A Healthy Birth

A healthy pregnancy leading to a healthy birth is the first gateway to a life of opportunity. A baby who is born healthy is likely to enjoy more opportunities in life than one not born healthy.

A healthy birth sets the stage for a healthy and stimulating infancy – a crucial time for a new baby to develop physically, mentally and emotionally into a curious and energetic young child ready to absorb all the world has to offer.

An unhealthy birth can be a major barrier in a baby's life, often delaying development and leading to life-long challenges.

This is particularly true of unhealthy births to parents of limited means – parents who do not have the financial capacity to gain access to adequate health and developmental care in the critical months following birth.

We have chosen four key indicators to measure how well Colorado's babies are making it through this first essential gateway.

Indicator 1: Low birth-weight babies

Babies who weigh less than 5 pounds, 8 ounces at birth are more likely to have health complications, at birth and later in life.

Indicator 2: Access to prenatal care

Women who receive prenatal care in the first trimester of a pregnancy are more likely to give birth to healthy babies.

Indicator 3: Teen pregnancies

Teenage girls are more likely than women in their 20s and 30s to encounter complications during pregnancy and at birth.

Indicator 4: Smoking during pregnancy

Women who smoke during pregnancy are at greater risk for premature birth, low birth-weight babies, stillbirth, infant mortality, and other complications.

Indicator 1: Low birth-weight babies

A baby that weighs less than 5 pounds, 8 ounces at birth is a low birth-weight baby.

Low birth weight babies are more likely to be hospitalized, more likely to have learning and behavior problems, and more likely to repeat grades and need special education.[1]

Problems from low-weight births often mean mothers take longer maternity leave or do not return to work at all because of pregnancy complications and infant care needs.[2] Families of low birth-weight infants spend more on transportation to doctor visits, health care and education, which aren't reimbursed by Medicaid or other programs.[3]

In 2002, Colorado's low birth-weight rate was 8.9 percent,[4] compared to 7.8 percent nationally.[5] Colorado's low birth-weight rate is higher than the national average in all age and race categories. Overall, the state has the 10th highest low birth-weight rate in the nation.[6]

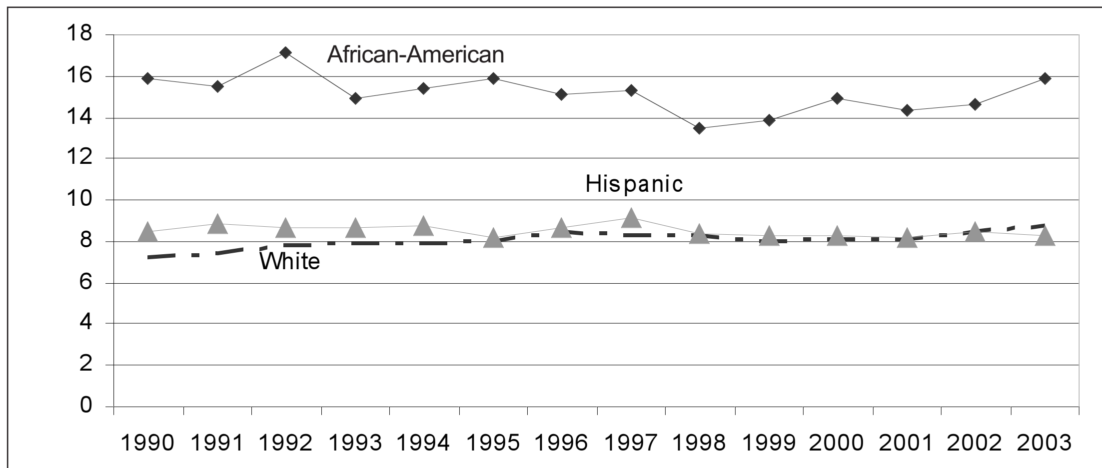
The rate among African-American women is almost twice as high as the rates among white and Hispanic women, which is consistent with national data. In Colorado since 1990, low birth-weight rates among all racial groups remained relatively consistent, showing no trend toward improvement.

The leading cause of low-weight births in Colorado is multiple births. But for single births, the leading causes are inadequate maternal weight gain, smoking and premature labor. Research shows that Colorado's high elevation is a secondary factor, but can play a bigger role for mountain residents.[7]

These problems can be addressed through timely prenatal care.

- Low-weight births are more common for young teen mothers and women delivering twins, triplets or more.[8, 9] Colorado ranks in the top 10 states for high twin and triplet birth rates. Multiple births in Colorado increased from 1.9 percent in 1975 to 3.1 percent in 1997.[10] Many of these mothers are over 40 and used reproductive technology to get pregnant, resulting in twins, triplets or more.[11]
- In 2002, low weight births were higher among African-Americans in Colorado, at 14.4 percent, compared to the national average of 13.4 percent.
- Poverty, racism, lack of community support and family problems can cause stress-induced changes in a woman's body prior to conception. These changes contribute to pregnancy problems such as low-weight births.[12]

Figure 1. Percent of low-weight births by race/ethnicity in Colorado, 1990-2003



Source: Adapted from The Health Status of Colorado's Maternal and Child Health Population, June 2005, Figure 11, p. 22.

Indicator 2: Access to early prenatal care

Prenatal care in the first trimester of a pregnancy is vital to the health of mother and infant. When women receive early and adequate prenatal care, they are more likely to stop smoking, eat better and continue to see a doctor or nurse during and after pregnancy.

After steady improvement since 1990, the percentage of pregnant women in Colorado receiving timely prenatal care began to fall from a 1997 high of 83 percent to just over 79 percent in 2002 and 2003.

By comparison, the national average in 2003 was 84 percent.[13] **In 2003, Colorado ranked 39th for women receiving care in the first trimester.**[14]

While prenatal care is important, studies examining the effects of prenatal care on birth outcomes reveal mixed results.[15, 16] Prenatal care that also includes nurse home visits has been found to be most effective.[17]

Timely prenatal care varies by race with cultural differences influencing pregnancy outcomes. For example, Colorado Hispanic mothers are less likely to receive early prenatal care but also less likely to have low birth-weight babies.[18]

In contrast, more African-American mothers receive early prenatal care, but are almost twice as likely to deliver a low birth-weight baby.[19]

Table 1. Percent of live births from mothers receiving early prenatal care by race and age, 1998-2002 average

Age	White	Hispanic	Black
15-19	63.9	52.3	73.1
20-24	72.7	54.4	57.9
25-35	76.6	58.7	71.0
35+	78.4	54.5	***
Total	75.2	55.7	67.9

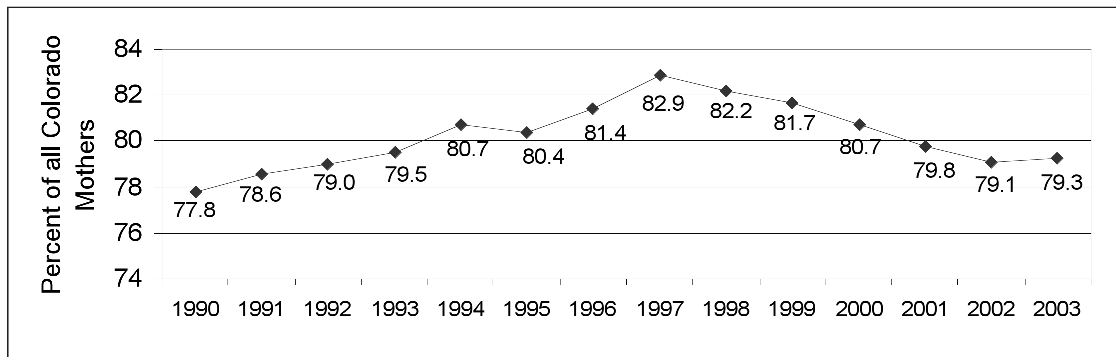
Source: Colorado PRAMS data, Colorado Department of Public Health and Environment.
Note: *** estimates cannot be calculated due to too few births in the sample.

Overall, white mothers are most likely to receive timely prenatal care and Hispanic mothers are least likely.

The Colorado Department of Public Health and Environment reports that pregnant Medicaid recipients tend to face more barriers to accessing early prenatal care. These include lack of transportation, unintended pregnancies, domestic violence, inability to find a primary doctor who accepts Medicaid clients and living in rural areas.[20]

Consequently, only 57 percent of pregnant women covered by Medicaid receive early prenatal care, compared to 71 percent of all pregnant women.

Figure 2. Percent of births with first trimester prenatal care in Colorado, 1990-2003



Source: Colorado PRAMS data. Table adapted from Health Status of Colorado's Maternal and Child Health Populations (2005), Figure 2, p. 7.

Indicator 3: Teen pregnancies

Teen pregnancy raises obstacles to the cycle of opportunity for mother and infant. Teen mothers are more likely to have pregnancy complications, including low birth-weight babies.

Without help from their families, they are less likely to have the financial resources to adequately care for their babies – especially if the babies are born with health complications. Teen mothers are far more likely to drop out of school and remain in low-wage jobs.[21]

In Colorado, 11 percent of all live births in 2002 were to teens younger than 20, compared to a national average of about 10 percent. Overall teen birth rates in the state declined by 26 percent from 1990 to 2002.[22]

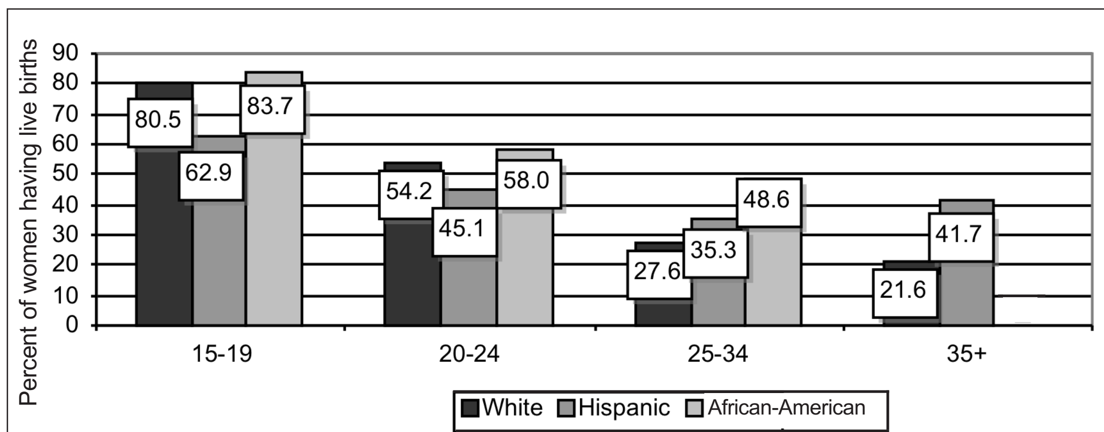
Teen pregnancy among African-Americans and American Indians in particular was nearly cut in half. While teen pregnancy among Hispanics fell nationwide, it climbed in Colorado by 8 percent — the one exception to the overall drop in teen pregnancies.[23]

Most teen pregnancies are unintended. Young women with unplanned pregnancies are less likely to start prenatal care early and to adopt healthy behaviors.[24]

- More than 80 percent of births to white and African-American teens (ages 15-19) are unintended, compared to 63 percent of births to Hispanic teens.
- Unintended pregnancies decrease with age among all races except Hispanics.[25] The decline is sharpest among white women.
- Unintended pregnancies are much higher among Hispanic women 35 and older than other women in that age group.

When asked why they didn't prevent the pregnancy, most women said they didn't think they could get pregnant. Among mothers 15 to 19, more than one quarter said their husband or partner did not want to use birth control.[26]

Figure 3. Unintended pregnancy among Colorado women having a live birth by age and race of mother, five-year average, 1998-2002



Source: Pregnancy Risk Assessment Monitoring System, Colorado Department of Public Health and Environment (2005). Note: The number of unintended pregnancies among African-American women 35 and older could not be calculated due to small sample size.

Indicator 4: Pregnancy and smoking

Women who smoke during pregnancy are at greater risk for premature birth, pregnancy complications, low birth-weight infants, stillbirth and infant death.

In Colorado, smoking during pregnancy is the second leading cause of low birth weight among single-child births.[27]

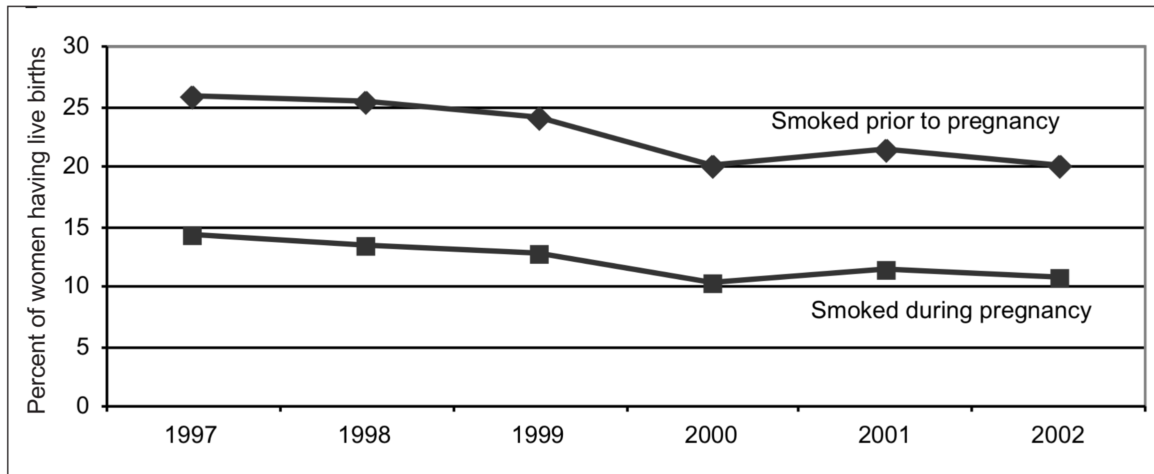
In 2002, slightly more than 10 percent of all pregnant women smoked while pregnant.

Since 1997, the percentage of all women who smoked prior to their pregnancy declined by 20 percent and the percentage that smoked during their pregnancy dropped by a third. The rates for both have remained fairly constant since 2000.

- Nationally and in Colorado, rates of smoking among all pregnant women are decreasing.
- Pregnant teens continue to smoke at higher rates than older pregnant women.[28]
- In Colorado, the rate of smoking during pregnancy is highest among white teens at 30.5 percent and lowest among Hispanic teens at 3 percent.[29]
- Nationally, smoking among pregnant African-American teens increased from 5 percent in 1994 to 7 percent in 2002.[30]

Public awareness and outreach efforts appear to be making a difference in educating women about the dangers of smoking and other high-risk behaviors during pregnancy.

Figure 4. Percentage of all teens and women delivering a live birth who smoked in the three months prior to pregnancy, and those who smoked during the last three months of pregnancy, Colorado, 1997-2002



Source: Adapted from Colorado Department of Public Health and Environment, The Health Status of Colorado's Maternal and Child Health Populations (June, 2005), Figure 6, p. 13.

What is Colorado doing?

Colorado has several services to improve the health of low-income pregnant women and their children. Many are provided through the state's Medicaid program. Others serve low-income families whose income or assets exceed the Medicaid limits.

Prenatal Plus

Medicaid-eligible pregnant women at risk of delivering low birth-weight babies receive advice and help to adopt healthy behavior.

For example, expectant mothers get help to quit smoking, gain adequate weight and resolve emotional issues resulting from chronic poverty or domestic violence that could affect their pregnancies.

In 2003, Prenatal Plus served 3,516 women. Participants had fewer low birth-weight babies than the state average.

Research by the Colorado Department of Public Health and Environment shows that every $1 spent on Prenatal Plus services saves $2.48 in Medicaid costs through the first year of the infant's life.[31]

Child Health Plan Plus (CHP+)

CHP+ is a low-cost health insurance program for uninsured Colorado children and teens whose families earn or own too much to qualify for Medicaid but still cannot afford private insurance. It is also available to low-income pregnant women 19 and older who don't qualify for Medicaid.

Colorado Nurse Home Visitor programs

Nurses make home visits to first-time, low-income women during pregnancy and for the child's first two years, offering advice and encouragement for improving the health of mother and baby.

Mothers with incomes up to twice the federal poverty level ($25,660 for a mom and baby in 2005) are eligible for free visits.

Presumptive eligibility

Low-income women who apply for Medicaid are presumed eligible while their applications are being processed so they can receive prenatal care during their first trimester.

Presumptive eligibility was eliminated in September 2004 as part of ongoing budget cuts, but HB 05-1025 restored it in March 2005.

In addition, HB 05-1086 restored Medicaid coverage, including presumptive eligibility, for qualified legal immigrants

Tobacco taxes for health-related purposes

Colorado voters boosted the state's tobacco tax in 2004. Some of the money — an estimated $80 million in 2005 — goes to the Health Care Expansion Fund.

Revenues will help expand eligibility to the Child Health Plan Plus for children and pregnant women by increasing the income limits from 185 percent of the federal poverty level to 200 percent ($35,800 to $38,700 for a family of four in 2005).

Information online:

Centers for Disease Control: www.cdc.gov

Colorado Department of Public Health and Environment: www.cdphe.state.co.us/cdphehom.asp

Women's health in Colorado: www.cdphe.state.co.us/pp/womens/womhom.asp

Family planning services: www.cdphe.state.co.us/pp/womens/famplan.asp

Prenatal Plus: www.cdphe.state.co.us/pp/womens/PrenatalPlus.asp

Child Health Plan Plus: www.cchp.org

What more should Colorado do?

Medicaid eligibility

Colorado's income eligibility requirements for Medicaid are among the most restrictive in the nation and prevent many low-income mothers, children and families from receiving needed care.

Recommendation: Colorado should raise its Medicaid income eligibility limits from the current 133 percent of the federal poverty level ($25,735 for a family of four in 2005) to include those earning up to 185 percent of the federal poverty level ($35,797 for a family of four in 2005).

Medicaid reimbursement

In response to budget pressures and increasing health care costs, Colorado's Medicaid program lowered reimbursement rates to a point where many providers, including prenatal care providers, chose not to participate, further limiting access and choice for those who depend on these programs for care.

Recommendation: Colorado should use some Referendum C revenues to increase reimbursement rates to Medicaid providers to cover more costs for services provided.

Transportation funding

Transportation is critical to ensuring adequate prenatal care, but many low-income women don't have a way to get to their appointments.

Medicaid funding for such non-emergency transportation was eliminated during the 2003 legislative session as part of ongoing budget cuts. Currently, funding is limited to patients who need special transportation. This impacts poor families, disabled adults and rural residents who must travel for specialized care.[32]

Recommendation: Colorado should reduce transportation barriers by reinstating funding for Medicaid non-emergency transportation.

Nurse Home Visitor programs

Nurse home visitor programs are a cost-effective method for improving maternal and child health of low-income families.

Recommendation: Colorado should extend nurse home visitor programs to all counties and ensure that all eligible mothers have access to the service. In addition, the programs should recruit more bilingual nurses.

Local prenatal care funding

The per-capita line item appropriation to the Colorado Department of Public Health and Environment was vetoed in FY 2002. CDPHE passed the money on to local public health departments that used it, among other things, to help provide prenatal care for low-income women. Because of ongoing budget shortfalls, many local health departments cut back or discontinued these services.

Recommendation: Colorado should reinstate per-capita funding, or find another way to support local health departments' prenatal care.

Bilingual language training

Research indicates that language barriers are a significant obstacle to accessing timely prenatal care. Hispanic women are more likely to seek health care from providers who speak Spanish and understand their culture.

Recommendation: Colorado should increase the number of bilingual health care providers and provide language training to those who are not bilingual.