The National Vital Statistics System

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Presentation for the
Commission on Evidence Based Policy Making
January 13, 2017
Purpose and Use for Vital Records

• Civil Registration: permanent legal record of vital events registered and processed by vital records offices

• National Security: protect against fraudulent use; used for proof of citizenship; birth certificates used by SSA to generate Social Security numbers, by State for passports

• Public Health: surveillance, monitoring trends, identifying emerging issues
Background

- 1893 International List for Causes of Death
- 1907 Model Legislation for states on vital registration
- 1933 NAPHSIS established - all states and DC adopted laws consistent with Model legislation
- 1967 and beyond: NCHS developed automated coding system and software
- Today: Electronic registration of vital events
Registration of Vital Events

- Registration of births and deaths is *not* a Federal activity – the legal authority resides with the states and jurisdictions.

- The US has 57 independent registration areas that provide the permanent legal record for births and deaths:
  - 50 States
  - 5 U.S. Territories
  - New York City
  - Washington, DC
Federal Role in Vital Statistics

- Public Health Service Act, Section 306(h)(1):
  - NCHS mandated to collect data annually from the records of births and deaths in registration areas
  - Secretary of HHS shall encourage the collection of detailed data on ethnic and racial populations
  - States and registration areas shall be paid by the Secretary the Federal share of its reasonable costs
Vital Statistics Cooperative Program

• Oldest Federal – State data sharing partnership
• NCHS contracts with 57 jurisdictions
• Collaboration results in the use of standard certificates, classifications (ICD), coding rules, and reporting elements
• Records are sent to NCHS:
  • NCHS provides quality review and mortality coding
  • NCHS returns electronically coded records in 1 day, returns manually coded records in 10 days
Robust Collaboration

• NCHS provides funding, training, technical assistance

• Records sent to NCHS must meet certain requirements for coding rules and coding structures:
  - NCHS provides quality review and mortality coding
  - NCHS returns electronically coded records in 1 day, returns manually coded records in 10 days

• Result: NCHS produces national statistics based on 6 – 7 million records of births and deaths each year and quarterly estimates on major outcomes
Timeliness

- Improved timeliness = increased value
- Substantial improvements in timeliness for:
  - Receipt of records by NCHS from jurisdictions
  - Return of records to jurisdictions from NCHS
  - Release of data by NCHS
- Timeliness of mortality data differs by cause of death – important for mortality surveillance
Mortality Records Received by NCHS within 10 Days of the Date of Death

Year

2010
2011
2012
2013
2014
2015
2016 (Jan-Sept)

Percent

0
10
20
30
40
50
Access to Information for the Public and Researchers
Products and Dissemination

• Data Briefs
• National Vital Statistics Reports
• Vital Statistics Rapid Release Program- Quarterly
  • Natality estimates for birth rates, delivery method, preterm, other Gestational age
  • Mortality estimates for 15 leading causes of death plus drug overdoses, falls (age 65+), HIV, homicide, and firearms
Crude and age-adjusted death rates for all causes: United States, 2014–Quarter 2, 2016

- For 2016, the crude death rate for all causes was 894.7 deaths per 100,000 population for the first quarter and 822.3 for the second quarter. The rate for the first quarter decreased from 930.3 in the first quarter of 2015, and the rates for the second quarter were similar in 2015 (823.5) and 2016. The age-adjusted death rate decreased from 2015 to 2016 for the first quarter (769.1 and 801.4, respectively) and for the second quarter (705.3 and 716.8, respectively).
- The crude death rate for all causes for the 12-month period ending with the second quarter of 2016 was 836.1 per 100,000 population, a decrease from 843.0 for the same period of 2015. The age-adjusted rate remained lower in 2016 than in 2015 for the comparable period (720.2 and 736.4, respectively).
- In 2015 (12-month period ending with the fourth quarter of 2015), the crude death rate for all causes was 844.0 per 100,000 population, an increase from 823.7 in 2014. The age-adjusted death rate remained higher in 2015 than in 2014 (733.1 and 724.6, respectively).
Access to Data

- Interactive, web-based services
  - WONDER
  - WISQARS

- Full micro-data files
  - Public use
  - Restricted
NCHS Data Release and Access Policy for Micro-data and Compressed Vital Statistics Files

This document outlines NCHS/Division of Vital Statistics (DVS) policy on the release of and access to vital statistics micro-data for births, deaths, fetal deaths, linked birth/infant death, and matched multiple births. Given changes in state laws and policies on confidentiality with respect to the re-release of vital registration data, NCHS has revised its micro-data release and access policy to comply with state requirements effective with the 2005 data year.* The DVS revised policy as outlined here is consistent with CDC and NCHS goals to make data available as widely as possible while protecting respondent confidentiality, assuring data quality, and conforming to state laws and regulations on re-release of vital statistics data.

Data available to the public:

A. Public-use micro-data file content:

The release of public-use data generally coincides with the publication, or follows soon after, of DVS final annual reports on births, deaths, fetal deaths, and linked birth/infant death. DVS also publishes preliminary reports, but these are based on incomplete data, do not constitute a final data file, and are not released as micro-data. Final report publication dates vary from year to year following receipt and processing of complete data from the states and other registration areas.
Restricted Data

Requests must be reviewed by NAPHSIS and NCHS

NAPHSIS Review:

• Researchers may request customized micro-data files containing geographic data on States and counties
• Some states have their own laws, regulations or policies restricting access and prohibiting release of certain items
• NAPHSIS must review and approval all requests for custom micro-data prior to review by NCHS
Restricted Data continued

NCHS Review:

Federal Privacy and Confidentiality Requirements:

- Public Health Service Act § 308(d) *Information must be used for the purpose for which it was supplied, and no identifiable information may be published or released without consent*

- Following approval from NAPHSIS and NCHS, researchers must sign a Data Use Agreement on terms and use

- Data for approved projects will be provided at no cost
National Death Index

- Centralized database of death record information
- Assists investigators in the identification of study participants who have died
- Records are available from 1979 – 2015
- Available to investigators solely for statistical purposes in medical and health research
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