PRENATAL CARE UTILIZATION

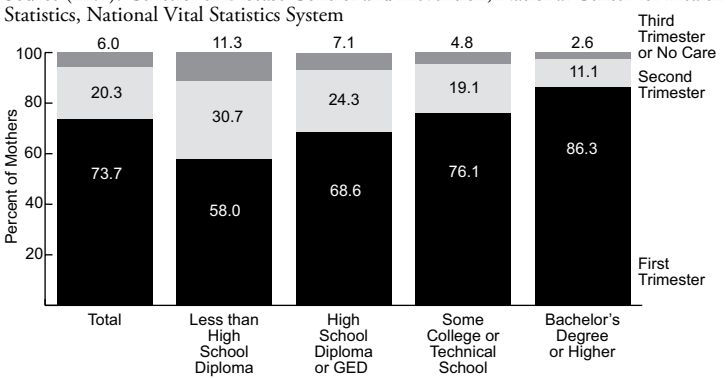
Early and adequate prenatal care helps to promote healthy pregnancies through screening and management of a woman's risk factors and health conditions, as well as education and counseling on healthy behaviors during and after pregnancy.[89] In 2011, among the 36 states and District of Columbia that had implemented the 2003 revision to the standard birth certificate as of January 1st and collected prenatal care information in the same format, 73.7 percent of women giving birth received early prenatal care in the first trimester, while 6.0 percent of women began prenatal care in the third trimester or did not receive any prenatal care.

Rates of first trimester prenatal care increased with greater educational attainment, from only 58.0 percent of mothers with less than a high school diploma to 86.3 percent of mothers with a bachelor's degree or higher. First trimester prenatal care initiation was highest among non-Hispanic White and non-Hispanic Asian women (78.8 and 77.8 percent, respectively), followed by Hispanic (68.3 percent) and non-Hispanic Black women (63.4 percent), while non-Hispanic American Indian/Alaska Native and non-Hispanic Native Hawaiian/Other Pacific Islander women had the lowest rates of early prenatal care (59.0 and 55.7 percent, respectively; data not shown).

In 2011, 84.8 percent of women in 37 jurisdictions received adequate prenatal care, defined as receiving 80 percent or more of expected visits given the timing of prenatal care entry and gestational age at delivery. Non-Hispanic American Indian/Alaska Native and non-Hispanic Native Hawaiian and Other Pacific Islander mothers were least likely to receive adequate care (76.7 and 77.9 percent, respectively), followed by non-Hispanic Black mothers (80.8 percent). Of women with a college degree, 88.1 percent had received adequate care upon initiation compared to 79.2 percent of women without a high school diploma (data not shown).

Timing of Prenatal Care Initiation,* by Maternal Education, 2011

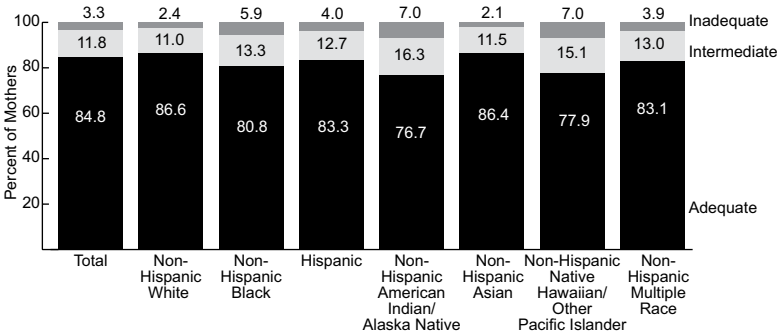
Source (III.1): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*Data are from 36 states and the District of Columbia that implemented the 2003 revision of the birth certificate as of January 1, 2011, representing 83% of all U.S. births. Percentages may not total to 100 due to rounding.

Adequacy of Prenatal Care Utilization Upon Initiation,* by Maternal Race/Ethnicity, 2011

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



*Based on a ratio of observed to expected prenatal care visits given the timing of prenatal care entry and gestational age at delivery (Kotelchuck Index): adequate prenatal care is defined as receiving ≥80% of expected visits, intermediate is receipt of 50–79.9% of expected visits, and inadequate is receipt of <50% of expected visits. Data are from 36 states and the District of Columbia that implemented the 2003 revision of the birth certificate as of January 1, 2011, representing 83% of all U.S. births. Percentages may not total to 100 due to rounding.

BARRIERS TO PRENATAL CARE

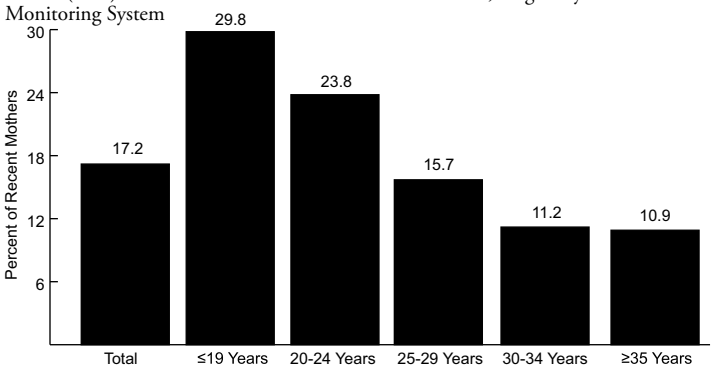
Early and adequate prenatal care is important for ensuring a healthy pregnancy. It is recommended that women schedule their first prenatal visit as soon as they think they might be pregnant.[90] Unfortunately, not all mothers are able to access early prenatal care (see also *Prenatal Care Utilization*).

In 2009-2010, 17.2 percent of recent mothers in a 30-state area reported that they were not able to access prenatal care as early as they had wanted. Mothers aged 19 years or younger were the most likely to report delayed prenatal care (29.8 percent) as compared to all other age groups. With respect to race and ethnicity, the proportion of mothers reporting delayed access to care was highest among non-Hispanic American Indian/Alaska Native mothers, non-Hispanic mothers of multiple race, and non-Hispanic Black mothers (24.2 percent, 23.2, and 22.2 percent, respectively), as compared to non-Hispanic Asian mothers, and was lowest among non-Hispanic White mothers (15.1 and 14.7 percent, respectively; data not shown). These patterns are consistent with first trimester entry rates into prenatal care (see also Prenatal Care Utilization).

Common barriers to getting prenatal care as early as desired (or at all) can include limited resources, transportation issues, and not knowing that one is pregnant. In 2009-2010, more than one-third (37.1 percent) of mothers who reported delayed care attributed this to not knowing that they were pregnant. Additionally, a lack of resources was a common barrier, as 38.7 percent of mothers reported that care had been delayed because they lacked the money or insurance to pay for their visits, while 36.4 percent of mothers cited not having a Medicaid card. More than half (59.0 percent) of women who reported experiencing a delay in care listed 1 or 2 of the barriers described below, while 34.9 percent reported experiencing 3 or more of the listed barriers.

Mothers Who Experienced Barriers to Receiving Prenatal Care as Early as Desired, by Maternal Age, 2009–2010*

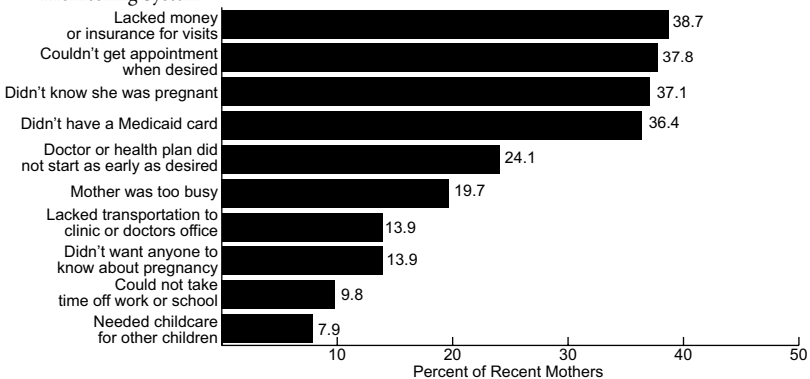
Source (III.2): Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System



*Includes data from a total of 30 states and New York City; 25 states contributed both years. Mothers completed surveys between 2 and 9 months postpartum.

Barriers to Receiving Prenatal Care at All or as Early as Desired Among Women Who Reported Delayed Care, 2009–2010*

Source (III.2): Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System



*Includes data from a total of 30 states and New York City; 25 states contributed both years. Mothers completed surveys between 2 and 9 months postpartum.

COUNSELING RECEIVED DURING PRENATAL CARE

Prenatal care visits are an opportunity for a health care provider to discuss a variety of health and safety topics with the expectant mother. This can include such topics as injury prevention, genetic screening, infant care, and domestic violence.

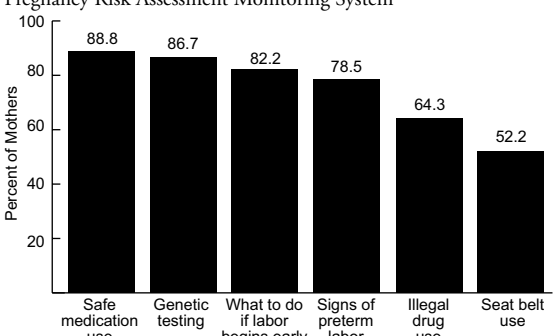
In 2009-2010, more than three quarters of recent mothers in a 30-state area reported that their doctor had discussed at least one of the following topics with them during a prenatal visit: safe use of medications while pregnant (88.8 percent), genetic testing (86.7 percent), what to do in the case of early labor (82.2 percent) and signs of preterm labor (78.5 percent). Illegal drug use was discussed with 64.3 percent of expectant mothers, while approximately half (52.2 percent) received counseling on seat belt use. Public health efforts to increase prenatal counseling on seat belt use remain critical for reducing the number of traffic related deaths and hospitalizations that occur during pregnancy.[91]

Alcohol use was more likely to be discussed with those who had Medicaid coverage than any other type of insurance. Women with private insurance (62.3 percent) were the least likely to receive counseling on smoking during pregnancy compared to women with Medicaid coverage, other types of insurance, or no insurance (82.6, 75.2, and 70.1 percent, respectively).

Physical abuse by a husband or partner was discussed with half of all women. Women with private insurance (40.7 percent) were the least likely to have received counseling on this issue, while women with Medicaid coverage were the most likely (61.5 percent). The proportion of women to receive counseling on domestic abuse also varied by maternal age, ranging from 61.7 percent of women aged 19 years or younger to about 43 percent of women aged 30 years and older (data not shown). Studies have shown that women in need of counseling on domestic abuse, breastfeeding, and preterm labor are not more likely to receive this information than those without reported risk factors, such as having had a previous preterm birth.[92]

Topics Discussed by Health Care Provider During Prenatal Care Visits, 2009–2010*

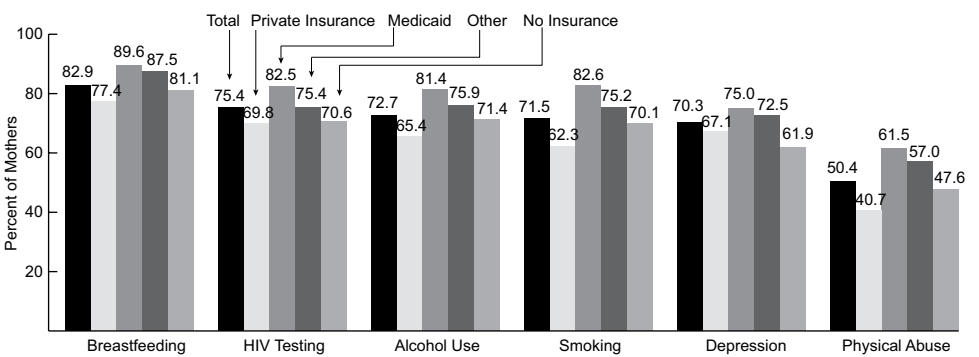
Source (III.2): Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System



*Includes data from a total of 30 states and New York City; 25 states contributed both years. Mothers completed surveys between 2 and 9 months postpartum.

Topics Discussed by Health Care Provider During Prenatal Care Visits, by Insurance Type, 2009–2010*

Source (III.2): Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System



*Includes data from a total of 30 states and New York City; 25 states contributed both years. Mothers completed surveys between 2 and 9 months postpartum.

POSTPARTUM VISIT AND WELL-BABY CARE

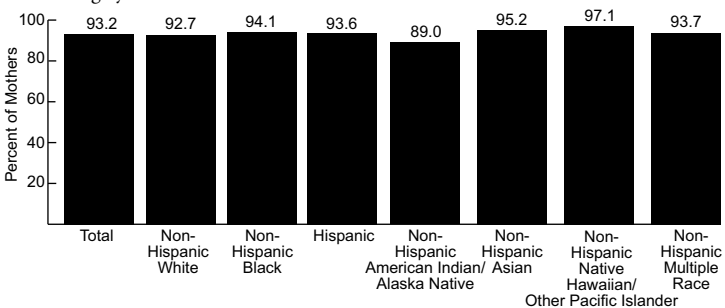
Care for a mother and her infant continues after delivery through postpartum check-ups and well-baby exams. Well-baby exams provide an opportunity for a mother to monitor her infant's development and establish a relationship with her infant's pediatrician.[93] The American Academy of Pediatrics recommends that the first well-baby exam take place 3 to 5 days after birth.[94] During this visit, the physician will measure the infant's height, weight, and head circumference in addition to examining the infant.[93]

In 2009-2010, 93.2 percent of women reported that their infant was seen by a health care provider for a check-up within one week after birth. The proportion of mothers reporting these visits varied significantly by race and ethnicity and was highest among non-Hispanic Native Hawaiian/Other Pacific Islander mothers (97.1 percent), and lowest among non-Hispanic American Indian/Alaska Native mothers (89.0 percent).

Postpartum visits provide a woman and her health care provider with the opportunity to assess the mother's current physical health, including the status of pregnancy-related conditions like gestational diabetes, screen for postpartum depression, provide counseling on infant care and family planning as well as screening and referrals for the management of chronic conditions. Additionally, a provider may use this opportunity to conduct a breast exam and discuss breastfeeding.[95] The American College of Obstetricians and Gynecologists recommends that mothers receive a postpartum care visit 4-6 weeks after delivery.[96] In 2009-2010, nearly 90 percent of all mothers met this recommendation. The proportion of mothers to receive a postpartum visit varied significantly by education level, ranging from 78.6 percent of mothers with less than 12 years of education to 95.1 percent of mothers with 16 or more years of education. With respect to race and ethnicity, 81.8 percent of non-Hispanic American Indian/Alaska Native mothers reported a postpartum visit compared to 91.9 percent of non-Hispanic White mothers (data not shown).

Mothers Reporting that Their Infants had a 1-Week Checkup, by Race/Ethnicity, 2009-2010*

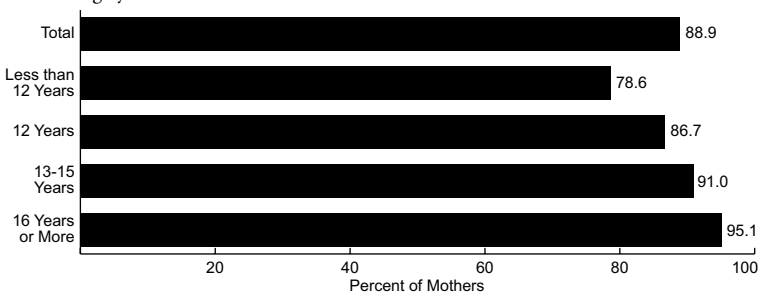
Source (III.2): Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System



Includes data from a total of 30 states and New York City; 25 states contributed both years; mothers completed surveys between 2 and 9 months postpartum.

Mothers Who Had a Postpartum Checkup, by Maternal Education, 2009-2010*

Source (III.2): Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System



Includes data from a total of 17 states and New York City; 14 states contributed both years; mothers completed surveys between 2 and 9 months postpartum.

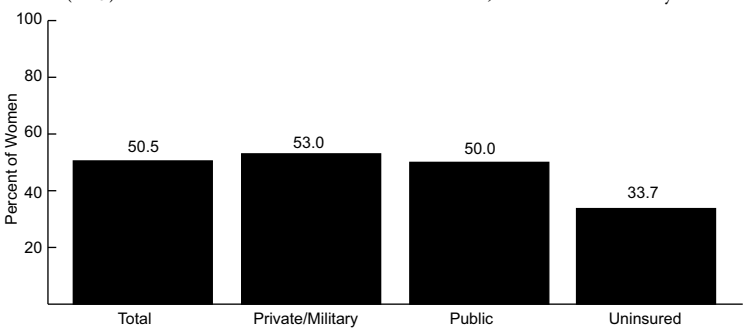
MATERNAL AND INFANT VACCINATION

Vaccination is one of the greatest public health achievements of the 20th century, resulting in dramatic declines in mortality and morbidity for many infectious diseases.[97] An annual influenza (flu) vaccination is now recommended for all persons aged 6 months and older; however, it is especially important for certain groups, including pregnant women and older adults, who are at higher risk for flu complications.[98] By mid-April of 2013, only 50.5 percent of pregnant women reported receiving flu vaccine for the 2012-2013 season. Those with insurance, either private/military or public insurance, were more likely to have received the flu vaccine (53.0 and 50.0 percent, respectively), compared to only 33.7 percent of pregnant women without insurance. Pregnant women are also specifically recommended to receive a tetanus, diphtheria, and acellular pertussis (whooping cough) vaccine (Tdap), regardless of whether they have been previously vaccinated, to prevent potentially fatal infection in the newborn.[99]

The Centers for Disease Control and Prevention recommends a series of vaccinations from birth through 24 months of age, many of which require multiple doses for effectiveness as well as boosters to sustain immunity.[100] In 2012, 68.4 percent of children 19–35 months of age received each of seven vaccines in a series of recommended vaccines (4:3:1:3:3*:1:4). This series includes four doses of diphtheria, tetanus, and acellular pertussis vaccine (DTaP/DT/DTP); three doses of poliovirus vaccine; one dose of measles, mumps, and rubella vaccine (MMR); three or four doses of the *Haemophilus influenzae* type b (Hib) vaccine, depending on brand type; three doses of the hepatitis B vaccine (HepB); one dose of the varicella (chicken pox) vaccine; and four doses of the pneumococcal conjugate vaccine (PCV). Children living in households below the poverty level were less likely to have completed the recommended vaccination series than those living at or above the poverty level (63.4 percent versus 71.6 percent). Hepatitis A and Rotavirus vaccinations are also recommended for children under age 2.

Influenza Vaccination Coverage* Among Pregnant Women, by Insurance Type, 2013**

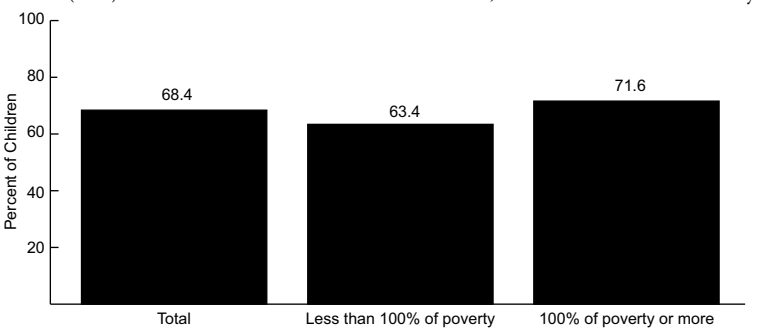
Source (III.3): Centers for Disease Control and Prevention, Internet Panel Survey



*Having received the influenza vaccination since July 1, 2012. **Women pregnant at any time from October, 2012 to January, 2013 were surveyed in April, 2013.*

Recommended Vaccination Series Coverage* Among Children Aged 19-35 Months, by Poverty Status, 2012**

Source (III.4): Centers for Disease Control and Prevention, National Immunization Survey



*Receipt of 4+ DTaP, 3+ Polio, 1+ MMR, 3+ or 4+ Hib depending on brand type, 3+ HepB, 1+ Varicella, 4+ PCV; . **Poverty level, defined by the U.S. Census Bureau, was $23,681 for a family of four in 2012.*

HEALTH INSURANCE – WOMEN OF REPRODUCTIVE AGE

The preconception health of women has been strongly linked to future reproductive health outcomes for both women and infants. Preconception health care and counseling provide an important opportunity to deliver risk-appropriate screening, health promotion, and disease prevention services to improve the health of women and their infants.[101] Individuals who are uninsured—including women of reproductive age—are less likely to receive preventive health services and chronic disease management.[102]

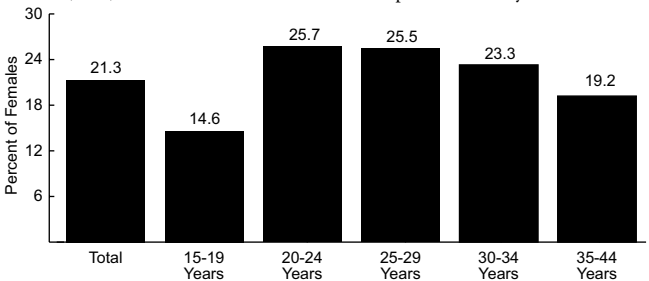
In 2011, over one-fifth of reproductive-aged females were uninsured (21.3 percent) representing 13.3 million females aged 15-44 years. Younger (15-19 years) and older females (35-44 years) were least likely to be uninsured, 14.6 percent and 19.2 percent, respectively, compared to over one-quarter of those aged 20-24 and 25-29 years. Hispanic and non-Hispanic American Indian/Alaska Native females of reproductive age were most likely to lack insurance coverage in 2011, 37.5 percent and 32.9 percent, respectively, compared to about one-quarter of non-Hispanic Black females (24.0 percent), one-fifth of non-Hispanic Asians (20.2 percent) and one-sixth of non-Hispanic Whites (15.2 percent).

The majority of reproductive-aged females had private insurance coverage in 2011 (63.9 percent) alone or in combination with some form of public coverage, while 14.8 percent had publicly-funded insurance such as Medicaid.[103] Non-Hispanic American Indian/Alaska Native and Black females of reproductive age were most likely to be publicly insured: 26.6 percent and 23.5 percent, respectively, followed by Hispanic females (19.8 percent); 11.4 percent of non-Hispanic White females had public coverage.

Medicaid, in particular, is an important safety net for pregnant women, financing approximately 40 percent of all births in the United States. This coverage includes prenatal care, labor and delivery, and postpartum care up to 60 days after birth.[104] Of the 14.8 percent or 9.2 million women of reproductive age who rely on publicly funded insurance, the majority (88.2 percent) are covered by Medicaid (data not shown).

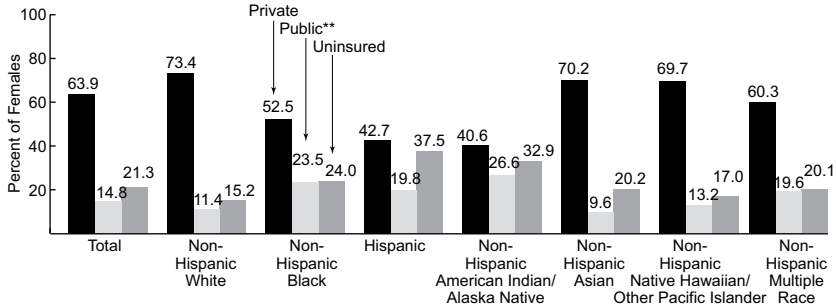
Females Aged 15-44 Years Without Health Insurance, by Age, 2011

Source (III.5): U.S. Census Bureau, Current Population Survey



Health Insurance Coverage of Females Aged 15-44 Years, by Type of Coverage* and Race/Ethnicity, 2011

Source (III.5): U.S. Census Bureau, Current Population Survey



**Estimates for private coverage include individuals that may have some other form of insurance; estimates for public coverage exclude individuals with any form of private coverage. Estimates may not equal 100 due to rounding. **Public or Government health insurance includes federal programs such as Medicare, Medicaid, and military health care, and individual state health plans.*

HEALTH INSURANCE – INFANTS

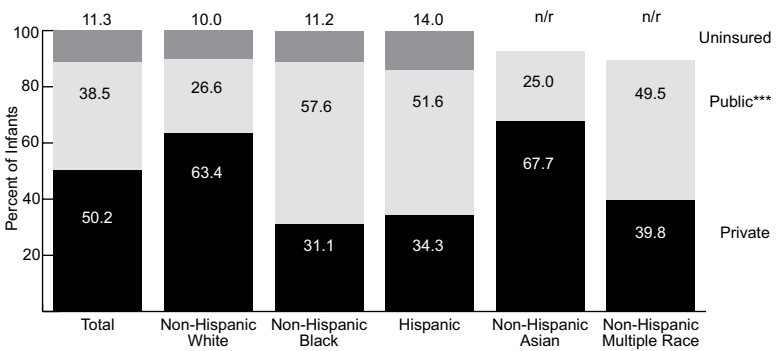
In 2011, approximately 441,000 U.S. infants under 1 year of age had no health insurance coverage, representing 11.3 percent of this population. About half of infants (50.2 percent) were covered by private insurance, alone or in combination with some form of public coverage, and 38.5 percent were insured only through public programs such as Medicaid, the Children's Health Insurance Program, and military health insurance. The majority of those with public insurance (93.7 percent) were covered by Medicaid.

Infants' insurance status varies by race and ethnicity. In 2011, 67.7 percent and 63.4 percent of non-Hispanic Asian and White infants, respectively, had private coverage, while the same was true for approximately one-third of Hispanic and non-Hispanic Black infants (34.3 and 31.1 percent, respectively). Conversely, over half of non-Hispanic Black and Hispanic infants were publicly insured, followed by 49.5 percent of non-Hispanic infants of more than one race.

As family income increases, private health insurance coverage among infants rises and the proportions of infants with public coverage and no coverage decrease. In 2011, infants in households with incomes below 100 percent of the poverty threshold were most likely to have public coverage (75.5 percent) or to be uninsured (14.1 percent); a similar proportion of infants living in households with incomes above but less than twice the poverty threshold were also uninsured (13.7 percent). Infants with family incomes of four times or more of the poverty threshold were most likely to have private coverage, and least likely to have public coverage or to be uninsured.

Health Insurance Coverage Among Infants Under Age 1, by Type of Coverage* and Race/Ethnicity, 2011**

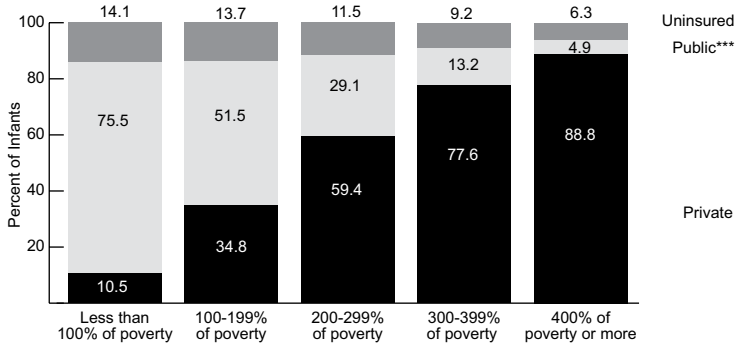
Source (III.5): U.S. Census Bureau, Current Population Survey



**Estimates for private coverage include individuals that may have some other form of insurance; estimates for public coverage exclude individuals with any form of private coverage. Estimates may not total to 100 due to rounding. **The samples of American Indian/Alaska Native and Native Hawaiian and Other Pacific Islander infants were too small to produce reliable estimates. ***Public or Government health insurance includes federal programs such as Medicare, Medicaid, and military health care, the Children's Health Insurance Program (CHIP), and individual state health plans. n/r – not reportable, estimate did not meet standard for reliability.*

Health Insurance Coverage Among Infants Under Age 1, by Type of Coverage* and Poverty Status, 2011**

Source (III.5): U.S. Census Bureau, Current Population Survey



**Estimates for private coverage include individuals that may have some other form of insurance; estimates for public coverage exclude individuals with any form of private coverage. Estimates may not total to 100 due to rounding. **U.S. Census Bureau's poverty threshold was $23,021 for a family of four in 2011. ***Public or Government health insurance includes federal programs such as Medicare, Medicaid, and military health care, the Children's Health Insurance Program (CHIP), and individual state health plans.*