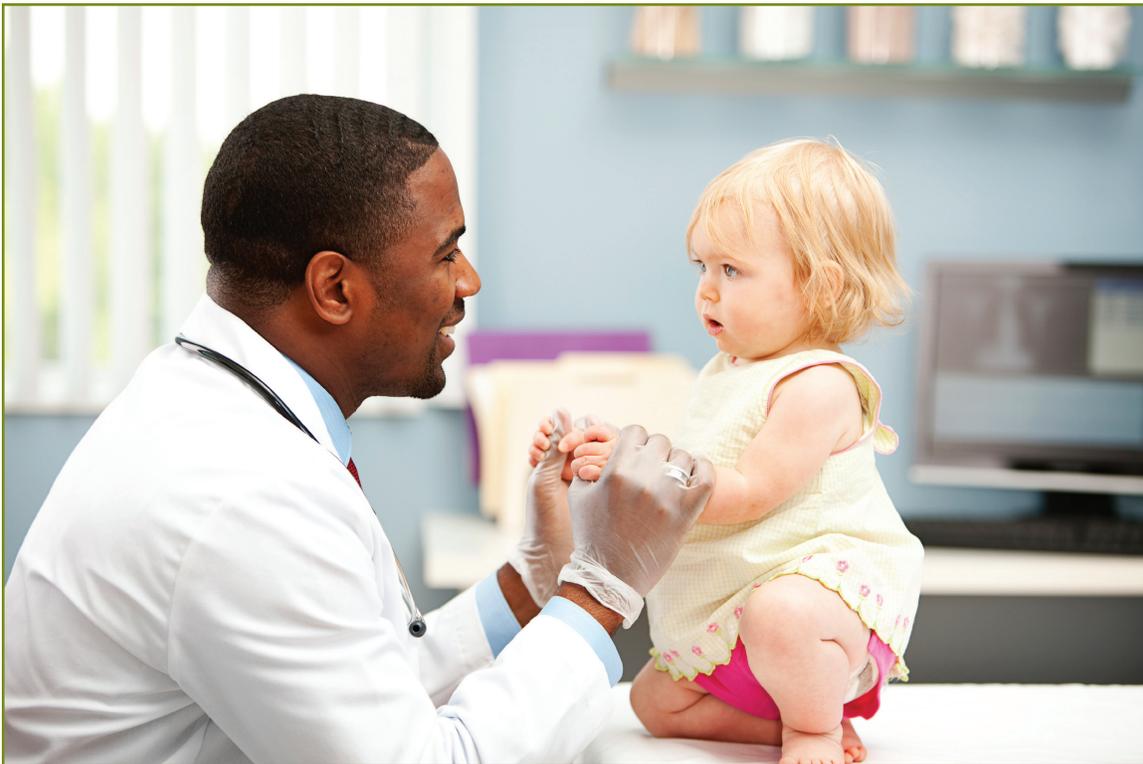


Health

A community's well-being depends on the health of its children.

Too many of our community's children face health risks from the beginning of their lives. Many of their mothers receive no prenatal care, and prematurity, low birth weight, and infant mortality are disproportionately high in Memphis and Shelby County. The prevalence of poverty, teen parenthood, and single-parent families means that many children grow up without the resources they need in order to thrive.



Shelby County performs poorly on most measures of child health. In the Annie E. Casey Foundation's Kids Count 2010 report, which analyzes state-level information on children's educational, social, economic, and physical well-being, Tennessee ranks 41th of the 50 states, which is an improvement from 2009 when Tennessee ranked 46th. Shelby County, however, continues to perform near the bottom of all Tennessee counties.¹

Too often, the adversity that children face in their first years can have effects that last a lifetime. Early stress and hardship can hinder brain development and set the stage for health problems that may not appear until adulthood.² Poor health is costly for families and communities. This section of the Data Book examines some of the most common risk factors that jeopardize our children's chances for happiness, achievement, and success.

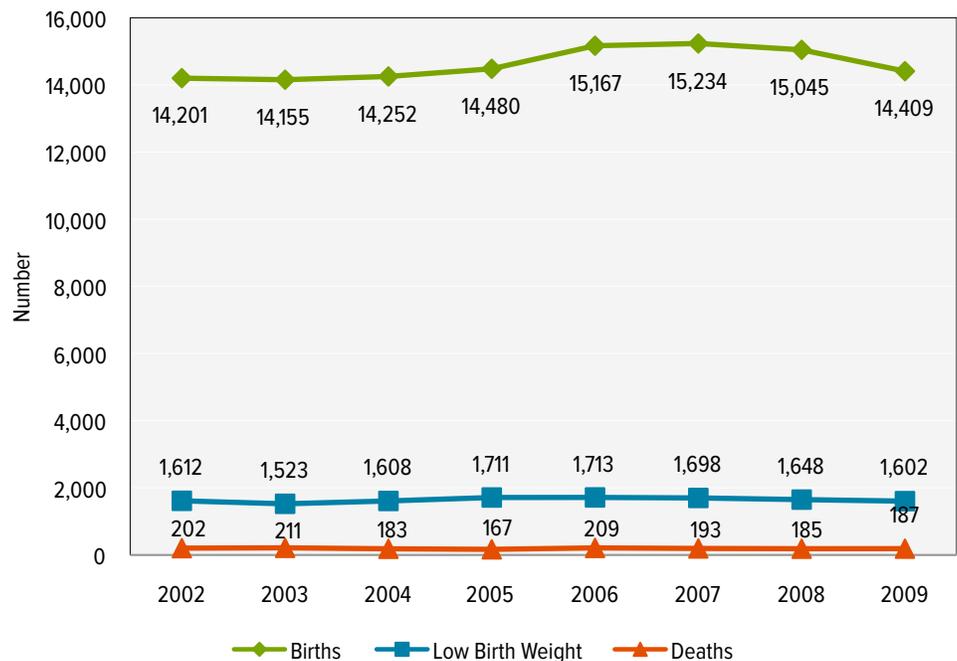
Birth outcomes reflect a community's overall health.

Birth outcomes such as low birth weight (less than 5 lbs. 8 oz.) and infant mortality (death during the first year of life) are a measure of a community's socioeconomic conditions, public health, access to care, and quality of care.³ They also reflect a community's commitment to infants and young mothers. Out of the 14,409 babies born in 2009, 1,602 were low birth weight, and 187 died during infancy (Figure 1).

At first glance, the number of infant deaths and low birth weight births may seem relatively small. However, when compared to national figures, the significance of the problem becomes apparent. The percentage of low birth weight births in Shelby County is 36 percent higher than the most recent available national figure. Infant mortality is more than twice as common in Shelby County as it is nationwide.^{4,5}

FIGURE 1:
Number of Total Live Births, Low Birth Weight Births, and Infant Deaths, Shelby County, 2002-2009

Source: Tennessee Department of Health [TDOH], Office of Policy, Planning and Assessment, Division of Health Statistics, Birth Certificate Data, 2002-2009



There are large differences in infant mortality according to race.

The infant mortality rate (IMR) is the number of deaths that occur in the first 12 months of life per 1,000 live births. In Shelby County, the IMR among black infants is three and a half times higher than the white IMR (Figure 2). This is of particular concern because black infants represent over half of Shelby County births. Of the 14,409 babies born in 2009, 35 percent were white and 59 percent black.

Prematurity (less than 37 weeks gestation) has been linked to infant mortality, and the higher prevalence of premature births among black women may explain part of the racial disparity in infant deaths. But even among full-term infants the infant mortality rate is 1.74 times higher for black babies than for white babies.⁶

Likewise, differences in education, income, and health behaviors do not fully explain racial disparities in infant mortality.⁷ In fact, college-educated, non-smoking black women have a higher IMR than white women who smoke and did not finish high school.⁶

In Shelby County, the gap between the black IMR and white IMR has grown.

- The 2009 IMR for blacks in Shelby County is slightly higher than the 2000 rate; the white IMR has dropped by a third (Figure 2).
- In 2000, the black IMR in Shelby County was about two and a half times higher than the rate among white infants. In 2009, it was over three and a half times higher (Figure 2).

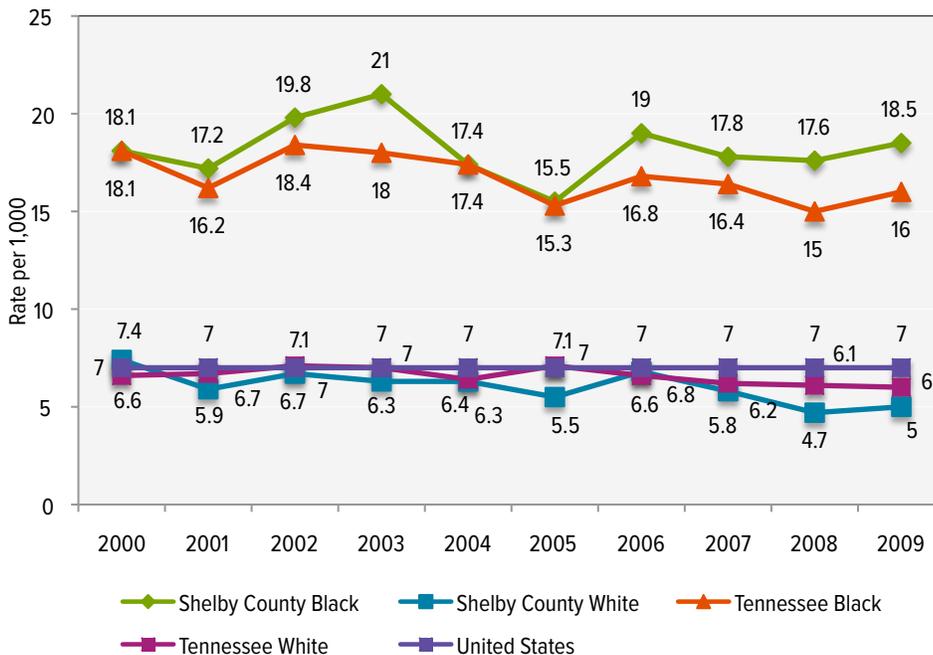


FIGURE 2:
Infant Mortality
Rate/1,000 Live
Births by Race,
Shelby County,
Tennessee and
United States,
2000-2009

Source:
TDOH, 2002-2009

Black infants are also more likely than white infants to be born at a low birth-weight.

Low birth-weight babies face multiple risks, including a greater risk of infant death. Babies with normal birth-weight (at least 5 pounds 8 ounces) have an IMR of 3.3. The IMR for moderately low-birth-weight infants (3 lbs. 5 oz. to 5 lbs. 8 oz.) is 18 times higher. Very low-birth-weight babies (less than 3 lbs. 5 oz.) have an IMR that is 77 times higher than that of normal birth-weight babies.⁶

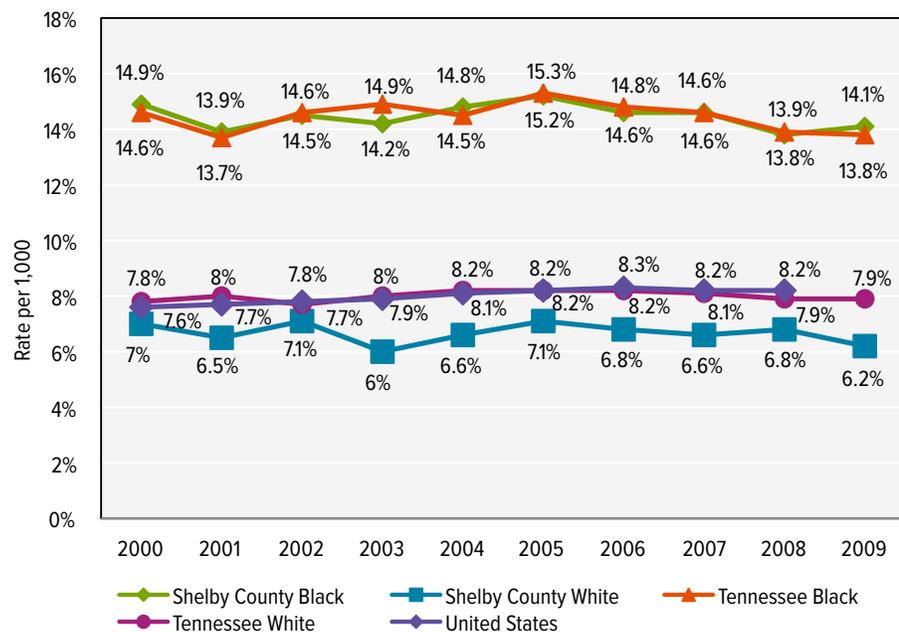
Low birth-weight children who survive are vulnerable to a wide array of health complications and developmental problems.⁸ Low birth weight infants have increased risk of cerebral palsy, respiratory diseases, cognitive delays, and

vision and hearing impairments.⁹ Even when they do not suffer major impairments, there can be long-term effects on their brain development. Studies of adolescents and adults who were born at low birth weight have revealed altered patterns of brain connectivity, especially in language-related areas.¹⁰ Other outcomes include learning difficulties, behavioral problems, and poor physical health.^{11,12}

In both Tennessee and Shelby County, the rate of low birth-weight births has remained relatively constant in recent years. The black-white gap has remained about the same, with black infants more than twice as likely to be born at a low birth-weight (Figure 3).

FIGURE 3:
Percent of
Low Birth Weight
Babies by Race,
Shelby County,
Tennessee and
United States,
2000-2009

Source:
TDOH, 2002-2009



Teenage birth rates remain high.

Of the 14,409 births in Shelby County, about 15 percent are to teenage mothers. Since 2002 teenage birth rates among blacks in the County have risen slightly while white teenage birth rates have declined by 25 percent (Figure 4).

Becoming a teen mother is a barrier to educational attainment. Most research shows teen mothers are less likely to complete high school and less likely to attend college.¹³ Some studies find that only 35 to 50 percent of teen mothers earn a high school diploma. Early parenthood also has substantial economic effects for women, placing them at risk for unemployment and poverty.¹⁴

The risks encountered by children of teen mothers begin in the womb:

- Mothers under 20 years old have higher rates of infant mortality than women in their 20's or early 30's.¹⁵
- For babies born to mothers under 15, the IMR is more than twice the overall rate.¹⁵
- Compared to mothers in their 20's or early 30's, teen mothers are more likely to have a premature or low birth weight baby.^{15,16}

Children of teen mothers continue to face risks throughout life. They are more likely than their peers to live in poverty, to have poor health, and to experience inconsistent and ineffective parenting. As adolescents, they are more likely to have behavior problems and to become teen parents themselves.^{17,18}

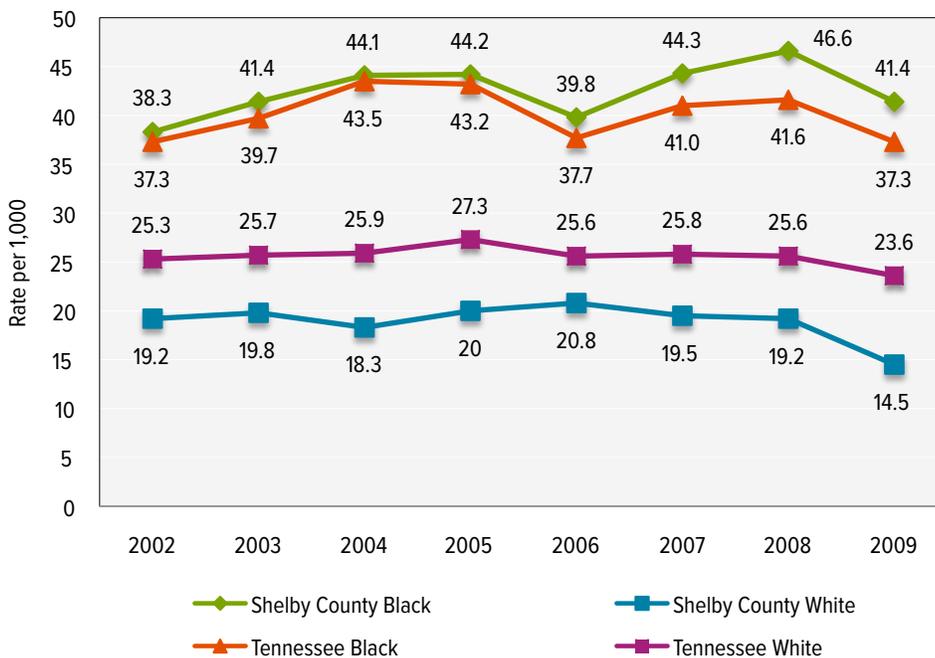


FIGURE 4:
Birth Rate/1,000
Females
Age 10-19 Years,
Shelby County
and Tennessee,
2002-2009

Source:
TDOH, 2002-2009

Births to unmarried mothers continue to increase.

Since 2002, the percentage of births to unmarried mothers has increased in Shelby County (by 15%) and across Tennessee (by 23%) (Figure 5).

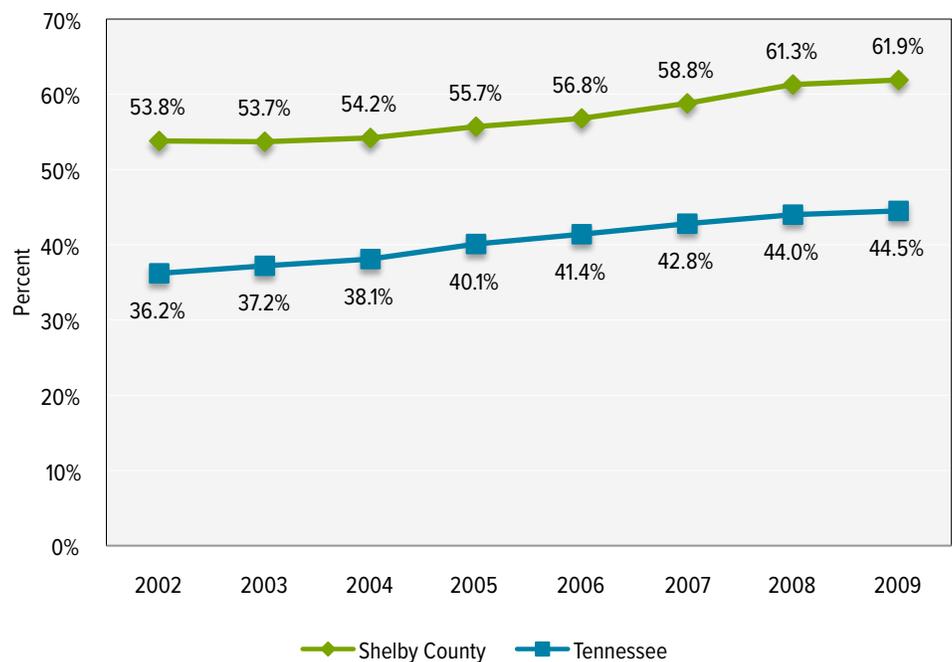
As a group, children of single mothers do not fare as well as other children. It is important to note that the effect of single parenthood decreases after other factors like income, low birth weight, and maternal traits are taken into account.¹⁹ Nevertheless, compared to children of married parents, children of unmarried parents tend to face more developmental risks, even in the first years of life.²⁰

Starting with conception, children of single parents face more health risks than other babies. Their mothers are more likely to smoke while pregnant, to use drugs, and to live in poverty.²⁰

- Single mothers are at increased risk for having a low birth weight birth.⁹
- In Tennessee, consistent with national trends, infants born to unmarried mothers have an IMR that is twice that of infants born to married mothers.¹⁵
- National research shows that they are also more likely to have academic, emotional and behavior problems.¹⁹
- As adolescents, children of unmarried mothers are more likely to become teen parents.¹⁶

FIGURE 5:
Percent of Births
by Unmarried
Mothers,
Shelby County
and Tennessee,
2002-2009

Source:
TDOH, 2002-2009



Smoking during pregnancy endangers a baby's health.

Prenatal smoking is less common in Shelby County than in Tennessee as a whole. The percentage of Shelby County women who smoke during pregnancy is lower than in 2000, while across the state it is higher (Figure 6).

Maternal smoking during pregnancy is strongly associated with low birth-weight, congenital defects, and childhood respiratory disease.²¹

- Even when it does not affect birth weight, prenatal smoking can have negative effects on brain development.²²
- In Tennessee and across the U.S., mothers who smoke during pregnancy have an IMR that is 74 percent higher than that of non-smoking mothers.¹⁵
- Smoking is associated with long-term consequences such as behavioral problems in childhood.²³

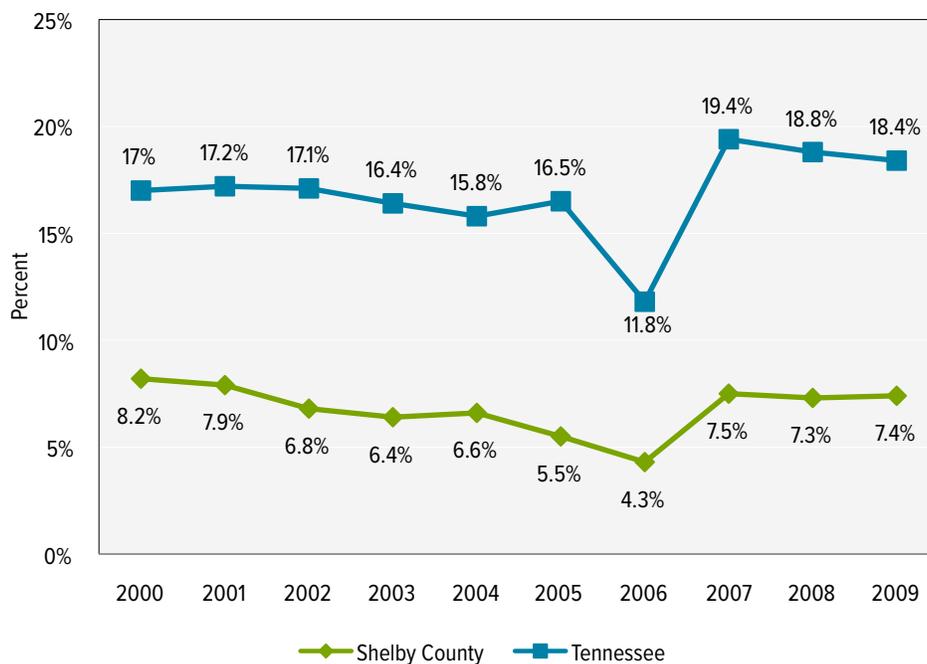


FIGURE 6:
Percent of Mothers
Who Reported
Smoking during
Pregnancy,
Shelby County
and Tennessee,
2000-2009

Source:
TDOH, 2000-2009

Prenatal care improves maternal and child health.

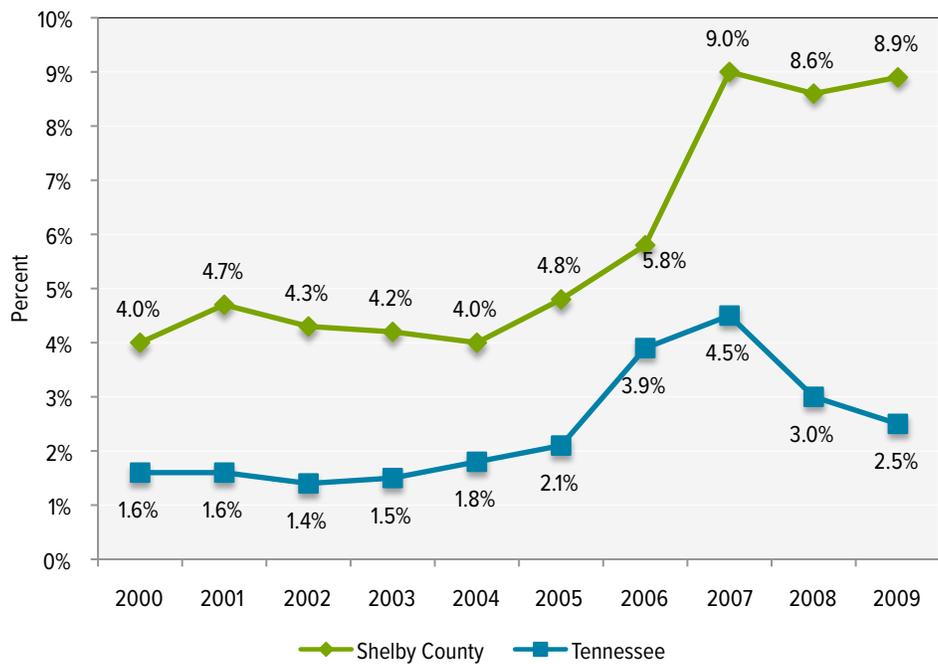
Timely prenatal care is important for the health of mothers and their babies, and may contribute to a reduction in infant mortality and low birth weight.²⁴ Prenatal care should begin in the first trimester, and for a full-term pregnancy should include 10 to 14 visits.²⁵

In recent years there has been a decline in prenatal care in Shelby County. Fewer mothers are receiving adequate care, and more mothers are receiving no care at all before their baby's birth. Consistent, high-quality prenatal care is essential for monitoring maternal and fetal health, providing mothers with necessary information, and identifying possible risks.²⁵

Figure 7 presents the percentage of Shelby County and Tennessee mothers who receive no prenatal care. Since 2000, the percentage of Tennessee mothers receiving no prenatal care has increased by about 50 percent. In Shelby County, the percentage has more than doubled.

Figure 7:
Percent of Mothers
Who Reported
Having Received
No Prenatal Care,
Shelby County
and Tennessee,
2000-2009

Source:
TDOH, 2000-2009



Excessive weight gain during pregnancy is bad for mothers and their babies.

The percentage of mothers who gained 50 pounds or more during pregnancy increased 27 percent between 2000 and 2009. An even greater increase (32%) was seen statewide (Figure 8).

- Excessive weight gain during pregnancy is a health risk, especially for a mother who was already overweight.²⁶
- Excess weight gain is associated with labor and delivery complications, preterm birth, and infant mortality.²⁷
- Too much weight gain during pregnancy can result in high infant birth weight, which increases a child's risk of diabetes, cardiovascular disease, and obesity.²⁸

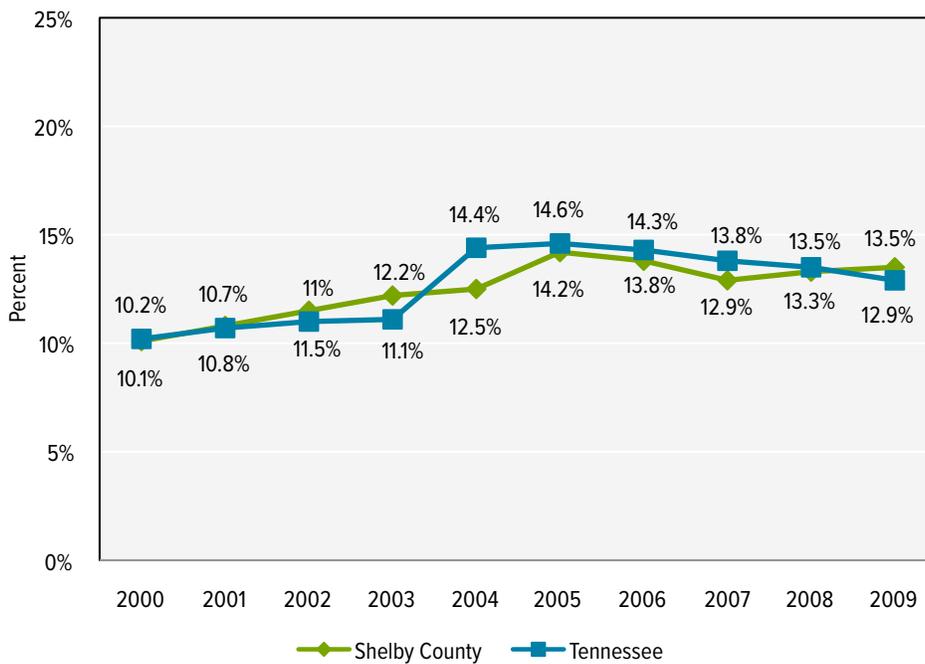


FIGURE 8:
Percent of Mothers
Who Gained 50 lbs.
or More During
Pregnancy,
Shelby County
and Tennessee,
2000-2009

Source:
TDOH, 2000-2009

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