This Health of Multnomah County update examines maternal and infant health data for Multnomah County by race and ethnicity and by geographic area. Pregnancy and childbirth have an enormous impact on the physical, mental, and socioeconomic health of women and their families. Multnomah County Health Department provides programs and supports community partners to improve women’s health before, during, and after pregnancy to help ensure that all women have a safe and healthy pregnancy.

Crude birth rates and fertility rates are presented. Crude birth rates represent the number of live births per 1,000 residents. Fertility rates represent the number of live births per 1,000 women ages 15-44. Factors that are associated with pregnancy outcomes are also presented. The factors examined here include births to mothers younger than 20 years of age, receipt of prenatal care, and tobacco and alcohol use. Information on the use of tobacco and alcohol during pregnancy was self-reported by the mother on infant birth certificates and may underestimate actual use. Finally, pregnancy outcomes, including low birth weight and infant mortality, are examined.

The data sources for this update are Multnomah County resident birth and death records. These records were provided by the Center for Health Statistics at the Oregon Department of Human Services. The population data sources are the National Center for Health Statistics population files and Portland State University’s Center for Population Research. Some rates are aggregated into three-year or five-year rolling averages to stabilize rates and observe time trends when there are a small number of events.

Key Findings

- There has been a slight increase in fertility rates in recent years in Multnomah County.
- Fertility rates remain highest among Hispanic women.
- While the percent of births to African American women younger than age twenty has steadily declined from 27% in 1993-97 to 15% in 2003-07, the rate is the highest among all racial/ethnic groups.
- The proportion of births to mothers younger than age 20 has declined by more than half in the Northeast and Southeast areas of Multnomah County between 1993-97 and 2003-07.
- While the Hispanic early prenatal care rate is lower than other racial/ethnic groups, the rate has remained steady.
- The percent of new mothers in Multnomah County who reported smoking during their pregnancy decreased between 1993-97 (19%) and 2003-07 (11%).
- The percent of self-reported alcohol use during pregnancy has declined.
- Low birth weight rates have remained steady. African American low and very low birth weight rates are higher than rates for other racial/ethnic groups.
- The Hispanic infant mortality rate has met the Healthy People 2010 objective.
In 2007, there were 10,277 births to Multnomah County residents. Crude birth rates, which represent the number of live births per 1,000 residents, remained steady from 1997 through 2007. Fertility rates (the number of live births per 1,000 women ages 15 to 44) have increased compared to rates in the late 1990s.

Hispanic fertility rates are consistently higher than rates for other racial and ethnic groups. The Hispanic fertility rate increased steadily in the late 1990s to reach a high in 2001 of 124 per 1,000 women ages 15-44. Fertility rates among Native Americans fluctuate; however, there has been an overall increase between 2001 and 2007.
Fertility rates increased in East County and Mid-County between 1996 and 2007. There was a decline in fertility rates in Northeast, North Portland, and Southeast and a slight decline on the Westside. In 2007, fertility rates were highest in Mid-County with 85 births per 1,000 women ages 15-44, followed by East County with 80 births per 1,000 women ages 15-44. The map below indicates where the geographic areas of Multnomah County are located.
Births to Mothers Younger Than 20 Years Old

Births to mothers younger than age 20 are associated with increased risk for preterm birth, low birth weight, and neonatal mortality. Since the mid 1990s, births to mothers younger than age 20 as a percent of total births has declined for all racial and ethnic groups. In 2003-2007, 7% of all Multnomah County births were to mothers younger than age 20.

In 2003-07, the percent of births to mothers younger than age 20 was highest for African American females (15%), followed by Native American and Hispanic females (14% and 13%). The percent of births to mothers younger than age 20 was lowest for Asian females (4%).

The proportion of births to mothers younger than age 20 declined in all areas of the county between 1993-97 and 2003-07. In Northeast and Southeast the proportion declined by more than 50%. In 2003-07, the highest proportions of births to mothers younger than age 20 were in North Portland and East County (10% each).
First Trimester Prenatal Care

Early prenatal care plays an important role in identifying and correcting health problems and behaviors that may have a negative effect on birth outcomes. Two indicators of prenatal care are presented here. The first is the percent of mothers who received prenatal care during the first three months of pregnancy. The national objective for first trimester prenatal care is 90%. The second is inadequate prenatal care, defined as care that began during the third trimester of pregnancy or included five or fewer total visits during the pregnancy.

Although the percent of mothers who received prenatal care during the first three months of pregnancy is highest for White non-Hispanics, no racial or ethnic group has met the national objective. While the Hispanic first trimester prenatal care rate is lower than other racial/ethnic groups, the rate has remained steady.

Gains in first trimester prenatal care were made in Northeast and Southeast between 1997 and 2007. Westside met the Healthy People objective for first trimester prenatal care in both 1997 and 2007. First trimester prenatal care declined in East County, Mid County, and North Portland in 2007 compared to 1997.
Inadequate Prenatal Care

Inadequate prenatal care is defined as care that began during the third trimester of pregnancy or included five or fewer total visits during the pregnancy. Overall, the percent of women receiving inadequate prenatal care has remained steady over the past 10 years in Multnomah County (6%). Native American, Hispanic, and African American women have the highest percent of inadequate prenatal care.

The percent of women who received inadequate prenatal care declined in Northeast, North Portland, and Southeast. Rates of inadequate prenatal care increased slightly in Mid-County and East County between 1993-97 and 2003-07.
Use of Tobacco During Pregnancy

Research has shown that smoking during pregnancy causes health problems, such as pregnancy complications, premature birth, low birth weight infants, and sudden infant death syndrome (SIDS). Self-reported use of tobacco during pregnancy has declined in Multnomah County. In 1993-97, 19% of new mothers reported on their children’s birth records that they smoked during pregnancy. In 2003-07 that percentage decreased to 11% of new mothers.

Overall the percent of tobacco use during pregnancy has declined in Multnomah County. Although tobacco use during pregnancy has declined among Native Americans, in 2003-07 tobacco use was highest in that group (26%). Tobacco use during pregnancy is consistently lowest among Hispanic and Asian women.

Tobacco use during pregnancy has decreased dramatically in all areas of Multnomah County. In 2003-07, women in Mid-County were more likely than other areas to report use of tobacco during pregnancy.
Use of Alcohol During Pregnancy

Fetal alcohol disorders are among the leading preventable causes of developmental disorders. In Multnomah County, self-reported alcohol use during pregnancy has declined. The small increase in Asian/Pacific Islander self-reported alcohol use during pregnancy was not statistically significant.

The greatest decline in self-reported alcohol use during pregnancy was in East County. In other areas the percent of alcohol use during pregnancy is similar for 1993-97 and 2003-07.
Low Birth Weight

Newborn infants weighing less than 2,500 grams, or 5.5 pounds, are considered low birth weight. Tobacco and alcohol use during pregnancy are associated with low birth weight. Low birth weight is a major determinant of death, disease, and disability in infancy with the potential to create developmental problems in childhood. Low birth weight is also associated with an increased risk of disorders in adulthood, including obesity, diabetes, and coronary heart disease.

The rate of low birth weight in Multnomah County has remained relatively stable. In 2003-2007, 6% of all births were low birth weight. The national Healthy People 2010 low birth weight objective is 5%.

Low birth weight is consistently higher among African American infants. Although not statistically significant, low birth weight appears to have increased among Native Americans and Asian/Pacific Islanders. In other racial and ethnic groups, the percent of low birth weight remains steady.

Low birth weight rates have remained steady in all areas of Multnomah County. Low birth weight rates are slightly higher in Northeast Portland compared to other areas.
Very Low Birth Weight

Newborn infants weighing less than 1,500 grams, or 3.3 pounds, are considered very low birth weight. A small percent of Multnomah County births are very low birth weight. In 2003-07, 1.0% of births were very low birth weight infants. The national Healthy People 2010 objective is 0.9% very low birth weight births.

Although the percentage is small, very low birth weight is consistently higher among African American infants than other racial and ethnic groups.

The percent of very low birth weight births is fairly evenly distributed among the geographic areas of Multnomah County.
Infant Mortality

Infant mortality is the death of an infant before his or her first birthday. Despite a significant decline in infant mortality rates in the 1990s, African American rates remain the highest of all racial and ethnic groups. Hispanics are the only group to have met the Healthy People 2010 objective of no more than 4.5 infant deaths per 1,000 live births. There were too few events to calculate Native American infant mortality rates.

Infant mortality declined in all areas between the period 1991-95 and 2001-05. The largest decline was in North Portland followed by Northeast. The Westside of Portland has the lowest infant mortality rate.