



Improvements to the National Vital Statistics System

About NCHS

The National Center for Health Statistics (NCHS) is the nation's principal health statistics agency, providing data to identify and address health issues. NCHS compiles statistical information to help guide public health and health policy decisions.

Collaborating with other public and private health partners, NCHS employs a variety of data collection mechanisms, including the National Vital Statistics System, to obtain accurate information from multiple sources. This process provides a broad perspective to help us understand the population's health, influences on health, and health outcomes.

National Vital Statistics System

The National Vital Statistics System (NVSS) provides the nation's official vital statistics based on the collection and registration of birth and death events at the state and local level. This system contains information on all births and deaths in the United States and provides the most complete and continuous data available to public health officials at the national, state and local levels, and in the private sector.

Examples from the NVSS include teen births and birth rates; preterm birth and infant mortality rates; leading causes of death; and life expectancy. Vital statistics have diverse uses - they serve as a base for public health, social service, and economic planning and program development and are used to track progress toward health goals.

Improvements to the NVSS

Each year, the NVSS collects information on 6.5 million birth, death and fetal death events occurring in the 57 U.S. vital registration areas (50 states, New York City, District of Columbia, and five U.S. territories). NCHS also works with each vital registration area and the National Association for Public Health Statistics and Information Systems (NAPHSIS) - representing state vital statistics' offices - to collect vital registration data and to improve **timeliness** and **data quality**.

Efforts to improve vital records are ongoing - they involve NCHS support of states in implementing electronic birth and death registration systems and completing the implementation of the 2003 revised standard certificates in all jurisdictions. Electronic birth and death records will improve timeliness of data, allow for transfer of data between states, and integrate vital statistics with public health surveillance systems. As of 2013, NCHS completed the funding of remaining states seeking assistance for development and/or implementation of a web-based electronic birth registration system (EBRS). Similar progress has not been made with electronic death registration systems (EDRS). As of 2013, 37 of the 57 vital registration areas have an operating EDRS, although most of these systems are not operating statewide and most data providers (physicians, funeral homes) are not using them to enter the death information.

Registration areas are also implementing a revised birth certificate based on the 2003 U.S. Standard Certificate of Live Birth. At the start of 2014, 10 vital registration areas still need to implement the

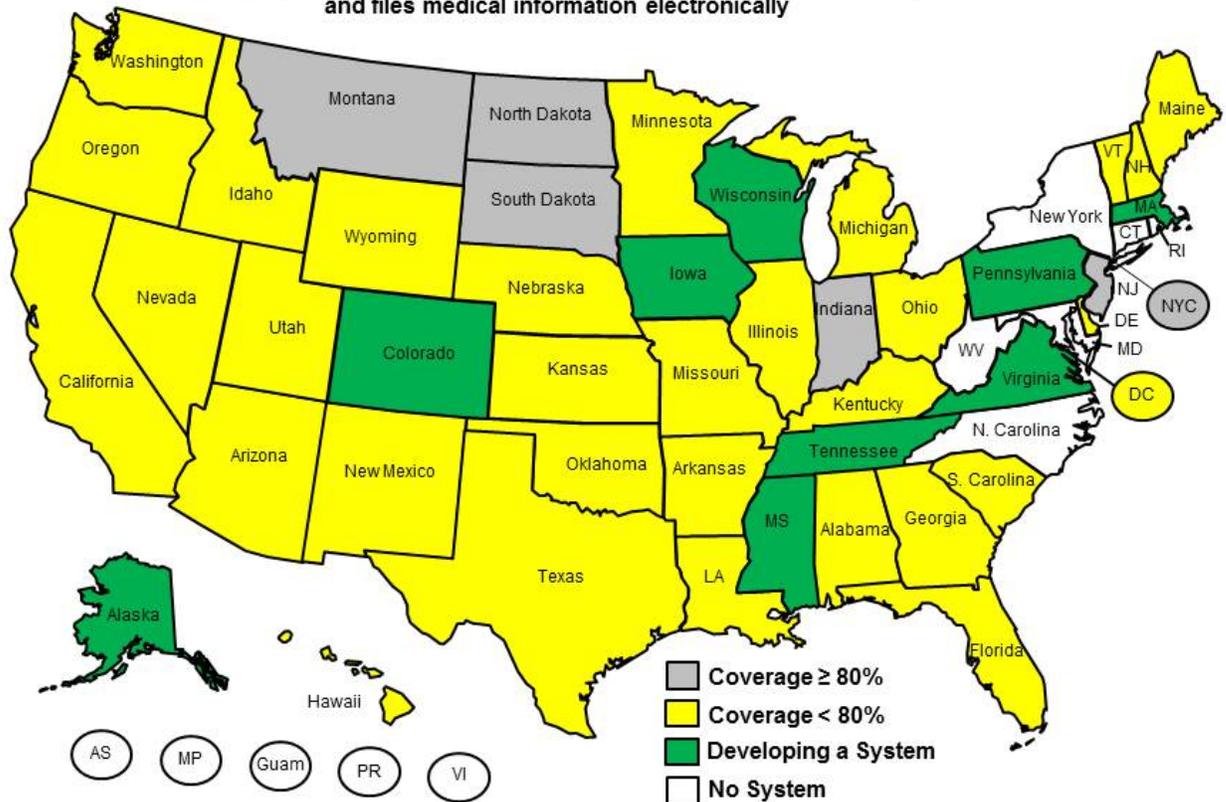
revised birth certificate; all areas are expected to implement the revised birth and death certificates by January 1, 2015.

In 2012, new 5-year contracts with the vital registration areas were signed that promote improved timeliness and quality. For the first time, these contracts allowed NCHS to fund special projects to enhance the timeliness and quality of the vital statistics system. Projects were funded to:

- Implement new electronic birth registration systems (EBRS) and complete the establishment of EBRS in every state.
- Test the feasibility of electronic data exchange between vital registration systems and electronic medical records.
- Improve physician participation with electronic death registration.
- Assist in the development of electronic death registration systems and increase the percentage of physicians signing death certificates using the electronic system.

**Percentage of Death Records Fully Filed Electronically*
Using Electronic Death Registration System
Updated February 2014**

*Funeral Home demographic and disposition information electronically; Certifying physician enters and files medical information electronically



Source: National Association for Public Health Statistics and Information Systems

Improved Timeliness

Timeliness of data for the preliminary and final vital statistics reports is calculated from the time records are received from the vital registration areas, processed and closed, to publication on the web.

- To allow for timely public health planning and response, to NCHS releases preliminary birth and mortality data when it has received 95 percent or more of all records from vital registration areas.
- Preliminary birth data for 2012 were released five months after the end of data collection.

Improved Data Quality

NCHS works to improve data quality through special studies, and expanded outreach to physicians and others completing birth and death certificates. Recent projects to improve data quality include:

- The 2003 Revisions of the U.S. Standard Certificates for live birth, death, and fetal death. These revisions encourage uniformity in data collection across registration areas. State adoption of the revised certificates enhances the ability to analyze and track crucial indicators, including demographic characteristics, health care utilization, and outcomes such as Cesarean delivery.
- Improved data transfer systems developed between vital registration areas and between vital registration areas and NCHS.
- Data standards developed to transfer data between electronic medical records and vital registration systems.
- Web-based tutorials to assist physicians in completing death certificates.
- Automated coding systems for cause of death developed to speed data availability.

Using Data for Mortality Surveillance

As timeliness and data quality improve, NCHS continues to strengthen methods to identify deaths of high public health interest. NCHS developed a new protocol for confirming **rare causes of death** such as those caused by vaccine preventable diseases:

- NCHS codes cause-of-death and flags rare causes.
- NCHS notifies vital registration areas on rare causes and requests state follow-up.

This new protocol increases confidence that rare causes of death of high public health interest and visibility in the national data files are accurately reported, leading to prompt intervention, if appropriate.

For further information about NCHS and its programs, visit us at <http://www.cdc.gov/nchs>
For further information about the NVSS, visit <http://www.cdc.gov/nchs/nvss.htm>

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