

The Nation's Vital Statistics System

THE OLDEST CONTINUAL REPORTING SYSTEM: MORE RELEVANT THAN EVER

A TALE OF DATA AND THE DEATH CERTIFICATE
from the NATIONAL CENTER FOR HEALTH STATISTICS



Current Federal Statistical System



National Center for Health Statistics

MONITORING THE NATION'S HEALTH

- **Conducts health surveys**
- **Collects and disseminates data**
- **Identifies trends and disparities**

To guide public health and policy



Data Collection Systems

Programs

Topics

Data and Tools

Publications

News and Events

A MATTER OF TRUST

Unbiased and timely data of the highest quality published regularly for policy makers and the public by federal statistical agencies.

INTEGRITY

Stat of the Day

Among unmarried men in the U.S. who had sex in the last three months, more than 8 in 10 (81.7%) reported using any method of contraception.

Source: [National Survey of Family Growth](#)

What's New

Unmarried Men's Contraceptive Use at Recent Sexual Intercourse: United States, 2011-2015

Data Brief, No. 284 (8/31/2017)

Health Insurance Coverage: Estimates From the National Health Interview Survey, January - March 2017

NHIS Early Release (8/29/2017)

Health Insurance Coverage: Early Release of Quarterly Estimates From the National Health Interview Survey, January 2010-March 2017

NHIS Early Release (8/29/2017)

Data Quality Assessment of the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey

Series 2, No. 174 (8/28/2017)

National Center for Health Statistics Data Presentation Standards for Proportions

Series 2, No. 175 (8/21/2017)

About NCHS

- Budget

National Health Statistics Reports

No. 105. Condom Use During Sexual Intercourse Among Women and Men Aged 15-44 in the United States: 2011-2015 National Survey of Family Growth. 18 pp. (PHS) 2017-1250. August 10, 2017. [PDF - 431 KB]

No. 104. Sexual Activity and Contraceptive Use Among Teenagers in the United States, 2011-2015. 23 pp. (PHS) 2017-1250. June 22, 2017. [PDF - 422 KB]

No. 103. FRAX-based Estimates of 10-year Probability of Hip and Major Osteoporotic Fracture Among Adults Aged 40 and Over: United States, 2013 and 2014. 16 pp. (PHS) 2017-1250. March 28, 2017. [PDF - 1.12 MB]

No. 102. Ambulatory Surgery Data From Hospitals and Ambulatory Surgery Centers: United States, 2010. 15 pp. (PHS) 2017-1250. February 28, 2017. [PDF - 471 KB]

No. 101. Characteristics of Primary Care Physicians in Patient-centered Medical Home Practices: United States, 2013. 9 pp. (PHS) 2017-1250. February 17, 2017. [PDF - 301 KB] [Supplemental tables](#) [PDF - 75 KB]

No. 100. Proposed ICD-10-CM Surveillance Case Definitions for Injury Hospitalizations and Emergency Department Visits. 8 pp. (PHS) 2017-1250. January 23, 2017. [PDF - 364 KB]

No. 99. Sports- and Recreation-related Injury Episodes in the United States, 2011-2014. 12 pp. (PHS) 2017-1250. November 18, 2016. [PDF - 272 KB]

No. 98. Use of Complementary Health Approaches for Musculoskeletal Pain Disorders Among Adults: United States, 2012. 12 pp. (PHS) 2016-1250. October 12, 2016. [PDF - 301 KB]

No. 97. National Hospital Care Survey Demonstration Projects: Traumatic Brain Injury. 12 pp. (PHS) 2016-1250. July 27, 2016. [PDF - 475 KB]

NCHS Data Briefs

No. 284. [Unmarried Men's Contraceptive Use at Recent Sexual Intercourse: United States, 2011-2015](#). 8 pp. (PHS) 2017-1209. August 2017. [PDF - 495 KB]

No. 283. [Antidepressant Use in Persons Aged 12 and Over: United States, 2011-2014](#). 8 pp. (PHS) 2017-1208. August 2017. [PDF - 495 KB]

No. 282. [Drug Overdose Deaths Among Adolescents Aged 15-19 in the United States, 2010-2014](#). 8 pp. (PHS) 2017-1207. August 2017. [PDF - 383 KB]

No. 281. [Vaccination Coverage Among Adults Aged 65 and Over: United States, 2015](#). 8 pp. (PHS) 2017-1206. August 2017. [PDF - 383 KB]

No. 280. [Prevalence of HPV in Adults Aged 18-69: United States, 2011-2014](#). 8 pp. (PHS) 2017-1205. August 2017. [PDF - 383 KB]

No. 279. [Trends in Infant Mortality in the United States, 2005-2014](#). 8 pp. (PHS) 2017-1204. August 2017. [PDF - 383 KB]

[...ion Who Are Unaware of Their Hy](#)

[...wainian and Pacific Islander Adults:](#)

[...Cholesterol Among Adults, by Phys](#)

[...ple Chronic Conditions: United Sta](#)

[...Cancer and Heart Disease Among I](#)

[...999-2015, 8 pp. \(PHS\) 2017-1209](#)

[...Illness Among Adults Aged 65 and C](#)

Drug Overdose Deaths Among Adolescents Aged 15–19 in the United States: 1999–2015



NCHS Data Brief No. 282, August 2017

[PDF Version](#) (383 KB)

Sally C. Curtin, M.A., Betzaida Tejada-Vera, M.S., and Margaret Warner, Ph.D.

Key findings

Data from the National Vital Statistics System

- The death rate due to drug overdose among adolescents aged 15–19 more than doubled from 1999 (1.6 per 100,000) to 2007 (4.2), declined by 26% from 2007 to 2014 (3.1), and then increased in 2015 (3.7).
- The drug overdose death rate increased between 1999 and the mid-2000s for both males and females but only males had a subsequent decline between 2007 and 2014.
- For both male and female adolescents, the majority of drug overdose deaths in 2015 were unintentional.
- Death rates for drug overdoses among those aged 15–19 in 2015 were highest for opioids, specifically heroin.

Drug overdose deaths in the United States are a pressing public health challenge (1–3). In particular, overdoses involving opioids have increased since 1999 (1). This report focuses specifically on drug overdoses among adolescents aged 15–19. In 2015, 772 drug overdose deaths occurred in this age group, presented and trends compared for both females and males. In 2015, deaths were categorized by intent (e.g., unintentional, suicide, homicide)

On This Page

- Key findings
- After increasing from 1999 through 2007, drug overdose death rates for adolescents aged 15–19 declined through 2014, but then increased in 2015.
- The majority of drug overdose deaths in 2015 for both males and females were unintentional.
- Rates of drug overdose deaths involving opioids among adolescents aged 15–19 tripled from 1999 to 2007, generally declined from 2007 to 2014, and then increased in 2015.
- Among opioids, rates of drug overdose deaths among adolescents aged 15–19 in 2015 were highest for heroin.
- Summary
- Data source and methods
- About the authors
- References

Births and deaths were first collected nationally with the 1850 census

THE NATIONAL VITAL STATISTICS SYSTEM



States now collect vital statistics with the registration of births and deaths

THE NATIONAL VITAL STATISTICS SYSTEM



**What has death certificate data
information been used for?**

Drug Overdose Deaths Among Adolescents Aged 15–19 in the United States: 1999–2015

Infant Mortality Rates in Rural and Urban Areas in the United States, 2014

Cause of Fetal Death: Data From the Fetal Death Report, 2014

MORTALITY IN THE UNITED STATES, 2015

Using Literal Text From the Death Certificate to Enhance Mortality Statistics:

Characterizing Drug Involvement in Deaths

Drugs Most Frequently Involved in Drug Overdose Deaths: United States, 2010–2014

DRUG OVERDOSE DEATHS IN THE UNITED STATES, 1999–2015

Declines in Cancer Death Rates Among Children and Adolescents in the United States, 1999–2014

What are the **strengths** of the system?

THE NATIONAL VITAL STATISTICS SYSTEM

- **All deaths are reported: 2.6 million**
- **All medical conditions contributing to death can be reported**
- **Strong demographic data on the deceased are provided**

What were the **weaknesses** of the system?

THE NATIONAL VITAL STATISTICS SYSTEM

- **Timeliness of reporting deaths**
- **Quality of reporting on medical conditions**
- **Timeliness in coding of medical conditions**
- **Timeliness in processing and reporting findings**
- **Annual reporting**



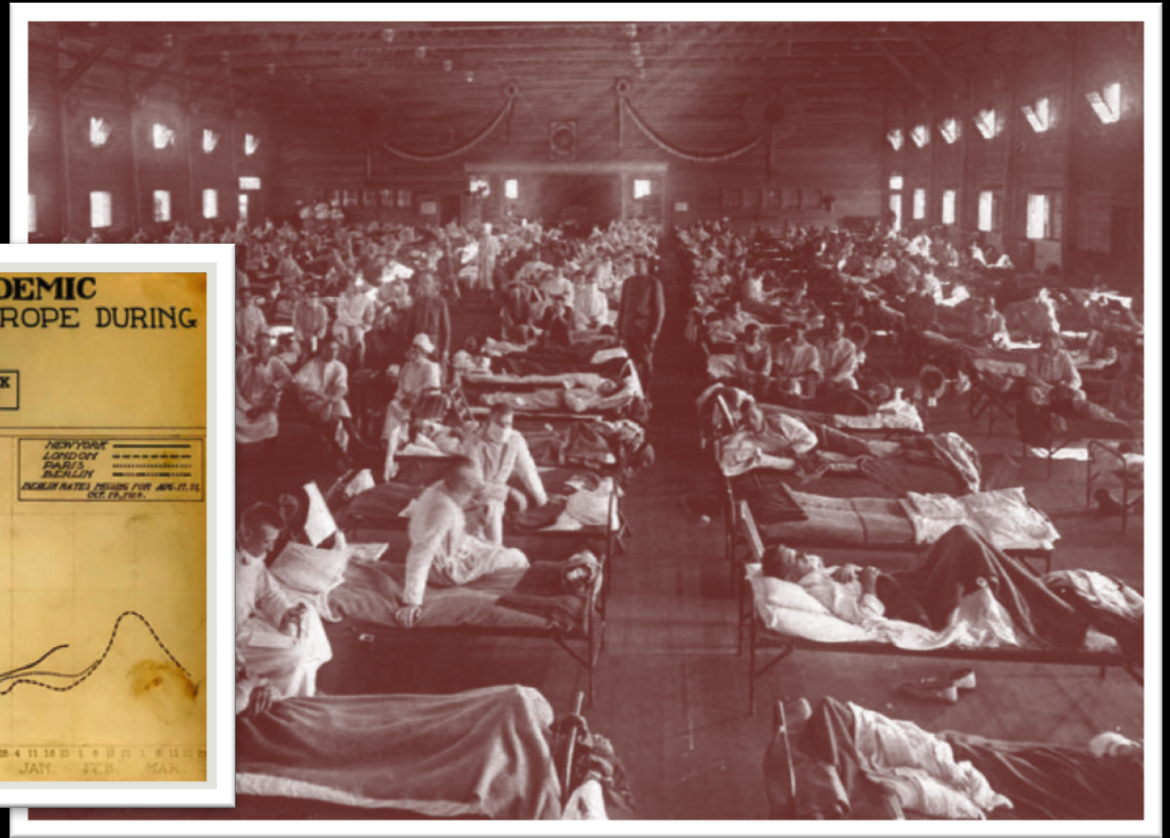
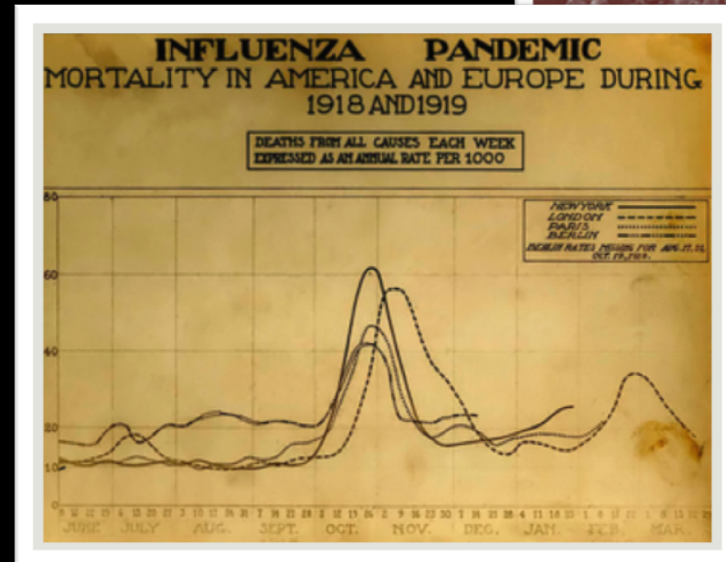
**How could the reporting
of deaths **then**...
monitor emerging diseases or
fast-moving epidemics **now**?**

Not well!

1918 Spanish flu

The National Vital Statistics System

- **675,000 estimated deaths**
- **Vital statistics system not yet complete**



The emergence of HIV

THE NATIONAL VITAL STATISTICS SYSTEM

- 1981** CDC reports first outbreak of HIV
- 1984** 3,500 estimated as being HIV+
- 1994** HIV / AIDS becomes the leading cause of death for men aged 25–44



Vital Statistics System's response to HIV

THE NATIONAL VITAL STATISTICS SYSTEM

1984 Deaths not reported until 1988; HIV / AIDS not yet classified in *International Classification of Diseases*

1994 Deaths not reported until September 1996, 2.75 years after the event

2012 Data still being reported 22 months after the year deaths occurred

**The system was not all bad.
We had the data...
we could have reported
events as they happened...
we just needed to **SPEED** up
by light-years!**



The background of the slide is a dark blue to black gradient, overlaid with a complex, glowing network of light blue and white lines and squares. These elements resemble a digital circuit board or a data network map, with some squares appearing as nodes or data packets. The lines connect these nodes in a web-like pattern, creating a sense of dynamic connectivity and technological advancement.

**Today, technologies
and partnerships
are accelerating
capabilities for
using data from
death certificates**

THE NATIONAL VITAL STATISTICS SYSTEM

What changes have already been made?

THE NATIONAL VITAL STATISTICS SYSTEM

- **Standards-based Web systems run by states at the source—funeral directors, certifying physicians, medical examiners, and coroners**
- **Responsive systems at state level**
- **Automated coding systems at national level with overnight results**
- **Online tutorials**
- **Faster reporting—quarterly and monthly**

What *new* changes are being made now?

THE NATIONAL VITAL STATISTICS SYSTEM

- **Web-based editing at the source, for better quality**
- **Connecting to electronic health records**
- **Geocoding—but after the fact**

What are the results?

Timeliness reporting

THE PROPORTION OF MORTALITY RECORDS RECEIVED AT NCHS WITHIN 10 DAYS OF THE DATE OF THE EVENT



Vital Statistics Rapid Release: United States

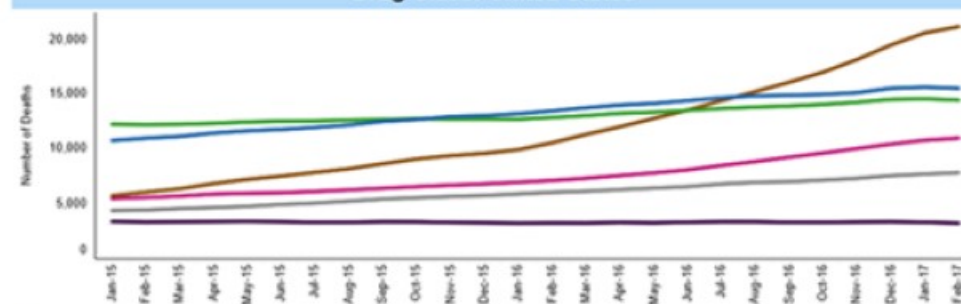
THE NATIONAL VITAL STATISTICS SYSTEM

Based on data available for analysis on: September 3, 2017

Select State

United States

Figure 2. 12 Month-ending Provisional Counts of Drug Overdose Deaths by Drug or Drug Class: United States



Legend for drug or drug class

Heroin (T40.1)

Natural & semi-synthetic opioids (T40.2)

Synthetic opioids, excl. methadone (T40.4)

Cocaine (T40.5)

Psychostimulants with abuse potential (T43.6)

Methadone (T40.3)

Table 2. 12 Month-ending Provisional Counts of Drug Overdose Deaths by Drug or Drug Class, Selected Jurisdictions

		Heroin (T40.1)	Natural & semi-synthetic opioids (T40.2)	Methadone (T40.3)	Synthetic opioids, excl. methadone (T40.4)	Cocaine (T40.5)	Psychostimulants with abuse potential (T43.6)	Percent with drugs specified
United States	Feb-16	13,478	12,877	3,293	10,583	7,151	6,070	83
	Feb-17	15,549	14,465	3,274	21,163	11,008	7,866	86

Vital Statistics Rapid Release: D.C.

THE NATIONAL VITAL STATISTICS SYSTEM

Based on data available for analysis on: September 3, 2017

Select State

District of Columbia

Figure 2. 12 Month-ending Provisional Counts of Drug Overdose Deaths by Drug or Drug Class: District of Columbia

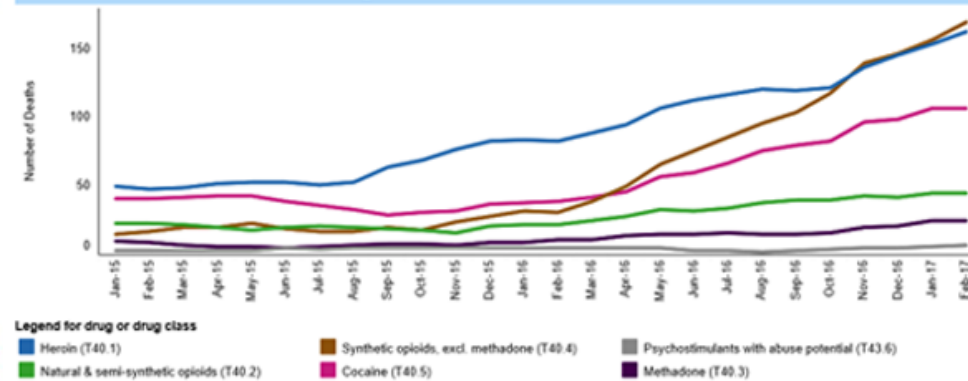


Table 2. 12 Month-ending Provisional Counts of Drug Overdose Deaths by Drug or Drug Class, Selected Jurisdictions

		Heroin (T40.1)	Natural & semi-synthetic opioids (T40.2)	Methadone (T40.3)	Synthetic opioids, excl. methadone (T40.4)	Cocaine (T40.5)	Psychostimulants with abuse potential (T43.6)	Percent with drugs specified
United States	Feb-16	13,478	12,877	3,293	10,583	7,151	6,070	83
	Feb-17	15,549	14,465	3,274	21,163	11,008	7,866	86

Vital Statistics Rapid Release: Virginia

THE NATIONAL VITAL STATISTICS SYSTEM

Based on data available for analysis on: September 3, 2017

Select State

Virginia

Figure 2. 12 Month-ending Provisional Counts of Drug Overdose Deaths by Drug or Drug Class: Virginia

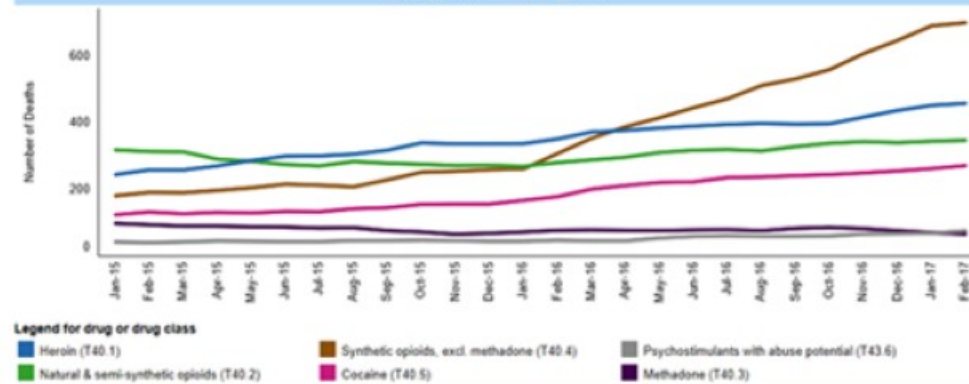


Table 2. 12 Month-ending Provisional Counts of Drug Overdose Deaths by Drug or Drug Class, Selected Jurisdictions

		Heroin (T40.1)	Natural & semi-synthetic opioids (T40.2)	Methadone (T40.3)	Synthetic opioids, excl. methadone (T40.4)	Cocaine (T40.5)	Psychostimulants with abuse potential (T43.6)	Percent with drugs specified
United States	Feb-16	13,478	12,877	3,293	10,563	7,151	6,070	83
	Feb-17	15,549	14,465	3,274	21,163	11,008	7,866	86

Vital Statistics Rapid Release: Maryland

THE NATIONAL VITAL STATISTICS SYSTEM

Based on data available for analysis on: September 3, 2017

Select State

Maryland

Figure 2. 12 Month-ending Provisional Counts of Drug Overdose Deaths by Drug or Drug Class: Maryland

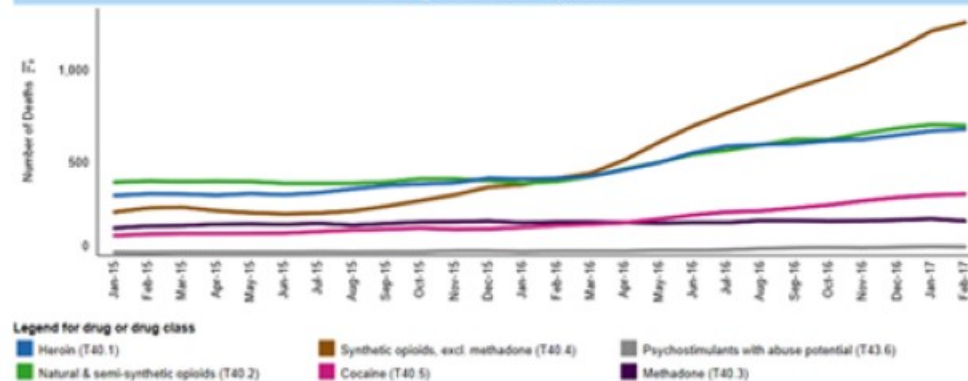


Table 2. 12 Month-ending Provisional Counts of Drug Overdose Deaths by Drug or Drug Class, Selected Jurisdictions

		Heroin (T40.1)	Natural & semi-synthetic opioids (T40.2)	Methadone (T40.3)	Synthetic opioids, excl. methadone (T40.4)	Cocaine (T40.5)	Psychostimulants with abuse potential (T43.6)	Percent with drugs specified	
United States	Feb-16	13,478	12,877	3,293	10,583	7,151	6,070	83	26
	Feb-17	15,549	14,465	3,274	21,163	11,008	7,866	86	

Challenges ahead

THE NATIONAL VITAL STATISTICS SYSTEM

- **Redo automated coding system for more complete coding—beyond today's 78% of records**
- **Obtain certifying physician and medical examiner access to decedent's electronic health records**
- **Geocoding at the source**
- **Secure 80% of all death records within 10 days of date of death**