

A Case of Life and Death

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Since 1640, the State of New Hampshire's Vital Records Administration has kept track of such information. The data is used to keep track of vital events and to help identify trends, such as disease outbreaks, as well as to monitor health screenings for children across the state and establish public health guidelines based on accurate data, for example. Because keeping accurate records of vital events is a critical component of state government, New Hampshire built an Electronic Vital Records System (EVRS), developed by Maryland-based CNSI.

The EVRS provides the state with a centralized repository for vital record data and enables New Hampshire's 120 funeral directors, 27 hospitals, 234 town/city clerk offices and authorized certifying physicians and healthcare facilities to register all vital events data into the database. Additionally, CNSI's EVRS is Web-based, allowing data to be entered by authorized parties from anywhere via a secure Internet connection. New Hampshire's EVRS went live in April 2004 and routes all the information pertaining to the state's 10, 000 deaths, 15, 000 births, 5, 000 divorces, and 10, 000 marriages each year. The system performs all Vital Record Office tasks, from the capture or registration of the vital event to creating and running statistical reports and printing legal certificates, such as marriage licenses or certificates of death. As a Web-based system, EVRS works in real-time and helps New Hampshire operate as efficiently as possible. The Benefits of a Web-Based System

New Hampshire did not always have such an effective solution in place for tracking vital events. In the past, such information was collected by paper and telephone.

The state actually used to maintain banks of 1-800 numbers, before automating data collection in 1990. In 1998, the state's software for vital records was moved to a client/server architecture with a PowerBuilder (now owned by Dublin, Calif.-based Sybase) front end and an Oracle (Redwood Shores, Calif.) back end. Now, with the help of CNSI, the state has gone one step further and moved to a Web-based system that has 650 users and processes 50, 000 vital record events per year. This transition made New Hampshire the first state in the country to deploy a fully integrated, 100 percent Web-based vital records management system.

A Web-based system is better suited to the needs of federal agencies to which the data is reported. For example, the National Center for Health Statistics (NCHS) wanted vital event data in a specific format and timeframe, whereas the

Social Security Administration (SSA) wanted mortality data immediately. Because New Hampshire's Vital Records system is Web-based and includes the Online Verification Software interface required to communicate real-time fact-of-death information, the SSA gets death reports as soon as the data is entered into the system. CNSI's EVRS is also the only Web-based vital records system available today that is 100 percent compliant with the NCHS 2003 revised certificate specifications, as well as with security guidelines for the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

Records vital to keeping residents healthyNew Hampshire uses vital event data proactively to track public health initiatives by linking EVRS with the state's Department of Health and Human Services' Maternal and Child Health (MCH) initiative. Part of MCH's mission is to improve the availability of, and access to, healthcare for all children, regardless of their families' ability to pay. It is MCH's ultimate goal that every child in the state has the opportunity to grow up healthy, and initiatives such as the Newborn Screening Program, the Universal Newborn Hearing Screening Program and the Preschool Vision and Hearing Program help move the state closer toward this goal.

When a child is born, birth information is recorded in the EVRS. When the child has these tests done, data is entered into the system and is automatically reconciled with birth data. By linking EVRS with MCH, the state is able to track its progress towards providing the most comprehensive healthcare to children, hopefully heading off unnecessary health complications the child may have experienced without such early intervention. Mortality statistics are another set of data which can be equally useful for the Division of Vital Records to track and can actually have an immense impact on the living. The information that the state collects can be used to immediately identify any anomalies in the number of

deaths that occur during a given time period, and also can be monitored for emerging infectious diseases or potential bioterrorism attacks. Or, it can even be something simpler than that. For example, in one case, the state noticed an increase in deaths from pneumonia and respiratory problems at a nursing home. New Hampshire was able to investigate this problem to make sure that the residents of the nursing home were receiving the best healthcare possible.

In step with the federal government Using EVRS to track health data in children enables New Hampshire to evaluate the effectiveness of federal initiatives, such as the Special Supplemental Nutrition Program for Women, Infants and Children – better known as the WIC program. This program serves to safeguard the health of low-income women, infants and children who are at nutritional risk by providing nutritious foods to supplement diets, information on healthy eating, and referrals to healthcare. The Food and Nutrition Service – an agency of the U.S. Department of Agriculture (USDA) – administers the program at the federal level, providing funds to state agencies to pay for WIC foods, nutrition counseling and education, and administrative costs. Because WIC is a federal grant program for which Congress authorizes a specific amount of funds each year, it is extremely important for New Hampshire to keep track of participants in the WIC program, in order to help keep track of the efficacy of the program. More than 7.5 million people receive WIC benefits each month across the United States.

In addition to tracking who participates in the WIC program, the state can drill down further, for example, by looking at how many low-birth weight babies were born to females ages 18-23 in specific counties in the state, and how many of those mothers and children are participating in the program. This information is extremely important in order for the state to identify and address trends in healthcare and the related programs. Automating record collection is vital Tracking vital

events data is a fundamental process that takes place in each and every state, involving the creation of thousands of records and certificates. Automating the process with EVRS ensures the agencies interact with citizens and federal agencies in an efficient and timely manner. This centralized approach to data capture has not only reduced state maintenance costs but also increased the timeliness of New Hampshire's vital event information – resulting in better customer service and more detailed reporting. With data accuracy of near 100 percent, the state's EVRS is among the nation's top 5 percent most accurate vital records programs. William Bolton, Jr. is state registrar and director, division of vital records administration, Department of State, State of New Hampshire.