

# Modernizing the Mortality Data System --

## *- Capturing Opioid-related Death Information to Enhance Data Dissemination and Research*

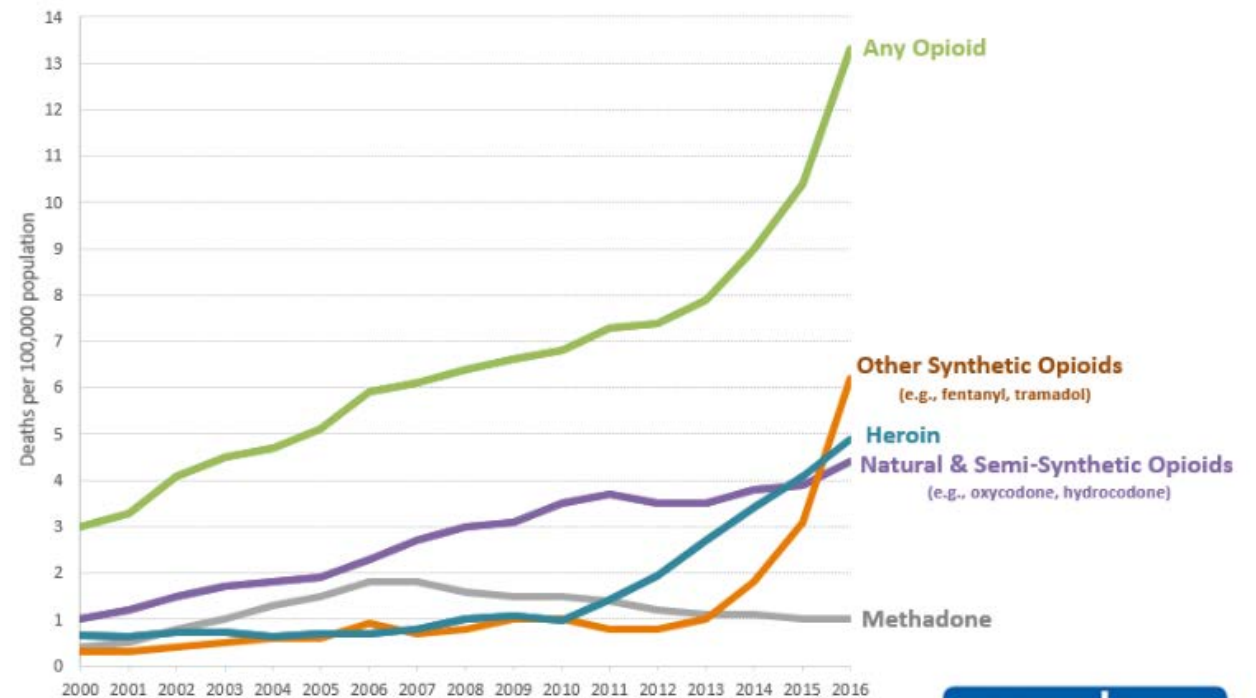
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# Rise in Opioid Overdose Deaths

- Opioid overdoses have risen significantly over the past decade, accounting for more than 42,000 deaths by 2016 (five times higher than 1999)
- In 2017, the White House declared the opioid epidemic as a national public health emergency
- HHS responded with a 5-point strategy to combat the crisis
  - Better prevention, treatment and recovery services
  - Better data
  - Better pain management
  - Better availability of overdose-reversing drugs
  - Better research

Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2016

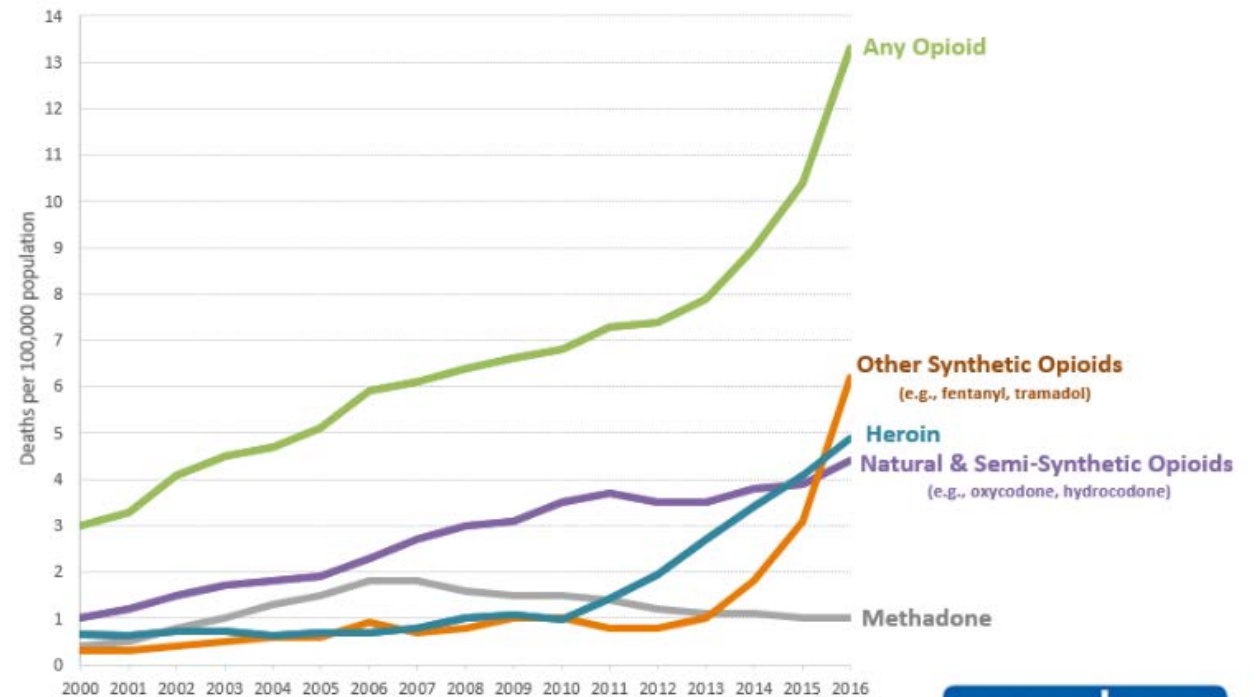


SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2017. <https://wonder.cdc.gov/>.

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# Addressing Better Mortality Data

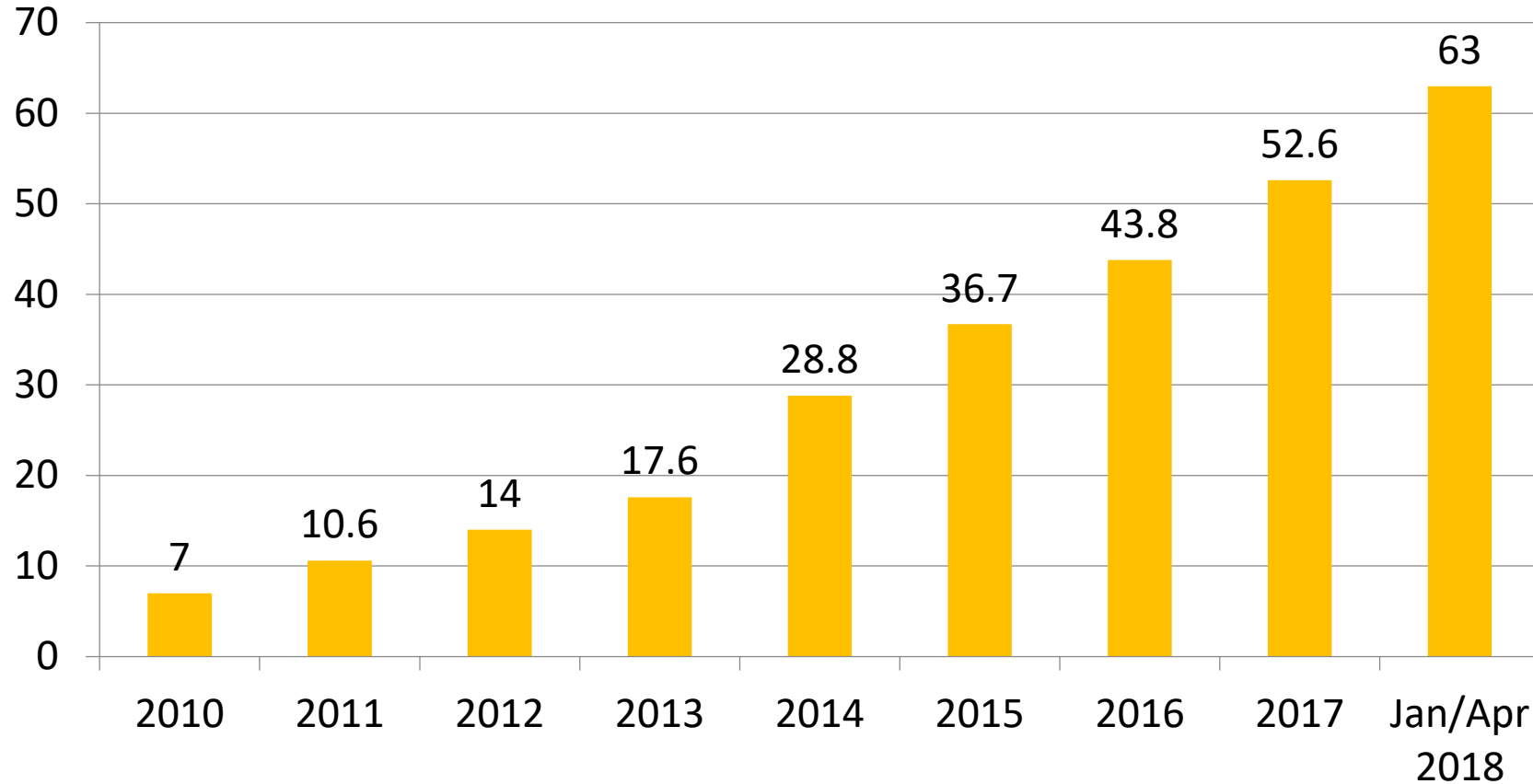
- Office of Public Health Preparedness and Response.....\$250,000
- Patient-Centered Outcomes Initiative (PCORI).....\$2,613,000
- Injury Opioid Project #1.....\$1,930,000
- Injury Opioid Project #2.....\$5,900,000

# Goals for Better Mortality Data

- **Goal #1:** Transmit 80% of the mortality records to NCHS within 10 days of the date of the event

# Timeliness Reporting

## Percentage of Mortality Records Received at NCHS within 10 Days of the Date of the Event



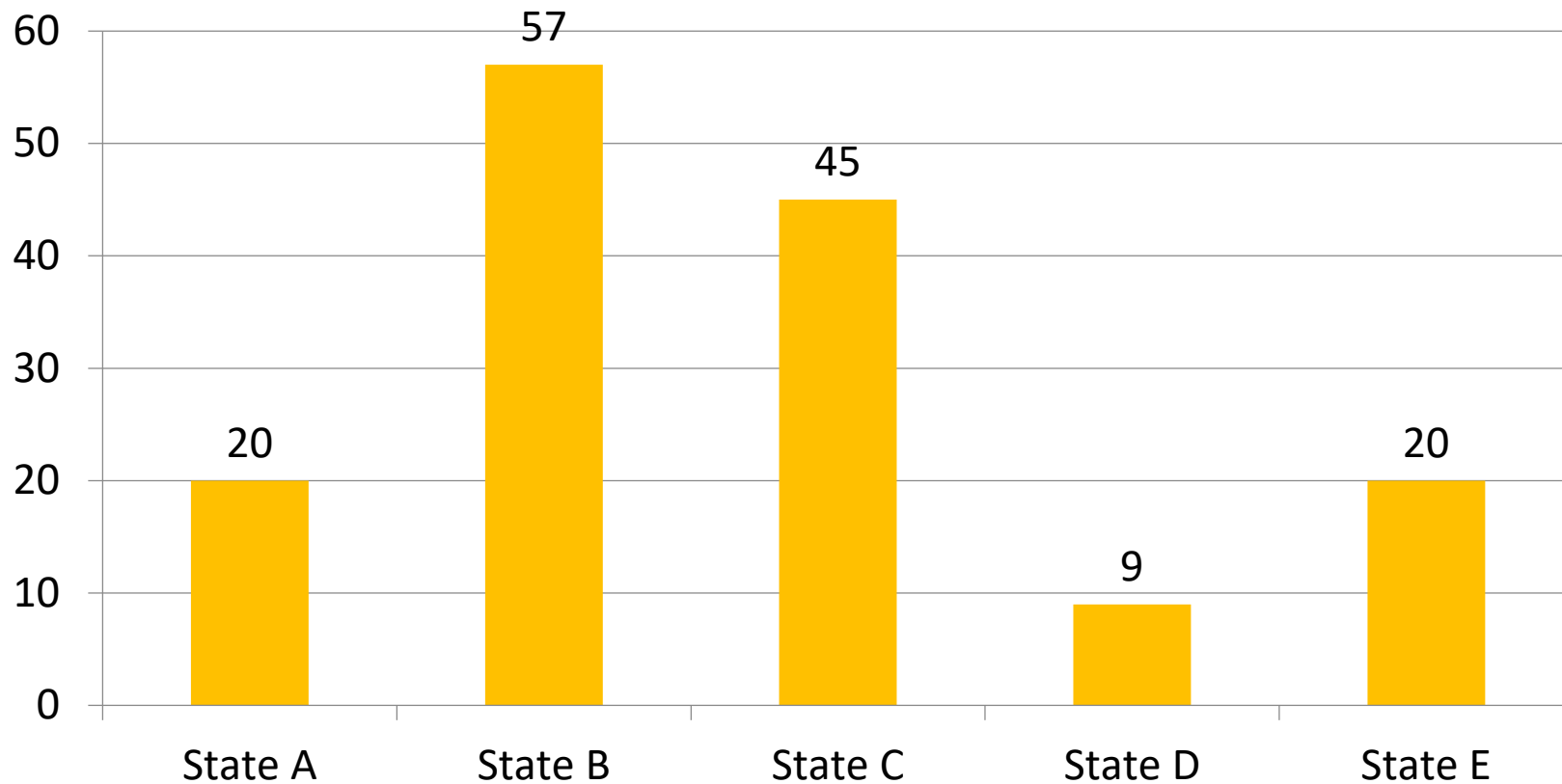
In 2012, we began an initiative to improve the timeliness of the transmission of mortality information to NCHS. The standard set for this initiative was for states to report 80% of their mortality records to NCHS within 10 days of the date of the event. This initiative was the foundation for DVS being capable of contributing to opioid mortality surveillance.

# Goals for Better Mortality Data

- **Goal #1:** Transmit 80% of the mortality records to NCHS within 10 days of the date of the event
- **Goal #2:** Transmit 90% of the drug overdose deaths to NCHS within 90 days of the date of the event

# Estimated Timeliness Reporting, 2015

**Percentage of Drug Overdose Records Received at NCHS  
within 90 Days of the Date of the Event for Selected States**



Estimates are for 5 states that DVS will be working with intensely. We are still working on precisely defining “dates received”, so these percentages are estimates. These estimates are presented to give you a picture of what is happening currently.



# Goals for Better Mortality Data

- **Goal #1:** Transmit 80% of the mortality records to NCHS within 10 days of the date of the event
- **Goal #2:** Transmit 90% of the drug overdose deaths to NCHS within 90 days of the date of the event
- **Goal #3:**
  - Code at least 90% of all mortality records with less than 1% error rate within 30 minutes of reaching NCHS, and
  - Return electronically coded records back to the states within 12 hours of receipt
- **Goal #4:** Develop the capacity to better identify and report on the specific types of drugs involved in the deaths beyond ICD-10 codes assigned for cause of death
- **Goal #5:** Enhance the capacity for surveillance and reporting of drug overdose deaths on a monthly basis
- **Goal #6:** Improve our ability to meet the needs of researchers and other end-users of our data products

# *Strategies for Better Data Mortality*

- **Strategy One:** *Modernize the technology capabilities of the National Vital Statistics System*
  - Transition the NVSS from a batch processing to a transactional processing system
  - Return coded records to states within 30 minutes after receipt
  - Incorporate natural language and machine learning techniques to mine the literal text fields on the death certificate
  - Upgrade our Validations and Interactive Edits Web Service (VIEWS) system
- **Strategy Two:** *Fund 6 states to create interoperable technology environments at the state level to facilitate the exchange of relevant death information*
  - Develop/implement application programming interfaces (APIs) to facilitate the transfer of information between medical examiner/coroner (ME/Cs) case management systems, state electronic death registration systems, and NCHS
  - Work with ME/Cs to facilitate the electronic transfer of relevant information from systems that they need to do their work (e.g., toxicology systems, Prescription Drug Monitoring Programs (PDMPs), and electronic health records) in evaluating and certifying deaths
  - Develop the API platform for death reporting (Georgia Tech Research Institute)
  - Establish interoperability with at least one other public health surveillance system

# *Strategies for Better Data Mortality*

- **Strategy Three:** *Fund 9 to 14 states to improve the quality of drug information on state death certificates through the use of interoperable system principles and practices*
  - Promote the use of NeCOD, a mobile application that allows physicians to certify the causes of death
  - Promote FHIR-enabled electronic death registration systems (EDRS)
  - Encourage state vital statistics agencies and medical examiner/coroners to review their business practices for the purpose of improving timeliness and quality of their records, especially drug overdose deaths
- **Strategy Four:** *Establish national approved HL7 FHIR standards for the use with IT systems in the health care industry*
  - Contract has now been awarded to complete this activity
  - Expect to go to balloting in January 2019

# *Strategies for Better Data Mortality*

- **Strategy Five:** *Re-design of Vital Statistics Rapid Release programs to enable a more automatic production of the required data and a more detailed production of the data variables*
- **Strategy Six:** *Improve the use of national guidelines on death investigations, evaluations and certifications by medical examiners and coroners*
  - Update the guidelines produced by the National Association of Medical Examiners (NAME) in 2011
  - Develop training materials and methodology (probably a train-the-trainer model) for educating medical examiners and coroners about the new guidelines
- **Strategy Seven:** *Study the effects of opioids and other drugs on birth outcomes, using birth, mortality and fetal death certificate data and/or other health data in the federal government*

## *Strategies for Better Data Mortality*

- **Strategy Eight:** *Align changes with needs of researchers and end-users and conduct targeted engagements and dissemination activities*
  - Linkage and connections with medical examiners and coroners and toxicologists (OPHPR funding)
  - Linkage with researchers and other users (PCORI)
    - Communications with researchers and users
    - Presentations at national meetings about the project and solicit any input
  - Technical Working Group (PCORI)

## *Goal of the Technical Working Group (TWG)*

- *Ensure that we are capturing input from researchers*
  - Active engagement throughout the life cycle of the PCOR project
  - Improve the utility of project deliverables for patient-centered outcomes research
- *TWG to advise on 3 levels:*
  - Research issues specific to the PCOR project
  - Issues common to both NCHS PCOR projects
  - Strategic issues for outcomes research using NCHS data including:
    - How can we maximize on the activities we are currently doing to benefit end-users?
    - How can we maximize products resulting from the PCORTF funded projects?
    - How should we approach our dissemination program?
    - What are the broader gaps in the state of opioid/drug research? What can we look at going forward?
    - How do we best disseminate the newly created data products?
- *Augment the TWG with specialized expertise in outcomes research related to drugs in supporting the PCOR project(s).*

# Thank You!

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