

Mississippi State Department of Health

Infant Mortality Report

2015

The Health Services Office of Health Data and Research compiles the report annually as required under § 41-3-15.(1)(c)(viii), MS Code of 1972, as annotated

Total Births 2014:
38,735

Total Infant Deaths 2014:
319

Infant Mortality Rate:

8.2

Infant deaths per 1,000 live births

IMPROVING

This represents a 15% decline from the 2013 rate of 9.7

United States Rank:



U.S., 2013, National Vital Statistics Report 64 (9), 2015

Healthy People 2020 Target Infant Mortality Rate:

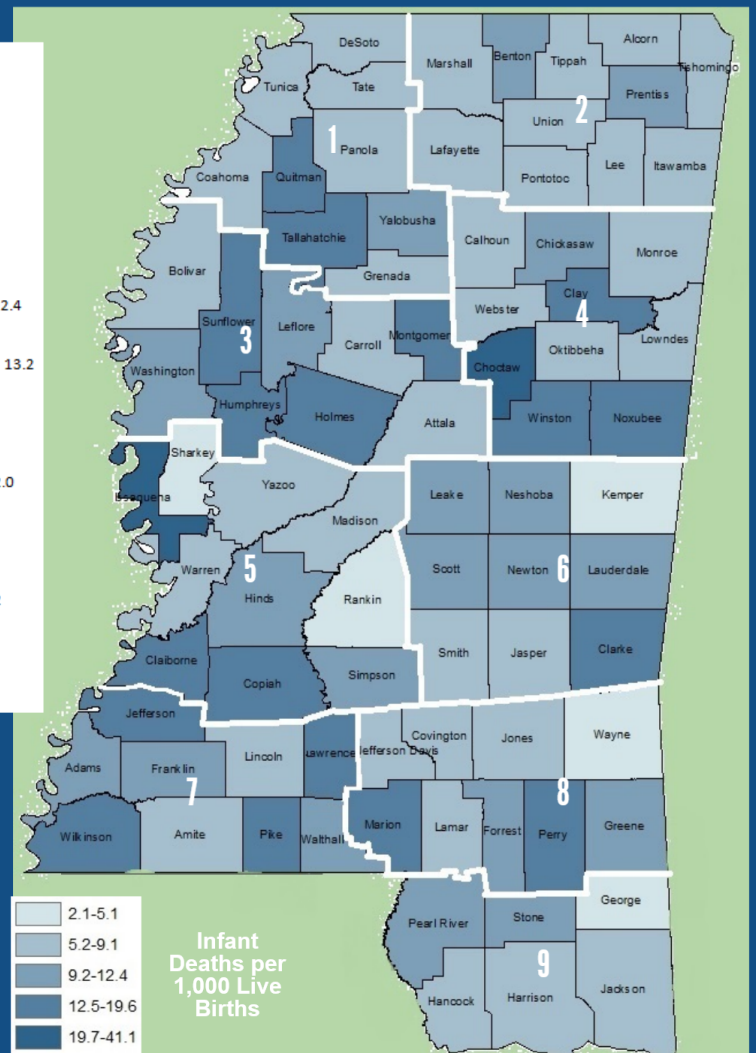
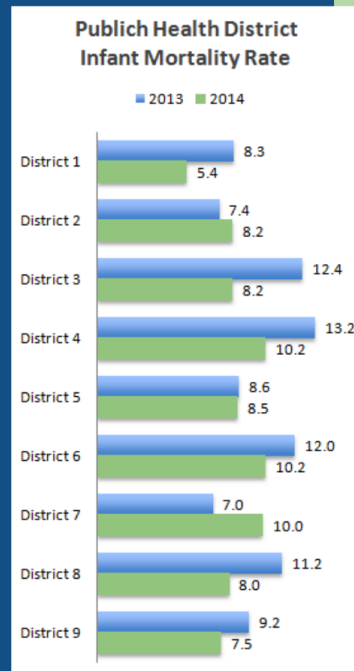
6.0

Introduction

Infant health is one of the most important indicators of the overall quality of health of a population. Infant mortality refers to the death of live born infants before reaching one year of age. The health of women before and during pregnancy, access to adequate healthcare and safe living conditions are among the multiple factors contributing to infant mortality. Mississippi has historically had one of the highest infant mortality rates in the nation. This report describes infant deaths of Mississippi residents during 2014.

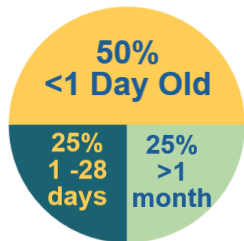
Geography

Mississippi County Infant Mortality Rate 2010-2014



Timing

Half of all infant deaths happen on the first day of life. Another 25% happen within the first month.



Racial Disparity

The black infant mortality rate remains nearly twice the white infant mortality rate.



58% of infant deaths were black infants, while only making up 42% of births.

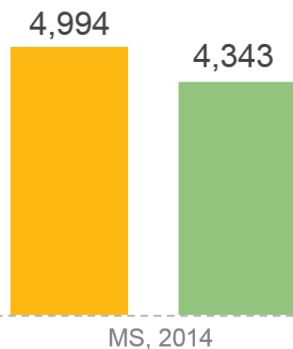
Infant Deaths, Percent by Race



White (41%) Black (58%) Other (2%)

Smoking in Pregnancy

Smoked Before Pregnancy
Smoked During Pregnancy



11% Of Mississippi women giving birth in 2014 smoked at some point during pregnancy

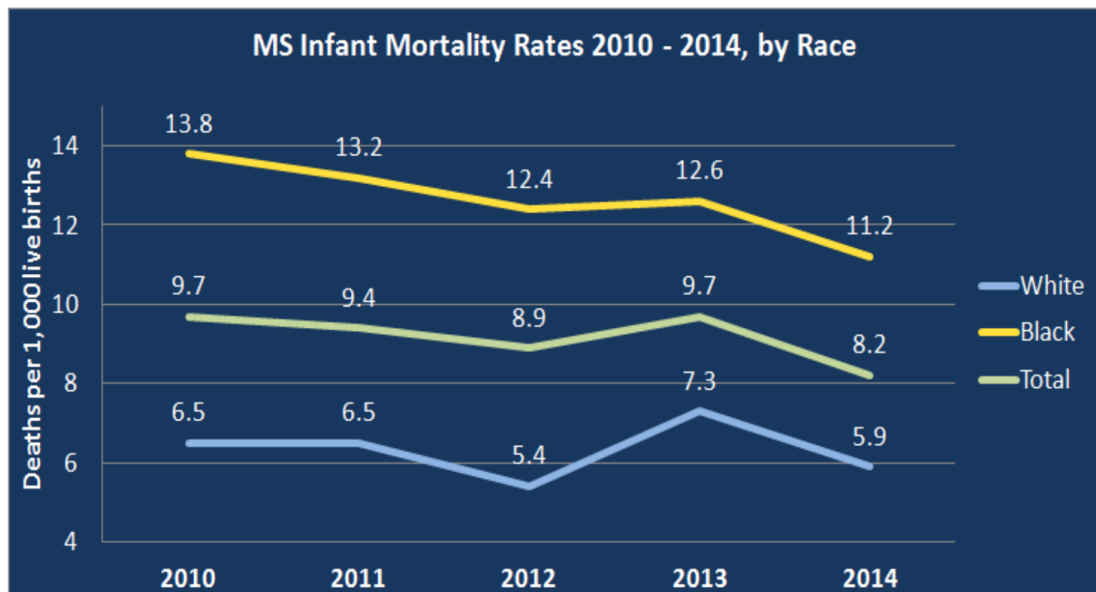
13% Of women who smoked before pregnancy, quit

20% Of mothers whose infant died in 2014 smoked during pregnancy

Source, MS Vital Statistics, 2014

Trends

Over the past five years the infant mortality rate has declined 15%. The black infant mortality rate has remained disproportionately high. However there have been improvements. The black infant mortality rate has declined close to 19% over the past five years, accounting for most of Mississippi's overall decline in infant deaths. The disparity between white and black infant deaths has narrowed from a difference of 7.3 deaths per 1,000 live births in 2010, to 5.3 in 2014.



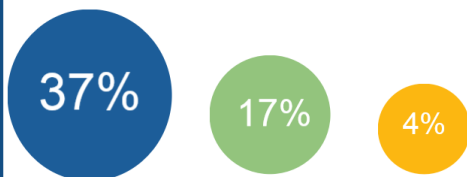
Source: Mississippi Vital Statistics, 2010-2014

Maternal Health

A mother's health and medical care before and during pregnancy can directly impact infant health and the risk of infant mortality. Three key areas of preconception health that can impact infant health include 1) exposure to tobacco before and during pregnancy, 2) the presence and management of chronic medical conditions and 3) if a woman plans her pregnancies.

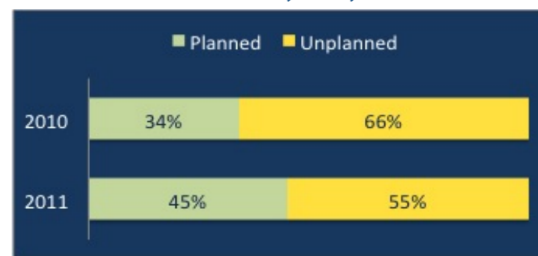
Chronic Medical Conditions MS, Females Age 18-44

Obesity Hypertension Diabetes



Source, MS BRFSS, 2013, 2014

Unintended Pregnancy MS Females, 2010, 2011



Source, MS PRAMS, 2010-2011

Women entering pregnancy with medical conditions like obesity, hypertension (HTN) and diabetes are at an increased risk of preterm birth and stillbirth. Poorly controlled diabetes can lead to birth defects. Black women have higher rates of obesity (50%), HTN (22%) and diabetes (6%).

In 2011, there were fewer unintended pregnancies than 2010 (most recent data). However, more than half of pregnancies are unplanned. Women who plan their pregnancies are less likely to smoke and are more likely to start prenatal care early and take folic acid to prevent birth defects.

Leading Causes

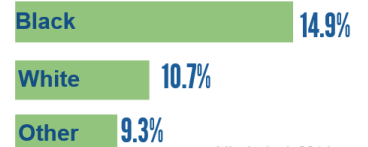


#1 Prematurity

When the multiple complications of prematurity and low birth weight are grouped together, preterm birth (delivery before 37 weeks of pregnancy) is the leading cause of infant death in Mississippi. Infants born preterm are at an increased risk of breathing complications, infections and brain injury. In 2014, 12.9% of infants were born preterm.



Percent of Births that are Preterm



Mississippi, 2014

Average medical cost for a Healthy Term Baby:

\$5,085

Average medical cost for a Premature Baby:

\$55,393

Source: Marchofdimes.org

Number Infant Deaths due to Congenital Malformations 2010-2014



Unsafe Sleep Environments

- Sleeping on stomach/side
- In an adult bed
- On a couch or chair
- With an adult or siblings
- With pillows, loose bedding
- In car seats out of the car
- Extreme temperatures
- Around tobacco smoke

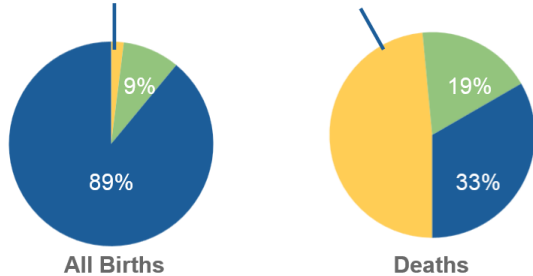
Back To Sleep Works

53%

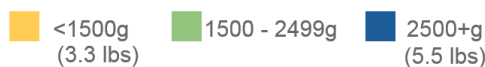
SUID cases have declined by 53% since 2008



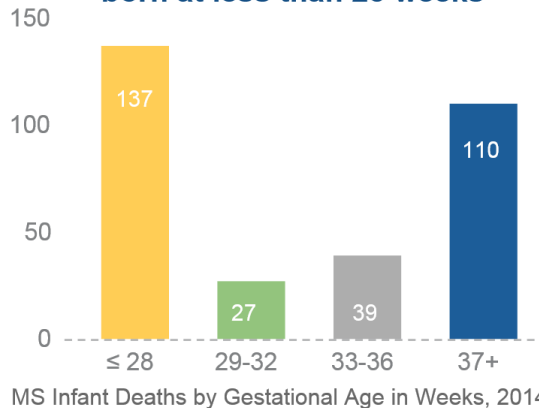
Very Low Birth Weight Infants 2% of Births & 48% of Deaths



Mississippi Infant Birth Weights, 2014



Most Infant Deaths are Among Extremely Premature Infants, born at less than 28 weeks



MS Infant Deaths by Gestational Age in Weeks, 2014

#2 Birth Defects



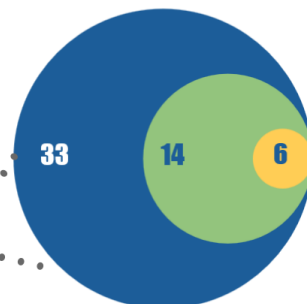
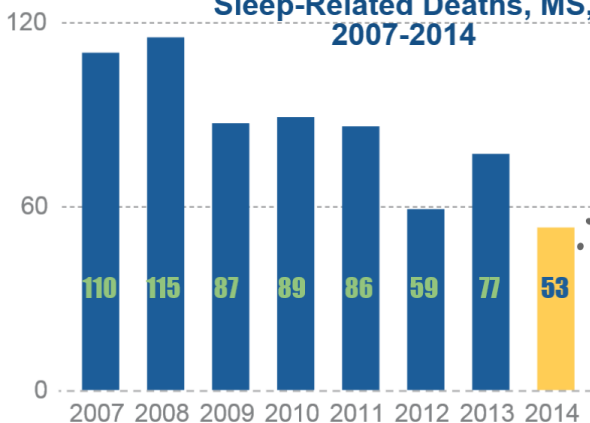
Major structural birth defects are defined as conditions that 1) are present at birth, 2) result from a malformation or disruption in one or more parts of the body and 3) have a serious adverse effect on health, development, or functional ability. Congenital heart defects and chromosomal abnormalities (like Trisomy 21) are the leading categories of infant death due to birth defects.

#3 Unsafe Sleep & SIDS



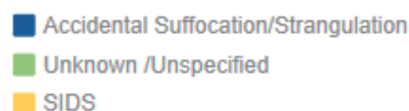
Sudden Unexpected Infant Deaths (SUID) often occur while an infant is sleeping in an unsafe sleep environment due to suffocation, strangulation or overlay. SIDS or Sudden Infant Death Syndrome is a form of SUID where no cause is identified. These are the leading causes of death for infants between 1 and 4 months of age. Most of these deaths are preventable by infants sleeping alone, on their backs, in a crib/bassinet and away from tobacco smoke.

Sleep-Related Deaths, MS, 2007-2014



33 out of 53

SUID cases in 2014 involved unsafe sleep environments



Strategies for Improvement

Reducing Preterm Birth & Preterm Related Mortality

PROGESTERONE THERAPY

Progesterone medication can reduce the risk of preterm birth in select high-risk patients. Pregnant women need to be screened for a history of spontaneous preterm birth or have an ultrasound of the cervix to determine if they are candidates for this therapy.

ANTENATAL STEROIDS

Pregnant women at risk of early preterm birth (<34 weeks) can be treated with steroids to facilitate fetal lung maturity. This has been shown to reduce the risk of neonatal morbidity and mortality.

RISK APPROPRIATE CARE

Very preterm and high risk infants have improved survival rates when they are delivered at specialty hospitals with the highest level of maternal and neonatal care. At-risk mothers should be transferred to these facilities before delivery, when possible.

MSDH is working with the March of Dimes and multiple partners to address these areas.

Improving Maternal Health

TOBACCO CESSATION

The MSDH Office of Tobacco Control trains providers in evidence-based techniques to assist pregnant women to stop smoking. Smoke-Free Air policies help reduce second-hand exposure.

LONG-ACTING-REVERSIBLE CONTRACEPTION (LARC)

LARCs include intrauterine devices and subdermal implants. They are twenty times more effective than most other forms of birth control and help women to improve their health before pregnancy and space births adequately. MSDH is working with Medicaid and other partners to expand access to LARCs.

Increase Breastfeeding

HOSPITAL & COMMUNITY TRAINING

Breastmilk has been proven to reduce the risk of neonatal illness and SIDS. Breast milk is particularly beneficial to preterm and low birthweight infants. MSDH is working with multiple partners to strengthen breastfeeding support within hospitals and communities.

Reducing SIDS & Sleep-Related Deaths

HOSPITAL SAFE SLEEP

Hospital safe-sleep policies and programs ensure that every new parent is educated about recommended infant sleep guidelines to prevent SIDS and sleep related deaths. MSDH and the MS SIDS and Infant Safety Alliance are working to promote these policies statewide.

DAYCARE TRAINING

MSDH is working to train day care workers to ensure that safe sleep practices are used in all facilities and that parents can receive safe sleep education.

DIRECT ON SCENE EDUCATION

The Direct on Scene Education (DOSE) program trains first responders including fire fighters and emergency medical technicians to screen the homes they enter for unsafe infant sleep environments and provide education and cribs to families.

Key Partnerships & Programs



The Fetal-Infant Mortality Review Program uses local case review teams and community action teams to identify solutions for infant mortality. Mississippi now has three active FIMR programs- in District VIII, IX and the Delta and will be developing programs statewide.



The Mississippi Perinatal Quality Collaborative is a multi-stakeholder partnership dedicated to improving birth outcomes through evidence-based statewide initiatives. MSPQC participants are currently working to improve the care of high-risk newborns during the first 'Golden Hour' of life, reduce maternal mortality caused by severe hypertension and improve breastfeeding rates.



The Sisters United Program of the MSDH Office of Health Disparity Elimination aims to address the disproportionately high infant mortality rates among African-Americans in Mississippi. Sisters United trains African-American sorority members to engage in community education and outreach.

Acknowledgements

The Mississippi State Department of Health first acknowledges the families touched by infant death each year. This report is generated with the goal of preventing these tragic losses.

In 2014 the Mississippi State Legislature approved the appropriation of one million dollars to combat infant mortality and improve birth outcomes. These funds are allocated to the projects and strategies outlined here as well as local initiatives and research.

Data for this report are made available by the Office of Vital Records and the Office of Health Data and Research.

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