

Nation's Vital Statistics System Reengineered to Speed the Flow of Data

The nation's Vital Statistics System, the source of national data on births and deaths, is being reengineered to speed the flow of data from the states to the National Center for Health Statistics (NCHS), where data are processed and disseminated. While state vital statistics offices produce state and local data, NCHS in cooperation with the states receives, compiles, and releases the official vital statistics for the nation. Now this century-old system is using new approaches to make more detailed information available to the public health and research community faster than ever before.

Electronic reporting system. Under the reengineered system, states send data to NCHS electronically on a continuous rather than a periodic basis, allowing data to be processed continually and more rapidly than in the past. NCHS has set up an electronic bulletin board on the Internet on which it will receive data and has initiated an automated receipt and control system. Data flow is also enhanced through the use of electronic birth records. These records are created at the hospital and move electronically through the system, which allows for automated quality control and editing. While not all states have electronic birth records, there has been great progress in adopting and adapting this technology. Approximately 70% of U.S. births are now registered electronically. Research is moving forward on the more complex electronic death record.

New publications. To take advantage of these improvements, a new publica-

tion will report semiannually the latest preliminary information on natality and mortality patterns for the preceding 12 months. The first report, on births and deaths in 1995, was published as part of the ongoing Monthly Vital Statistics Report series.¹ It contains preliminary data on 1995 births and deaths and replaces the provisional annual summary, which was based on birth and death certificates filed in state vital statistics offices and a systematic 10% sample of death records (current mortality sample).

Under the new system, the preliminary data are based on an approximately 90% sample of records in the live birth and death files. No aggregate data will be shown for a data item if reporting for that item is less than 80% complete. State-level data must be at least 60% complete to be included in the preliminary report. Data are treated as representative of complete data for the states and for the United States through weighting procedures similar to those used with the current mortality sample. Considerably more natality data are now available.

In addition to national and state estimates of total births and birth rates, NCHS is publishing preliminary statistics on births by age, marital status, race/ethnicity and Hispanic origin, and such health characteristics as low birth weight and receipt of prenatal care. Mortality data in the preliminary reports are also more detailed than in the provisional summaries published in previous years, with more detailed information on life expectancy, infant mortality, and leading causes of death. For the first time, current mortality data will be available not only for the United States as a whole but for individual states as well. The current system of continuous reporting will also expedite the production of the final mortality and natality files and of publications highlighting those findings.

Over time, it is expected that the monthly provisional reports will become one-page fact sheets of monthly counts. The annual summary of provisional data, published for more than 40 years, will no longer be published since the preliminary report provides more detailed data on a faster schedule. Detailed data on marriage and divorce are no longer reported by NCHS, but provisional monthly and annual counts of marriages and divorces will appear in the monthly provisional fact sheets.

Highlights of 1995 Vital Statistics

Births. As of April 30, 1995, the preliminary count of 1995 births was 3,900,089, down 1% from the final 1994 total of 3,952,767. The crude birth rate for 1995 was 14.8 per 1000 population, lowest in nearly two decades (the crude birth rate was 14.6 in 1976). The general fertility rate, the rate of births to women in the child-bearing ages, was 65.6 per 1000 women ages 15 to 44, lowest in nearly a decade. The general fertility rate was 65.4 in 1986.

Birth rates were down 1% to 3% for women in their twenties and those ages 45 to 49. Rates were up 1% for women in their thirties.

Fertility rate. The total fertility rate—an estimate of lifetime childbearing—went down 1% from 1994 (2036.0 per 1000 women) to 1995 (2020.0 per 1000). The rate for white women was essentially unchanged at 1992.5 per 1000, while the rate for black women dropped 6%, to 2158.5. Rates for American Indian (2061.5), Asian/Pacific Islander (1904.5), and Hispanic (2983.5) women each dropped by 1% to 2%.

Births among unmarried women. All measures of childbearing by unmarried women declined in 1995. The propor-

tion of births to unmarried mothers among all births declined 2%, to 32.0% (from 32.6% in 1994). The proportions for white (25.3%) and black births (69.5%) were each 1% lower than in 1994; the proportion for Hispanic women, 40.8%, was 5% lower than in 1994. The birth rate for unmarried women dropped 4% from 46.9 to 44.9 per 1000. This is the first time all of these measures have dropped since 1940, when national data were first compiled.

Teen births. The teen birth rate dropped 3% from 1994 to 1995 (from 58.9 to 56.9 per 1000 women ages 15–19); it declined 8% from 1991 (62.1 per 1000) to 1995. With a substantial drop of 9% for black teens from 1994 to 1995, the rate for black teens dropped 17% from 1991 to 1995.

Mortality patterns. In 1995, an estimated 2,312,180 deaths were registered in the United States, 33,186 more than the previous high recorded in 1994. The crude death rate of 880.0 per 100,000 population was slightly higher than the rate of 875.4 per 100,000 for the previous year. The age-adjusted death rate, which eliminates the distorting effects of the aging of the population, was 503.7 per 100,000 standard million population, a record low for the United States; the 1994 rate was 507.4.

Age-adjusted death rate. The decline in the age-adjusted death rate for the United States between 1994 and 1995 continues the long-term downward trend in mortality that was interrupted most recently in 1993 by the high mortality associated with the influenza epidemics in 1992 and 1993. The 1994 to 1995 decline is reflected in reduced mortality for white males, black males and females, and Hispanics. The mortality of white females did not change significantly.

Mortality by age. The overall reductions in age-adjusted mortality between 1994 and 1995 were the result of declines for most age groups under 85 years of age. Among persons 85 years old and over, mortality increased from 1994 to 1995 after

declining between 1993 and 1994. Large fluctuations in mortality for the oldest old are more likely to be statistical artifacts than true changes in mortality risk.

Life expectancy. Estimated life expectancy in 1995 matched the record high of 75.8 years attained in 1992 and was slightly above the 1994 figure of 75.7 years. Record high life expectancies were reached for white males (73.4), black males (65.4), and black females (74.0). For white females, life expectancy was unchanged at 79.6 years and slightly below the record high of 79.8 reached in 1992.

Causes of death. Reductions occurred between 1994 and 1995 in mortality associated with the two leading causes of death—heart disease and cancer. While the downward trend in mortality from heart disease is of long standing, the trend in cancer turned downward only recently. The 1994 to 1995 decline in cancer mortality follows a similar reduction from 1993 to 1994.

- The largest decline in mortality between 1994 and 1995—15%—was in homicide. Declines were also observed for chronic liver disease and cirrhosis and for accidents, including motor vehicle accidents.
- Age-adjusted death rates increased for four leading causes of death—Alzheimer's disease; blood poisoning (septicemia); kidney diseases and allied conditions (nephritis, nephrotic syndrome, and nephrosis); and diabetes. The largest increase, which was for Alzheimer's disease (8%), may reflect changes in diagnostic practices rather than real increases in mortality from this cause. Diabetes mortality has been increasing for approximately the past ten years.
- Mortality (age-adjusted death rates) from firearms, drug-induced causes, and alcohol-induced causes declined between 1994 and 1995.

- In 1995 a total of 5543 people are estimated as having died from injuries sustained at work, a marked decline from the 6008 reported on death certificates in the previous year.
- While the number of deaths due to HIV infection increased from 42,114 in 1994 to an estimated 42,506 in 1995, the largest number reported in a single year, the age-adjusted death rate from this cause did not increase. This marks the first time that the age-adjusted death rate for HIV infection has held steady for two consecutive years since 1987, when this cause of death was first uniquely classified in the morbidity and mortality statistics of the United States.

Inter-group differences. Among the major race/ethnic groups, the lowest mortality was reported for the Asian/Pacific Islander group. The age-adjusted death rate for this group was 39% below that of whites. In contrast, the rate for blacks was 59% higher than that of whites. The gap between whites and blacks in mortality narrowed slightly between 1994 and 1995.

Infant mortality. A record low of 7.5 infant deaths per 1,000 live births was reached in 1995, a 6.7% reduction from the previous year. The decline occurred among newborns (infant deaths within 28 days) as well as among postneonates (ages 28 days through 11 months) and among both white and black infants.

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Reference

1. Preliminary data on births and deaths from the National Vital Statistics System, 1995. Monthly Vital Statistics Report. Hyattsville (MD): National Center for Health Statistics; 1996.