



million used an illicit drug, and nearly 4 million smoked cigarettes. In addition, on an average day during the past year, the following number of adolescents aged 12 to 17 used the indicated substances (Figure 2):

- 1,021,853 smoked cigarettes;
- 508,329 drank alcohol;
- 563,182 used marijuana;
- 36,572 used inhalants;
- 24,737 used hallucinogens;
- 16,622 used cocaine; and
- 2,866 used heroin.

The 2008 NSDUH indicates that

- adolescents who used alcohol in the past month drank an average of 4.6 drinks per day on the days they drank; and

- adolescents who smoked cigarettes in the past month smoked an average of 4.4 cigarettes per day on the days they smoked.

## Substance Abuse Treatment

TEDS reported that, in 2008, there were 141,683 admissions for adolescents aged 12 to 17 to substance abuse treatment programs (TEDS data come primarily from facilities that receive some public funding). TEDS indicates that, on an average day in 2008, adolescent admissions to treatment presented with the following substances as the primary substance of abuse<sup>11</sup> (Figure 3):

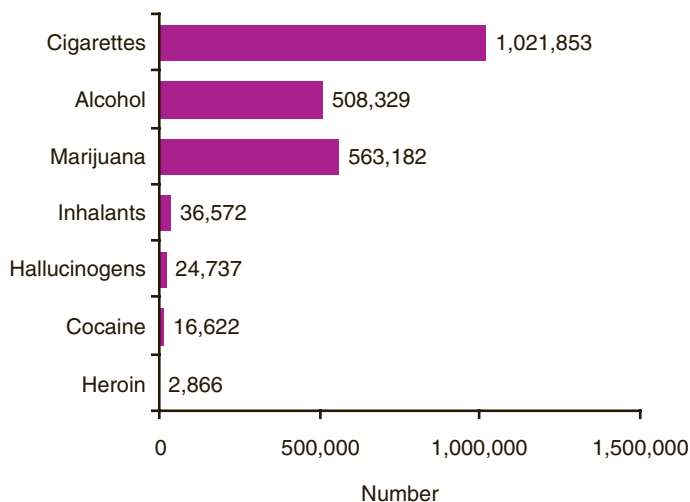
- 263 presented with marijuana;
- 76 presented with alcohol;
- 10 presented with stimulants;
- 9 presented with heroin or other opiates;
- 6 presented with cocaine; and
- 8 presented with other drugs.

TEDS indicates that, on an average day in 2008, adolescent admissions to substance abuse treatment were referred by the following principal sources of referral<sup>12</sup> (Figure 4):

- 184 by the criminal justice system;
- 63 by self-referral or referral from other individuals;
- 46 by community organizations;
- 43 by schools;
- 28 by treatment providers; and
- 18 by other health care professionals.

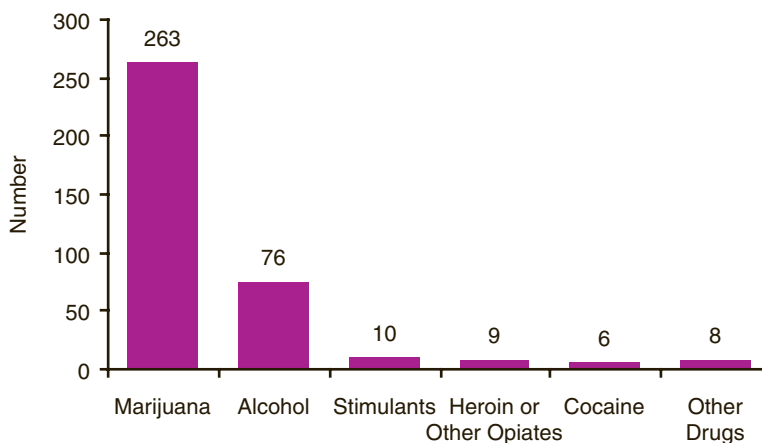
In addition, N-SSATS, which collects information on substance abuse treatment at both publicly and privately funded facilities, reports how many active clients<sup>13</sup> under age 18 received the following types of substance abuse treatment

**Figure 2. Number of Adolescents Aged 12 to 17 Who Used Cigarettes, Alcohol, or Illicit Drugs on an Average Day: 2008 NSDUH**



Source: 2008 SAMHSA National Survey on Drug Use and Health (NSDUH).

**Figure 3. Number of Adolescents Aged 12 to 17 Admitted to Publicly Funded Substance Abuse Treatment Facilities on an Average Day, by Primary Substance of Abuse: TEDS 2008**



Source: 2008 SAMHSA Treatment Episode Data Set (TEDS).

on an average day in 2008 (Figure 5):

- 76,484 were clients in outpatient treatment;
- 9,219 were clients in nonhospital residential treatment; and
- 762 were clients in hospital inpatient treatment.

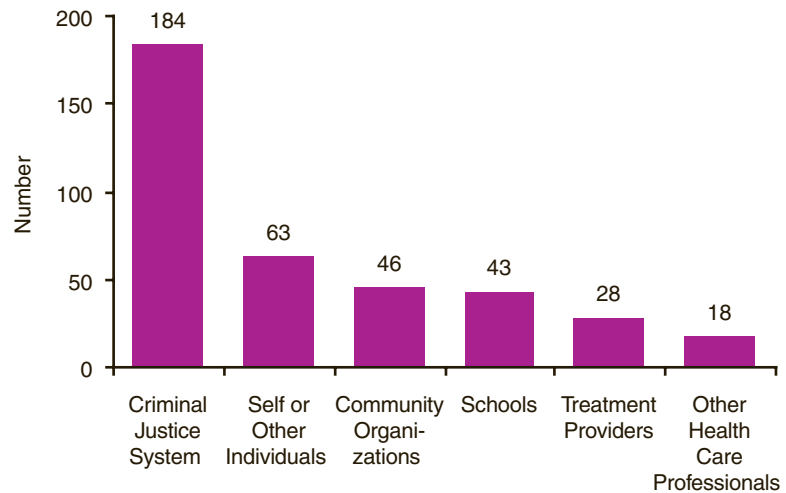
## Emergency Department Visits

DAWN estimates that in 2008 there were about a quarter of a million drug-related ED visits by adolescents aged 12 to 17, of which 169,600 visits involved the use of illicit drugs, alcohol, or intentional misuse or abuse of pharmaceuticals (e.g., prescription medicines, over-the-counter remedies, dietary supplements).<sup>14</sup> On an average day in 2008, there were 723 drug-related ED visits for adolescents aged 12 to 17, of which 465 involved the use of illegal drugs or the misuse or abuse of pharmaceuticals. Various substances were involved in ED visits at the following levels (Figure 6):<sup>15</sup>

- 151 involved alcohol and no other drug;
- 54 involved alcohol taken together with other drugs;
- 129 involved marijuana;
- 18 involved MDMA (i.e., Ecstasy), LSD, PCP, or other hallucinogens;
- 17 involved cocaine;
- 12 involved illicit amphetamines or methamphetamines;
- 6 involved inhalants;
- 5 involved heroin;
- 86 involved prescription or nonprescription pain relievers;
- 31 involved prescription narcotic pain relievers (e.g., hydrocodone, oxycodone);
- 39 involved benzodiazepines;
- 34 involved antidepressants or antipsychotics; and
- 5 involved attention-deficit/hyperactivity disorder (ADHD) medications.

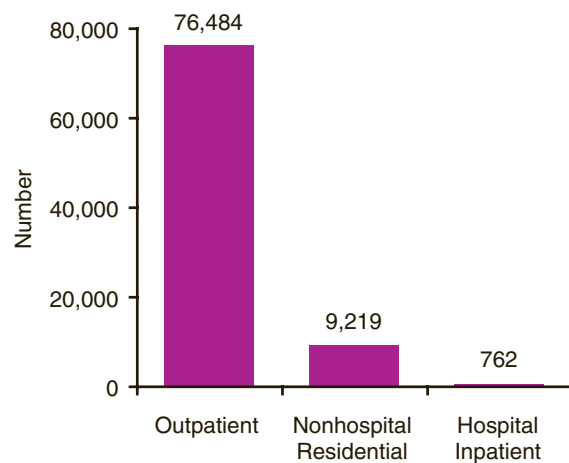
DAWN estimates that, on any given day in 2008, there were 63 ED visits for drug-related suicide attempts among adolescents.

**Figure 4. Number of Adolescents Aged 12 to 17 Admitted to Publicly Funded Substance Abuse Treatment Facilities on an Average Day, by Principal Source of Referral: TEDS 2008**



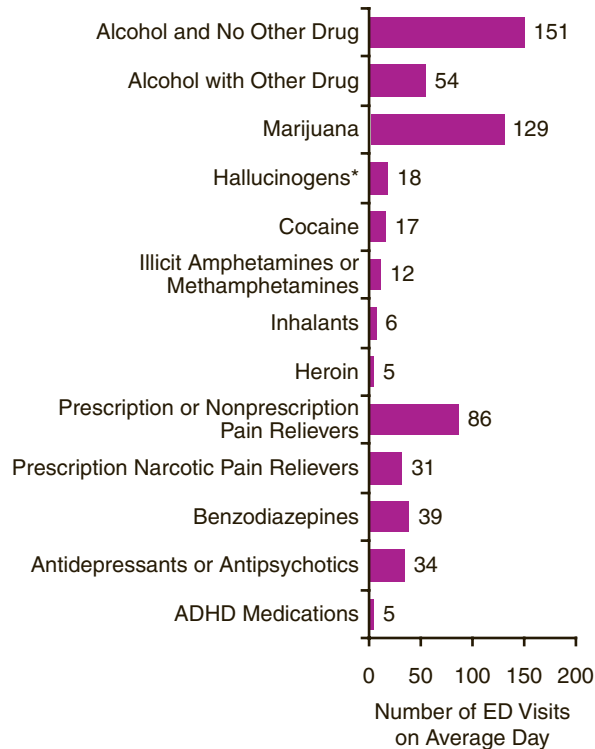
Source: 2008 SAMHSA Treatment Episode Data Set (TEDS).

**Figure 5. Number of Clients under Age 18 Who Were Clients in Publicly or Privately Funded Substance Abuse Treatment Facilities on an Average Day, by Service Type: 2008 N-SSATS**



Source: 2008 SAMHSA National Survey of Substance Abuse Treatment Services (N-SSATS).

**Figure 6. Number of Emergency Department (ED) Visits for Drug Misuse or Abuse on an Average Day for Patients Aged 12 to 17, by Selected Types of Drugs: 2008 DAWN**



\* Includes MDMA (i.e., Ecstasy), LSD, PCP, and other hallucinogens.  
 Source: 2008 (08/2009 update) SAMHSA Drug Abuse Warning Network (DAWN).

**End Notes**

- Office of Applied Studies. (2009). *Results from the 2008 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 09-4434, NSDUH Series H-36). Rockville, MD: Substance Abuse and Mental Health Services Administration. [Available at <http://oas.samhsa.gov/nsduh/2k8nsduh/2k8Results.cfm>]
- Office of Applied Studies. (2009, September). *Results from the 2008 National Survey on Drug Use and Health: Detailed tables*. Rockville, MD: Substance Abuse and Mental Health Services Administration. [Available at <http://oas.samhsa.gov/NSDUH/2k8NSDUH/tabs/TOC.htm>]
- Office of Applied Studies. (2009). *Drug Abuse Warning Network: Detailed tables of national estimates of drug-related emergency department visits, 2004–2008*. Rockville, MD: Substance Abuse and Mental Health Services Administration. [Available at <https://dawninfo.samhsa.gov/data/>]
- Substance Abuse and Mental Health Services Administration, Office of Applied Studies. (2009). *Treatment Episode Data Set (TEDS)* [data file]. Data received through August 31, 2009.
- NSDUH is the Nation’s primary source of information on the prevalence of illicit drug use among the civilian, noninstitutionalized population aged 12 or older, and it also provides estimates of alcohol and tobacco use and mental health problems. Begun in 1971 and conducted annually since 1990, NSDUH is sponsored by SAMHSA and collects data from a nationally representative sample of the population aged 12 or older. NSDUH data are collected through face-to-face, computer-assisted interviews at the respondent’s place of residence. Items on sensitive topics such as drug use are self-administered to ensure privacy and promote accurate reporting.
- TEDS is an annual compilation of data on the demographic characteristics

and substance abuse problems of those admitted to substance abuse treatment, primarily at facilities that receive some public funding. TEDS records represent admissions rather than individuals because a person may be admitted to substance abuse treatment more than once during a single year. TEDS collected data on 1.9 million admissions aged 12 or older to substance abuse treatment facilities for 2008. Two States (Alaska and Georgia) either did not submit data or submitted less than a full calendar year of data for 2008. The TEDS information presented in this issue is based on data received through August 31, 2009.

- N-SSATS is an annual survey of all known facilities in the United States, both public and private, that provide substance abuse treatment. N-SSATS is a point-prevalence survey with a reference date of the last weekday in March (e.g., March 31, 2008). For this report, “on an average day” refers to that point-prevalence date. This report presents estimates based on data from the 4,569 facilities that reported treating clients younger than 18 years old.
- DAWN is a public health surveillance system that monitors drug-related ED visits in a probability sample of hospitals. DAWN produces annual estimates of drug-related ED visits for the United States and selected metropolitan areas. All ED visits or deaths related to recent use of illegal drugs, other pharmaceutical substances (including dietary supplements and alternative medicines), and alcohol combined with drugs are represented in DAWN. Visits are determined to be related to drug abuse or misuse based on visit characteristics. Alcohol use is always considered to be drug abuse for minors even if no other substances are involved. DAWN classifies drugs based on their therapeutic uses; the method of classifying drugs was derived from the Multum *Lexicon*, Copyright 2008, Multum Information Services, Inc. The Multum Licensing Agreement can be found in DAWN annual publications and at <http://www.multum.com/license.htm>. Data used in this report were obtained from the August 2009 DAWN update.
- For NSDUH, the number of adolescents who used alcohol or illicit drugs “on an average day” is calculated by summing the weighted past month frequency of use (0 to 30 days) for each respective substance and dividing by 30. The number of adolescents who used alcohol, cigarettes, or illicit drugs for the first time in the past year “on an average day” is calculated by summing the weighted counts of respondents who both initiated substance use in the past year and were calculated to be between the ages of 12 and 17 at the time of first use and dividing by 365. The average number of cigarettes smoked or alcoholic drinks consumed per day in the past month among past month users is calculated using a weighted average or mean of the number of cigarettes or drinks reported by past month users. For TEDS, admission totals “on an average day” were calculated by dividing the annual admission total by 365. For N-SSATS, “on an average day” refers to the point-prevalence date of March 31, 2008. For DAWN, ED visits “on an average day” were calculated by dividing the annual estimate of visits by 365.
- For NSDUH, illicit drugs include marijuana/hashish, cocaine (including crack), inhalants, hallucinogens, heroin, or prescription-type drugs used nonmedically. Nonmedical use is defined as the use of prescription-type drugs not prescribed for the respondent by a physician or used only for the experience or feeling they caused. Nonmedical use of any prescription-type pain reliever, sedative, stimulant, or tranquilizer does not include over-the-counter drugs. Nonmedical use of stimulants includes methamphetamine use.
- The primary substance of abuse is the main substance reported at the time of admission.
- The principal source of referral is the person or agency referring the client to the alcohol or drug abuse treatment program.
- The number of active clients in treatment in the 2008 N-SSATS was defined as (1) hospital inpatient and residential (nonhospital) clients receiving substance abuse treatment services at the facility on March 31, 2008, and (2) outpatient clients who were seen at the facility for a substance abuse treatment or detoxification service at least once during the month of March 2008 and who were still enrolled in treatment as of March 31, 2008.
- The balance primarily involved adverse reactions to and accidental ingestion of drugs.
- Many ED visits involve multiple drugs. The sum of visits by drug will be greater than the total number of visits.

**Suggested Citation**

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

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The National Survey on Drug Use and Health (NSDUH), the Treatment Episode Data Set (TEDS), the National Survey of Substance Abuse Treatment Services (N-SSATS), and the Drug Abuse Warning Network (DAWN) are four major data collections conducted by the Substance Abuse and Mental Health Services Administration's Office of Applied Studies (SAMHSA/OAS).

NSDUH is an annual survey that collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their place of residence. The 2008 past year use data for this report are based on information obtained from 22,546 persons aged 12 to 17. Data related to past year substance initiation between the ages of 12 and 17 are based on information obtained from 25,910 persons aged 12 to 18.

TEDS data are collected through State administrative systems and then are submitted to SAMHSA. They include information on admissions to substance abuse treatment primarily from facilities that receive some public funding. The TEDS 2008 data presented in this report are based on data received through August 31, 2009, and include data from 141,683 admissions aged 12 to 17.

N-SSATS is an annual census of all known substance abuse treatment facilities in the United States. On the survey reference date of March 31, 2008, there were 86,465 clients younger than age 18 in 4,569 facilities. Facilities responded to the survey via mail, Internet, or telephone.

Trained DAWN staff review medical records (charts) of emergency department (ED) visits on an ongoing basis at a nationally representative sample of hospitals to find drug-related ED visits that meet the DAWN case criteria. The estimates presented in this report were based on the 351,697 drug-related visits found through a review of 9,818,812 charts for ED visits occurring in calendar year 2008 in 231 hospitals.

For more information, see the following publications:

Office of Applied Studies. (2009). *Results from the 2008 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 09-4434, NSDUH Series H-36). Rockville, MD: Substance Abuse and Mental Health Services Administration. Also available online: <http://oas.samhsa.gov>.

Office of Applied Studies. (2010). *Treatment Episode Data Set (TEDS): 1998-2008. National admissions to substance abuse treatment services* (HHS Publication No. SMA 09-4471, DASIS Series S-50). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Office of Applied Studies. (2009). *National Survey of Substance Abuse Treatment Services (N-SSATS): 2008. Data on substance abuse treatment facilities* (HHS Publication No. SMA 09-4451, DASIS Series S-49). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Office of Applied Studies. (2009). *Drug Abuse Warning Network: Detailed tables of national estimates of drug-related emergency department visits, 2004-2008*. Rockville, MD: Substance Abuse and Mental Health Services Administration. [Available at <https://dawninfo.samhsa.gov/data/>]

*The OAS 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.)



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