

Improving the National Mortality Data System: Enhancing State Performance

Board of Scientific Advisors Meeting

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Issues Confronting Vital Statistics

- Timeliness
- Quality of the data
- Access and Usability of the data
- Cost of the data (more recent)

Facilitating states to provide mortality data faster and more accurate!

Evolution of Mortality Registration Process

- Registration 1.0: *Paper-based, manual process*
- Registration 2.0: *Electronic, but Individual state systems*
- Registration 3.0: *???*

How did we get started?

Advancing from “Good” to “Great” System

- Began in the 2011 to 2012 time period with the Good to Great Committee to define a vision for vital statistics
 - Joint Committee between NCHS, NAPHSIS, and States
- Incorporated concept of Special Projects into 2012-2016 Vital Statistics Contract, as the implementation strategy.
 - Projects to advance the vital statistics systems
 - States had to compete for the funding
- Require DVS to seek competitive funding

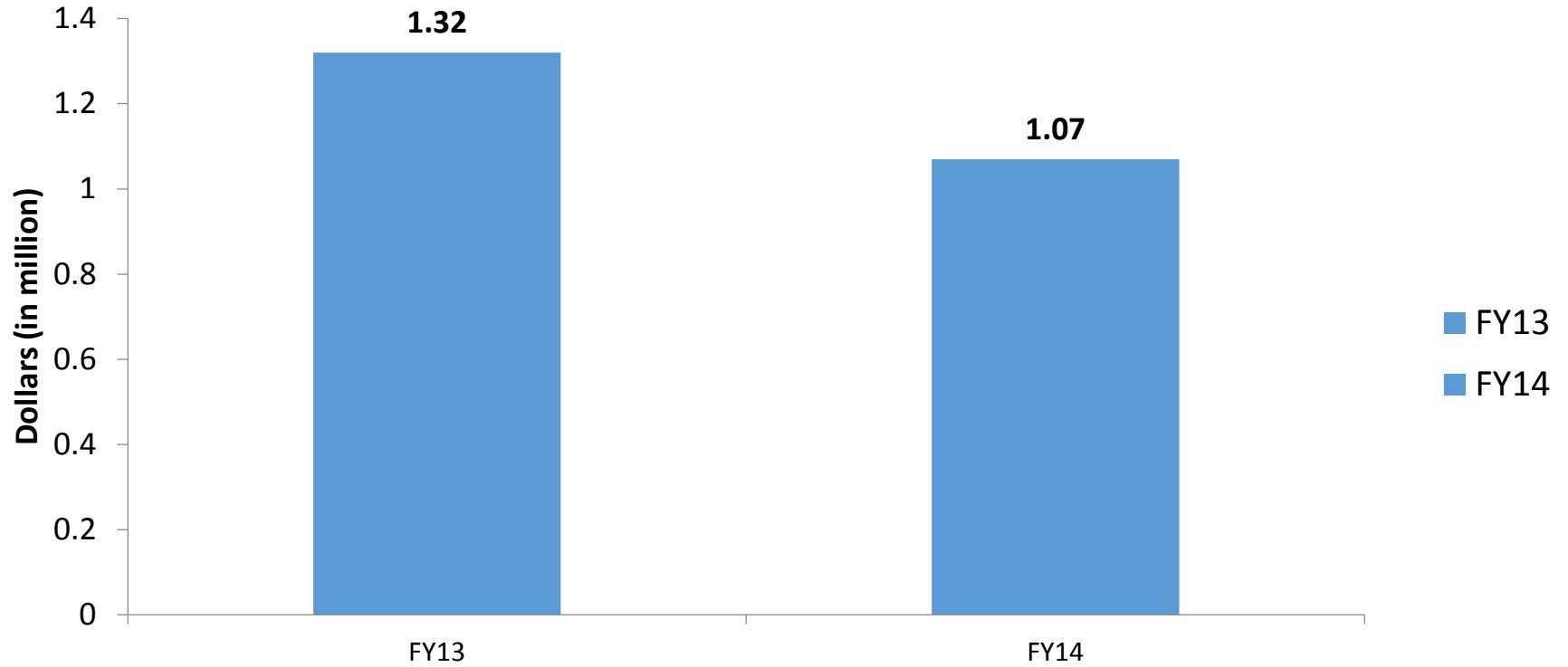
Getting Started

- Office of Public Health Preparedness and Response
 - Report...“Establishing a State-Based Network of Enhanced Electronic Death Registration System”
- Goal: Near real-time public health surveillance system
- Elements of “Enhanced” State-based Network of EDRs
 - Timeliness
 - Statewide coverage
 - Physician/Medical Examiner/Coroner Participation
 - Quality cause of death information
- “Winnable Battle”

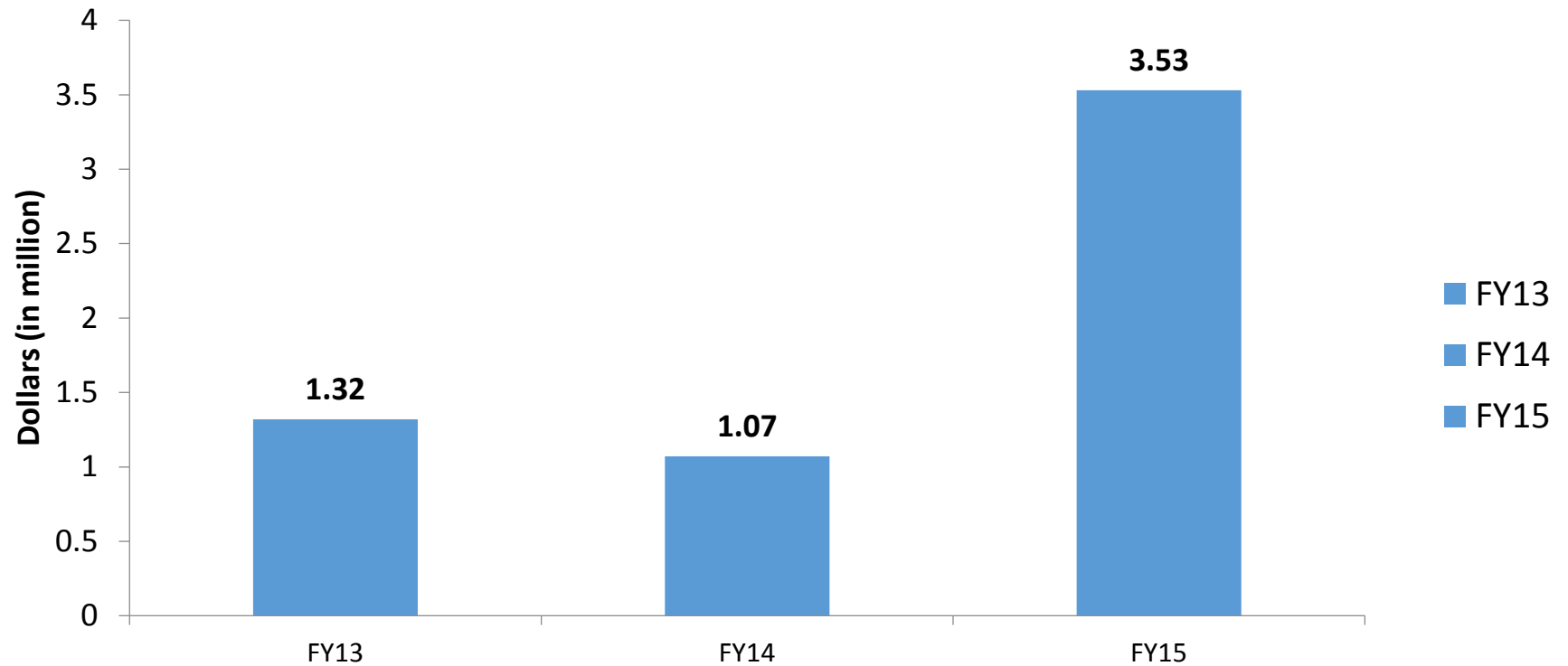
Getting Started

- “Seed” funding from OPHPR and NCHS
- Issued RFP to states to be competitively awarded
- National Goal on Timeliness
 - 80% of mortality records being transmitted to NCHS within 10 days of the date of the event.
- State Performance Areas:
 - Physician, medical examiner, and coroner participation levels
 - System changes/modifications
 - Business process improvements

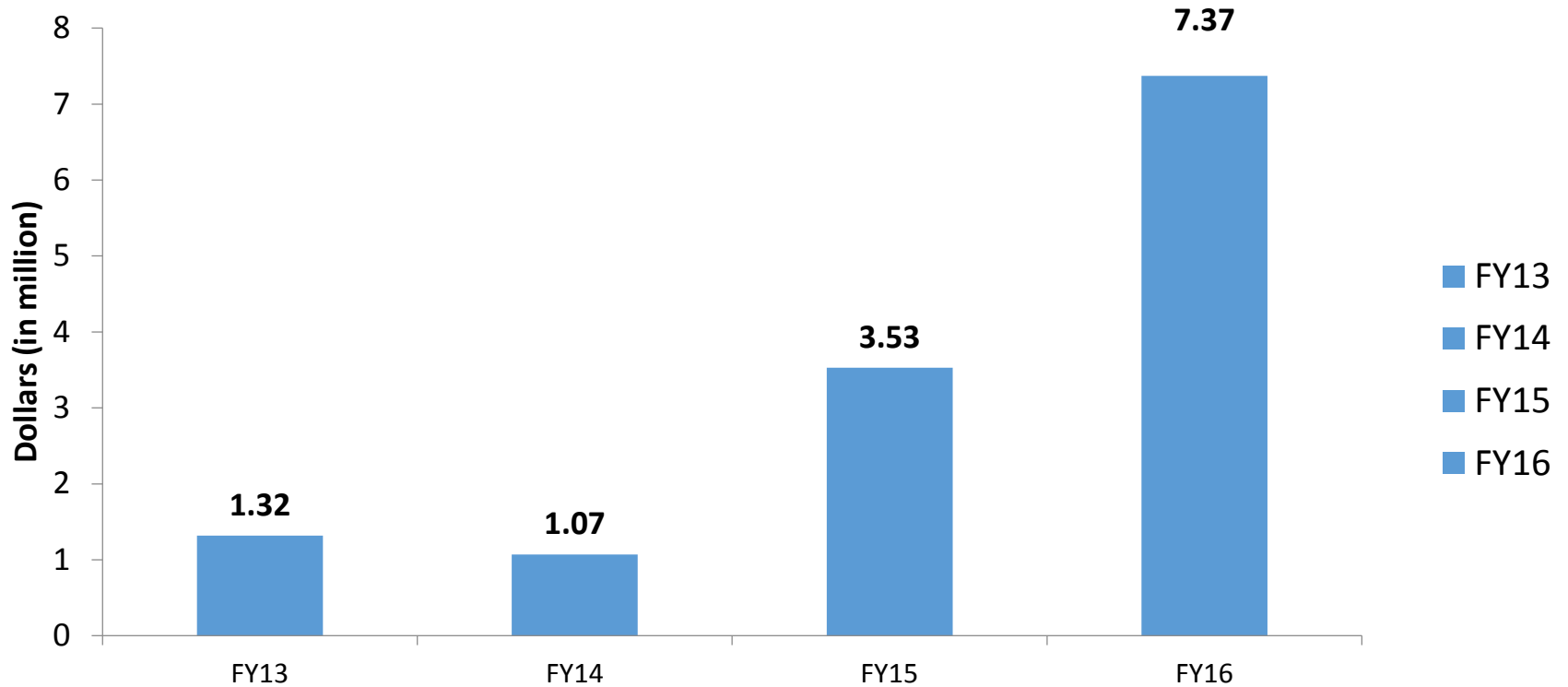
Special Project Funding Obligated to Improve State Infrastructure



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Total of \$14.63 million received over the 4 years. 90% of the receipts went to states.

Funding Partners for Enhancing State Performance

Funding Sources

- 2013
 - OPHPR
 - NCHS OD
 - HHS Enterprise-in-Residence Program
 - NCHS & Div. of Vital Statistics
 - CDC Director's Office
- 2014
 - OPHPR
 - OPHSS
 - NCHS OD
 - CDC Director's Office
 - National Inst. Of Mental Health

Funding Sources

- 2015
 - Patient Centered Outcomes Research Trust Fund
 - CDC Director's Office
 - OPHPR
 - NCHS OD
 - NCHS & Div. Of Vital Statistics
- 2016
 - CDC Director's Office
 - Congressional Funding (one-time)
 - CDC Innovations Fund
 - OPHPR

What state initiatives have been funded?

Major Mortality Initiatives for States

- **Timeliness Funding**

- *Statewide coverage of EDRSs*
- *Physician and Medical Examiner/Coroner participation*
- *System changes/modifications --- removal of manner steps in the process*
- *Funded 19 states for timeliness*
- *Technical assistance to the “poorest” performing states*

- **eVitals Standards and System Interoperability**

- *Draft HL7 standards approved by HL7 standard organization*
- *Demonstration Projects for interoperability with electronic medical records (California and Utah)*

- **Data Quality**

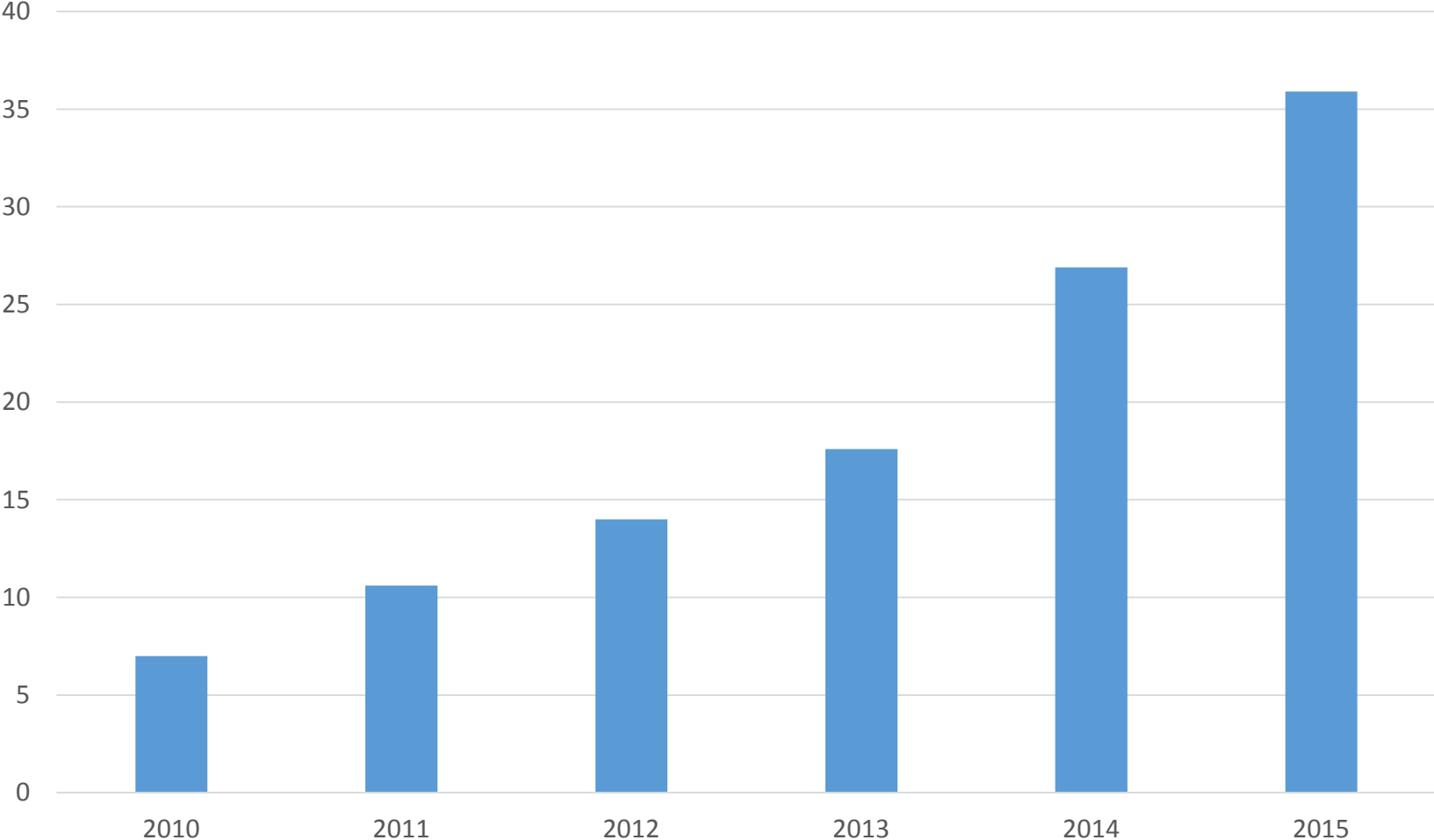
- *Evaluation of the quality of cause-of-death information in two states*
- *E-Learning of the training of physicians on certifying the cause of death*
- *Funding of 10 states to improve the quality of the cause of death*

Measuring the Data Quality?

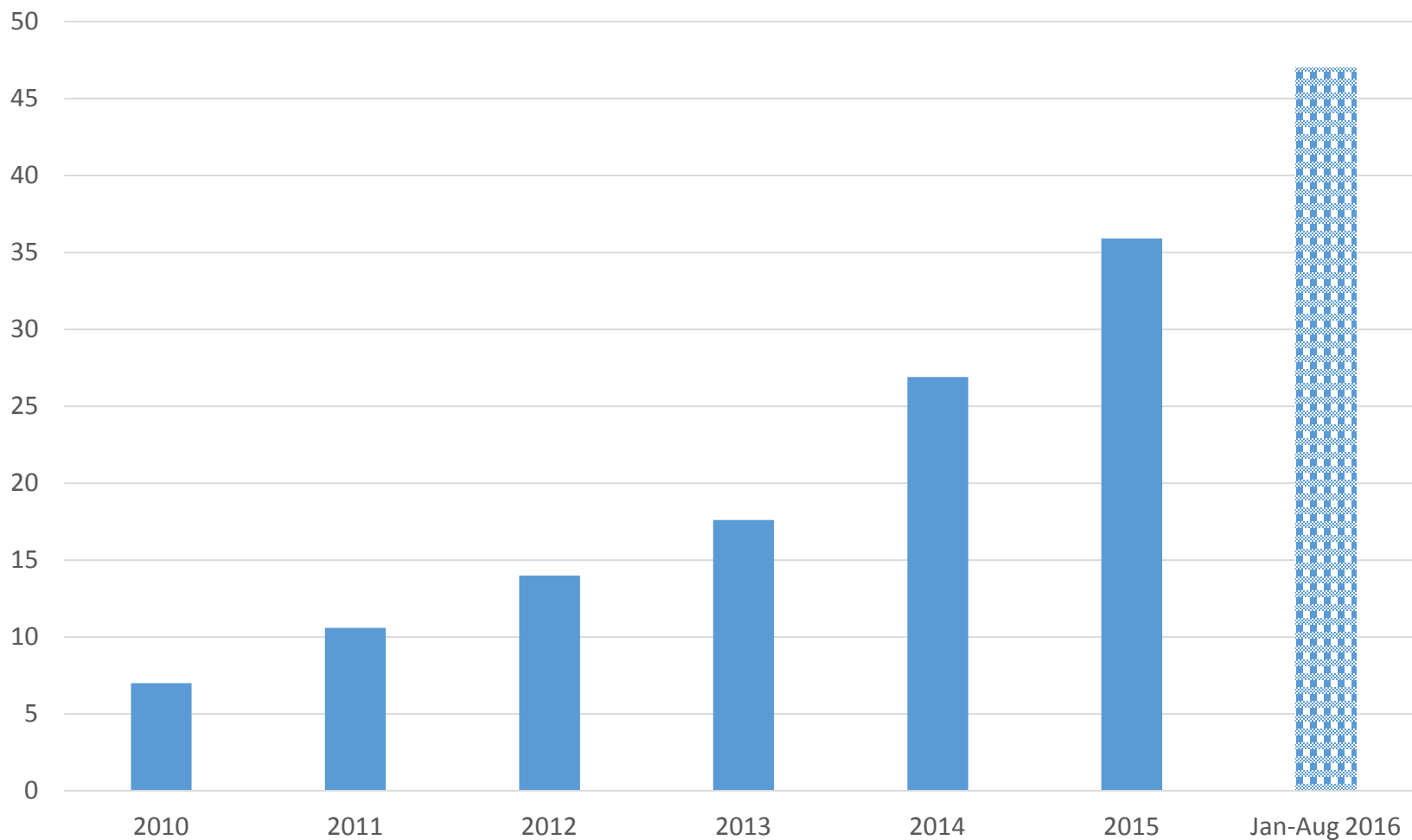
- Mortality records with “Pending” or “Unknown” as the cause of death.
- Records with a drug poisoning death containing only the code of T50.9 (*i.e., T50.9 is defined as other and unspecified drugs*);
- Records with unspecified or Ill-defined causes of death:
 - Records containing an underlying cause code of R00-R94 or R96-R99 AND neither the manner nor the cause of death code is pending
 - Records containing unspecified heart disease (I51.9) as the underlying cause of death
 - Mortality records containing cardiac arrest (I46.9) as the underlying cause of death
- Records containing unspecified cancer (primary site) (C80) as the underlying cause of death

What outcomes did we achieve thus far with this funding?

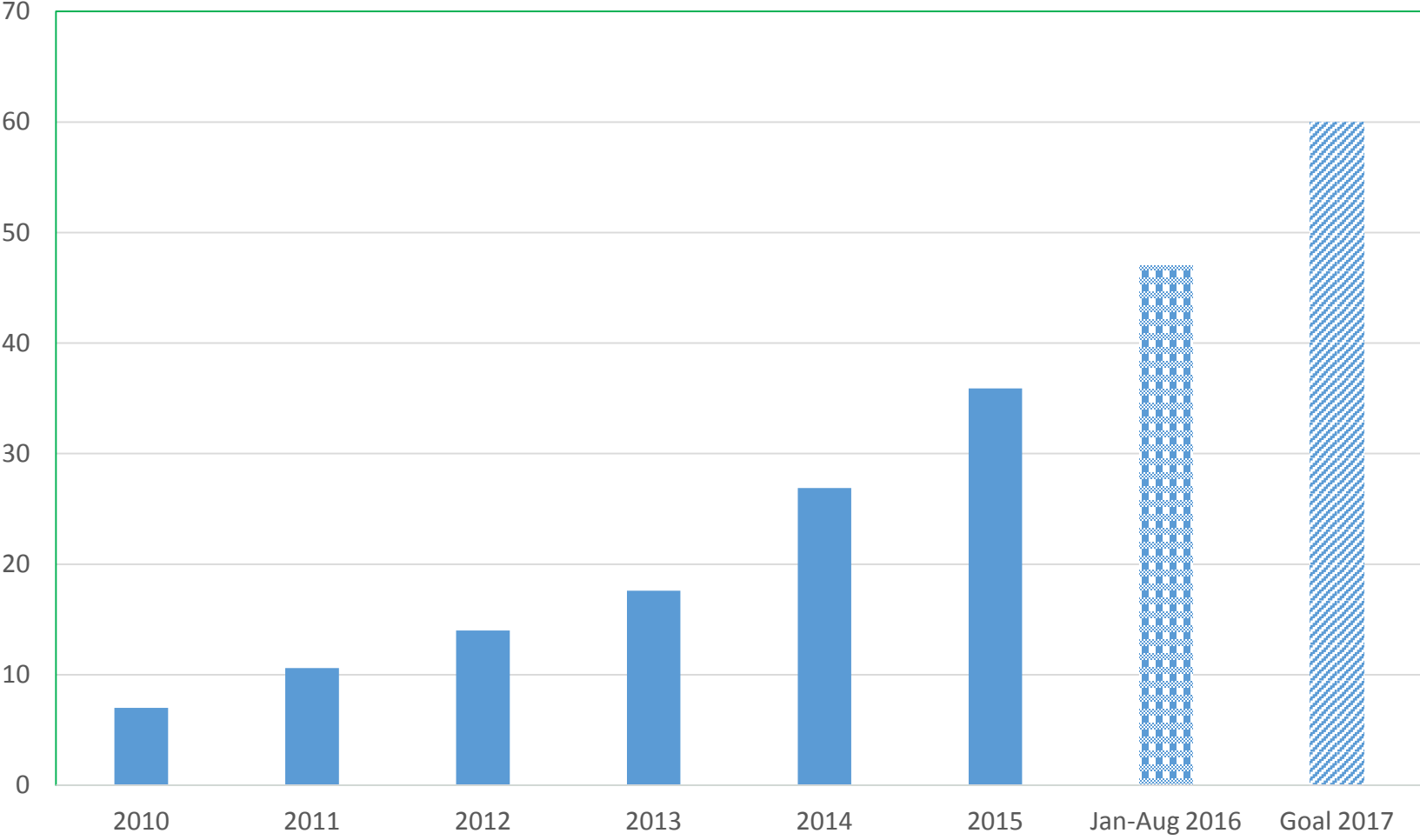
Percent of State Mortality Records Transmitted to NCHS Within 10 days of the Date of Death by Year, 2010 –2015



Percent of State Mortality Records Transmitted to NCHS Within 10 days of the Date of Death by Year, 2010 –August 2016

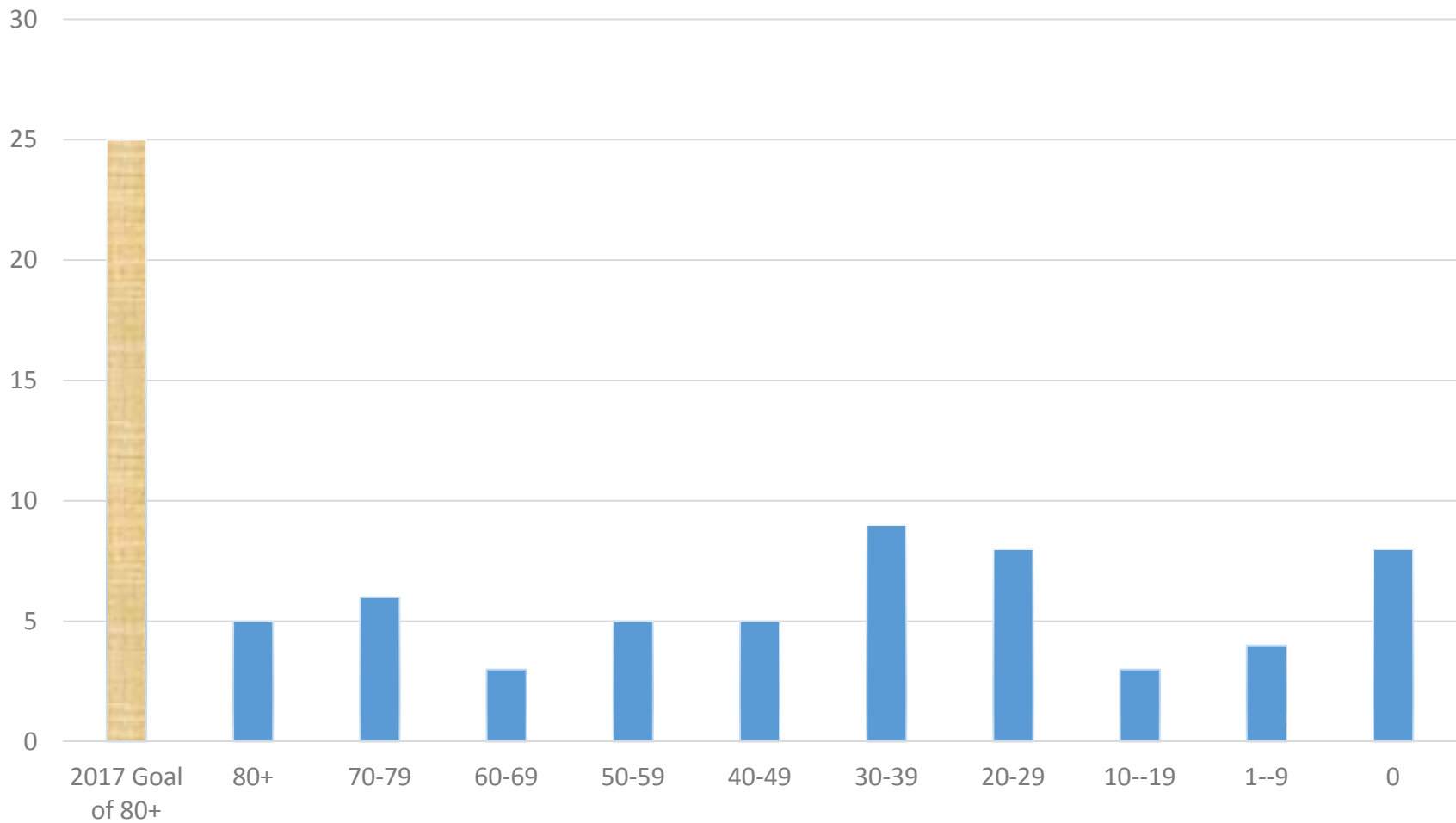


Percent of State Mortality Records Transmitted to NCHS Within 10 days of the Date of Death by Year (2010 –August 2016), with Target for 2017

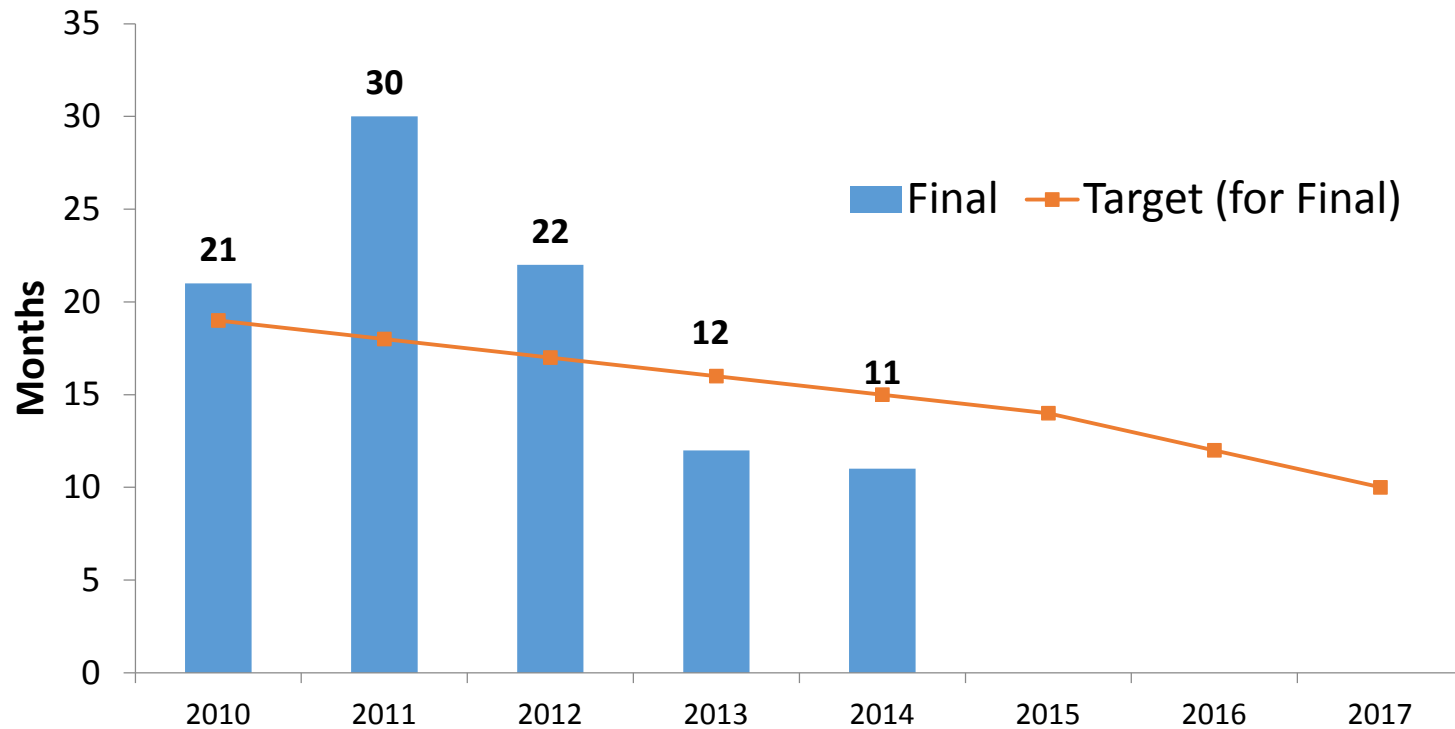


Number of States Transmitting Records to NCHS Within 10 days of the Date of Death by Percentage of Records, January-August 2016, with 2017 Goal of States at 80+% Transmission Rate

Number of States by Percent of Records

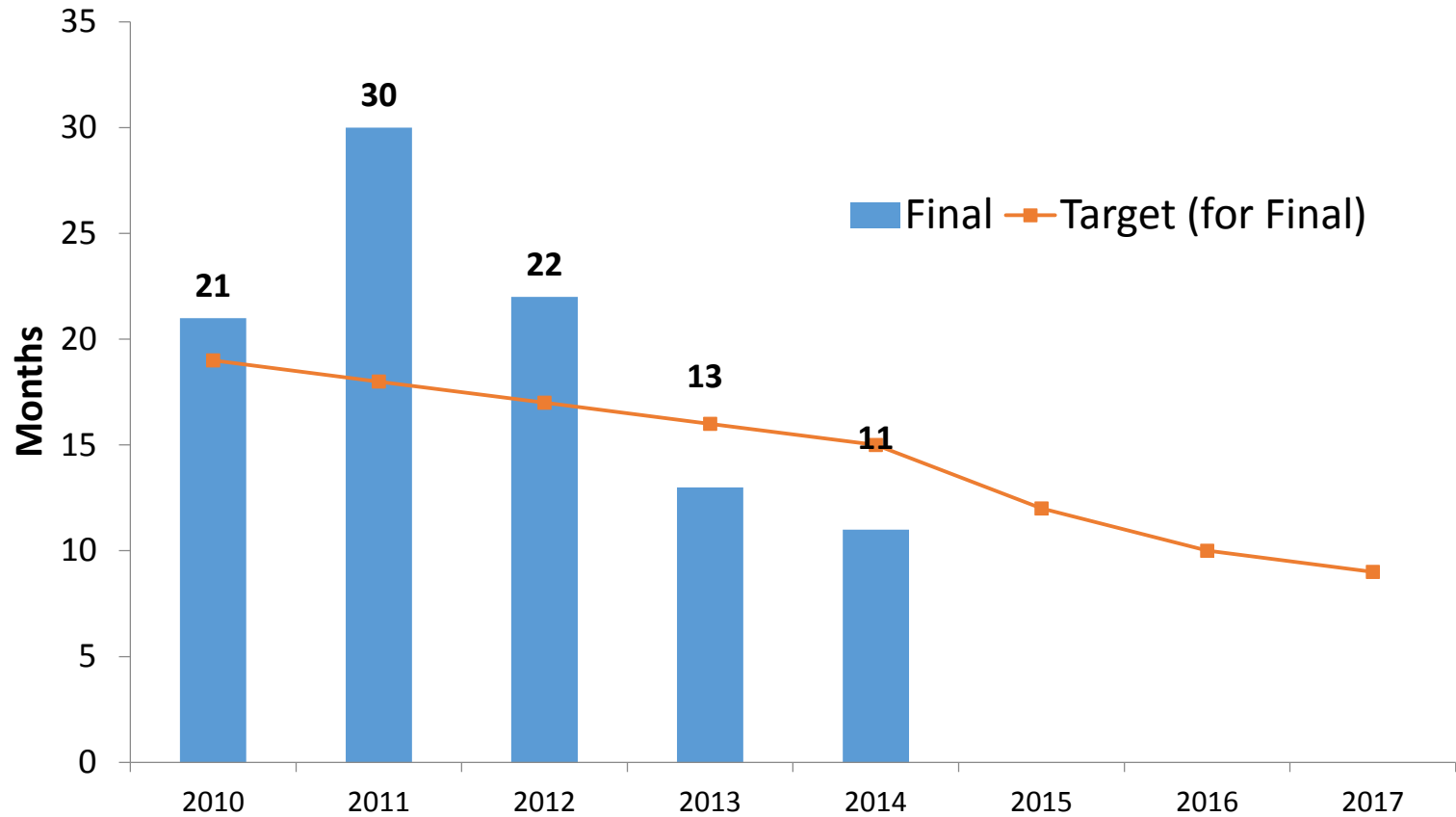


Number of months after data year for release of final mortality file (Annually)



Priority: Improve Timeliness (by Decreasing Time for Release of Mortality Data)

Number of months after data year for release of National Death Index File (Annually)



Priority: Improve Timeliness (by Decreasing Time for Release of Mortality Data)



Vital Statistics Rapid Release

Quarterly Provisional Estimates

- Deaths released August 2016
- Births released August 2016
- <http://www.cdc.gov/nchs/products/vsrr.htm>
- Quarterly provisional estimates from 2015 thru first quarter of 2016

Quarterly Provisional Mortality Estimates: Current List of Indicators

1. All causes
 2. Alzheimer's disease*
 3. Cancer*
 4. Chronic liver disease and cirrhosis*
 5. Chronic lower respiratory diseases*
 6. Diabetes*
 7. Drug overdose
 8. Falls, ages 65 and over
 9. Heart disease*
 10. HIV disease
 11. Homicide
 12. Hypertension*
 13. Injury by firearms
 14. Kidney disease*
 15. Parkinson's disease*
 16. Pneumonia and influenza*
 17. Pneumonitis due to solids and liquids*
 18. Septicemia*
 19. Stroke*
 20. Suicide*
 21. Unintentional injuries*
- * 15 leading causes of death in 2013

Upcoming Initiatives

- eVitals Initiative
 - Final approval of the national HL7 standards
- Enhance the utility of death records for research
 - Methodology to extract PII information in literal text field to be able to use.
 - New business model for NDI
- Interoperability of the Medical Examiner/Coroner Systems and the Electronic Death Registration Systems (proposed project with OPHPR)
- Death Reporting using FHIR (Fast Healthcare Interoperability Resources)
- Next Generation Electronic Death Registration System

Questions?