LIVE BIRTHS

According to preliminary data, there were nearly 4.3 million live births in the United States in 2008, a decrease of 2 percent from the previous year. Overall, the crude birth rate was 14.0 births per 1,000 total population (data not shown). Hispanic women continued to have the highest birth rate in 2008 (98.6 per 1,000 women), followed by Asian/Pacific Islander and non-Hispanic Black women (71.4 and 71.2 per 1,000 women, respectively) despite decreases in the number of births within each of those groups. Non-Hispanic White women had the lowest birth rate (59.6 per 1,000 women).

With regard to age, overall birth rates were highest among mothers aged 25–29 years (115.1 live births per 1,000 women), followed by those aged 20–24 years (103.1 births per 1,000 women). The birth rate for non-Hispanic White women was highest among 25- to 29-year-olds (106.2 per 1,000), while the birth rates for non-Hispanic Blacks, Hispanics, and American Indian/Alaska Natives were highest among 20- to 24-year-olds (130.8, 170.4, and 115.6 per 1,000 women, respectively). The birth rate among Asian/Pacific Islanders was highest among 30- to 34-year-olds (126.8 per 1,000 women).

The proportion of births delivered by cesarean section has steadily increased since 1996. Among all births in 2007 (the latest year for which data are available), nearly one-third (31.8 percent) were delivered by cesarean section, a 53 percent increase since 1996, when only about one-fifth of births were delivered in this manner (20.7 percent). Additionally, induction of labor has increased more than 135 percent since 1990, from 9.5 percent in 1990 to 22.8 percent in 2007.

Live Births per 1,000 Women, by Age and Race/Ethnicity, 2008*

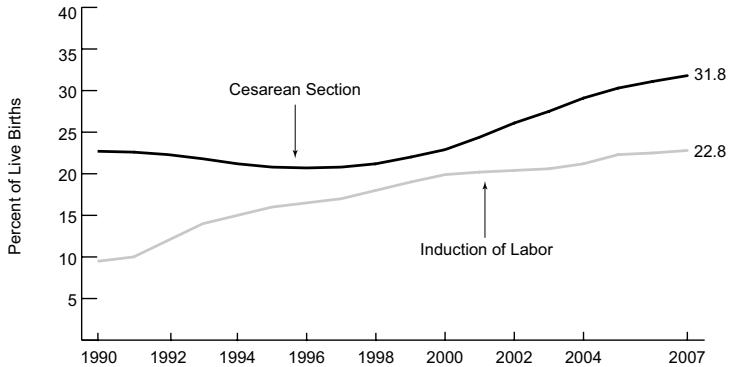
Source II.18: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System

	Total	Non-Hispanic White	Non-Hispanic Black	Hispanic	American Indian/ Alaska Native**	Asian/Pacific Islander**
Total	68.7	59.6	71.2	98.6	64.6	71.4
15-19 Years	41.5	26.7	62.9	77.4	58.4	16.2
20-24 Years	103.1	80.8	130.8	170.4	115.6	64.5
25-29 Years	115.1	106.2	105.8	152.3	94.4	120.3
30-34 Years	99.3	98.9	75.1	109.3	63.8	126.8
35-39 Years	46.9	44.8	36.7	55.9	28.8	66.8
40-44 Years	9.9	8.8	8.8	13.7	6.4	15.2

*Data are preliminary. **Includes Hispanics.

Births Involving Cesarean Section and Induction of Labor Among Women, 1990–2007

Source II.19, II.20: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



BREASTFEEDING

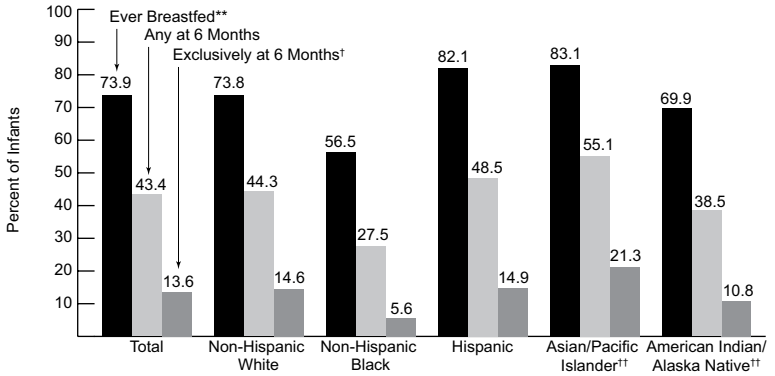
Breast milk benefits the health, growth, immunity, and development of infants, and mothers who breastfeed may have a decreased risk of breast and ovarian cancers.[28] Among infants born in 2006, 73.9 percent were reported to have ever been breastfed, representing a significant increase over the 68.3 percent of infants ever breastfed in 1999. Non-Hispanic Black infants were the least likely to ever be breastfed (56.5 percent), while Asian/Pacific Islanders and Hispanics were the most likely (83.1 and 82.1 percent, respectively).

The American Academy of Pediatrics recommends that infants be exclusively breastfed—without supplemental solids or liquids—for the first 6 months of life; however, 33.1 percent of infants born in 2006 were exclusively breastfed through 3 months (data not shown), and 13.6 percent were exclusively breastfed through 6 months. Breastfeeding practices vary considerably by a number of factors, including maternal age—infants born to mothers aged 30 years and older were most likely to have ever been breastfed (78.0 percent), while infants born to mothers under 20 years of age were least likely (55.6 percent). Slightly more than 69 percent of infants born in 2006 to mothers aged 20–29 years were ever breastfed.

Maternal employment can also affect whether and for how long an infant is breastfed; mothers working full-time are less likely to breastfeed at 6 months than those working part-time or not at all.[29] In 2007–2008, 51.4 percent of mothers with children under 1 year of age were employed, and 70.2 percent of those mothers were employed full-time (data not shown).[30]

Infants* Who Are Breastfed, by Race/Ethnicity and Duration, 2006

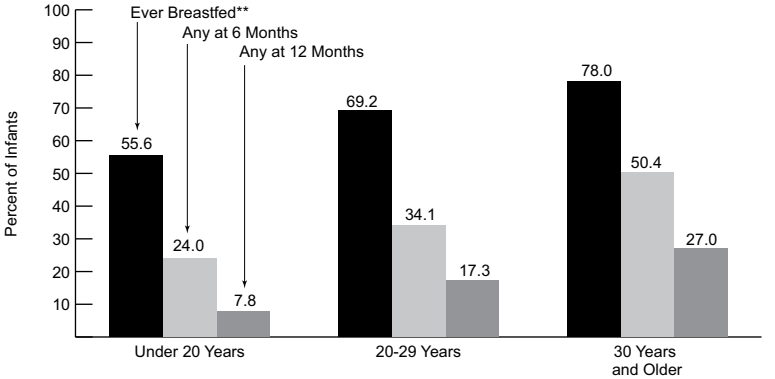
Source II.21: Centers for Disease Control and Prevention, National Immunization Survey



*Includes only infants born in 2006; data are provisional. **Reported that child was ever breastfed or fed human breastmilk. †Exclusive breastfeeding is defined as only human breastmilk—no solids, water, or other liquids. ††Includes Hispanics.

Infants* Who Are Breastfed, by Maternal Age and Duration, 2006

Source II.21: Centers for Disease Control and Prevention, National Immunization Survey



*Includes only infants born in 2006; data are provisional. **Reported that child was ever breastfed or fed human breastmilk.

SMOKING DURING PREGNANCY

Smoking during pregnancy can have a negative impact on the health of women, infants, and children by increasing the risk of complications during pregnancy, premature delivery, and low birth weight—some of the leading causes of infant mortality.[31] Maternal cigarette use data are captured on birth certificates; however, a revised birth certificate was introduced in 2003 that captures smoking during pregnancy by trimester, as opposed to any time during pregnancy which is assessed with the unrevised birth certificate. As of 2007, the 1989 Standard Certificate of Live Birth (unrevised) was used in 24 States, New York City, and Washington, DC, while 22 States used the revised birth certificate.[32]

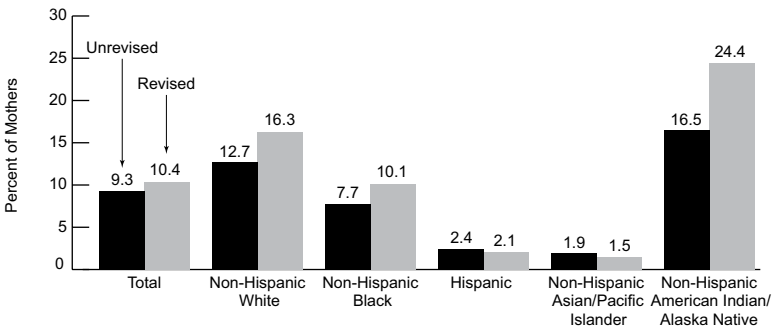
The areas using the revised birth certificate reported slightly higher rates of smoking during pregnancy than those using the unrevised certificate (10.4 versus 9.3 percent, respectively). The proportion of pregnant women who smoked cigarettes varied by maternal race and ethnicity. Among women in areas using the revised birth certificate, non-Hispanic American Indian/Alaska Native mothers (24.4 percent) and non-Hispanic White mothers (16.3 percent) were most likely to report having smoked during pregnancy.

Similarly, among women in the unrevised reporting areas, non-Hispanic American Indian/Alaska Native mothers were most likely to have smoked during pregnancy (16.5 percent), followed by non-Hispanic White women (12.7 percent). Non-Hispanic Asian/Pacific Islander and Hispanic mothers were least likely to have smoked during pregnancy in both reporting areas.

Cigarette use also varied by maternal age in 2007. Among women in the revised reporting areas, women under 20 years of age (14.0 percent) and those aged 20–29 years (12.9 percent) were more likely than older women to have smoked cigarettes during pregnancy. Similarly, 12.4 percent of women under 20 years of age and 11.5 percent of women aged 20–29 years in the unrevised reporting areas smoked during pregnancy.

Cigarette Smoking During Pregnancy, by Maternal Race/Ethnicity and Birth Certificate Type,* 2007

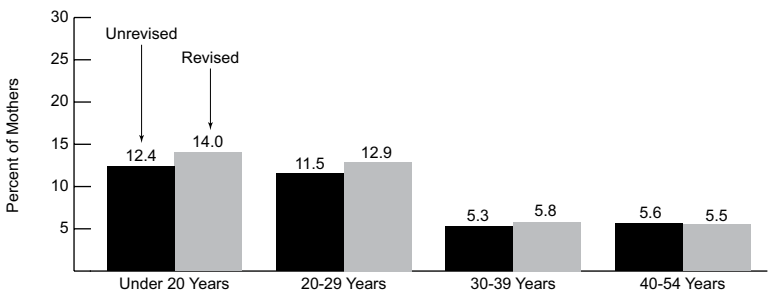
Source II.19, II.22: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



The 1989 Standard Certificate of Live Birth (unrevised) was used in 26 reporting areas including New York City and Washington, DC; the 2003 revised birth certificate was used in 22 reporting areas.

Cigarette Smoking During Pregnancy, by Maternal Age and Birth Certificate Type,* 2007

Source II.19: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



The 1989 Standard Certificate of Live Birth (unrevised) was used in 26 reporting areas including New York City and Washington, DC; the 2003 revised birth certificate was used in 22 reporting areas.

MATERNAL MORBIDITY AND RISK FACTORS IN PREGNANCY

Since 1989, diabetes and hypertension have been the most commonly reported health conditions among pregnant women. Diabetes, both chronic and gestational (developing only during pregnancy), may pose health risks to a woman and her baby. Women with gestational diabetes are at increased risk for developing diabetes later in life.[33] In 2007, diabetes of any type during pregnancy occurred at a rate of 44.8 per 1,000 live births. This varied by race and ethnicity; Hispanic mothers were more likely to have had diabetes (46.1 per 1,000 live births) than non-Hispanic Whites and non-Hispanic Blacks (42.3 and 38.9 per 1,000, respectively).

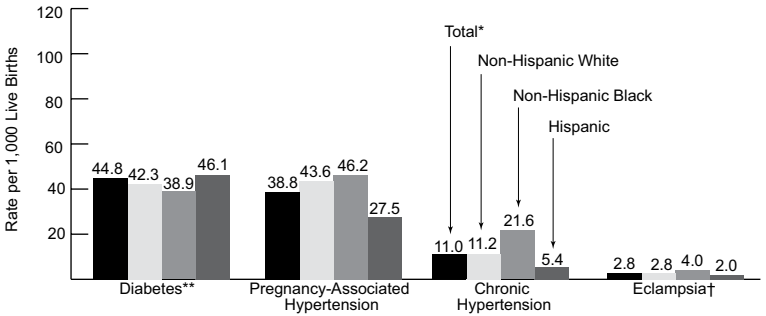
Hypertension during pregnancy can also be either chronic in nature or gestational. Severe hypertension during pregnancy can result in preeclampsia, fetal growth restriction, premature birth, placental abruption, and stillbirth.[34] Chronic hypertension was present in 11.0 per 1,000 live births in 2007 and occurred most often among non-Hispanic Black women (21.6 per 1,000). The rate of pregnancy-associated hypertension was 38.8 per 1,000 live births and was more common among non-Hispanic Black and non-Hispanic White women (46.2 and 43.6 per 1,000 births) than among Hispanic women (27.5 per 1,000 births).

Eclampsia, which involves seizures and is usually preceded by a diagnosis of preeclampsia, is a life-threatening complication of pregnancy. In 2007, eclampsia occurred among 2.8 women per 1,000 live births.

Rates of maternal morbidities and risk factors also varied by maternal age. In 2007, women aged 40–54 years were at highest risk of diabetes during pregnancy (100.5 per 1,000 live births), pregnancy-associated hypertension (50.1 per 1,000), chronic hypertension (32.2 per 1,000), and eclampsia (4.3 per 1,000). Women under 20 years of age were least likely to have diabetes during pregnancy or chronic hypertension (14.0 and 3.9 per 1,000, respectively).

Selected Maternal Morbidities and Risk Factors in Pregnancy, by Maternal Race/Ethnicity, 2007

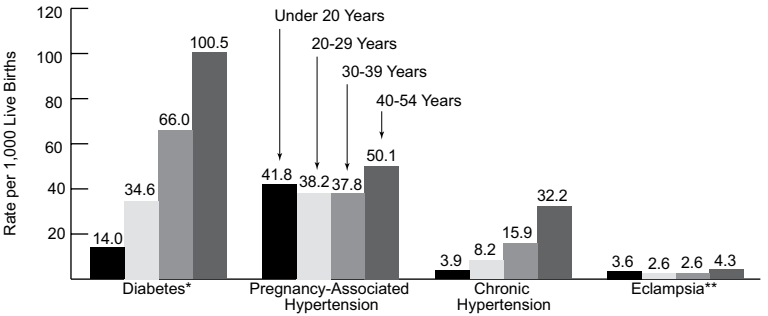
Source II.19, II.22: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*Total includes all births to U.S. residents. **Includes gestational and chronic diabetes. †Eclampsia is characterized by seizures and generally follows preeclampsia, which is marked by high blood pressure, weight gain, and protein in the urine. Eclampsia is reported in 15 reporting areas.

Selected Maternal Morbidities and Risk Factors in Pregnancy, by Maternal Age, 2007

Source II.19, II.22: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*Includes gestational and chronic diabetes. **Eclampsia is characterized by seizures and generally follows preeclampsia, which is marked by high blood pressure, weight gain, and protein in the urine. Eclampsia is reported in 15 reporting areas.

MATERNAL MORTALITY

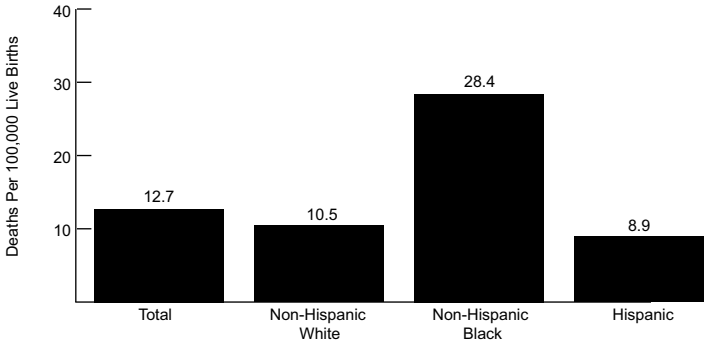
Maternal deaths are those reported on the death certificate to be related to or aggravated by pregnancy or pregnancy management and which occur during or within 42 days after the end of the pregnancy. The maternal mortality rate has declined dramatically since 1950, when the rate was 83.3 deaths per 100,000 live births; however, the maternal mortality rate in 2007 (12.7 per 100,000 live births) was 55 percent higher than the rate reported in 1990 (8.2 per 100,000). According to the National Center for Health Statistics, this increase may largely be due to changes in how pregnancy status is recorded on death certificates; beginning in 1999, the cause of death was coded according to International Classification of Diseases, 10th Revision (ICD-10). Other methodological changes in reporting and data processing have been responsible for apparent increases in more recent years, including question formatting and revisions to the U.S. Standard Certificate of Death.[35]

In 2007, there were a total of 548 maternal deaths. This does not include 221 deaths of women that were due to complications during pregnancy or childbirth and that occurred after 42 days postpartum or the deaths of pregnant women due to external causes such as unintentional injury, homicide, or suicide. In 2007, the maternal mortality rate among non-Hispanic Black women (28.4 per 100,000 live births) was roughly 3 times the rates among non-Hispanic White and Hispanic women (10.5 and 8.9 per 100,000, respectively).

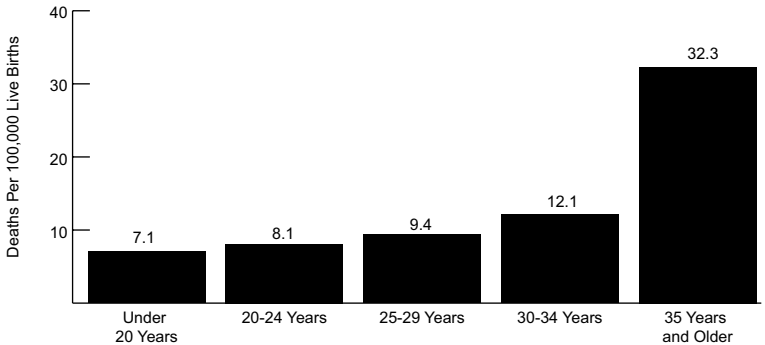
The risk of maternal death increases with age for women of all races and ethnicities. In 2007, the maternal mortality rate was highest among women aged 35 years and older (32.3 per 100,000 live births), compared to 7.1 per 100,000 live births to women under 20 years of age and 8.1 per 100,000 live births among women aged 20–24 years. There was little variation in maternal mortality rates by age group among women aged 20–34 years.

Maternal Mortality Rates, by Race/Ethnicity,* 2007

Source II.19: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



Data not reported for Asian/Pacific Islanders, American Indian/Alaska Natives, persons of more than one race, and persons of other races not specified.

Maternal Mortality Rates, by Age, 2007

Source II.22: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System