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Final Data From the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

Advance Report of Final Natality Statistics, 1993

Stephanie J. Ventura, A.M.; Joyce A. Martin, M.P.H.; Selma M. Taffel;
T. J. Mathews, M.S.; and Sally C. Clarke, Division of Vital Statistics

Highlights

Births in the United States declined in 1993 for the third consecutive year, to just over 4 million. The 1993 total of 4,000,240 births was 2 percent lower than in 1992 and 4 percent below the most recent high point of 4,158,212 in 1990. The **birth rate** per 1,000 total population declined to 15.5, its lowest point in 15 years. The **fertility rate** per 1,000 women aged 15–44 years was 67.6, 2 percent lower than in 1992 and 5 percent below the 1990 level.

The **birth rate for teenagers** 15–17 years was unchanged in 1993, at 37.8 births per 1,000, while the rate for older teenagers 18–19 years dropped 3 percent in 1993, to 92.1 per 1,000. Although these rates were still higher than 20 years ago, it appears that rates for teenagers may be at a plateau, having changed little or declined during 1991–93, following increases of 19–27 percent from 1986 to 1991. The teenage pregnancy rate has apparently declined in recent years as well, based on declines reported in both abortion and birth rates for teenagers.

Birth rates for women in their twenties, the peak childbearing years, declined in 1993 by 2 percent, to 112.6 per 1,000 women aged 20–24 years and 115.5 per 1,000 women aged 25–29 years. These rates declined 3 to 4 percent during 1990–93.

Birth rates for women in their thirties also appear to have stabilized. Rates increased just 1 percent in 1993, continuing a pattern of very modest increases since 1990. Births to women in their early thirties nevertheless were more numerous than ever, exceeding 900,000, and the number of births to women aged 35–39, 357,000, was higher than in any year since 1960.

Birth rates for women in racial and Hispanic origin subgroups vary substantially. As in previous years, the rates in 1993 were highest for Hispanic women, particularly Mexican women, and for black women. Rates were successively lower for American Indian, Asian or Pacific Islander, and white women. Rates among teen subgroups were highest for Hispanic and black women, and rates for women in their thirties tended to be highest for Asian or Pacific Islander women. Rates by age in most racial and Hispanic subgroups generally declined in 1993.

The rate of **childbearing by unmarried women** has been essentially unchanged for 3 consecutive years, 45.3 births per 1,000 unmarried women aged 15–44 years in 1993. During the period 1980–91, this rate had increased 54 percent. Nonmarital births totaled 1,240,172 in 1993, 1 percent more than in 1992; nonmarital births accounted for 31 percent of all births in 1993. Births to

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unmarried women comprised 24 percent of white births, 69 percent of black births, and 40 percent of Hispanic births. Proportions were generally lower among Asian or Pacific Islander women, averaging 16 percent.

One in five mothers giving birth in 1993 was a college graduate, the same level as in 1992. Another 21 percent had some college, and 36 percent had completed high school. Overall, 77 percent of mothers were high school graduates. Wide variations in **educational attainment** persist among racial and Hispanic origin subgroups, with the proportion completing high school ranging from 40 percent of Mexican mothers to 97 percent of Japanese mothers.

Adequate **maternal weight gain during pregnancy** is a critical factor for optimum birth outcome, especially infant birthweight. The proportion of mothers with weight gains of less than 16 pounds increased for white and black women, to 8.9 percent and 16.3 percent, respectively. Median weight gain for both white and black mothers changed little in 1993. Medians were 30.6 pounds for white mothers and 28.5 pounds for black mothers.

The most frequently reported **medical risk factors** of pregnancy in 1993 continued to be anemia, diabetes, and pregnancy-associated hypertension, with rates of 19 to 30 per 1,000 live births. The incidence of diabetes has risen appreciably from 21 to 26 per 1,000 between 1989 and 1993. Rates for these three conditions among American Indian mothers were substantially higher than for mothers in other racial or ethnic groups.

Cigarette smoking during pregnancy declined again for the fourth consecutive year to 15.8 percent of mothers in 1993. Seventeen percent of white mothers and 13 percent of black mothers reported smoking. Rates were much lower for most Asian or Pacific Islander and Hispanic subgroups (averaging 4–5 percent). The strong adverse impact of maternal smoking on low birthweight levels persisted in 1993. Babies born to mothers who smoked were at nearly twice the risk of weighing less than 2,500 grams (11.8 percent) compared with babies born to nonsmokers (6.5 percent). This translates into an estimated 40,000 infants with low birthweight that was attributable to their mothers' cigarette smoking.

Prenatal care utilization improved for the second consecutive year in 1993, following more than a decade of little change. In 1993, 79 percent of mothers giving birth began care in the first trimester of pregnancy, compared with 78 percent in 1992 and 76 percent over the previous 11 years. Fewer than 5 percent of mothers were reported to have begun care in the third trimester or had no care at all, the lowest level since 1969.

Two **obstetric procedures** used for a majority of births are electronic fetal monitoring (EFM) and ultrasound. EFM was reported for a record number of births, 3.1 million in 1993, or 79 percent of the total. EFM usage has increased steadily since 1989 among women in all age and racial or Hispanic origin groups. Ultrasound usage also continued to increase, to 60 percent of mothers giving birth in 1993.

Data on **method of delivery** show that the rate of cesarean delivery declined again in 1993, to 21.8 percent of all births, 4 percent lower than in 1989, 22.8 percent. Rates increase steadily with advancing maternal age; nearly one-third of mothers in their forties experienced a cesarean delivery. The rate of vaginal birth following a previous cesarean delivery (VBAC) also increased in 1993, to 24.3 percent, a 29-percent increase compared with 1989 (18.9 percent). Forceps deliveries declined again in 1993, to 4.1 percent of births, while the use of vacuum extraction continued to rise, to 5.3 percent of births.

The proportion of **babies born preterm**, that is prior to 37 completed weeks of gestation, increased 3 percent in 1993 to 11 percent, resuming a pattern of steady increase observed during the 1980's until 1991. The proportion of preterm births rose 4 percent for white births to 9.5 percent; the proportion is much higher for black births, 18.5 percent, essentially unchanged from 1992. If the preterm birth rate in 1993 had remained at 9.4 percent (1981 level), about 63,000 fewer babies would have been born preterm in 1993.

The incidence of **low birthweight** increased from 7.1 to 7.2 percent of births in 1993, the highest level reported since 1976. Most of the rise occurred among white births with a rate of 6.0 percent in 1993 compared with 5.8 percent in 1992. Low birthweight is much higher among black infants but was unchanged in 1993, at 13.3 percent. Low birthweight infants comprise about three-quarters of all infant deaths in the first month of life.

More than 100,000 babies were born in **multiple deliveries** in 1993, the highest number ever reported. The multiple birth ratio (the number of live births in multiple deliveries per 1,000 total live births) increased to 25.2. Live births in twin deliveries increased 1 percent (96,445 births), and the number of triplet (3,834 births) and higher-order (334 births) plural births combined rose 7 percent. According to recently published studies, a substantial proportion of all higher-order multiple births are the result of fertility-enhancing techniques.

Sources and methods

Data shown in this report for 1993 are based on 100 percent of the birth certificates in all States and the District of Columbia. Details of the sources of birth data for 1993 and previous years and methods are presented in the Technical notes. Birth data are shown by race of mother and by Hispanic origin of the mother. Race and ethnicity differentials in birth rates and characteristics of births may reflect differences in income, educational levels, and access to health care and health insurance. Text references to white births and white mothers or black births and black mothers are used interchangeably.

Demographic characteristics

Births and birth rates

Just over 4 million babies were born in the United States in 1993. The total of 4,000,240 births was 2 percent lower than in 1992 (4,065,014). U.S. births have dropped steadily since 1990, by 4 percent overall (table 1 and figure 1). Provisional data for 1994 indicate that births have continued to decline, by about 1 percent.

Between 1986 and 1990, births rose by 11 percent, to 4,158,212, the highest level since 1962. During the early 1980's, the number of births had varied little,

This report presents summary tabulations from the final natality statistics for 1993. More detailed tabulations for 1993 will be published in *Vital Statistics of the United States, Volume I—Natality*. Prior to the publication of that volume, the National Center for Health Statistics will respond to requests for unpublished data whenever possible.

Contents

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Microcephalus—A significantly small head.

Other central nervous system anomalies—Other specified anomalies of the brain, spinal cord, and nervous system.

Heart malformations—Congenital anomalies of the heart.

Other circulatory/respiratory anomalies—Other specified anomalies of the circulatory and respiratory systems.

Rectal atresia/stenosis—Congenital absence, closure, or narrowing of the rectum.

Tracheo-esophageal fistula/Esophageal atresia—An abnormal passage between the trachea and the esophagus; esophageal atresia is the congenital absence or closure of the esophagus.

Omphalocele/Gastroschisis—An omphalocele is a protrusion of variable amounts of abdominal viscera from a midline defect at the base of the umbilicus. In gastroschisis, the abdominal viscera protrude through an abdominal wall defect, usually on the right side of the umbilical cord insertion.

Other gastrointestinal anomalies—Other specified congenital anomalies of the gastrointestinal system.

Malformed genitalia—Congenital anomalies of the reproductive organs.

Renal agenesis—One or both kidneys are completely absent.

Other urogenital anomalies—Other specified congenital anomalies of the organs concerned in the production and excretion of urine, together with organs of reproduction.

Cleft lip/palate—Cleft lip is a fissure or elongated opening of the lip; cleft palate is a fissure in the roof of the mouth. These are failures of embryonic development.

Polydactyly/Syndactyly/Adactyly—Polydactyly is the presence of more than five digits on either hands and/or feet; syndactyly is having fused or webbed fingers and/or toes; adactyly is the absence of fingers and/or toes.

Club foot—Deformities of the foot, which is twisted out of shape or position.

Diaphragmatic hernia—Herniation of the abdominal contents through the diaphragm into the thoracic cavity usually resulting in respiratory distress.

Other musculoskeletal/integumental anomalies—Other specified congenital anomalies of the muscles, skeleton, or skin.

Down's syndrome—The most common chromosomal defect, with most cases resulting from an extra chromosome (trisomy 21).

Other chromosomal anomalies—All other chromosomal aberrations.

Related reports

Many of the topics discussed in this report are covered in more analytic detail in other reports published by NCHS. Topics of reports published in the past 5 years include birth rates by educational attainment (28), twin births (105), cesarean deliveries (42), birth rates for States (106), births to unmarried mothers (23), characteristics of births in Asian or Pacific Islander subgroups (18), and trends in pregnancies and pregnancy rates (6).