

Chattanooga-Hamilton County Health Department

Epidemiology Newsletter

February 2009

At a Glance

2006
Infant Mortality
Rate per 1,000:
• Hamilton: 11.2
• TN: 8.7

Low Birthweight:
• Hamilton: 12%
• TN: 9.4%
• U.S.: 8.2%

For additional information about infant mortality/health and maternal health/care, please see pg 4 for contact info.

Infant Mortality in Hamilton County

The overall Infant Mortality Rate (IMR) in Hamilton County has been decreasing since the 1940s. However, the African American infant mortality rate has seen an increase since the 1990s. In 2006, Hamilton County had the 2nd highest infant mortality rate (11.2 per 1,000) and the highest African American infant mortality rate (23.7 per 1,000) compared to other metropolitan areas in Tennessee.

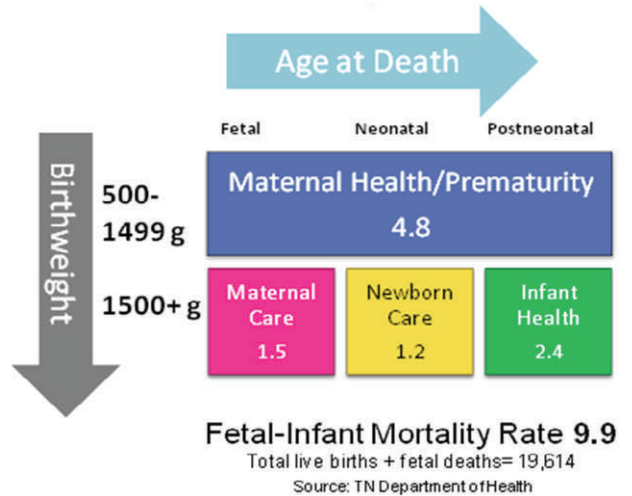
*Fetal-Infant Mortality

From 2001-2005, there were 195 fetal and infant deaths in Hamilton County.

The overall fetal and infant mortality rate in Hamilton County is 9.9 per 1,000 births.

The periods of risk with the highest rates were:

- Maternal Health/Prematurity
- Infant Health.



Excess Fetal & Infant Deaths in Hamilton County

Comparing Hamilton County fetal-infant mortality rates to the U.S. reference group helps estimate excess deaths and "opportunity gaps". The overall excess fetal-infant mortality rate is 4.2 per 1,000, which is approximately 82 excess fetal-infant deaths that may be considered preventable.

Sixty-two percent (62%) of the excess fetal and infant deaths in Hamilton County are in the Maternal Health/Prematurity period of risk, followed by 36% of excess deaths in Infant Health.

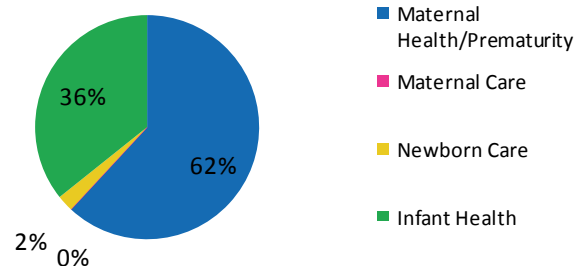
The excess fetal-infant mortality rate for the African American population in Hamilton County when compared to the U.S. reference group was more than double the excess rate for the overall County (9.6 per 1,000). The majority of the excess African American fetal and infant deaths are in the Maternal Health/Prematurity period of risk (72%), followed by the Infant Health Period of Risk (24%).

The greatest opportunity to reduce Hamilton County's fetal and infant mortality rates is to focus prevention efforts in the Maternal Health/Prematurity and the Infant Health periods of risk. The smallest opportunity to reduce rates is in the Maternal and Newborn Care periods of risk.

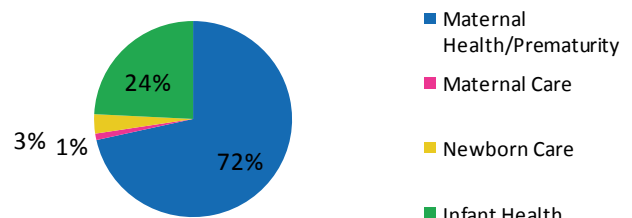
According to CityMatCH, efforts that target preconception health, healthy behaviors, and access to specialized perinatal care can reduce excess Maternal Health/Prematurity deaths.

Efforts that target SIDS prevention, breast feeding promotion, and injury prevention can reduce excess Infant Health deaths.

Excess Fetal-Infant Mortality Deaths Hamilton County, 2001-1005



Excess African-American Fetal-Infant Mortality Deaths Hamilton County, 2001-1005



*Fetal Death/Mortality: A fetal death of 500 grams or more, or, in the absence of weight, of 22 completed weeks of gestation or more. (Note: Induced abortions are excluded from the fetal death count.)

Thank you for reporting your cases of STDs to the Health Department. If you are in need of additional report forms, please contact Sandra Nelson at 423.209.8266. The role of the Health Department STD clinic is to help make reporting as easy and simple as possible. Thanks again.

Data source: TN Dept of Health Statistics

In 2007, the number of HIV/AIDS cases in Hamilton County decreased slightly.

A complete 2007 Hamilton County HIV/AIDS publication will be available soon.

This data is courtesy of the Tennessee Department of Health.

STDs in Hamilton County

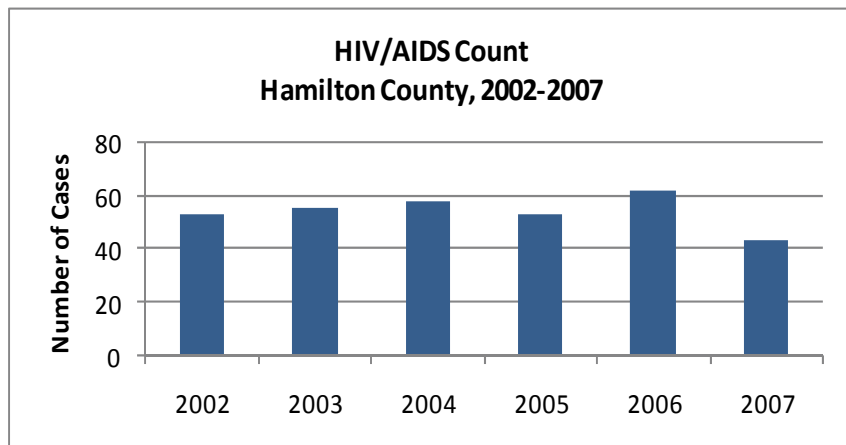
2007 Hamilton County STD rates were calculated using the 2006 U.S. Census population projections. Rates are calculated per 1,000 people.

Hamilton County, TN All* STDs by Gender, 2007	
Rates per 1,000	
Male	5.8
Female	11.5

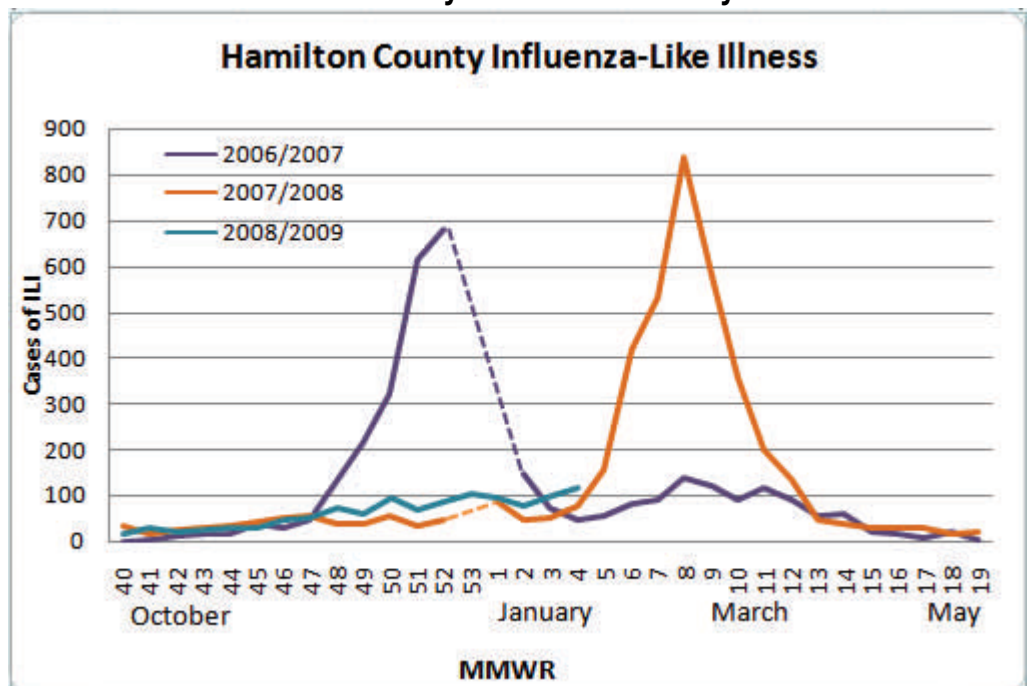
Hamilton County, TN All STDs by Race, 2007	
Rates per 1,000	
Black	22.9
White	2.2

* All STDs include Chlamydia, Gonorrhea and Syphilis.

- In 2007:**
- 37% of STDs occurred in people between the ages of 15 and 19.
 - 47% occurred in people between the ages of 20 and 29.



Influenza Activity In Hamilton County



Since the start of the reporting year, influenza-like illness (ILI) has been on the rise. We are monitoring these trends with weekly counts. A weekly updated ILI chart can be found on the Health Department website: <http://health.hamiltontn.org/Epidemiology>

Flu vaccine is still available and appointments to receive vaccine can be made by calling 209-8050.

Influenza-Like Illness is defined as fever greater than or equal to 100 degrees F AND cough or sore throat (in the absence of a known cause).

Important Shigellosis Information

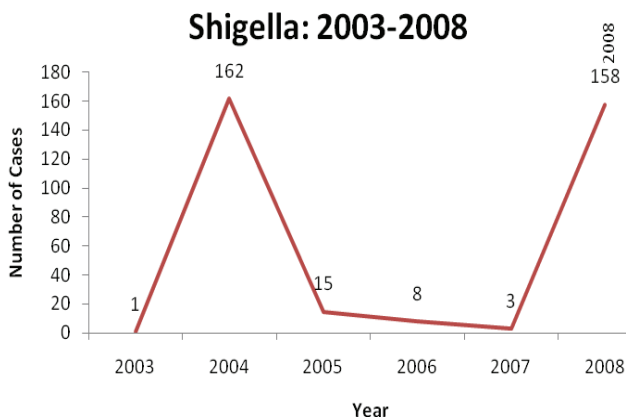
Shigellosis is a bacterial infection affecting the intestinal tract. *Shigella* transmission occurs through direct person-to-person contact, as well as from contaminated food or water. Symptoms include diarrhea (which may be bloody), fever and abdominal cramps. The predominant bacteria species is *Shigella sonnei* (84%). Shigella cases show a cyclical nature, with increased occurrence or epidemics occurring every four to seven years (Figure1). Epidemics are frequently driven by infections in daycare and elementary school-aged children. Shigellosis requires a very small infectious dose, leading to efficient transmission.

Between January 1, 2008 and December 31, 2008, 158 cases of laboratory-confirmed *Shigella* infections were reported to the Chattanooga-Hamilton County Health Department (compared to 3 cases reported in 2007). The majority of infections occurred in children attending daycare and elementary school, among their teachers, and in their households. 81% of cases occurred in children 10 years of age and younger.

All cases of shigellosis in Tennessee are reportable, and epidemiology staff investigates each case, including specific information about school and daycare attendance. During epidemic years such as 2008, timely reporting by physicians is crucial to limiting spread of the infection. Typically, infections cluster in daycare centers and schools, then spread to the community. Early detection of these clusters and intervention by the Epidemiology staff may prevent additional cases.

In 2008, efforts to limit illness included providing disease prevention and hygiene education (instructions on hand-washing, diapering and sending children home if they show signs of illness) to schools and all daycare facilities, as well as supervision of environmental cleaning and disinfection in three daycare centers in which multiple cases were reported. Confirmed cases were excluded from daycare and food handling until two successive stool cultures tested negative, to ensure the patient was no longer carrying *Shigella* bacterium in the stool.

Figure 1: Shigella cases per year, 2003-2008



Year End Epidemiology Report: January–December 2008

Hamilton County Diseases Reported	Cases
Campylobacteriosis	28
Cryptosporidiosis	0
Ehrlichiosis	2
Giardiasis	14
Group A Streptococcus, invasive	4
Group B Streptococcus, invasive	33
Guillain-Barre syndrome	4
Haemophilus influenzae, invasive	7
Hepatitis B, acute	4
Hepatitis C, acute	2
Legionellosis	3
Lyme disease	5
Malaria	1
MRSA (S.aureus, methicillin resistant), invasive	136
Neisseria meningitidis, invasive	2
Rocky Mountain spotted fever	8
Salmonellosis	33
Shigellosis	158
STEC (Shiga toxin-producing Escherichia coli)	3
Strep pneumoniae, drug resistant, invasive	23
Strep pneumoniae, invasive	58
Toxic-shock Syndrome, Staphylococcal	2
VRE (Vancomycin-Resistant Enterococcus), invasive	9
Vibriosis	1
Yersiniosis	0
Other Programs:	
Perinatal Hepatitis B Program	4
Restaurant Complaints Investigated	116
2008 Foodborne Outbreaks	12

* For a complete list of reportable diseases in Tennessee go to <http://health.hamiltontn.org/Epidemiology/>

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Receive this publication electronically!

If you would like to receive this publication electronically, please send an email to sarahc@hamiltontn.gov. This is a publication for health care providers that contains the latest pertinent public health and community information. It is typically bi-monthly.

Mission:

To monitor and investigate epidemiologic trends and diseases to protect the health of the community.

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