

Mississippi State Department of Health

Infant Mortality Report

2016

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 2015:

38,398

Total Infant Deaths
2015:

354

Infant Mortality Rate:

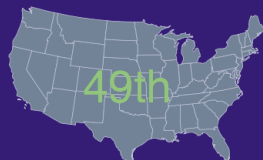
9.2

Infant deaths per 1,000 live births

INCREASING

This represents
a 12.2%
increase from
the 2014 rate of
8.2

United States Rank:



U.S. 2014, National Vital Statistics Report 69 (2), 2015

Healthy People 2020
Target Infant
Mortality Rate:

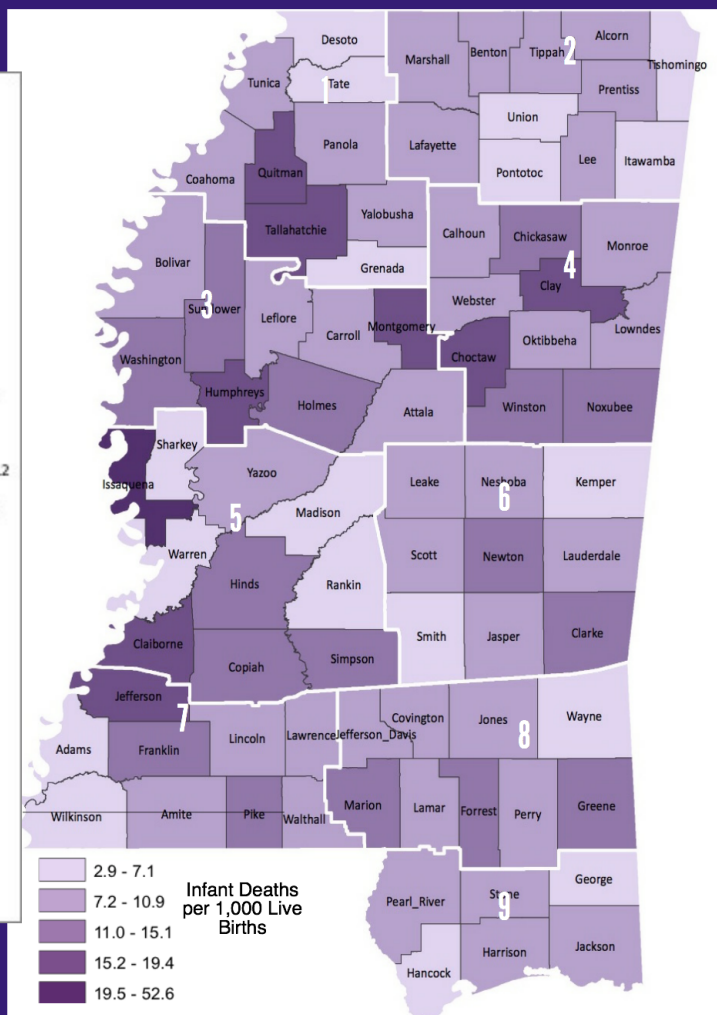
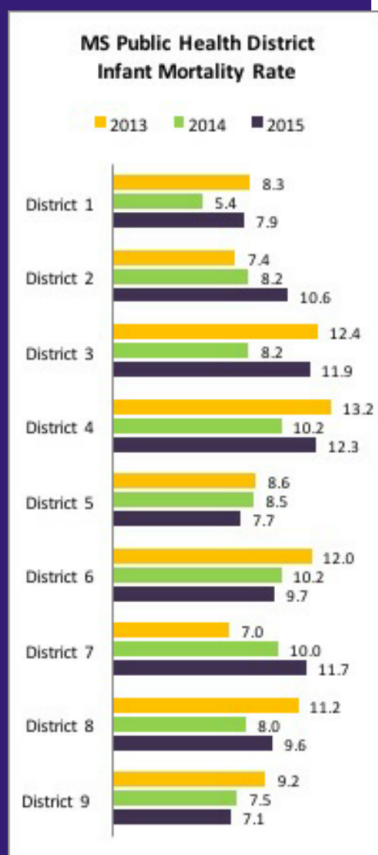
6.0

Introduction

This report describes infant deaths of Mississippi residents during 2015. The infant mortality rate in 2015 increased by 12.2% compared to 2014, from 8.2 to 9.2 deaths per 1,000 live born infants. There was a 5% increase in the white infant mortality rate (5.9 to 6.2 deaths per 1,000) and a 16% increase in the black infant mortality rate (11.2 to 13.0). The increase in the infant mortality rate was largely driven by a rise in unexplained and sleep-related deaths including Sudden Infant Death Syndrome, and accidental suffocations associated with unsafe sleep environments.

Geography

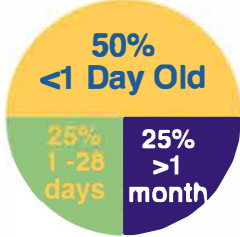
Mississippi County Infant Mortality Rate Average,
2011-2015



Source: Mississippi Vital Statistics, 2011-2015

Timing

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

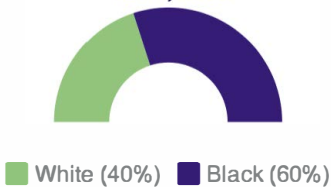


Racial Disparity

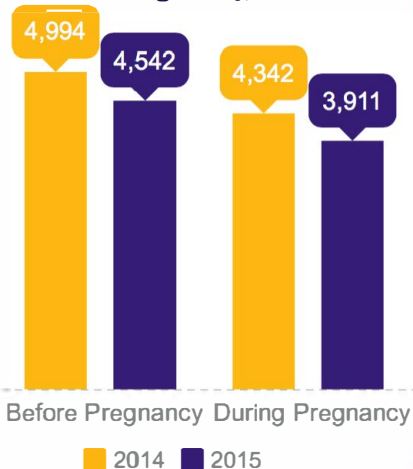
The black infant mortality rate was more than twice the white infant mortality rate at 13 deaths per 1,000 for black infants compared to 6.2 for white infants.



Percent of Infant Deaths by Race, 2015



Smoking Before and During Pregnancy, MS



10% Of Mississippi women giving birth in 2015 smoked at some point during pregnancy

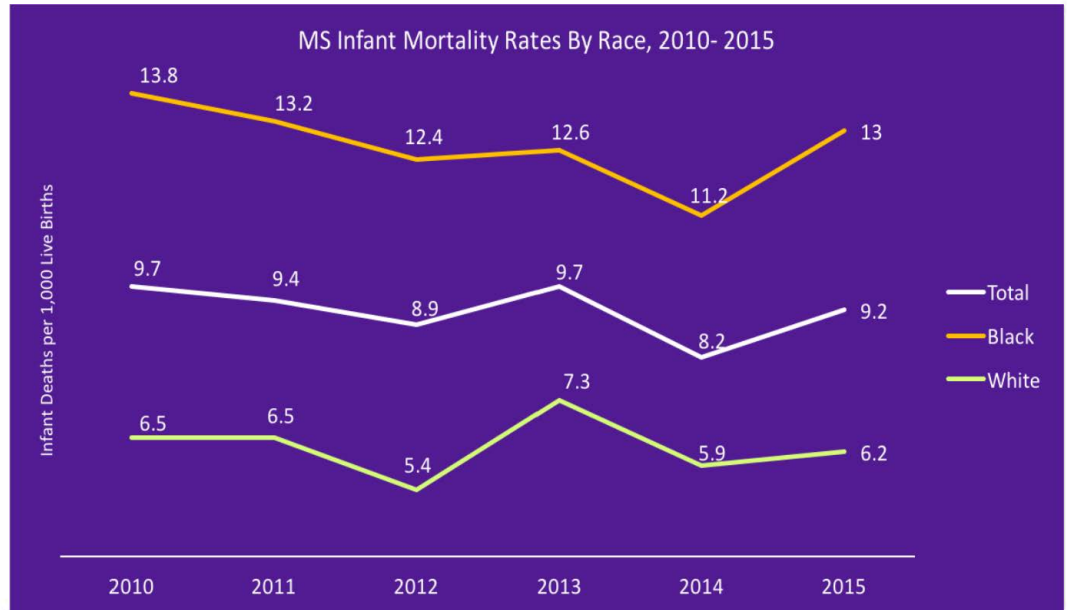
13% Of women who smoked before pregnancy, quit during pregnancy

14% Of mothers whose infant died in 2014 smoked during pregnancy

Source, MS Vital Statistics, 2015

Trends

2014 brought the lowest infant mortality rate in Mississippi, which was preceded by an overall declining trend since 2010. The infant mortality rate across all groups increased in 2015, with the black infant mortality rate reaching its highest level since 2011. There was a widening in the disparity in infant deaths between white and black infants during this time.



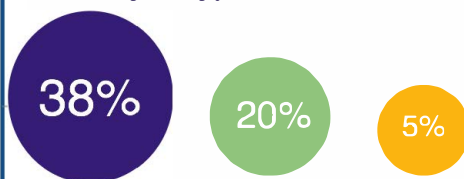
Source: Mississippi Vital Statistics, 2010-2015

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.

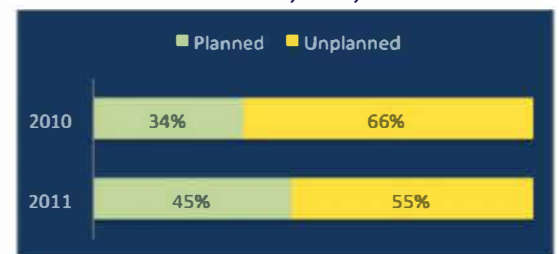
Chronic Medical Conditions MS, Females Age 18-44

Obesity Hypertension Diabetes



Source, MS BRFSS, 2015

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 complications like preterm birth and stillbirth. Poorly controlled diabetes can lead to birth defects. Black women have higher rates of these preexisting conditions.

In 2011, there were fewer unintended pregnancies than 2010 (most recent data). However, more than half of pregnancies were 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.

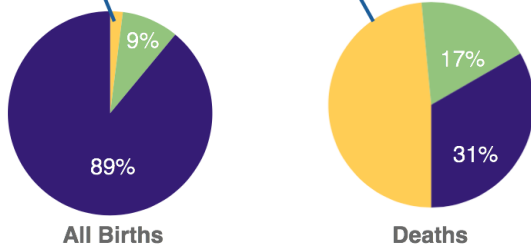
Leading Causes



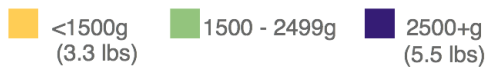
#1 Prematurity

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 2015, 13% of infants were born preterm in Mississippi, an increase from 12.9% in 2014.

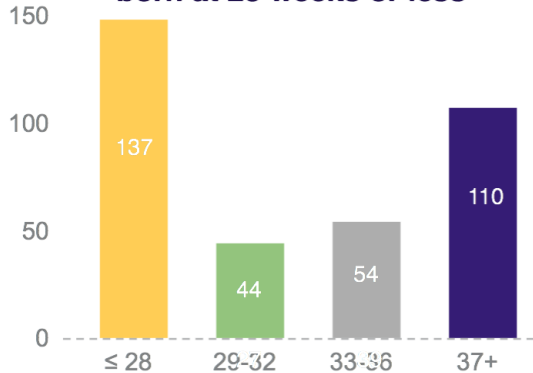
Very Low Birth Weight Infants 2% of Births & 50% of Deaths



Mississippi Infant Birth Weights, 2015



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

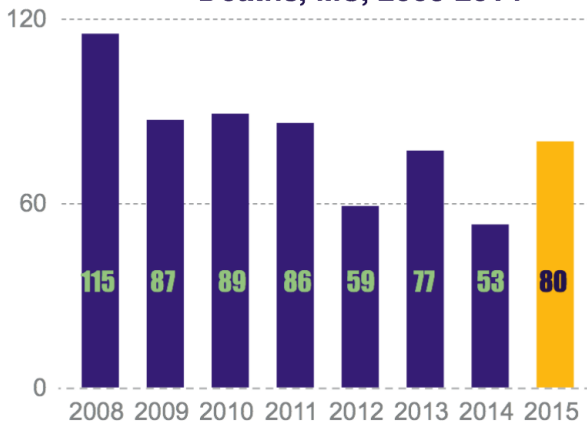


MS Infant Deaths by Gestational Age in Weeks, 2015

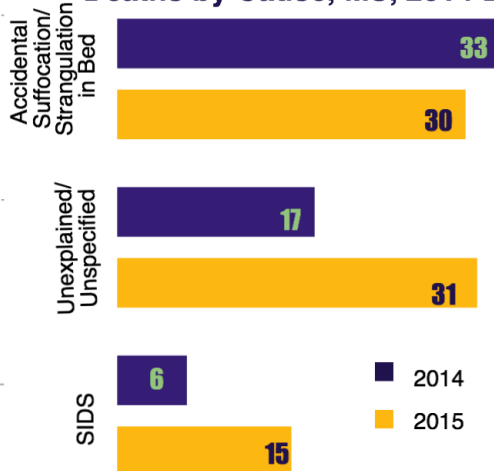
#2 SUID- Unsafe Sleep & SIDS

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 and combined are now the second leading cause of all infant death in MS. Most of these deaths are preventable by infants sleeping alone, on their backs, in a crib/bassinet and away from tobacco smoke.

Sudden Unexpected Infant Deaths, MS, 2008-2014



Sudden Unexpected Infant Deaths by Cause, MS, 2014-2015



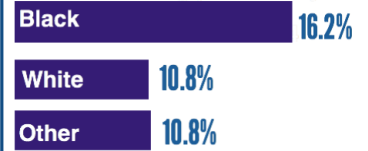
#3 Birth Defects



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 or Down's Syndrome) are the leading categories of infant death due to birth defects.

Mississippi was awarded the
March of Dimes

Percent of Births that are Preterm



Mississippi, 2015

Average medical cost for a Healthy Term Baby:

\$5,085

Average medical cost for a Premature Baby:

\$55,393

Source: MarchofDimes.org

SUID

**increased by
50% in 2015**

The number of infants that died from SIDS more than doubled and the number of unexplained/unspecified infant deaths also nearly doubled in MS since 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

Number Infant Deaths due to Congenital Malformations 2011-2015



Source: MS Vital Statistics, 2011-2015

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.

■ LOW DOSE ASPIRIN

Preeclampsia is a pregnancy related condition that causes severely high blood pressures and can lead to maternal and fetal death. It is one of the leading causes of preterm birth. Low dose aspirin can help prevent preeclampsia in certain women and reduce the risk preterm birth.

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 hormonal 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.

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.

■ 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. MSDH is working to implement DOSE across the state.

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 obstetric hemorrhage 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.



Communities and Hospitals Advancing Maternity Practices is a breastfeeding-focused initiative geared toward improving maternal and child health outcomes through the promotion of the Baby-Friendly Hospital Initiative (BFHI). The BFHI is a global program launched to encourage and recognize hospitals that offer an optimal level of care for infant feeding and mother/baby bonding. MSDH is working with CHAMPS as well as Blue-Cross Blue Shield of Mississippi to support hospitals pursuing Baby-Friendly status in Mississippi and increase breastfeeding rates across the state.

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.

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.

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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