

Children's Health
in Memphis

Health

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why it's important: The traditional greeting of the Masai people of East Africa is, “How are the children?” The anticipated reply is, “The children are well.” A society judges its success based on how well its children are cared for. Do they have adequate health care? Are they receiving proper nutrition to grow and learn and become healthy adults? Do they experience nurturing and love from their family and community?

In Memphis, the proper response to the Masai greeting should be that the children are doing well. This may not be the case.

Health care and health insurance for children

TENNder Care is the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) Program designed for the care of children from birth to young adulthood. Through the TENNder Care Program, children on TennCare from birth until the age of 21 are able to receive the health care they need. The goal of the program is to increase the number of children in Tennessee who receive preventive health screenings and intervene in the early stages of disease before the problem progresses.

- Eighty-two percent of Tennesseans without health insurance stated that the reason they don't have health coverage is that they can't afford it.
- Among those without health insurance because of its cost, 90 percent have annual incomes of less than \$10,000.
- There are 138,000 children (under age 21) in Shelby County enrolled in TENNCare, accounting for 22 percent of the total under-21 enrollment in the State of Tennessee.
- The TENNCare expenditures for Shelby County total \$130,719,214 accounting for 19 percent of the entire budget in the State of Tennessee.
- A total of 633,000 children (62%) were screened under the TENNder Care program in 2004, an increase of 17.7 percent from the previous year.
- Fifty percent of children received dental screenings in 2004, an 11.4 percent increase.

Access to affordable healthcare continues to be an issue with working and low-income people in Memphis and Tennessee.

Children make up nearly a quarter of the total U.S. population. The quality of healthcare for these children differs by race, ethnicity and socio-economic status. There are differences in rates of childhood immunization, management of asthma, evaluation and treatment of attention deficit/hyperactivity disorder. Nationally, the proportion of children who receive all recommended vaccines is lower among black children than among white children, lower among Hispanic children than non-Hispanic, white children, and lower among children in poor, near-poor and middle-income families than among children in high-income families.

From 1998 to 2001 the rate of hospital admissions for asthma was higher among black children than white children. Black children received a lower quality of care than did white children on about two-thirds of quality measurements and had less access to care on about 40 percent of access measurements. Poor families received lower quality care on about 60 percent of quality measurements and had less access to care on about 80 percent of access measurements than those with higher incomes.

Disparities exist in the quality and accessibility of health care among racial, ethnic and socio-economic groups across the country.

Critical Issue: Children's Access to Health Care

Recent changes in the provisions of TENNCare certainly will have an impact on children. We must ensure that children of all races, socio-economic groups and family types have access to adequate health care, and that they have a medical "home" in Memphis.

Healthy People 2010

We can assess the health of children by using the guidelines established as part of the Healthy People 2010 program administered by the Office of Disease Prevention and Promotion through the U.S. Department of Health and Human Services. This statement of national health objectives includes local goals for health promotion and disease prevention.

Leading health indicators measured under Healthy People 2010 include:

- Physical activity
- Overweight and obesity
- Tobacco use
- Substance abuse
- Responsible sexual behavior
- Mental health
- Injury and violence
- Environmental quality
- Immunization
- Access to health care

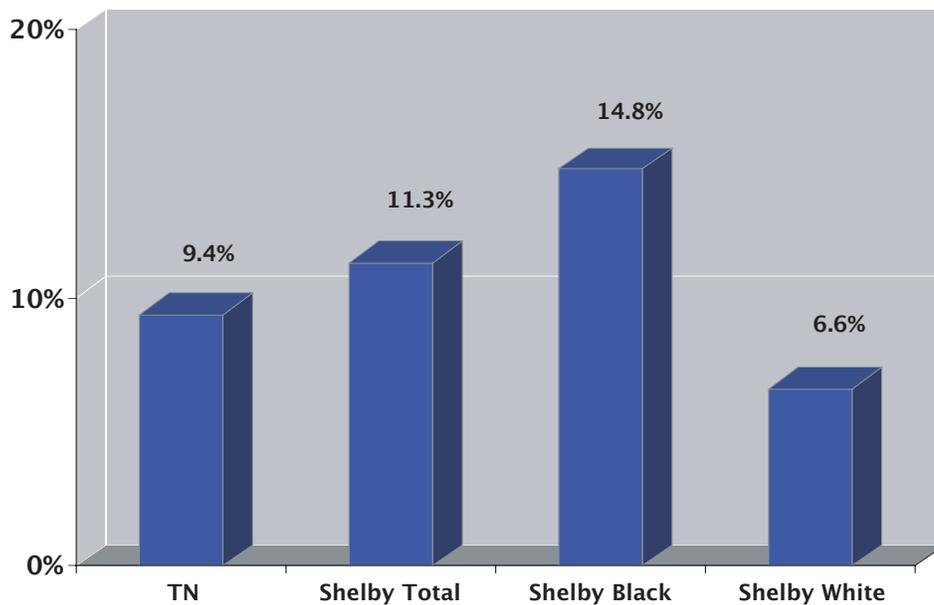
Critical Issue:

In Healthy People 2010 national issues and goals are outlined for the health and well-being of Americans. Service providers and policy makers in Memphis can use these health indicators to meet the health needs of Memphians, especially the most vulnerable populations like children.

Infant mortality and child death rates in Memphis and Shelby County

Percent of Low Birth-weight (2500 grams) Births by Race in Shelby County, 2004

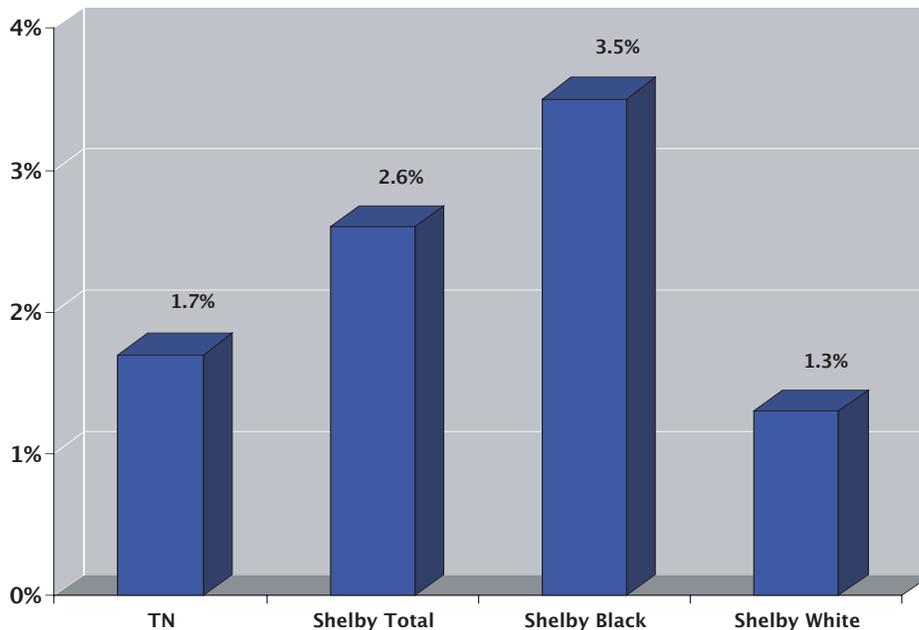
Source: CLIKS Online



Shelby County has a higher rate of low birth-weight babies than the state and nation. Babies born to black mothers in Memphis are at a greater risk of being born underweight. Low birth-weight is defined by premature birth and birth that is small for the gestational age of the baby or both. Low birth-weight babies often stay in the hospital for a time after birth due to their special health care needs. The lower the birth-weight, the more likely the baby will have chronic medical conditions or learning disabilities. Low birth-weight often is difficult to prevent.

Percent of Very Low Birth-weight (1500 grams) Births by Race in Shelby County, 2004

Source: CLIKS Online



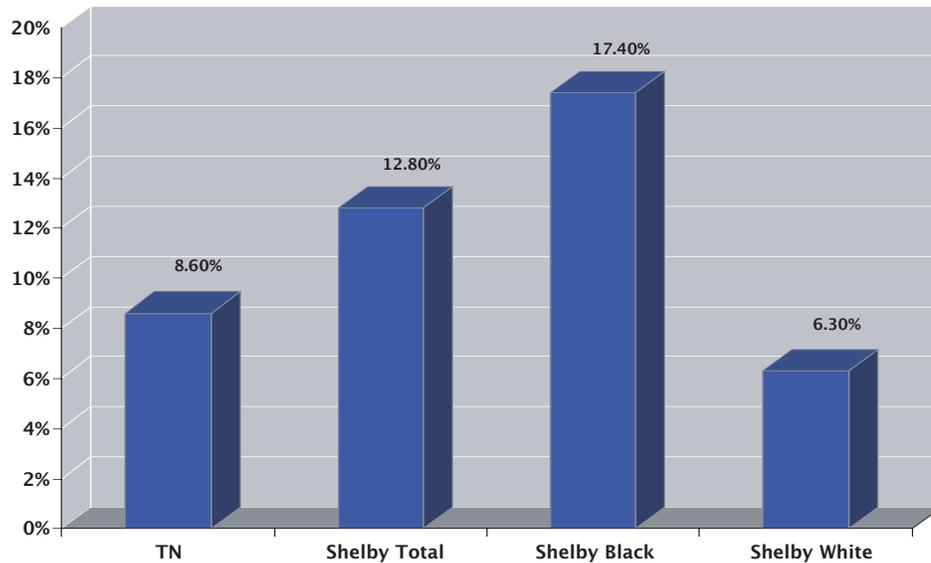
- The rate of very low birth-weight babies in Shelby county is almost twice that of the State of Tennessee.
- Stress during pregnancy has been shown to trigger biochemical, vascular and immune system changes that lead to low birth-weight.
- Shelby County's rate of infant death is consistently higher than that of the state and the nation and is more than three times the Healthy People 2010 goal. In fact, data from 1999 through 2003 show that the infant death rate started an upward trend in 2002.

Critical Issue: Low birth-weight and infant mortality

The first three years are the most critical for future success and achievement in life. Memphis is a deadly city for newborns and very young children. In order to give children the best future possible, we need to make sure that mothers have adequate prenatal care so that babies are not born underweight, and so that children can thrive in their early years with proper nutrition, immunizations and care.

Infant Death Rate Per 1,000 in Shelby County by Race, 2004

Source: CLIKS Online

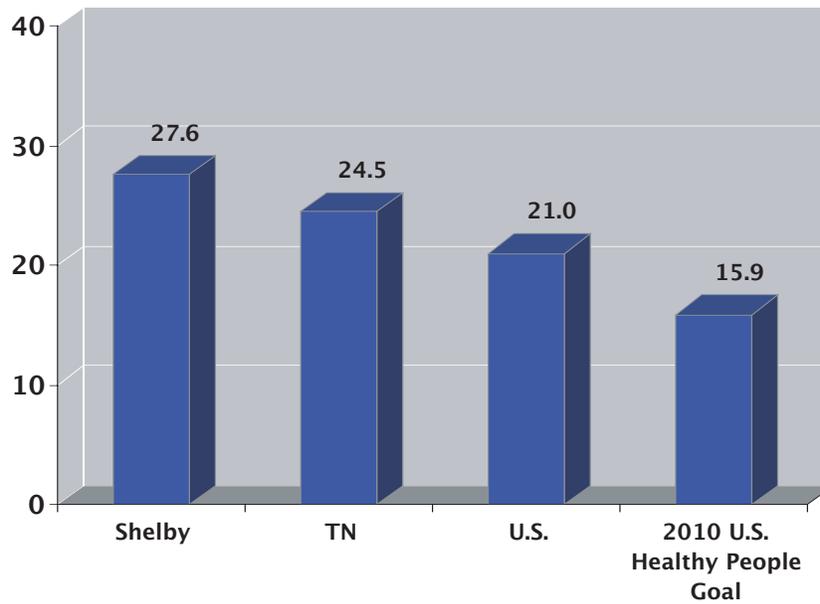


- At 14.2 deaths per 1,000 births, the infant mortality rate in the City of Memphis is the worst in the U.S. One Memphis zip code is deadlier for babies than Vietnam, Iran or El Salvador. Black mothers in Memphis are almost three times more likely to lose babies before age one than white mothers.
- An infant dies in Shelby County every 43 hours.
- The problem of infant mortality is not unique to Memphis. A dozen other large American cities have double-digit infant mortality rates.

We need to understand the infant mortality crisis within the context of poverty and related social ills, including drug abuse, violence and ignorance. We need to demand aggressive action to reduce the deaths of infants in Memphis and to change the culture of poverty and hopelessness that lies beneath it.

Child Death Rate Per 100,000 Ages 1-14 Years, 2002

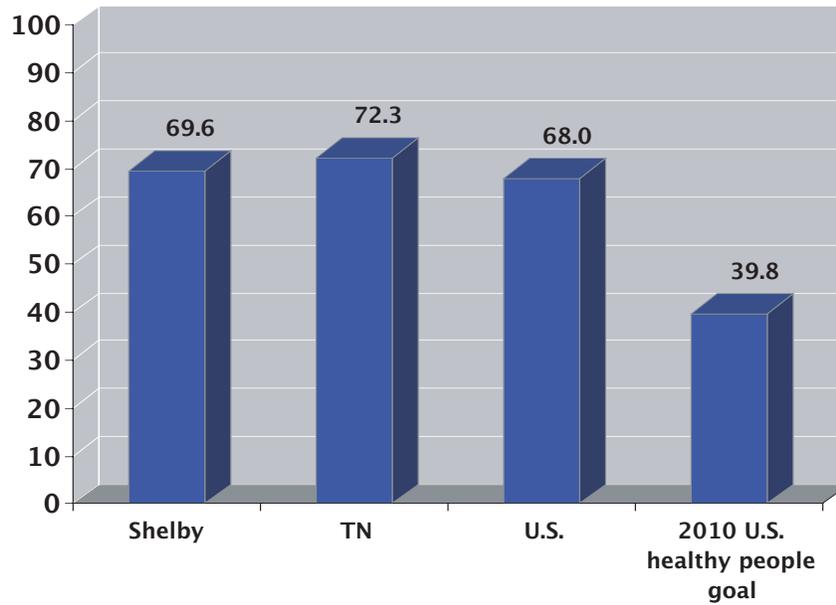
Source: CLIKS Online



The death rate for children ages one to 14 in Memphis and Shelby County is 27.6 per 100,000, which is higher than in the State of Tennessee and the U.S.

Adolescent Death Rate Per 100,000, 2002

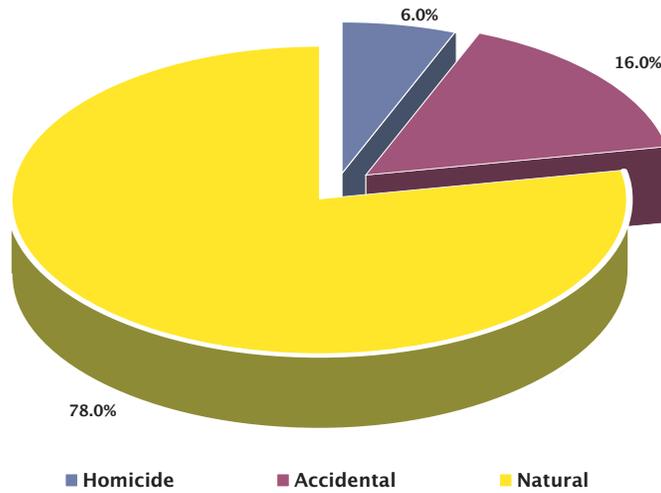
Source: CLIKS Online



- The death rate of adolescents in Memphis and Shelby County, Tennessee and the U.S. are relatively similar, with slightly fewer than 70 in 100,000 adolescent deaths in the county, state and nation.
- The Healthy People 2010 goal is to decrease adolescent deaths in Memphis and Shelby County by approximately 30 deaths per 100,000, or almost 50 percent, per year.

Child Death in Shelby County by Cause

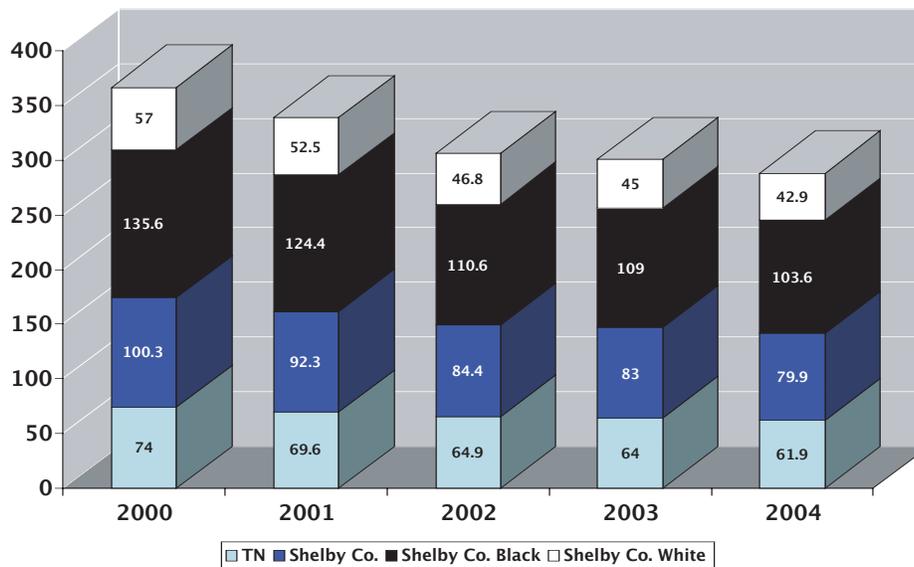
Source: Tennessee Health Department



- In Memphis and Shelby County, four in five children die of natural causes.
- Sixteen percent of child deaths are accidental.
- Six percent of child deaths are homicides.

Teenage birth rates in Memphis and Shelby County

Rate of Pregnancies per 1,000 for Females 15-19 in Shelby County, 2000-2004



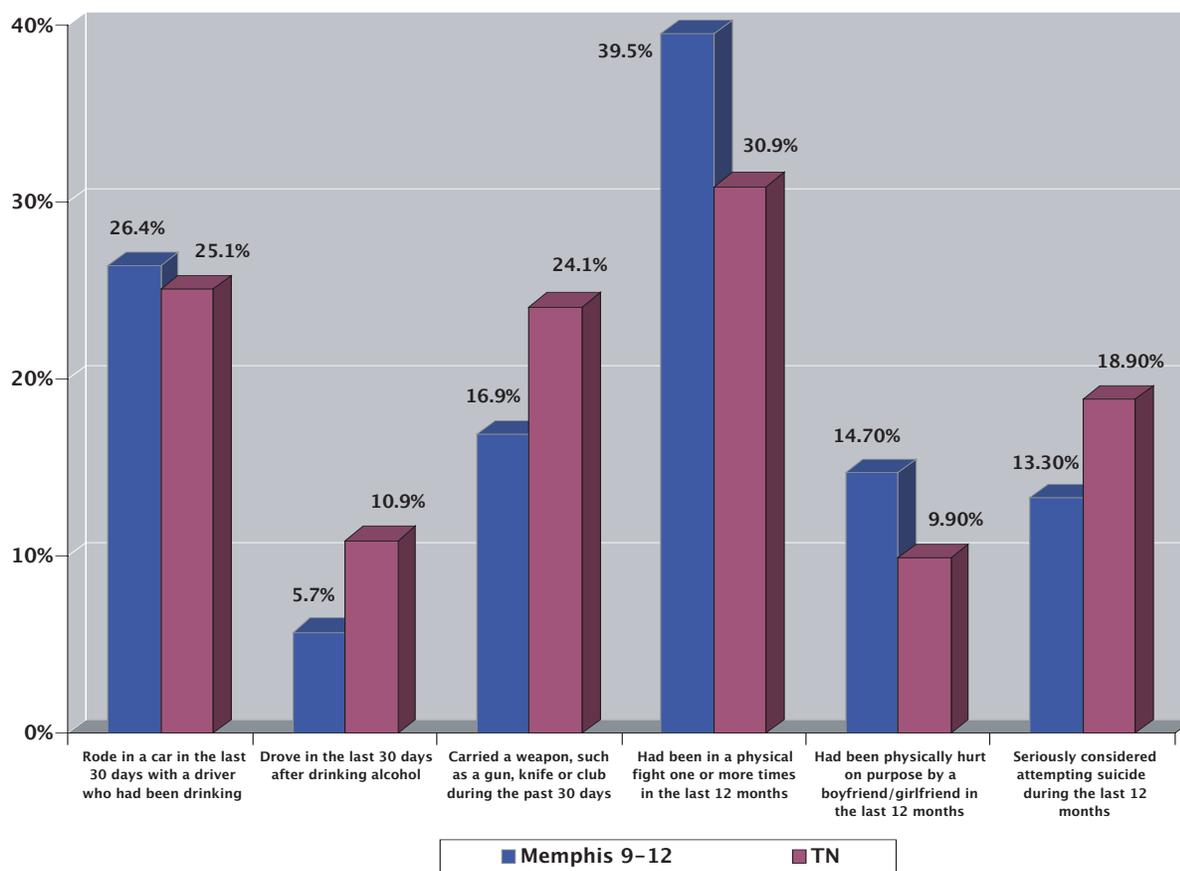
- The number of pregnancies for mothers ages 15 to 19 has been decreasing steadily in all categories since 2000, including throughout Tennessee, Shelby County, among Shelby County white mothers and among Shelby County black mothers.
- The rate of pregnancies for mothers ages 15 to 19 in Shelby County remains consistently higher, however, than the rate throughout Tennessee.
- Among teenage mothers in Shelby County the birth rate remains higher among black mothers than white mothers.

Youth Behavior Risk Survey: Memphis 2005

The Youth Risk Behavior Surveillance System (YRBSS) surveys youth behaviors through national and state education and health agencies. Particular attention is focused on health-risk behaviors that are important factors in morbidity (loss of quality of life) and mortality among children and adults. Behaviors often are established during youth and extend into adulthood. Changing risk behaviors is an important component of health promotion and disease prevention.

Risky Behavior: Intentional and unintentional injuries

Intentional and Unintentional Injuries, YBRSS 2005



Beginning very young students in Memphis and Shelby County engage in behavior that could endanger themselves and others.

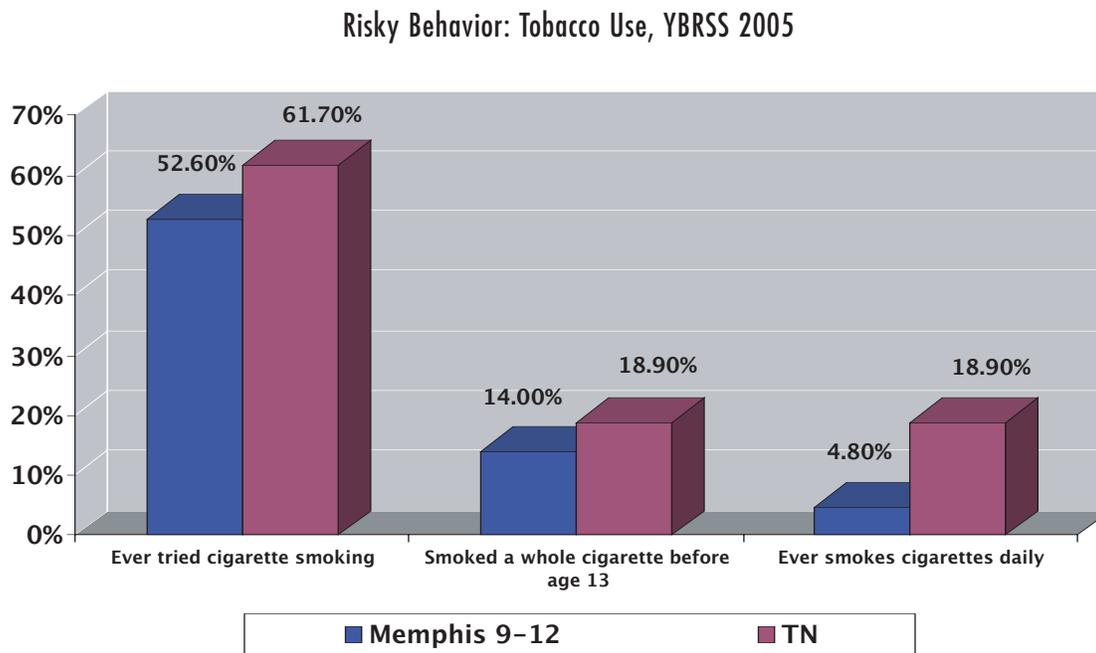
High School Students

- In Memphis and across Tennessee, one in four students rode in a car with a driver who had been drinking. Half as many students in Memphis as in Tennessee drove after drinking alcohol.
- One in four students in Tennessee carried a weapon to school. Fewer than one in five carried a weapon in Memphis.
- Forty percent of students in Memphis were in a fight in the past year compared to 33 percent in Tennessee.
- Slightly more students in Memphis were physically hurt by a boyfriend or girlfriend than in Tennessee.
- Nearly one in five students in Tennessee seriously considered attempting suicide, as compared to slightly more than one in ten students in Memphis.

Middle School Students

- In Memphis 71.5 percent of middle school students have been in a fight.
- One in three students has ridden with a driver who had been drinking.
- One in four has carried a weapon, and one in five seriously considered suicide.

Risky Behavior: Tobacco use



A lower percentage of students in Memphis and Shelby County use tobacco than do students in the rest of Tennessee.

High School Students

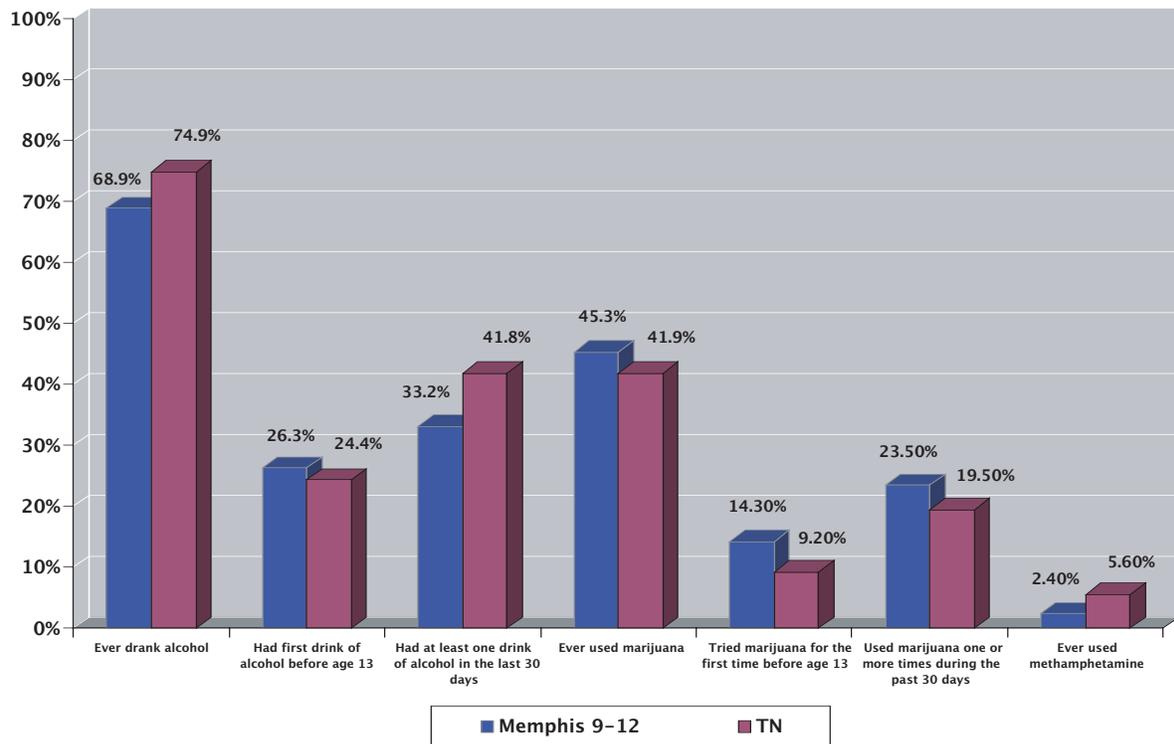
- Slightly more than 50 percent of high school students in Memphis have smoked cigarettes.
- Sixty percent of students in Tennessee have smoked cigarettes.
- Slightly less than 20 percent of Tennessee students reported smoking an entire cigarette before age 13. The figure is lower for Memphis students.
- Slightly less than 20 percent of Tennessee students smoked cigarettes daily.
- Less than 5 percent of Memphis students smoked cigarettes daily.

Middle School Students

- While high school students in Memphis report lower cigarette usage, younger students report more frequent and younger usage.
- Forty percent of middle school students have smoked a cigarette.
- About seven percent have smoked a cigarette before age 11, and 2.5 percent have smoked cigarettes daily.

Risky Behavior: Alcohol and drug use

Risky Behavior: Alcohol and Drug Use, YBRSS 2005



A large number of students in Memphis and Shelby County are drinking alcohol at young ages and drinking more frequently as they grow older.

High School Students

- Seventy-five percent of students in Tennessee and in Memphis have had an alcoholic drink.
- Twenty-five percent of students in Tennessee and Memphis had their first drinks of alcohol before age 13.
- Thirty-three percent of students in Memphis had at least one drink in the past month as compared to 40 percent in Tennessee.
- Approximately 40 percent of students in Memphis and Tennessee have tried marijuana.
- More students in Memphis (slightly more than 10%) than statewide had tried marijuana for the first time before age 13.
- Twenty-five percent of students in Memphis have used marijuana one or more times in the past month as compared to 20 percent of students in Tennessee.

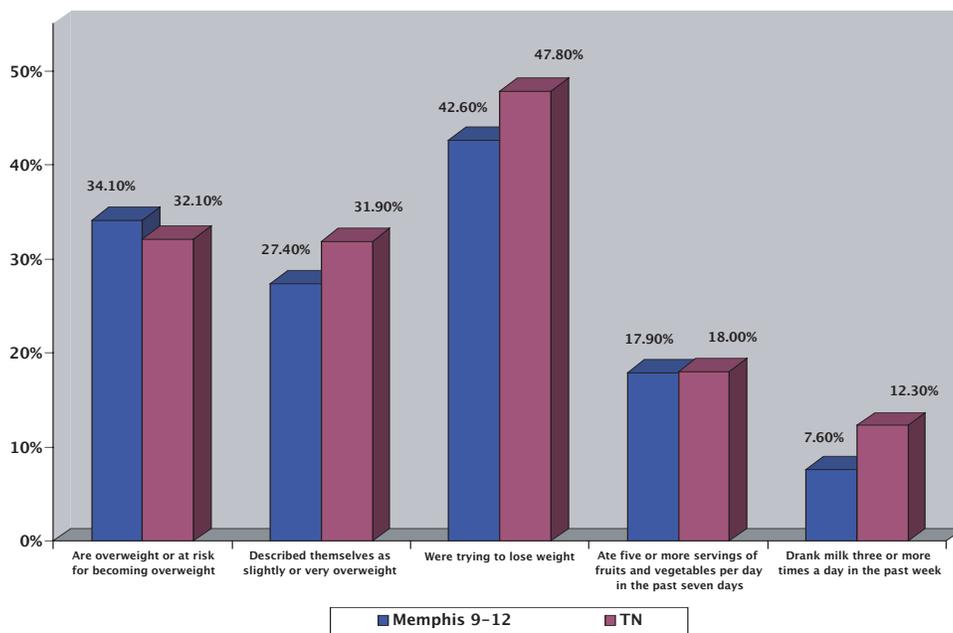
- Less than 10 percent of students in Memphis and Tennessee have used methamphetamine, and the number is slightly lower in Memphis than statewide.

Middle School Students

- Forty-four percent of middle school students in Memphis have tried alcohol.
- Seventeen percent tried alcohol before age 11.
- Twenty percent have tried marijuana. Five percent tried marijuana before age 11, and seven percent have used an inhalant.

Risky Behavior: Unhealthy diet

Risky Behavior: Unhealthy Diet, YBRSS 2005



Students in Memphis and Shelby County are at risk of becoming overweight.

High School Students

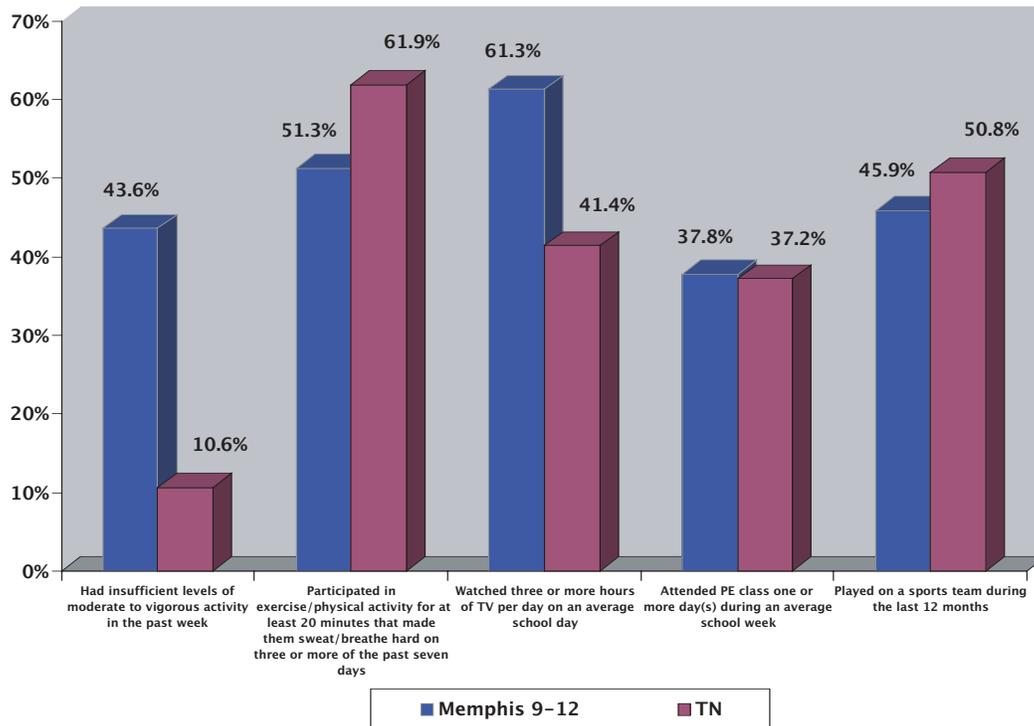
- One in three students in Memphis and Tennessee is overweight or at risk of becoming overweight. One in three in Memphis and Tennessee describes herself or himself as slightly, or very, overweight.
- Almost 50 percent of students in Tennessee are trying to lose weight as compared to about 40 percent of students in Memphis.
- In both Memphis and Tennessee, less than 20 percent of students eat five or more servings of fruits and vegetables per day in the past week.
- Fewer students in Memphis drink milk three or more times a week than the state average.

Middle School Students

- Nearly four in 10 middle school students in Memphis are overweight or at risk of becoming overweight.
- More than four in 10 report that they are dieting or trying to lose weight.
- Dietary indicators for obesity point toward potential health risks in the future such as diabetes, hypertension, heart disease and stroke.

Risky Behavior: Inadequate physical activity

Risky Behavior: Inadequate Physical Activity, YBRSS 2005



Students in Memphis are more sedentary than their counterparts across the state.

High School Students

- Four in 10 students in Memphis had insufficient vigorous physical activity as compared to only one in 10 students in Tennessee.
- Fifty percent of students in Memphis participated in vigorous physical activity three or more days of the past week as compared with 60 percent of students in Tennessee. Higher rates of inactivity put students in Memphis at risk of chronic health problems such as obesity and heart disease.
- Sixty percent of students in Memphis watched three or more hours of TV per day on an average school day as compared to only forty percent of students in Tennessee.
- Approximately one-third of students in Memphis and Tennessee attended PE class one or more days during an average school week.
- Slightly less than half of Memphis students and exactly half of Tennessee students played on a sports team during the past year.

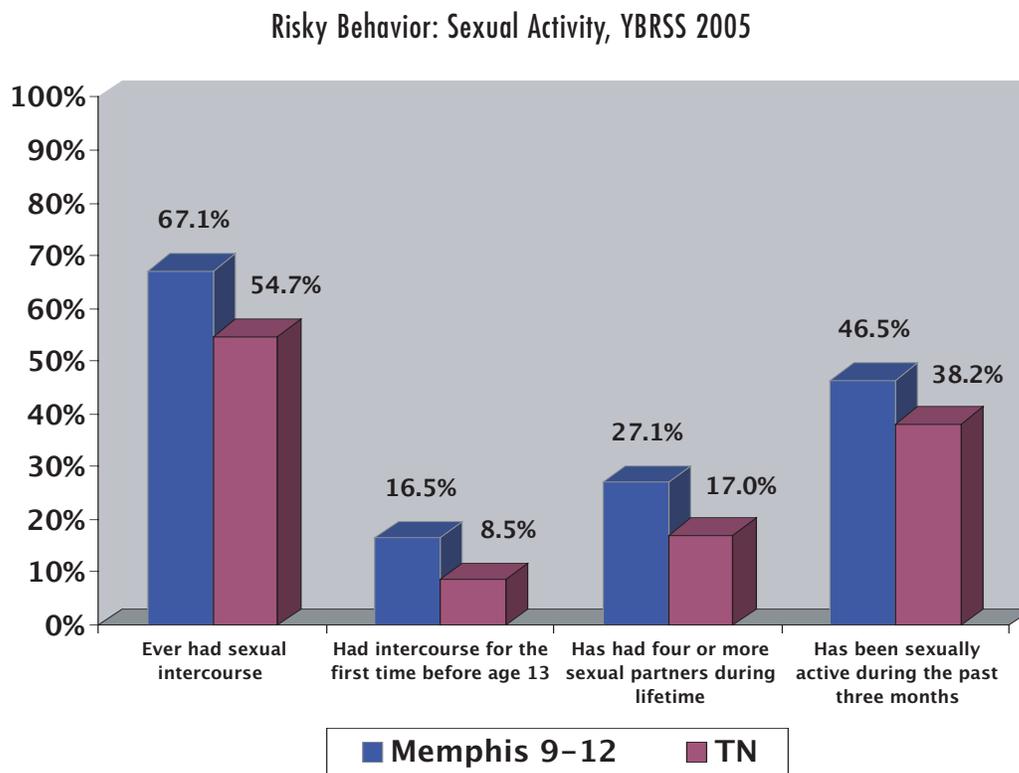
Middle School Students

- Younger students are more physically active.
- Sixty-six percent of Memphis middle school students participated in vigorous physical activity in the past week.
- Sixty-nine percent of middle school students in Memphis watched three or more hours of TV on an average school day, more than older students.
- Fifty-three percent of middle school students in Memphis attended PE classes one or more days during the week, more than older students.
- Slightly less than half of middle school students in Memphis played on a sports team.

Critical Issue: Risky Behavior

Children are exposed to, and involved in, harmful and potentially life-threatening behavior at younger and younger ages. The Youth Behavior Risk Surveillance Survey suggests that students in Memphis are experimenting with drugs and alcohol at earlier ages, increasing their chance of lifetime substance abuse and accompanying risks such as early pregnancy, school dropout, homelessness and poverty. Childhood obesity is also a problem in Memphis. Overweight children are more likely to have problems with sleep apnea and asthma conditions that are likely to lead to absenteeism and increased learning problems.

Risky Behavior: Sexual activity



Students in Memphis and Shelby County are more active sexually than their counterparts across the state.

High School Students

- More than two-thirds of high school students in Memphis have had sexual intercourse.
- By comparison, more than half of students in Tennessee have not had sexual intercourse.
- Almost 20 percent of students in Memphis had intercourse for the first time before age 13 as compared with slightly less than 10 percent in the rest of the state.
- More than 25 percent of students in Memphis have had four or more sexual partners, whereas less than 20 percent of students in Tennessee have had four or more sexual partners.
- Almost half of students in Memphis have been sexually active during the past three months as compared with less than 40 percent of students in Tennessee.

- Fewer Memphis students are sexually active today than were in 2003. In Tennessee more students are sexually active today.
- In 2005 fewer students in Memphis were sexually active before age 13 than were in 2003. In Tennessee more students were sexually active before age 13 than were in 2003.

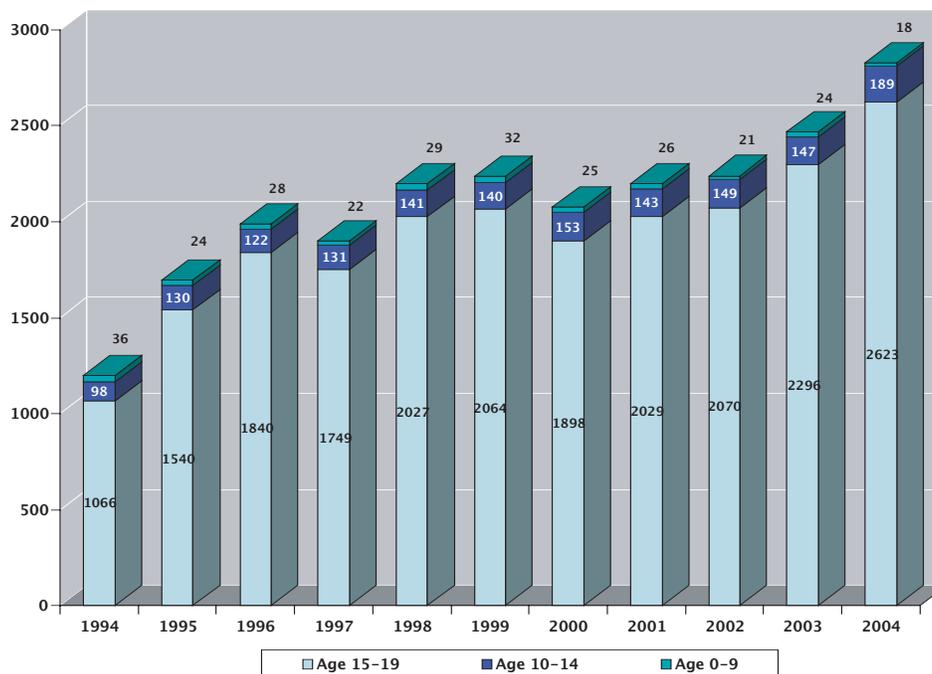
Middle School Students

- The early onset of sexual activity among younger students is cause for concern. Almost 37 percent of middle school students in Memphis have had sexual intercourse.
- Ten percent had sexual intercourse before age 11. Fourteen percent of middle school students have had three or more sexual partners.
- Seventy-three percent of middle school students in Memphis have learned about HIV/AIDS in school.

Sexually transmitted diseases

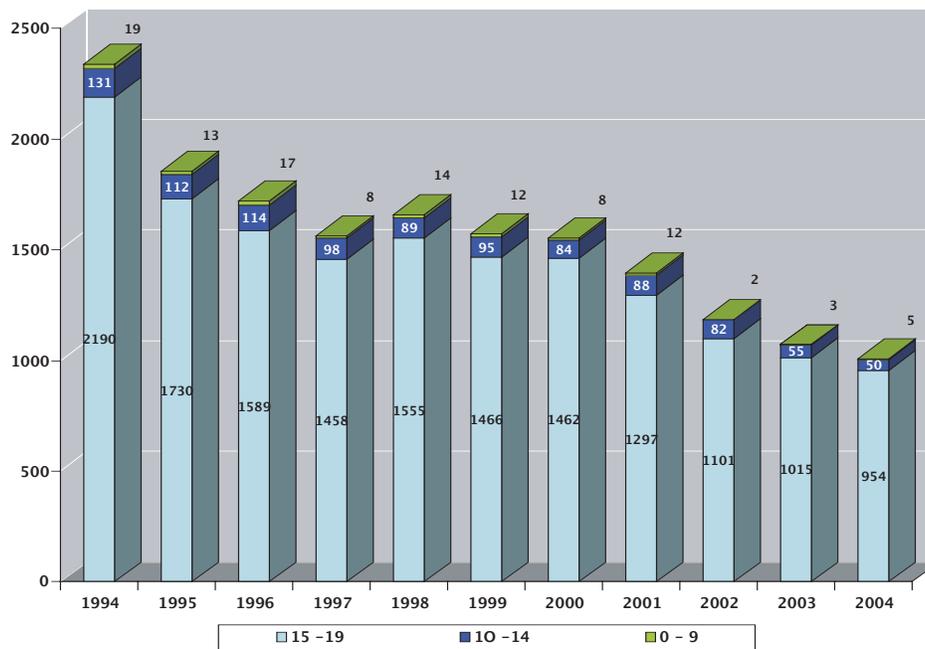
Rates of sexually transmitted disease among children in Memphis, especially the rising number of children infected with Chlamydia, represent a public health hazard. While these statistics are troubling, they also present an opportunity for policy responses and intervention, since these diseases are both preventable and treatable.

Reported Cases of Chlamydia in Children in Shelby County and Memphis, 1994-2004



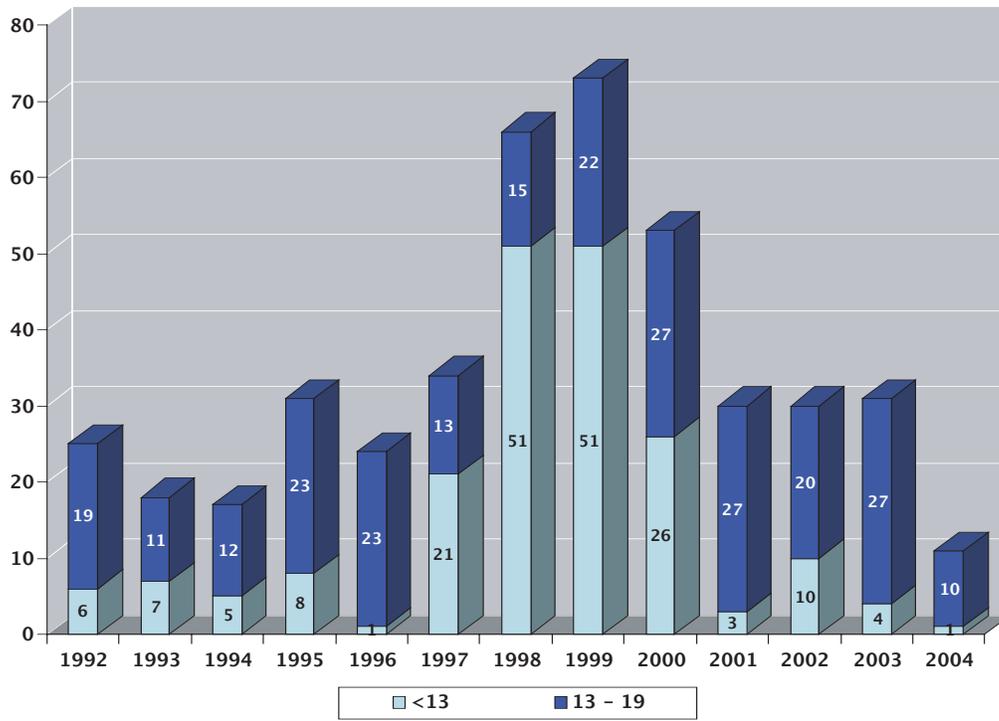
- The number of cases of Chlamydia reported in children in Shelby County is on the rise.
- Between 1994 and 2004 cases of Chlamydia reported in Memphis and Shelby County more than doubled.
- From 2003 to 2004 there was a pronounced increase in Chlamydia rates among children ages 10 to 14 (up 23%). This alarming statistic means that younger children are increasingly at risk.
- Yet, the number of cases reported in the under-10 age group decreased by 25 percent from 2003 to 2004.

Reported Cases of Gonorrhea in Children in Shelby County and Memphis by Age, 1994-2004



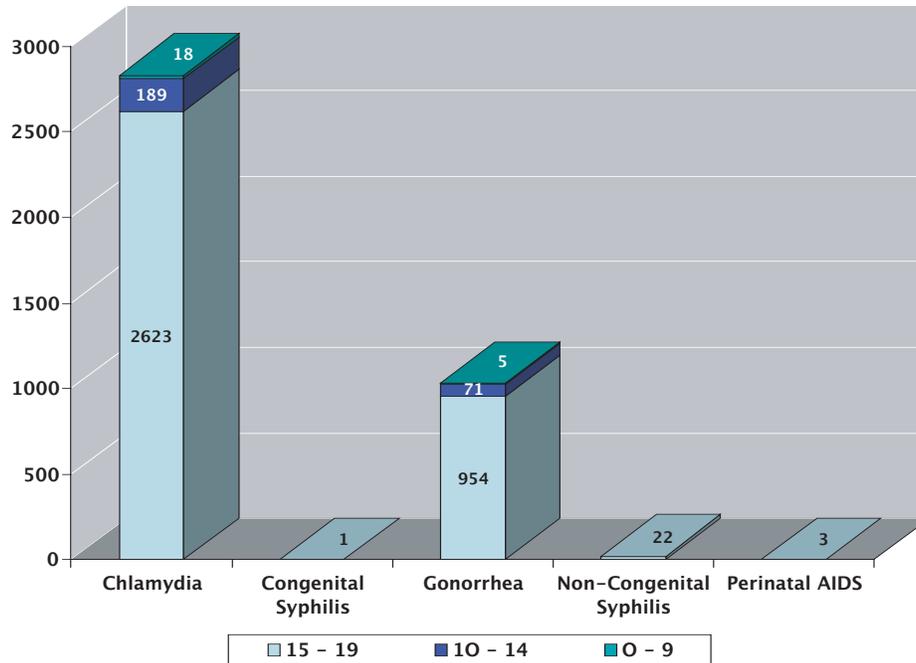
- The total number of reported cases of gonorrhea between 1994 and 2004 was reduced by more than half.
- There has been a 73 percent decrease in the number of cases reported for the under-10 age group between 1994 and 2004.

Reported Cases of HIV in Children in Memphis and Shelby County, 1992-2004



- In 2004 11 cases of HIV were reported in Shelby County, one of which was under the age of 13. This is the lowest number of reported cases of HIV since the onset of HIV reporting in 1992.

Shelby County Public Health Department: Sexually Transmitted Diseases in Children in Memphis, 2004



- Only one case of congenital syphilis was reported in Shelby County in 2004. There has been a marked decrease in reported cases since the early 1990s.
- Between 1990 and 2004 the overall rate of non-congenital syphilis cases in children in Shelby County and Memphis has been reduced by 96 percent.
- Perinatal AIDS exposure means that the HIV virus is passed from the mother to the fetus in utero during delivery or through breast milk.
- While still a cause for concern, there are relatively few cases of perinatal AIDS exposure in Memphis.

Critical Issue: Risky Sexual Behavior

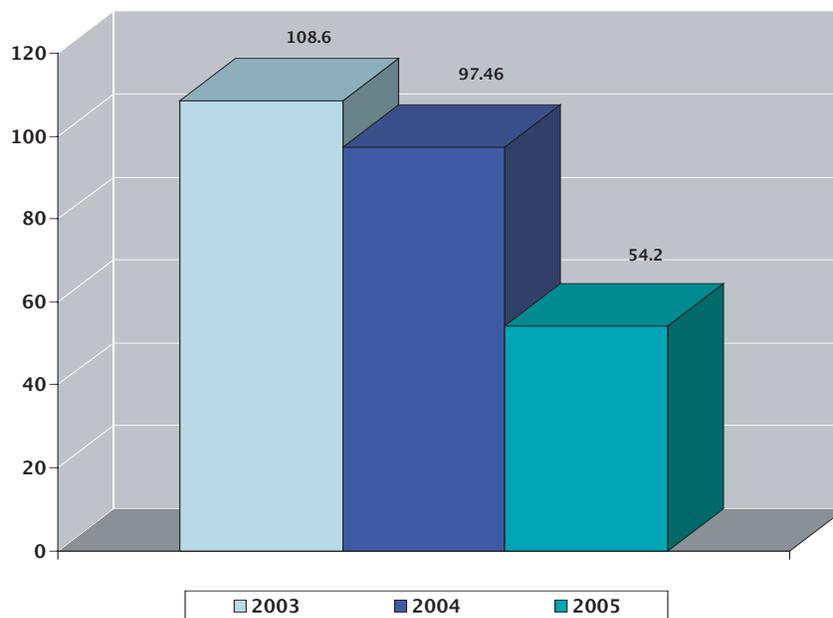
While the number of children in Memphis engaging in sexual activity seems to be declining over a three-year period, the number of younger children engaging in sexual activity is alarming. Sexually transmitted diseases are prevalent among teens and pre-teens with an overall increase in the number of reported cases of Chlamydia.

Additional Health Risk Factors

Asthma

- Across the nation, asthma accounts for 14 million lost days of school annually.
- Asthma is the third-ranking cause of hospitalization among children under 15.
- The number of children dying from asthma increased almost threefold, from 93 in 1979 to 266 in 1996.
- The estimated cost of treating asthma in children is \$3.2 billion per year.
- Of children with asthma in Tennessee
 - ✓ Two-thirds had severe asthma attacks within the past 12 months.
 - ✓ One-third had asthma attacks so bad they thought their lives were in danger.
 - ✓ Seventy percent did not have a written asthma action plan.
 - ✓ Forty percent did not have the recommended two doctor visits for their asthma in the past 12 months.
 - ✓ One-third reported having unscheduled acute care visits within the past year.
 - ✓ Half have not had lung function tests in the past 12 months.

Hospital Admits for Asthma-related Problems per 1000 Children in Memphis and Shelby County, 2003-2005



* Based on household interviews of a sample of the non-institutionalized U.S. civilian population.

- There were 484,000 asthma hospitalizations in the U.S. in 2002, or 17-per-10,000 people, according to the Asthma Surveillance Survey conducted nationally by the Center for Disease Control. Among children there were 196,000 hospitalizations (27-per-10,000). Hospitalizations were highest among children under five years old, 59 hospitalizations per 10,000. The asthma hospitalization rate among the black population was 225 percent higher than among white people. Females had a hospitalization rate about 35 percent higher than males.
- Nationally in 2002 187 children died from asthma, or 0.3 deaths per 100,000 children, compared to 1.9 deaths per 100,000 adults. Non-Hispanic black people had an asthma death rate over 200 percent higher than non-Hispanic whites and 160 percent higher than Hispanics.

The Presence of Lead in Memphis

- In 2004 17,188 children were screened for lead poisoning in Shelby County. Two percent (354) were found to have elevated blood lead levels.
- Presently 23,500 children in Shelby County (10 percent of total children) are estimated to be at risk for lead poisoning.
- Exposure to lead can result in damage to the brain and nervous system, behavior and learning problems, slowed growth, hearing problems and headaches. Young children are especially at risk for lead poisoning because their brains and nervous systems are more sensitive and absorb lead more easily.

Children most at risk for lead exposure and poisoning are not being screened in Memphis and Shelby County. While there is annual improvement in the number and percentage of children screened in Memphis and Shelby County, there still is a gap in information and outreach to parents about the issue of lead poisoning and a hole in the safety net intended to adequately assess and treat the problem.

Critical Issue: Environmental Factors

Memphis is consistently ranked in a national survey as one of the most difficult cities for asthma sufferers. There has been a significant decrease in the number of children seen in acute care between 2004 and 2005, and further research will uncover what preventions and interventions account for this. Risk for lead poisoning continues to be a problem for children in Memphis and Shelby County. Only 38 percent of the population considered at highest risk currently is being screened for exposure to lead. Thus there is a large under-served juvenile population needing screening and potential intervention for toxic levels of lead exposure.

What we need to learn:

- We have begun to understand the larger impact of asthma on the health and well-being of children, but there is much to learn about the actual impact on children in Memphis.
 - ✓ How many days of school do children in Memphis miss due to asthma-related problems?
 - ✓ What is the mortality rate for children in Memphis with asthma?
 - ✓ What are interventions and preventions available for children with asthma?
 - ✓ What are the environmental factors contributing to the high rate of asthma sufferers in Memphis?
 - ✓ What have been the changes in health care policy, such as TENNCare, that affect children in Memphis?
- How many children without health insurance live in Memphis?
- With what frequency do children in Memphis visit a pediatrician?
- Are families able to establish “medical homes” for their children?
- Are children in Memphis being vaccinated on time? Do they complete their inoculations on time?
- Do mothers in Memphis breastfeed and for what duration?

¹ Care

² Brad Kiser and William F. Fox “The Impact of TennCare: A Survey of Recipients 2005” The University of Tennessee Center for Business and Economic Research. August 2005.

³ National Healthcare Disparities Report. The US Department of Health and Human Services: Agency for Healthcare Research and Quality (2004).

⁴ Edmondson 2005a, 2005b, 2005c.

⁵ Edmondson 2005c, 4.

⁶ The Commercial Appeal 2005

⁷ Source: http://www2.state.tn.us/health/statistics/HealthData/data_sheet.htm

⁸ AIDS cases began to be reported in 1983.

⁹ http://www.shelbycountyttn.gov/FirstPortal/dotShowDoc/dotContent/Government/CountyServices/HealthServices/PersonalHealth/personal_index.htm

¹⁰ The Center for Disease Control, <http://www.cdc.gov/asthma/children.htm>

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ Source: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5507a7.htm>

¹⁵ Shelby County Environmental Health Services, www.shelbycountyttn.gov