

# Board of Scientific Counselors



Jennifer Madans, PhD

Acting Director, National Center for Health Statistics

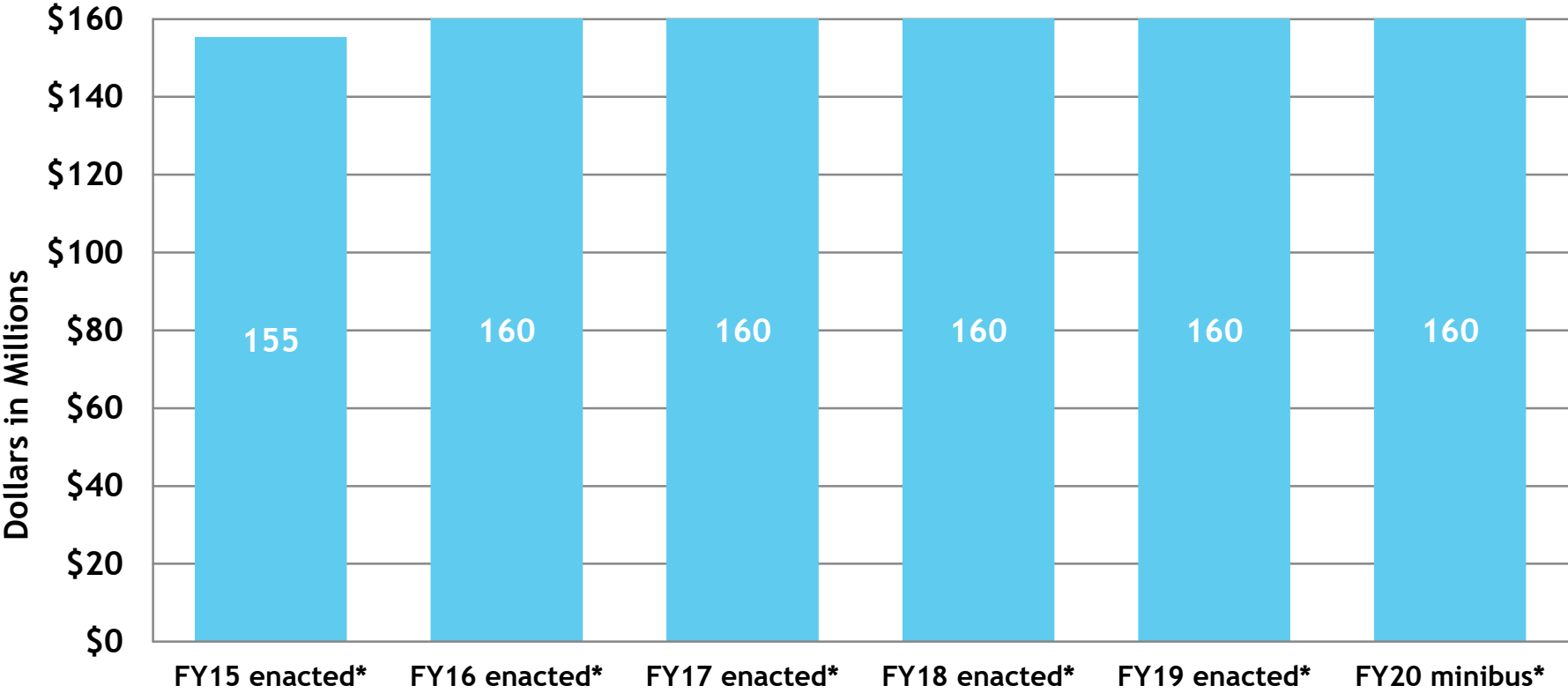
January 9, 2020





# Administrative and Budget Updates

# NCHS Budget

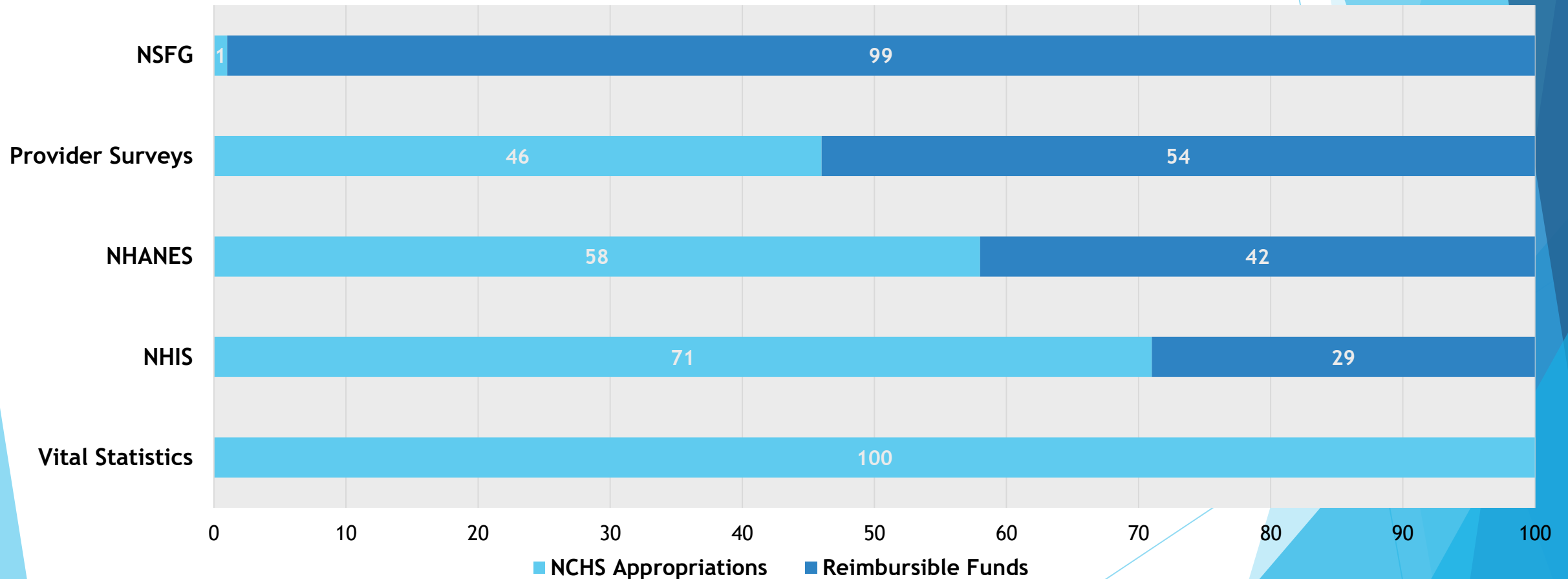


- ▶ \*Amount includes funding for administrative and business services through the CDC Working Capital Fund.
- ▶ Not included: NCHS relies on an additional transfer from CDC’s Public Health and Scientific Services Account, about \$14 million annually.

# FY 2020 Appropriations

- ▶ Appropriations allocates an additional \$50 million to CDC for “Public Health Data Surveillance/IT Systems Modernization”
- ▶ Joint Explanatory Statement: “CDC is directed to provide a multi-year plan, including at least five years of budget projections, as well as the innovation strategy for surveys conducted by the National Center for Health Statistics to the Committees no later than 120 days after enactment of this Act.”

# Percentage of NCHS Data Collections Funded by Reimbursable Dollars in FY 2019

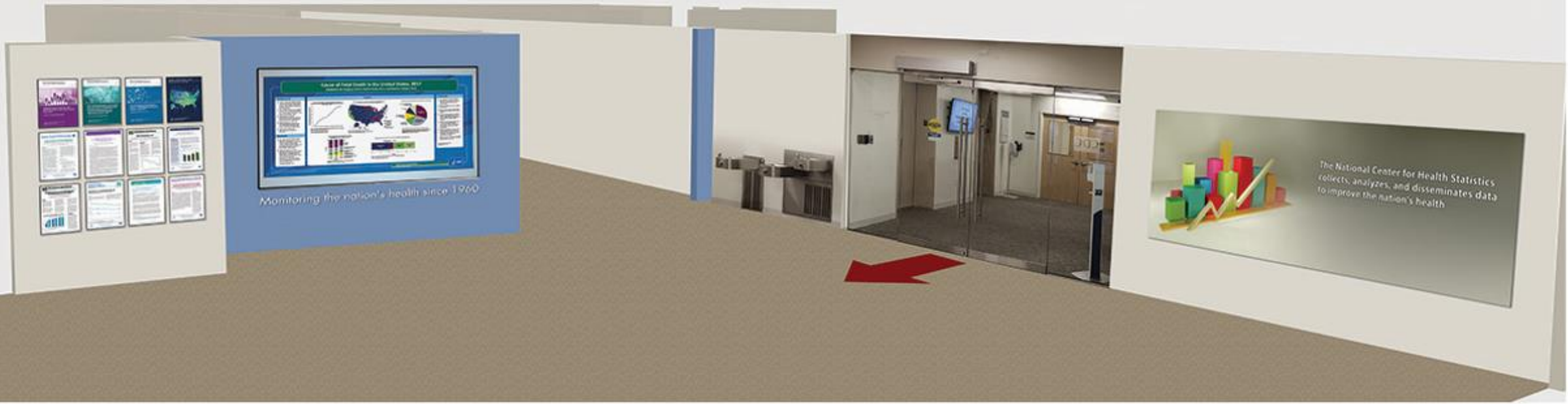


# Additional NCHS Funding

<b>Funding Type</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b><i>FY 2020 (request)</i></b>
<b>Patient-Centered Outcomes Research (PCOR) Initiative*</b>	<b>\$4,826,561</b>	<b>\$1,556,845</b>	<b>\$960,000</b>
<b>Opioid Response Coordinating Unit (ORCU)</b>	<b>\$7,830,000</b>	<b>\$13,249,000</b>	<b>\$4,000,000</b>
<b>TOTAL</b>	<b>\$12,656,561</b>	<b>\$14,805,845</b>	<b>\$4,960,000</b>

# A New Look for NCHS

View looking towards elevator







# Wall Graphic



The National Center for Health Statistics collects, analyzes, and disseminates data to improve the nation's health

# Top View



# Health, United States Wall



## Health, United States

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# Program updates

# Division of Vital Statistics (DVS): Maternal Mortality Data Release

- ▶ NCHS will resume publication of maternal mortality statistics with release of the final 2018 mortality data on **January 30, 2020**
- ▶ 3 reports:
  1. **Evaluation of the Pregnancy Status Checkbox on the Identification of Maternal Deaths** - addresses the impact of the inclusion of a pregnancy status checkbox item on the U.S. Standard Certificate of Death on the number of deaths classified as maternal
  2. **The Impact of the Pregnancy Checkbox and Misclassification on Maternal Mortality Trends in the US, 1999-2017** - models the impact of the staggered implementation of the pregnancy checkbox and potential outcome misclassification on MMRs and related trends
  3. **Maternal mortality in the United States: Changes in coding, publication, and data release, 2018** - presents changes in how NCHS will code (using a new method), publish and release maternal mortality data along with official 2018 maternal mortality estimates

# Planned Improvements in the Collection of Maternal Mortality Data

- ▶ Understand errors in the pregnancy checkbox and how to correct these errors
  - ▶ Examine existing EDR systems to see if improvements in design could help improve the data
  - ▶ Develop web service designed to prompt the cause of death certifier to confirm the information provided in the checkbox item
- ▶ Encourage cooperation between state vital records and state maternal and child health agencies
  - ▶ Rapid assessment of deaths of women of reproductive age
  - ▶ Linkages for deaths of women of reproductive age with birth and fetal death records
- ▶ New information derived from the assessment must be incorporated in the vital statistics system

# Division of Health Interview Statistics

## 2019 Redesigned National Health Interview Survey (NHIS)

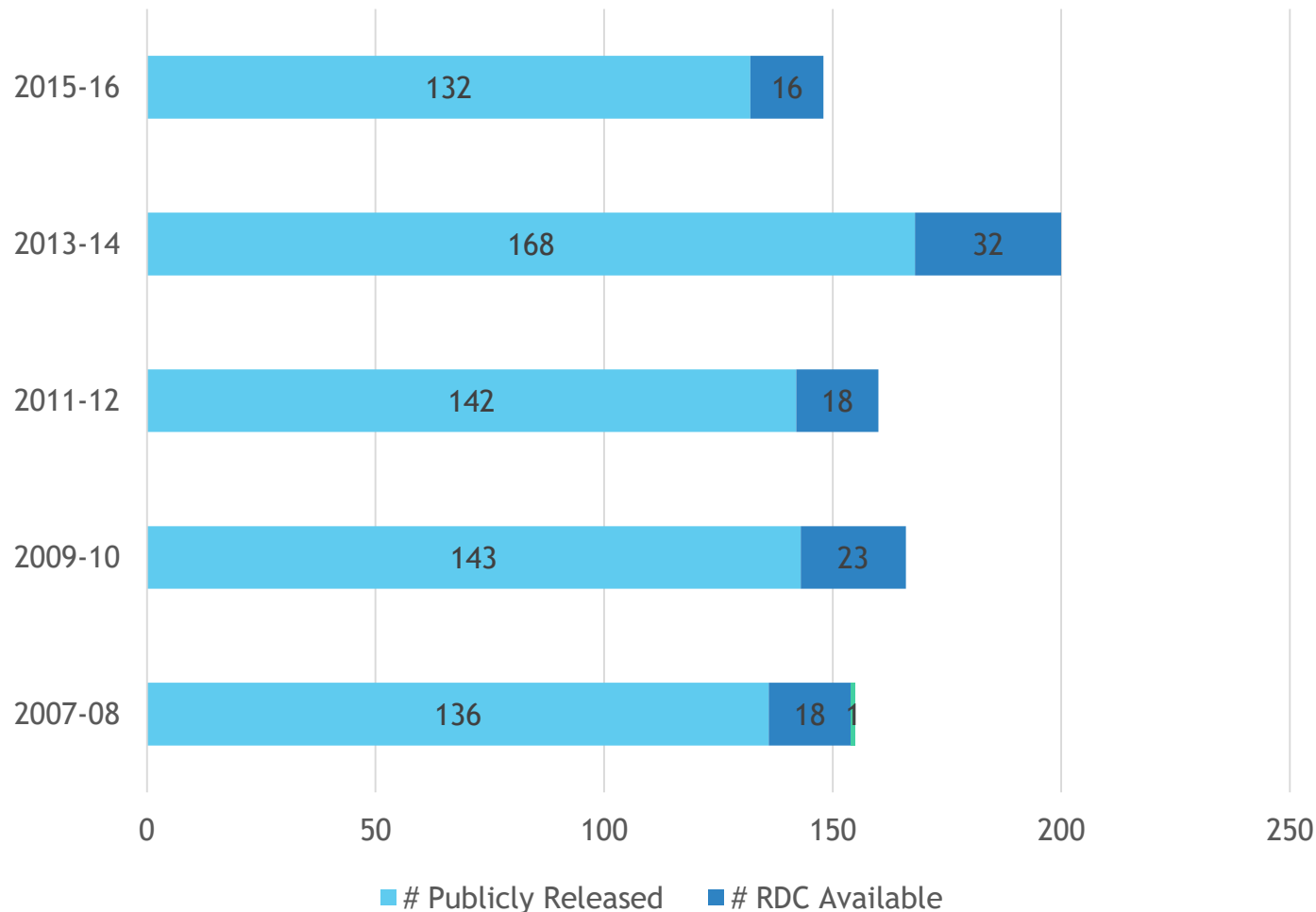
- ▶ Early Release Program plans to release preliminary estimates in late February or March 2020
- ▶ Interactive data query system with preliminary 2019 estimates expected in Summer 2020 (NHIS 2015 - 2018 data will be released in early 2020 in the new data system)
- ▶ Full-Year data release expected in/around September 2020

## 2020 NHIS and NHANES Innovation

- ▶ Pilot Test to collect blood samples and anthropomorphic measurements from adult respondents of the NHIS
- ▶ Results will feed into NHANES redesign



# Division of Health and Nutrition Examination Survey (DHANES): Data Release



❖ **Over 60 2017 - 2018 data files are expected to be released in Q1 2020**

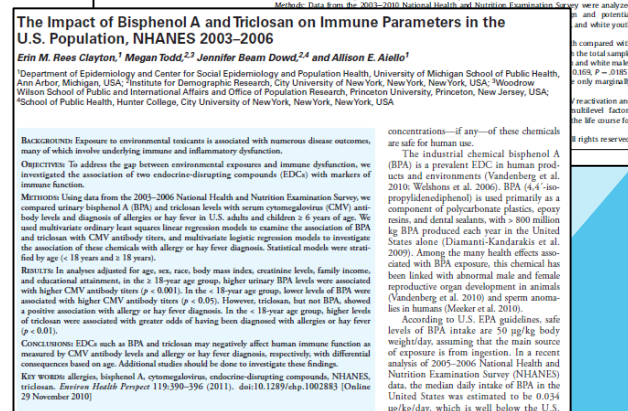
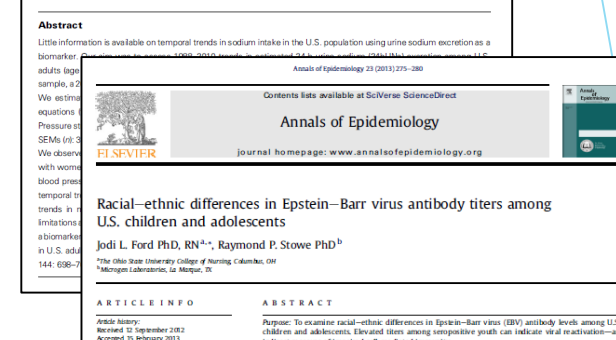
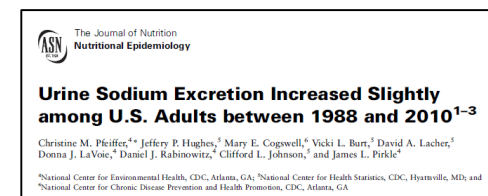


# Division of Health and Nutrition Examination Survey (DHANES): NHANES Biospecimens

Biospecimens have been collected from NHANES participants since 1988

NHANES Cycle	Specimen Type						DNA
	Pristine			Surplus			
	Sera	Plasma	Urine	Sera	Plasma	Urine	
1988-1994	X	...	...	X	...	...	X
1999-2000	X	X	X	X	X	X	X
2001-2002	X	X	X	X	X	X	X
2003-2004	X	X	X	X	...	...	...
2005-2006	X	X	X	X	...	...	...
2007-2008	X	X	X	X	...	...	X
2009-2010	X	X	X	X	...	...	X
2011-2012	X	...	X	X	...	...	X
2013-2014	X	...	X	X	...	...	...
2015-2016	X	...	X	X	...	...	...
2017-2018	X	...	X	X	...	...	...

Nearly 400 publications have used NHANES biospecimen data



# Division of Health and Nutrition Examination Survey (DHANES): Announcements

**New Personnel:**  
Operations Branch Chief: Jessica Graber, Ph.D.

## Redesigned Homepage

## Updated Tutorial

The Continuous NHANES Tutorials have been updated as of December 2019. Changes include:

- adding a new module 5, which describes measures that can be used to assess the reliability of estimates
- providing sample code to replicate estimates from an NCHS data brief, using SUDAAN, SAS survey, Stata, and R software
- expanding coverage of some topics such as identifying skip patterns, combining multiple survey cycles, and analyzing NHANES data with Stata or R software
- updating the content to describe more recent survey cycles and the current NHANES website

Modules 6-10 are under construction and are subject to change.

Page	Description
<a href="#">Module 1: Datasets</a>	The NHANES website is the most important data source and analytical resource for all data users. The website contains both historic and current datasets, and covers a wide range of critical topics. This module describes how Continuous NHANES data and documentation are structured and organized.
<a href="#">Module 2: Sample Design</a>	NHANES uses a complex, multistage, probability sampling design. Researchers need to take this into account in their analyses by appropriately specifying the sampling design parameters. This module provides an overview of the sample design parameters in NHANES.
<a href="#">Module 3: Weighting</a>	This module addresses why weights are created and how they are calculated, the importance of weights in making estimates that are representative of the U.S. civilian non-institutionalized population, how to select the appropriate weight to use in your analysis, and when and how to construct weights when combining survey cycles.

# Division of Health Care Statistics (DHCS)

- ❖ 2017 National Hospital Ambulatory Medical Care Survey (NHAMCS) Emergency Department (ED) Data Released in November 2019
- ❖ NCHS National Post-Acute and Long-Term Care Study
  - ❖ NPALS is here!: New name for the National Study of Long-Term Care Providers starting in January 2020
  - ❖ Awarded survey contract to RTI International in September 2019

# Division of Analysis and Epidemiology (DAE): Health, United States, 2018

- ▶ Released online October 30, 2019
- ▶ Within the first month, there were approximately:
  - ❖ 9,000 page views of the report homepage,
  - ❖ 2,200 downloads of the Chartbook PDF, and
  - ❖ 26,700 page views of the Data Finder
- ▶ Hosted a public webinar to an audience of 100+ in November 2019
- ▶ Report briefing to House and Senate Appropriations Committee's Labor, Health, and Human Services subcommittee staff

## Childhood vaccinations

### Did you know?

Coverage for the combined 7-vaccine series among children aged 19–35 months **varied by insurance status.**

PRIVATE  
INSURANCE  
**76.0%**  
completed the  
vaccine series

MEDICAID  
**66.5%**  
completed the  
vaccine series

UNINSURED  
**48.5%**  
completed the  
vaccine series

Combined 7-vaccine series: Includes varying doses of vaccines for diphtheria, tetanus, pertussis; poliovirus; measles; *Haemophilus influenzae* type b; hepatitis B; chickenpox; and pneumococcal disease.

#HealthUS

Follow us for more:  
@NCHStats

# DAE: Healthy People

## Healthy People 2030

- ▶ Departmental clearance of objectives completed (December 2019)
- ▶ **Scheduled release of HP2030 on March 31, 2020**
- ▶ Additional HP2030 measures and indicators on a rolling release in late 2020 or early 2021:
  - ▶ Foundation Health Measures - Technical Advisory Panel meeting
  - ▶ Leading Health Indicators - high-priority health issues and actions

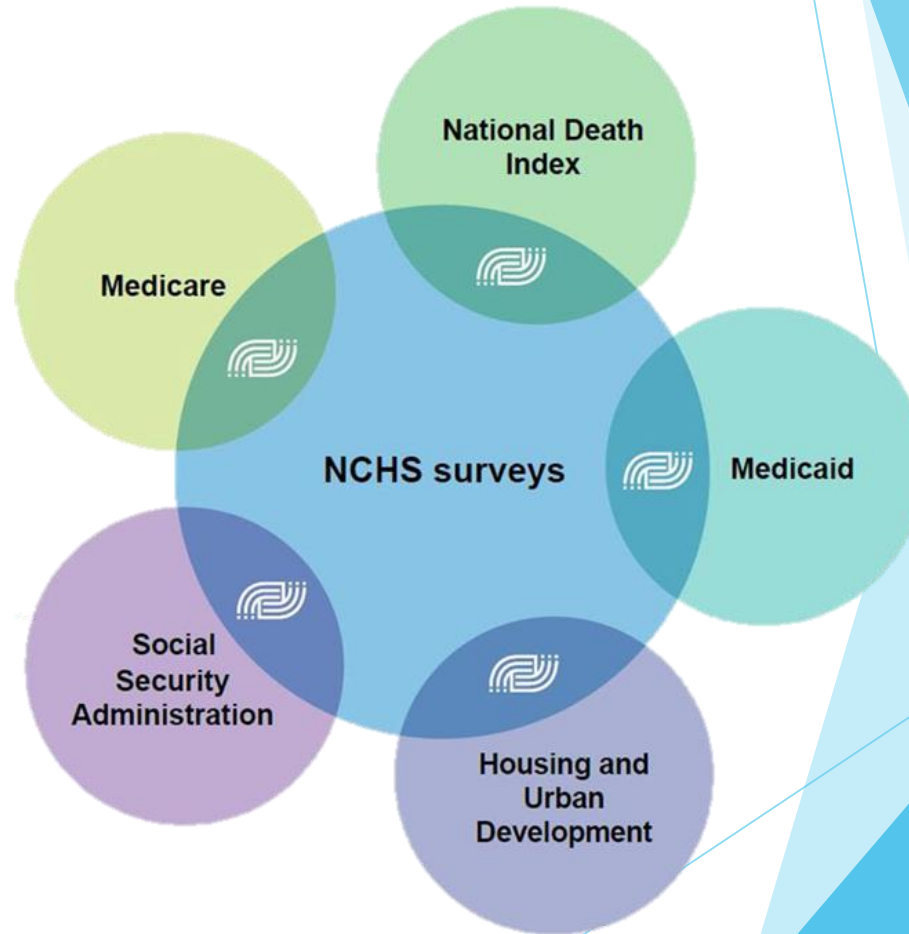
## Healthy People 2020

- ▶ Processing of final data updates (early 2020)
- ▶ Release of HP2020 Executive Summary (October 2020)
- ▶ Release of HP2020 Final Review (late 2021)

DEVELOPING  
**HealthyPeople**  
2030

# DAE: Data Linkages Program

- ▶ 2019 Data Releases:
  - ❖ Public use linked mortality files
  - ❖ Updated linked NCHS-Medicaid files
  - ❖ Updated linked NCHS-HUD files
  - ❖ National Hospital Care Survey data linked to NDI and CMS (funding from PCORTF)



# Division of Research and Methodology (DRM)

## Research Data Center (RDC)

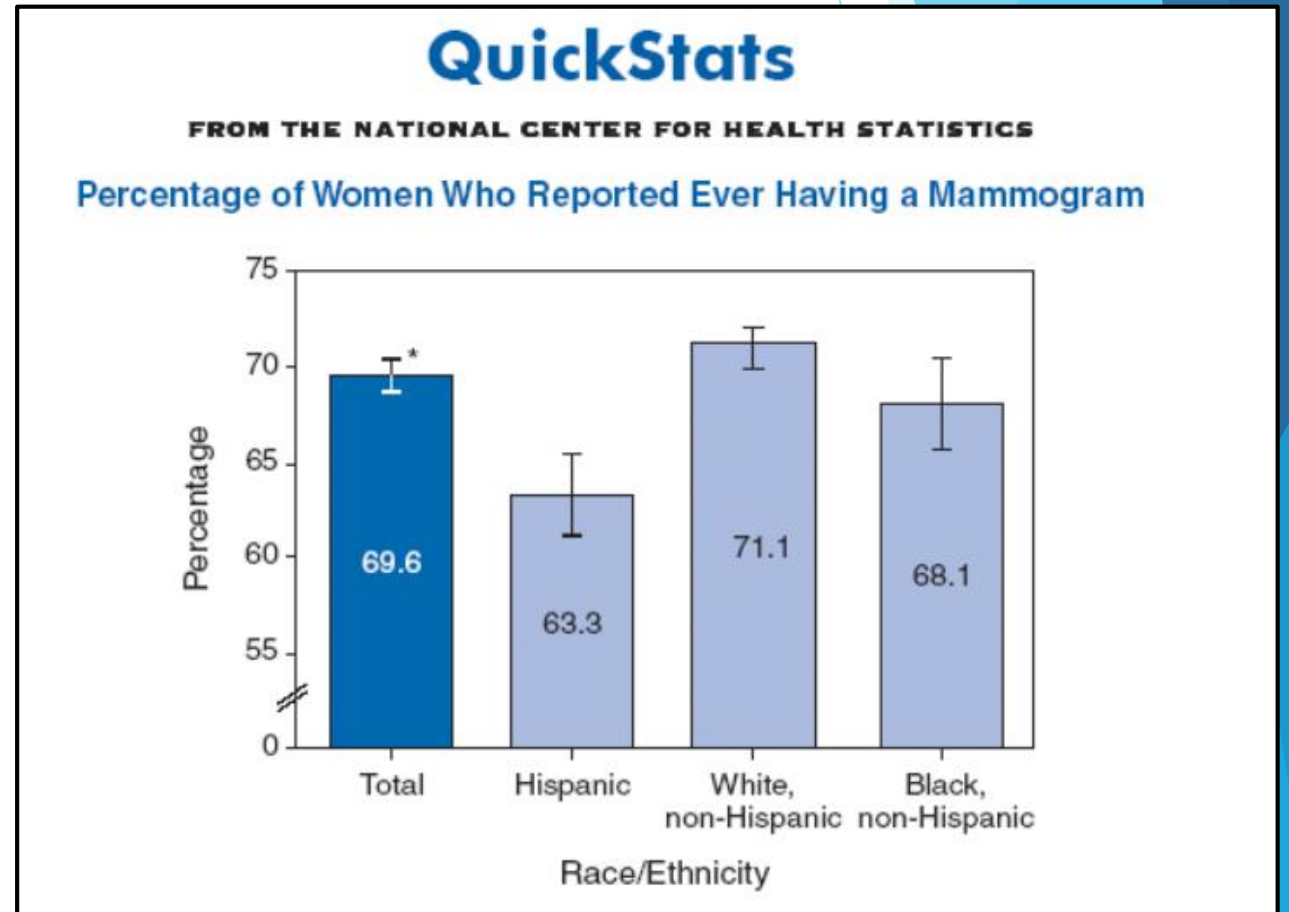
- ▶ Census is running two pilot projects related to accessing restricted-use data:
  - ▶ Common application system for all statistical agencies - used for submission of requests for access to restricted-use data (in response to section 3583 of the Evidence Act)
  - ▶ Virtual data enclave - to assess feasibility and develop lessons learned for future protocol establishment
- ▶ Census Headquarters RDC recently closed
- ▶ Washington, DC Federal Reserve Bank RDC opened in October 2019
- ▶ Federal Statistical RDCs (FSRDC) Opening in Feb. 2020:
  - ▶ Wasatch Front at the University of Utah
  - ▶ University of Illinois Urbana-Champaign
- ▶ NCHS RDC recently signed an agreement with EPA to make certain EPA restricted-use data available through the FSRDC system.



# 15<sup>th</sup> Anniversary of QuickStats

- ▶ Started in 2005
- ▶ A single chart with a short, concise caption
- ▶ Appears in CDC's *MMWR* every week
- ▶ Presents data from all NCHS data systems
- ▶ Unique method to disseminate data
- ▶ Easy to understand

First NCHS QuickStats: January 14, 2005





# QuickStats: Overview and Value to NCHS

- ▶ 694 QuickStats published
- ▶ 222 authors, mostly from NCHS (occasional collaboration with CDC or other federal agencies)
- ▶ NCHS Data Division Representatives guide the process
- ▶ Continuous presence in *MMWR*
- ▶ Expand readership
- ▶ Recognition by public health community/leaders
- ▶ Awareness through social media
- ▶ Creates data base of key findings for use by researchers, reporters, the public

# Sandy Smith

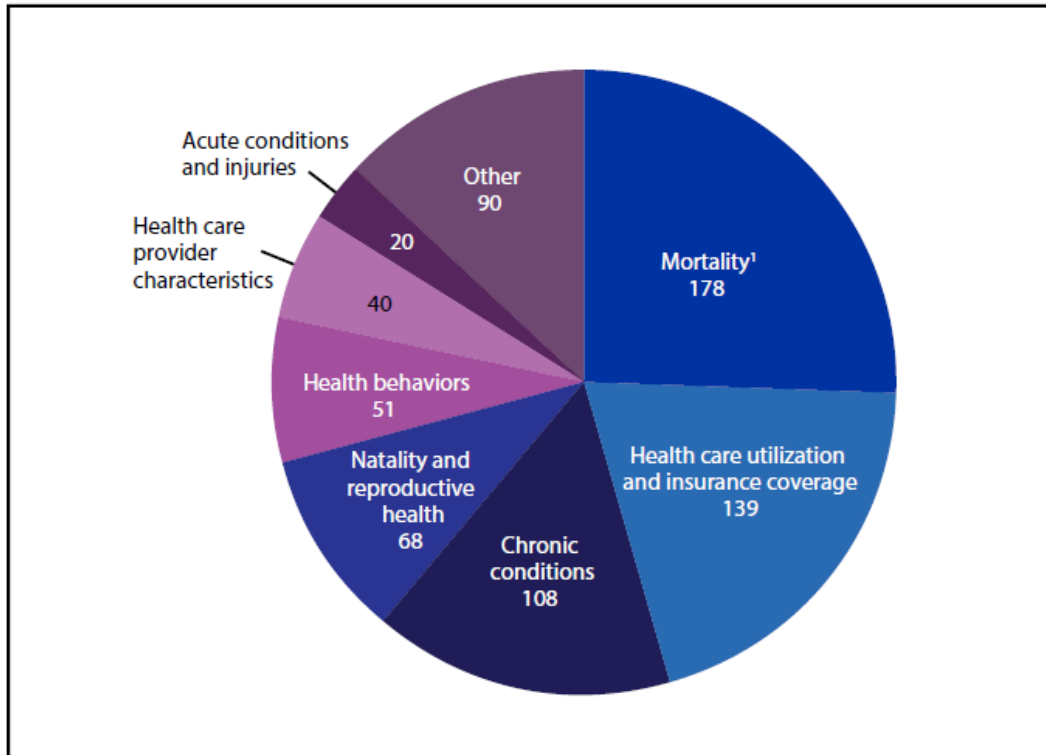


# NCHS QuickStats Authors



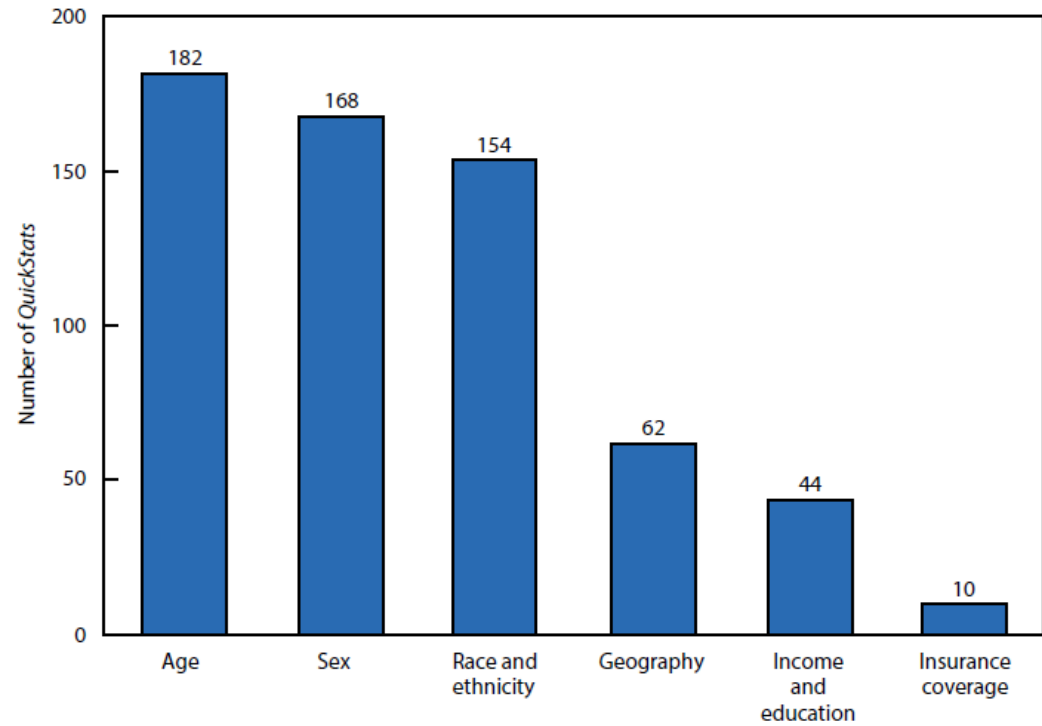
# QuickStats: Celebrating 15 Years

QuickStats: Number of published QuickStats from NCHS, by topic—2005–2019



<sup>1</sup>Includes all causes of death (chronic and acute conditions and injuries).

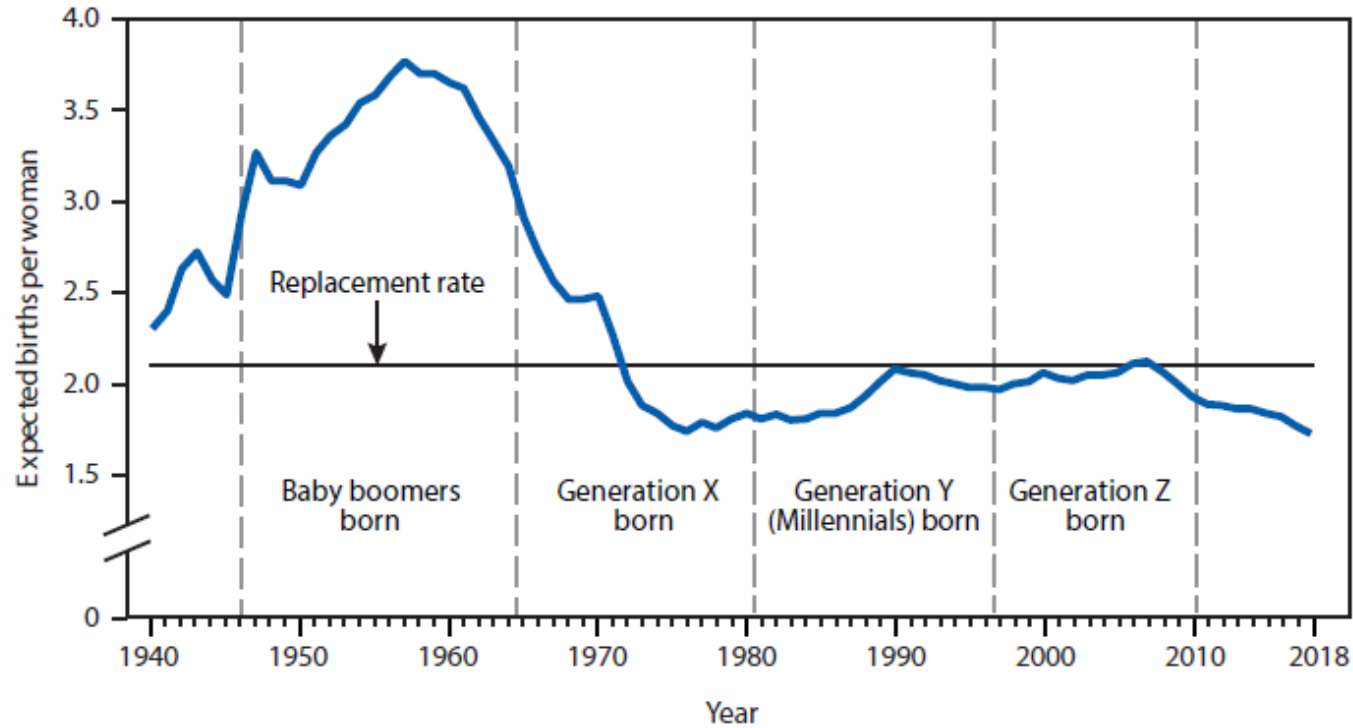
QuickStats: Number of published QuickStats from NCHS, by population characteristics—2005–2019



NOTE: Subgroups defined by more than one characteristic can be shown in a single QuickStat. Not all subgroups are shown in this chart.

# Latest QuickStats

## Expected Number of Births over a Woman's Lifetime\* — National Vital Statistics System, United States, 1940–2018



\* The total fertility rate (TFR), the expected number of births that a woman would have over her lifetime, is the sum of the birth rates for women by 5-year age groups for ages 10–49 years in a given year, multiplied by 5 and expressed per woman.

# NCHS Publications by Fiscal Year

Publications Type	Fiscal Year									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020*
Data Briefs	30	31	23	37	50	42	28	34	29	3
Early Release	11	15	14	12	9	0	0	9	11	0
Fact Sheets				1	10	4	16	29	24	0
Health E-Stats	5	6	3	5	4	8	1	6	1	2
Health, United States	2	2	2	2	2	2	1	1	0	1
Healthy People, 2020							1	0	0	0
Misc. Reports	1	0	2	1	0	0	0	0	0	0
NHSR	16	15	11	9	7	13	9	12	10	6
NVSR	8	13	8	10	17	7	8	8	14	2
Series Reports	10	11	13	10	6	4	7	10	3	1
Statistical Note						1	0	0	0	0
Vital Statistics Rapid Release Special Report							1	4	1	0
Vital Statistics Reporting Guidance (VSRG)								1	1	0
Visual Abstracts										3
<b>TOTALS</b>	<b>83</b>	<b>93</b>	<b>76</b>	<b>87</b>	<b>105</b>	<b>81</b>	<b>72</b>	<b>114</b>	<b>94</b>	<b>18</b>

# Data Briefs Since Last BSC

- ▶ Is Twin Childbearing on the Decline? Twin Births in the United States, 2014 - 2018
  - ▶ Following more than three decades of increases, the twin birth rate declined 4% during 2014-2018, to the lowest rate in more than a decade.
- ▶ Death Rates Due to Suicide and Homicide Among Persons Aged 10 - 24: United States, 2000 - 2017
  - ▶ After stable trends from 2000 to 2007, suicide rates for persons aged 10-24 increased from 2007 to 2017, while homicide rates declined from 2007 to 2014 and then increased through 2017.
- ▶ Vision Testing Among Children Aged 3 - 5 Years in the United States, 2016 - 2017
  - ▶ Children with private health insurance (66.7%) were more likely than both children with public coverage (61.2%) and uninsured children (43.3%) to have ever had a vision test.

NCHS Data Brief ■ No. 352 ■ October 2019

## Death Rates Due to Suicide and Homicide Among Persons Aged 10–24: United States, 2000–2017

Sally C. Curtin, M.A., and Melonie Heron, Ph.D.

### Key findings

#### Data from the National Vital Statistics System

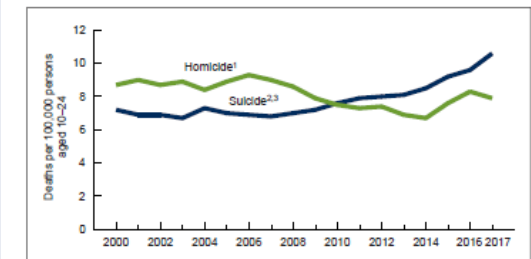
- After stable trends from 2000 to 2007, suicide rates for persons aged 10–24 increased from 2007 (6.8 per 100,000 persons) to 2017 (10.6), while homicide rates declined from 2007 to 2014 and then increased through 2017.
- The suicide rate for persons aged 10–14 declined from 2000 (1.5) to 2007 (0.9), and then nearly tripled from 2007 to 2017 (2.5), while the homicide rate declined 18% from 2000 (1.1) to 2017 (0.9).
- For persons aged 15–19 and 20–24, suicide and homicide death rates both increased more recently during the 2000–2017 period, with the increase in suicide rates beginning earlier than for homicide rates.
- For the total age group 10–24 and for persons aged 15–19 and 20–24, suicide rates surpassed homicide rates during the latter part of the 2000–2017 period.

Deaths due to suicide and homicide, often referred to collectively as violent deaths, have consistently been a major cause of premature death to persons aged 10–24 in the United States (1–3). In 2017, suicide was the second leading cause of death for persons aged 10–14, 15–19, and 20–24, and homicide ranked third for persons aged 15–19 and 20–24 and fifth for persons aged 10–14 (4). This report presents trends for 2000–2017 in suicide and homicide death rates for all persons aged 10–24 and for age groups 10–14, 15–19, and 20–24.

After a stable period from 2000 to 2007, suicide rates for persons aged 10–24 increased from 2007 to 2017, while homicide rates increased from 2014 to 2017.

- The suicide rate among persons aged 10–24 was stable from 2000 to 2007, and then increased 56% between 2007 (6.8 per 100,000) and

Figure 1. Suicide and homicide death rates among persons aged 10–24: United States, 2000–2017



<sup>1</sup>Stable trend from 2000 to 2007, significant decreasing trend from 2007 to 2014, significant increasing trend from 2014 to 2017,  $p < 0.05$ .  
<sup>2</sup>Stable trend from 2000 to 2007, significant increasing trend from 2007 to 2017 with different rates of change over time,  $p < 0.05$ .  
<sup>3</sup>Rate significantly lower than the rate for homicide from 2000 to 2009 and significantly higher from 2011 to 2017,  $p < 0.05$ .  
NOTES: Suicide deaths are identified with International Classification of Diseases, 10th Revision (ICD-10) codes U03, X80–X84, and Y87.0, and homicide deaths with ICD-10 codes U01–U02, X85–X90, and Y87.1. Access data table for Figure 1 at: [https://www.cdc.gov/nchs/data/datafiles/br-352\\_tables-506.pdf#1](https://www.cdc.gov/nchs/data/datafiles/br-352_tables-506.pdf#1).  
SOURCE: NCHS, National Vital Statistics System, Mortality.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Centers for Disease Control and Prevention  
National Center for Health Statistics



NCHS reports can be downloaded from: <https://www.cdc.gov/nchs/products/index.htm>.

# Upcoming NCHS Reports

- ▶ Human Papillomavirus Vaccination Among Adults Aged 18 - 26, 2013 - 2018 (*released 1/7/2020*)
- ▶ Trend in Opioids Prescribed at Discharge From Emergency Departments Among Adults: United States 2006-2017 (*released 1/8/2020*)
- ▶ Physician Office Visits at Which Benzodiazepines Were Prescribed: Findings From the 2014-2016 National Ambulatory Medical Care Survey
- ▶ Demographic, Health Care, and Fertility-Related Characteristics of Adults Aged 18-44 Who Have Ever Been in Foster Care: United States, 2001-2017

# Upcoming NCHS Reports cont.

## Upcoming 2018 Mortality publications: January 30, 2020

Evaluation of the Pregnancy Status Checkbox on the Identification of Maternal Deaths

The Impact of the Pregnancy Checkbox and Misclassification on Maternal Mortality Trends in the US, 1999-2017

Maternal mortality in the United States: Changes in coding, publication, and data release, 2018

Mortality in the United States, 2018

Drug Overdose Deaths in the United States, 1999 - 2018

Life Expectancy in the U.S., 2018

## Upcoming 2017-18 NHANES publications: Expected 2020 Quarter 1

NHANES Estimation Procedures, 2015-2018

Sampling Variability and Nonresponse Bias 2017-2018 NHANES

Hepatitis B Virus Infection and Vaccination

Obesity among adults and youth

Hypertension among adults

Non-high-density lipoprotein (HDL) and HDL cholesterol in adults



# NCHS in the News

**The Washington Post**  
*Democracy Dies in Darkness*

Teen suicides are increasing at an alarming pace, outstripping all other age groups, a new report says



**MEDICAL NEWS TODAY**

**Racial disparities in premature deaths from power plant emissions**



Twin Birthrate Drops For First Time Since The '80s

October 3, 2019 - 12:01 AM ET



**PHYSICIAN'S WEEKLY**

Foreign-Born Women in U.S. Less Likely to Have Mammograms

# NCHS in the News

WebMD

**Marriage Tied to Longer Life Span, New Data Shows**

AAP News

How to code for lung injuries associated with vaping

**Bloomberg**

**State of Health Report Shows Growing Despair Among American Men**

 Home Health Care News

**With More Americans Dying at Home, Providers Must Double Down on End-of-Life Care**

# NCHS at the International Conference on Health Policy Statistics

## NCHS Session on Linked Data for Evidence-Based Policymaking

- ❖ Session Chair: Jennifer Madans
- ❖ Presentations:
  - ❖ *Leveraging Linked Data for Evidence-Based Policymaking*, by Lisa Mirel
  - ❖ *Identification of Opioid-Involved Health Outcomes Using Linked Hospital Care and Mortality Data*, by Carol DeFrances
  - ❖ *On the Utility of Prediction Models in Large Government Surveys: Using Linked Administrative-Survey Data to Inform Analyses of More Contemporaneous Survey Data*, by Yulei He (for Jennifer Rammon)
  - ❖ *Research Data Centers for Data Access*, by Jennifer Parker