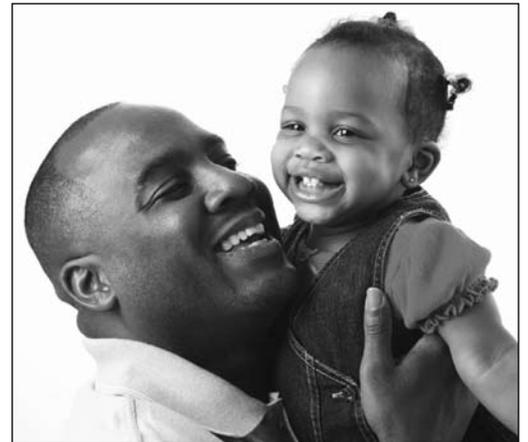


Health Status - Infants



BREASTFEEDING

Breastfeeding has been shown to promote the health and development of infants, as well as their immunity to disease, and may provide a number of maternal health benefits. For this reason, the American Academy of Pediatrics recommends exclusive breastfeeding—with no supplemental food or liquids—through the first 6 months of life, and continued supplemental breastfeeding through at least the first year of life.

Breastfeeding initiation rates in the United States have increased steadily since the early 1990s. In 2007, the parents of 75.5 percent of children aged newborn to 5 years reported that

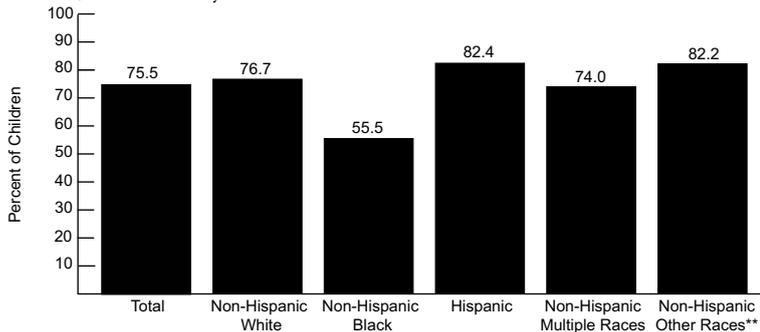
the child had ever been breastfed. Hispanic children were most likely to have been breastfed (82.4 percent), followed by children of other races, including Asian/Pacific Islanders and Native Americans/Alaska Natives (82.2 percent). Non-Hispanic Black children were the least likely to be breastfed (55.5 percent). Breastfeeding rates tend to increase with maternal age, higher educational achievement, and higher income.

Rates of exclusive breastfeeding are significantly lower than rates of breastfeeding initiation. In 2007, the parents of only 12.4 percent of children aged 6 months to 5 years reported that their child was exclusively breastfed for the first 6

months of life. The rate of exclusive breastfeeding varied by family income, with 10.6 percent of children with family incomes below 100 percent of the Federal Poverty Level (FPL) being exclusively breastfed through 6 months, compared to 14.7 percent of children with family incomes of 400 percent FPL or above. Exclusive breastfeeding rates have not shown the same improvement over time as have breastfeeding initiation rates, and as with breastfeeding initiation, exclusive breastfeeding varies by a number of demographic and socioeconomic factors, such as maternal age and education.

Breastfeeding* among Children Under Age 6, by Race/Ethnicity, 2007

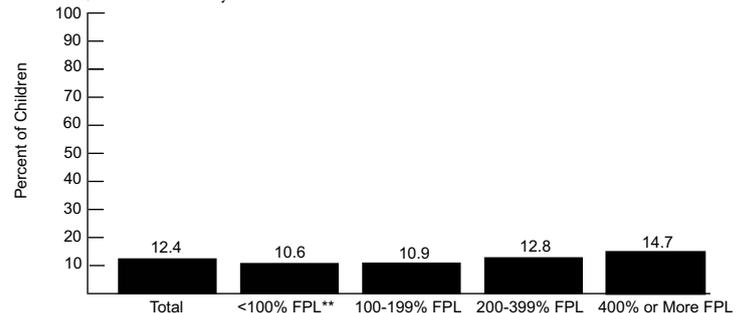
Source (I.8): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children's Health



*Ever breastfed. **Includes Asian/Pacific Islanders, American Indian/Alaska Natives, and children of other races.

Exclusive* Breastfeeding among Children Aged 6 Months to 5 Years, by Income, 2007

Source (I.8): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children's Health



*Fed only breast milk for the first 6 months of life. **The Federal Poverty Level, as determined by the U.S. Department of Health and Human Services, was \$20,650 for a family of four in 2007.

LOW BIRTH WEIGHT

Low birth weight is one of the leading causes of neonatal mortality (death before 28 days of age). Low birth weight infants are more likely to experience long-term disability or to die during the first year of life than are infants of normal weight.

According to preliminary data, 8.2 percent of infants were born low birth weight (less than 2,500 grams, or 5 pounds 8 ounces) in 2007; this represents a slight decrease from the rate recorded in 2006 (8.3 percent), which was the sixth consecutive year of increase and the highest rate recorded in four decades.

The increase in multiple births, more than half of which are delivered at less than 2,500 grams, has strongly influenced the increase in low birth weight; however, rates of low birth weight are also on the rise for singleton births.

In 2007, the low birth weight rate was much higher among infants born to non-Hispanic Black women (13.8 percent) than among infants of other racial/ethnic groups. The next highest rate, which occurred among infants born to Asian/Pacific Islanders, was 8.1 percent, followed by a rate of 7.5 percent among American Indian/Alaska Natives. Low birth weight occurred among 7.2 percent of infants born to non-Hispanic White women, while infants of Hispanic women experienced the

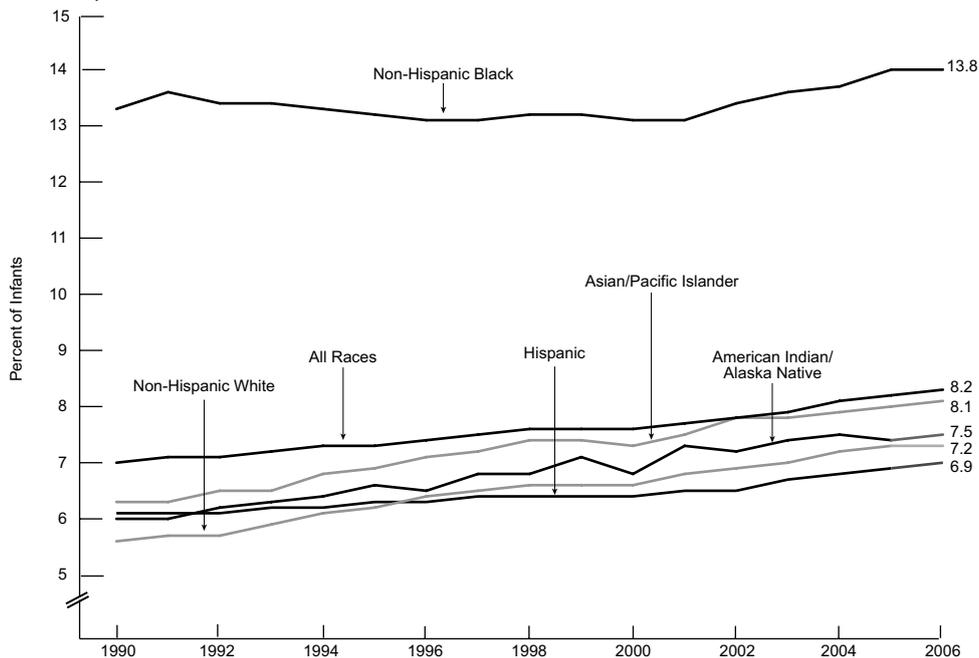
lowest rate (6.9 percent). The low birth weight rate remained steady or decreased for infants born to mothers of all racial/ethnic groups in 2007.

Low birth weight also varied by maternal age. In 2006 (the latest year for which data are available), the rate of low birth weight was highest

among babies born to women aged 40-54 years (20.3 percent), followed by babies born to women under 15 years of age (13.4 percent.) The lowest rates occurred among babies born to mothers aged 25-29 years and 30-34 years (7.5 and 7.6 percent, respectively; data not shown).

Low Birth Weight Among Infants, by Maternal Race/Ethnicity, 1990-2007*

Source (I.5): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*Data for 2007 are preliminary.

VERY LOW BIRTH WEIGHT

According to preliminary data, 1.5 percent of live births were among very low birth weight infants (less than 1,500 grams, or 3 pounds 4 ounces) in 2007. The proportion of very low birth weight infants has slowly climbed from just over one percent in 1980.

Infants born at such low birth weights are approximately 100 times more likely to die in the first year of life than are infants of normal birth weight (above 5 pounds 8 ounces). Very low birth weight infants who survive are at a significantly increased risk of severe problems, including physical and visual difficulties, developmental delays, and cognitive impairment, requiring increased levels of medical, educational, and parental care.

Infants born to non-Hispanic Black women are more than two and a half times more likely than infants born to mothers of other racial/ethnic groups to be born very low birth weight. Among infants born to non-Hispanic Black women, 3.2 percent were very low birth weight in 2006, compared to 1.1 percent of infants born to Asian/Pacific Islander women, 1.2 percent of infants born to non-Hispanic Whites and Hispanics, and 1.3 percent of infants born to American Indian/Alaska Native women. This difference is a major contributor to the disparity in infant mor-

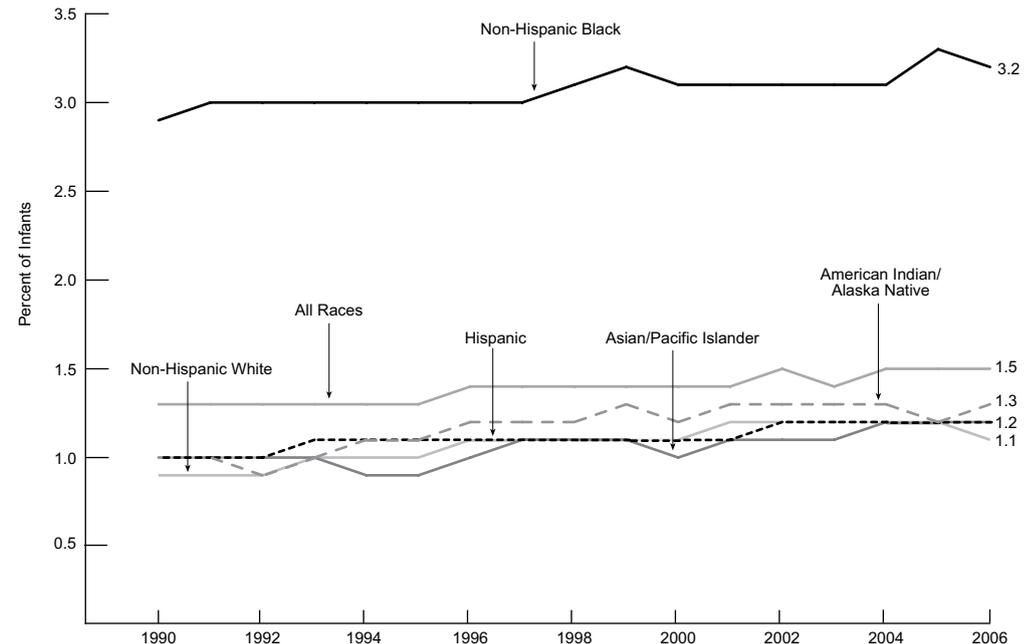
tality rates between non-Hispanic Black infants and infants of other racial/ethnic groups.

In 2006 (the latest year for which data are available), the rate of very low birth weight was highest among babies born to mothers aged 45-

54 years (3.5 percent). Mothers under 15 years of age also had high rates of very low birth weight (3.1 percent.) The rate was lowest among mothers aged 25-29 years (1.3 percent; data not shown).

Very Low Birth Weight Among Infants, by Race/Ethnicity, 1990-2007*

Source (I.5): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*Data for 2007 are preliminary.

MATERNAL MORTALITY

The rate of maternal mortality in the United States declined dramatically over the last century; however, an increase in the rate has become evident in the past several decades. In 2006, the maternal mortality rate was 13.3 deaths per 100,000 live births, compared to a low of 6.6 in 1987. Some of this increase may be due to changes in the coding and classification of maternal deaths.

In 2006, there were a total of 569 maternal deaths (those resulting from complications during pregnancy, childbirth, or direct or indirect

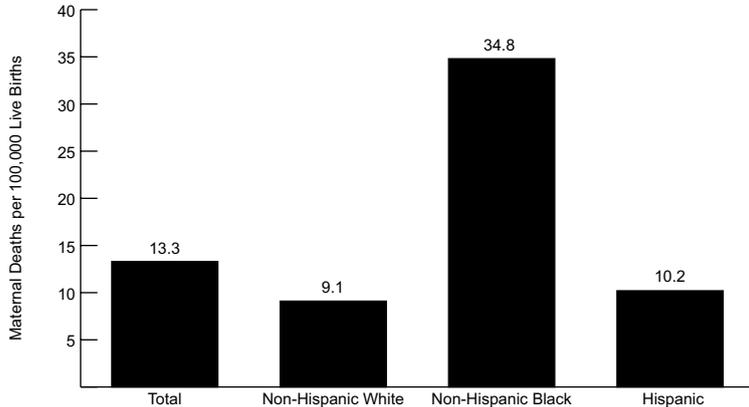
obstetric causes up to 42 days after delivery or termination of pregnancy). The maternal mortality rate among non-Hispanic Black women was more than 3 times the rate among non-Hispanic White women (34.8 versus 9.1 per 100,000).

The risk of maternal death increases with age, regardless of race or ethnicity. In 2006, the maternal mortality rate of women aged 35 years and over (29.3 per 100,000) was nearly 3 times the rate of women aged 20-24 years (10.2 per 100,000) and nearly 6 times the rate of women under 20 years of age (5.0 per 100,000).

Causes of maternal death are classified as direct, indirect, or unspecified. Some of the most common direct causes include complications related to the puerperium, or period immediately after delivery (2.6 per 100,000), eclampsia and preclampsia (1.3 per 100,000), and hemorrhage (0.9 per 100,000). Indirect causes occurred at a rate of 3.0 per 100,000 in 2006, and comprised deaths from pre-existing conditions complicated by pregnancy.

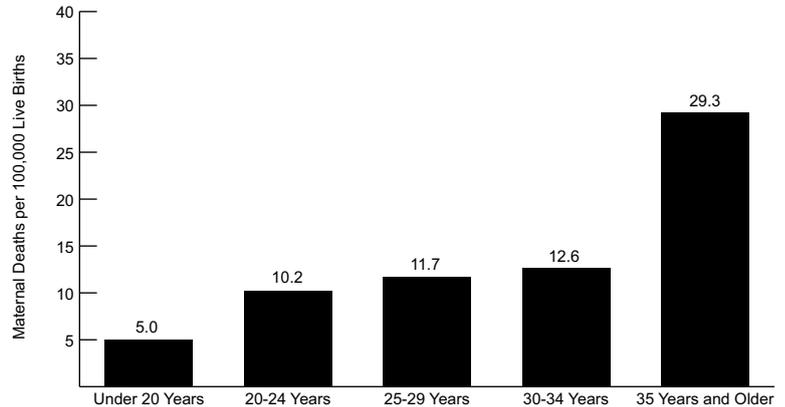
Maternal Mortality Rates, by Race/Ethnicity, 2006

Source (II.2): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



Maternal Mortality Rates, by Age, 2006

Source (II.1): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



NEONATAL AND POSTNEONATAL MORTALITY

Neonatal. In 2006, 18,989 infants died before reaching 28 days of age, representing a neonatal mortality rate of 4.5 deaths per 1,000 live births. This rate remains unchanged from the previous year.

Neonatal mortality is generally related to short gestation and low birth weight, congenital malformations, and conditions originating in the perinatal period, such as birth trauma or infection.

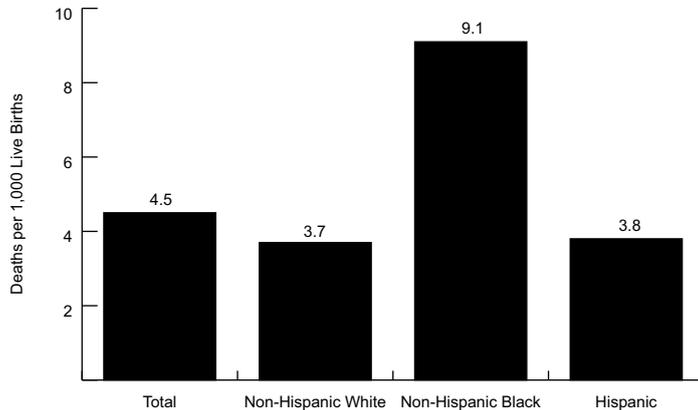
Neonatal mortality rates vary by race and ethnicity. In 2006, the neonatal mortality rate among non-Hispanic Black infants was 9.1 per 1,000 live births, more than twice the rate among non-Hispanic White and Hispanic infants (3.7 and 3.8 per 1,000, respectively).

Postneonatal. In 2006, 9,538 infants died between the ages of 28 days and 1 year, representing a postneonatal mortality rate of 2.2 deaths per 1,000 live births. This rate is slightly lower than the rate of 2.3 deaths per 1,000 live births reported in 2005.

Postneonatal mortality is generally related to Sudden Infant Death Syndrome (SIDS), congenital malformations, and unintentional injuries. Postneonatal mortality varies by race and ethnicity. In 2006, the highest rate of postneonatal mortality was reported among non-Hispanic Black infants (4.7 per 1,000). Non-Hispanic White and Hispanic infants had rates of 1.9 and 1.7 per 1,000, respectively.

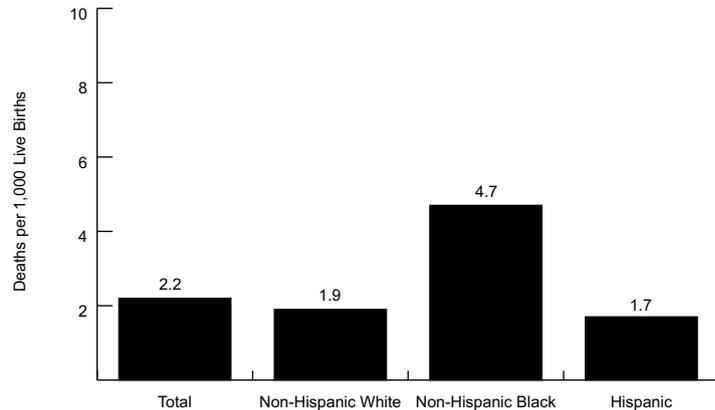
Neonatal Mortality Rates, by Maternal Race/Ethnicity, 2006

Source (II.1): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



Postneonatal Mortality Rates, by Maternal Race/Ethnicity, 2006

Source (II.1): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



INFANT MORTALITY

In 2006, 28,527 infants died before their first birthday, representing an infant mortality rate of 6.7 deaths per 1,000 live births. The leading cause of infant mortality was congenital anomalies, which accounted for 20 percent of deaths, followed by disorders related to short gestation, which accounted for another 17 percent of deaths.

The infant mortality rate began a substantial decline in the late 19th and early 20th century. Some factors in this early decline included economic growth, improved nutrition, new sanitary measures, and advances in knowledge about infant care. More recent advances in knowledge that contributed to a continued decline included the approval of synthetic surfactants and the recommendation that infants be placed on their backs to sleep. However, the decades-long decline in infant mortality began to level off in 2000, and the rate has remained relatively steady in the years since.

In 2006, the mortality rate among non-Hispanic Black infants was 13.8 deaths per 1,000 live births. This is two and one-half times the rate among non-Hispanic White and Hispanic infants (5.6 and 5.5 per 1,000, respectively). Although the infant mortality rates among both non-His-

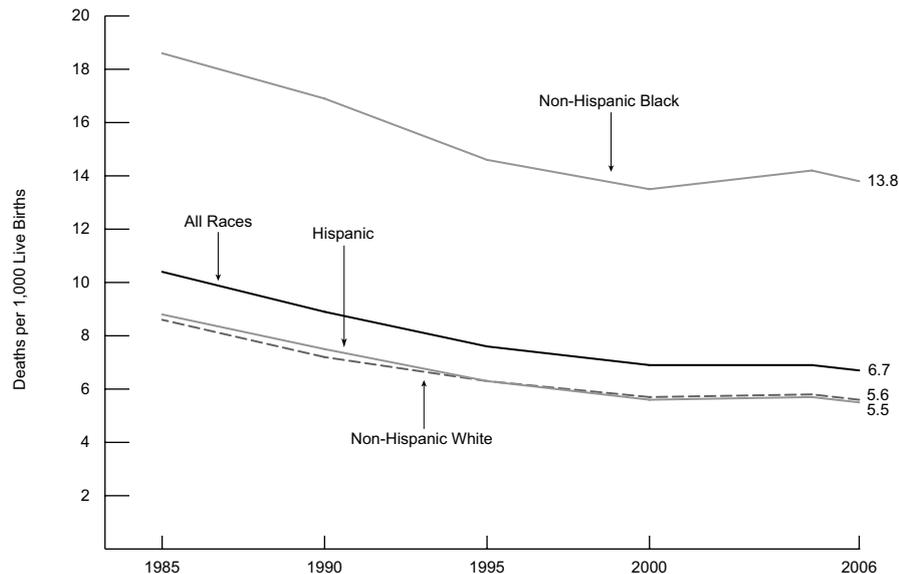
panic Whites and non-Hispanic Blacks have declined over the last century, the disparity between the two races remains largely unchanged.

The Maternal and Child Health Block Grant and MCHB's Healthy Start program provide

health and support services to pregnant women and infants with the goal of improving children's health outcomes and reducing infant and child mortality.

Infant Mortality Rates,* by Maternal Race/Ethnicity, 1985–2006

Source (II.1): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*Under 1 year of age.

INTERNATIONAL INFANT MORTALITY

In 2005, the United States infant mortality rate ranked below that of many other industrialized nations, with a rate of 6.9 deaths per 1,000 live births. This represents a slight increase from the rate of 6.8 per 1,000 in 2004, but is still considerably less than the rate of 26.0 per 1,000 reported in 1960.

Differences in infant mortality rates among industrialized nations may reflect disparities in the health status of women before and during pregnancy, as well as the quality and accessibility of primary care for pregnant women and infants. However, some of these differences may be due, in part, to the international variation in the definition, reporting, and measurement of infant mortality.

In 2005, the U.S. infant mortality rate was more than twice that of seven other industrialized countries, including Singapore, Hong Kong, Sweden, Japan, Finland, Norway, and the Czech Republic. Singapore had the lowest rate (2.1 per 1,000), followed by Hong Kong and Sweden (2.4 per 1,000).

International Infant Mortality Rates, Selected Countries, 2005

Source (II.3): Centers for Disease Control and Prevention, National Center for Health Statistics

