



Definitions

- **Infant Mortality Rate:** Number of babies who die before their 1st birthday per 1,000 live births.
- **Low Birth Weight:** Babies born less than 5.5 lbs or 2500g.

At a Glance

Infant Mortality
Rate per 1,000:

- Hamilton: 9.7
- TN: 8.0
- U.S.: 6.7

Low Birthweight:

- Hamilton: 10.3%
- TN: 9.2%
- U.S.: 8.2%

Healthy People 2010 Goals

- Infant mortality rate: 4.5 infant deaths per 1,000
- Low Birthweight: 5%

Sources:

Tennessee Department of Health, Division of Health Statistics.

CityMatCH. University of Nebraska Medical Center: www.citymatch.org

Health, United States 2007. Centers for Disease Control and Prevention.

March of Dimes

Infant Mortality Reduction Initiative

Infant Mortality Reduction in Hamilton County

The Hamilton County Core Leadership Group was appointed in the fall of 2007 by Governor Phil Bredesen's Office of Children's Care Coordination to identify and implement evidence-based approaches to reduce Hamilton County's infant mortality rate. Similar incentives were also launched in Memphis/Shelby and Nashville/Davidson Counties.

The mission of the Hamilton County Core Leadership Group is to:

- Educate and mobilize the community around factors that lead to poor birth outcomes
- Establish priorities within the community
- Create community partnerships that will coordinate, collaborate, implement and evaluate evidence-based practices that will improve birth outcomes for Hamilton County
- Evaluate evidence-based practices that will improve birth outcomes for Hamilton County.

Project Highlights

The Core Leadership Group granted funding to several community-based programs that expand prenatal care services, promote education, and increase care coordination.

- **Chattanooga-Hamilton County Health Department** — Health Educator: Intensive education and awareness management for pregnant clients.
- **University of Tennessee College of Medicine Obstetrics and Gynecology**— Prenatal Care Services: Expansion of prenatal care at a reduced cost.
- **Southside/Dodson Avenue Health Centers** — Centering Pregnancy program: Evidence-based group prenatal care to provide support.
- **La Paz de Dios** — Promotores de Salud (Health Promoters) program: Lay health outreach and education to provide support to pregnant women.

Additional initiatives include:

- **Girls, Inc.** — Infant Mortality Public Awareness Campaign of Tennessee: Local youth providing peer education and raising awareness campaigns through public service announcements.
- **Fetal Infant Mortality Review** — Community process that examines individual cases of infant and fetal deaths to get a better understanding of infant mortality and leads to the development of strategies to address identified problems.
- **2009 Baby Steps Summit** — First Annual Infant Mortality Reduction Summit with over 100 social service providers in the community.



Girls, Inc. Volunteers for March of Dimes

Of the babies who died in Hamilton County from 2004-2007, the following risk factors were identified:

- 68% were born preterm (less than 37 weeks completed gestation).
- 60% were born very low birthweight (less than 3.3 lbs).
- 61% were born to unmarried mothers.
- 59% were born to mothers who smoked during pregnancy.
- 51% were born to mothers who received no or late prenatal care (after the 1st trimester).
- 38% were born to mothers who had less than a high school education.
- 7% were born to teen mothers.

Born Too Small: Economic Costs

- Babies born too small can require more resources, including time in a neonatal intensive care unit (NICU) at a cost ranging from \$1,000 to \$2,500 per day.
- The median treatment cost of delivery for very low birthweight infants (<1500 grams) is almost \$50,000. This is more than \$1,000 per day, with a median length of stay of 49 days.
- Low birthweight accounts for 10% of all health care costs for children.
- Health care, education, and child care for the 3.5 to 4 million infants and children from birth to 15 years born low birthweight cost between \$5.5 and \$6 billion more than they would have if those children had been born at a normal birthweight.

Born Too Small: Personal Costs

- Day-to-day life is completely disrupted for many families of premature infants. Parents spend hours providing special care and may need extra time away from their jobs. Families can face financial stress as they struggle to pay the high hospital costs as well as time off work.
- In their first year, many preterm and low birthweight infants undergo rehospitalization and acute care visits to a physician or Emergency Department (Cuevas, K; AJN).
- One third of a baby's brain development occurs in the last 5 weeks of pregnancy.
- Sixty percent of babies born less than 26 weeks have long-term disabilities, such as chronic lung disease, blindness, deafness, and brain development problems (Swamy, G; JAMA).
- The effects of prematurity can be seen even past adolescence, it effects fertility. Males born between 22-27 weeks were 76 % less likely to reproduce, and females born at the same age were 67 % less likely to have children. Women born prematurely who did have children were more likely to have a premature birth. (Swamy, G; JAMA).

Primary Source: March of Dimes

Infant Mortality in Tennessee

- Infants in Tennessee whose mothers received inadequate or intermediate prenatal care were 30% more likely to die during their first year of life than those receiving adequate care.
- Infants whose mothers received no prenatal care were almost 6 times as likely to die before their first birthday.
- Infants of smoking mothers were twice as likely to die during infancy—18% of infants in Tennessee were born to women who smoked cigarettes during pregnancy.
- The following infant mortality risk factors were more prevalent among infants of African American mothers than those of white mothers:
 - Mother with a previous child death
 - Mother with high school/lower education
 - No or late prenatal care.
 - Low birthweight
 - Preterm birth
 - Multiple birth
 - Teenage mother
 - Unmarried mother

Source: Tennessee Department of Health, Infant Mortality in Tennessee: 1997-2006.

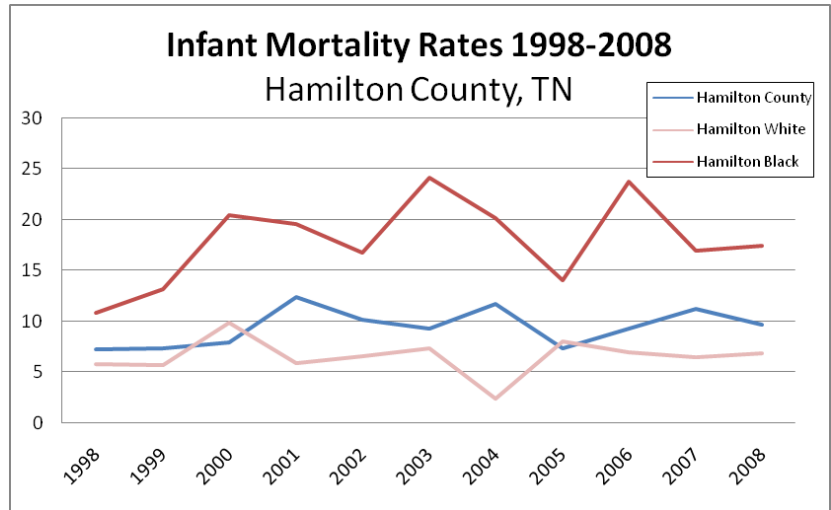


Baby Steps Summit in Chattanooga

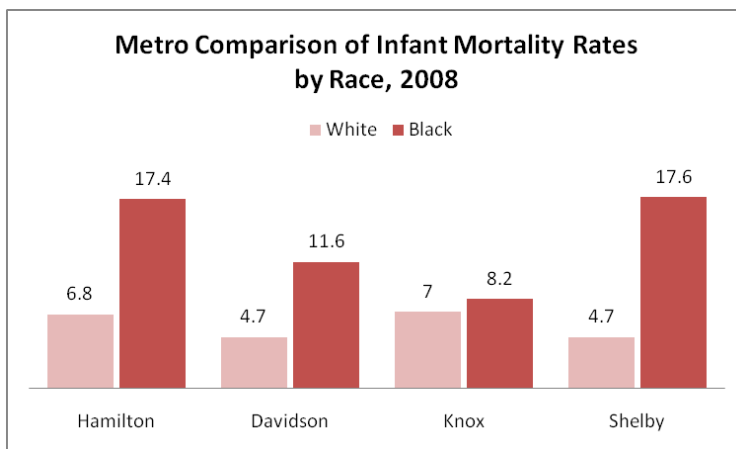
Data Trends in Infant Mortality

Infant mortality is an important health measure that reflects current health status and overall social development of a community. The infant mortality rate (IMR) is the rate at which babies less than one year of age die (per 1,000 births).

In 2008, 42 infants Hamilton County died before their first birthday. The African American IMR is more than twice the rate for whites in Hamilton County.

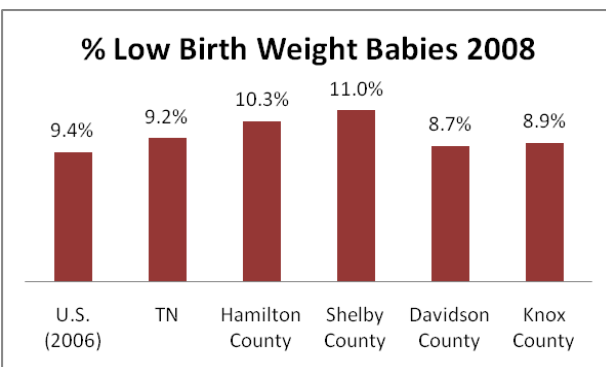


When compared to the four largest metropolitan areas in Tennessee, Hamilton County had the 2nd highest infant mortality rate.



	Total rate per 1,000	
U.S. (2006)	6.7	
TN	8.0	
Hamilton	9.7	
Knox	7.1	
Davidson	6.7	
Shelby	12.3	
IMR	White	Black
Hamilton	6.4	16.9
Knox	3.7	12.4
Davidson	6.9	10.6
Shelby	5.8	17.8

Low birthweight (LBW) is an indicator of infant mortality. In Hamilton County 10.3% of all live births are born LBW, which is less than 2,500 grams or 5.5 lbs. In 2007, Hamilton County had the 2nd highest LBW rate of the four largest metropolitan areas in Tennessee.



	# Births	# LBW	%
White	3,108	222	7.1%
Black	1,095	216	19.7%
Total	4,317	444	10.3%

What You Can Do

About half of all pregnancies are unplanned. To give your baby a healthy start in life, it's important to talk to your health care provider before, between, and during a pregnancy, and to:

- Know your family history, including past premature births (births of babies in the family less than 37 weeks).
- Take a multivitamin pill with 400 micrograms (mcg) of folic acid every day for at least 3 months before getting pregnant to help prevent birth defects.
- Stop the use of tobacco or alcohol.
- Take control of your medical condition, such as diabetes, high blood pressure, asthma, infections or other health problems. Also, be sure that your vaccinations are up to date.
- Talk to your medical provider about any over-the-counter, home remedies, and prescription medicines that you are taking.
- Avoid contact with unsafe chemicals or materials that could cause infection at work and at home.
- Get to a healthy weight before pregnancy and take care of yourself, including lowering stress.
- Determine how long to wait between pregnancies. For most women, it is recommended to wait at least 18 months between pregnancies.

Source: March of Dimes and CDC

What Our Community Can Do

Empower women before and between pregnancies through education and interventions provides the greatest opportunity to reduce Hamilton County's fetal and infant mortality rate. Such interventions include:

- Utilizing preconception health screening tools and curricula
- Promoting healthy behaviors (smoking cessation, drug /alcohol use cessation, nutrition, fitness and healthy sexual behaviors)
- Increasing utilization of prenatal care and a medical home.
- Increasing access to public transportation for prenatal care appointments
- Breastfeeding promotion and counseling
- Educating moms about Sudden Infant Death and injury education and prevention
- Enhancing care coordination of social, medical, and human services in Hamilton County.

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