National and city/state-level quality improvements

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National level: timeliness

- United States has 57 registration jurisdictions

- 57 jurisdictions report annually an estimated 6.5 million births, deaths, and fetal deaths to the National Vital Statistics System (NVSS)

- All 57 jurisdictions must report their data to the NVSS before NCHS finalizes and releases national data
National level: timeliness

- National level *preliminary* death data for 2010 were not published until January 2012

- **NCHS goal**: 57 jurisdictions participating in Vital Statistics Cooperative Program to report 80% of deaths within 10 days of event
National level: timeliness

- Vital Statistics Cooperative Program contract
  - Promoted timeliness and quality
  - Included support in development and implementation of electronic death registration systems

- NCHS may withhold or reduce payment if jurisdiction fails to meet reporting requirement
- Early warning notification system to proactively identify jurisdictions at risk of failing to meet timeliness and data quality standards
National level: timeliness

- As of July 2016, only 46 of the 57 vital registration jurisdictions have an operating electronic death registration system.
National level: timeliness

- In 2014 final mortality data were released 12 months after end of data year
  - Earliest final data release for mortality in history of NVSS
  - 2015 final data released in December 2016

  - Release of quarterly provisional estimates
  - State & national provisional counts and estimates of key health indicators
City/State-level

- Quality of cause of death (COD)
  - Conducted by New York Department of Health and Mental Hygiene
  - One of the 57 jurisdictions

- 2003 comparison of in-hospital deaths with medical charts
  - 91% over-reporting of heart disease
  - Over-reporting increased with age
City/State-level

- Intervention period: June 2009- January 2010
- Sample: 8 of the 64 hospitals in NYC

**Intervention:**
- Conference call with senior staff
- On site, in-service training
- Online learning module
- Process mapping of death certification and registration workflow
City/State-level

- At intervention hospitals heart disease deaths decreased from 68.8% pre-intervention to 32.4% post-intervention.

- Citywide, the proportion of heart disease deaths decreased:
  - 39.1% pre-intervention
  - 34.2% post-intervention
  - 32.5% in the extended post-intervention period
City/State-level

- Annual online training requirement for physicians using the electronic death registration system
- Hawaii based its e-learning training on the NYC model