



ALABAMA PERINATAL HEALTH ACT ANNUAL PROGRESS REPORT FOR FY 2019 PLAN FOR FY 2020



ALABAMA
PUBLIC
HEALTH

"It is more likely for a child to die in the first year after birth than in all the rest of childhood"

MESSAGE FROM THE STATE HEALTH OFFICER

Dear Senators and Representatives:

I am pleased to share the Alabama Perinatal Report, which describes the fiscal year 2018 infant mortality data, leading causes of infant mortality, and strategies for addressing this issue in 2020.

Alabama's infant mortality rate decreased from 7.4 infant deaths per 1,000 live births in 2017 to 7.0 infant deaths per 1,000 live births in 2018. This is the lowest rate ever recorded in Alabama's history; however, it still remains above the U.S. 2018 provisional rate of 5.7 infant deaths per 1,000 live births. The infant mortality rate decreased in all races; nevertheless, the longstanding disparity between birth outcomes for black and white infants remains. The progress made in lowering Alabama's infant mortality rate motivates us to remain dedicated to the continued identification and implementation of evidence-based strategies to reduce health disparities and improve our state's birth outcomes.

The health of a mother and the health of her infant are interwoven. Alabama, like the nation, continues to face an urgent maternal and infant health crisis. With the purpose to improve, promote and protect health, it is essential that we address the factors that contribute to poor health outcomes in mothers and infant. To this end, the State Perinatal Program remains dedicated to working collaboratively to accomplish our vision of creating an environment that promotes health equity that results in all Alabama citizens being healthy.

Please take a few moments to review this report at: www.alabamapublichealth.gov/perinatal. Thank you. Because of your ongoing support Alabama families can look toward the future with enthusiasm.

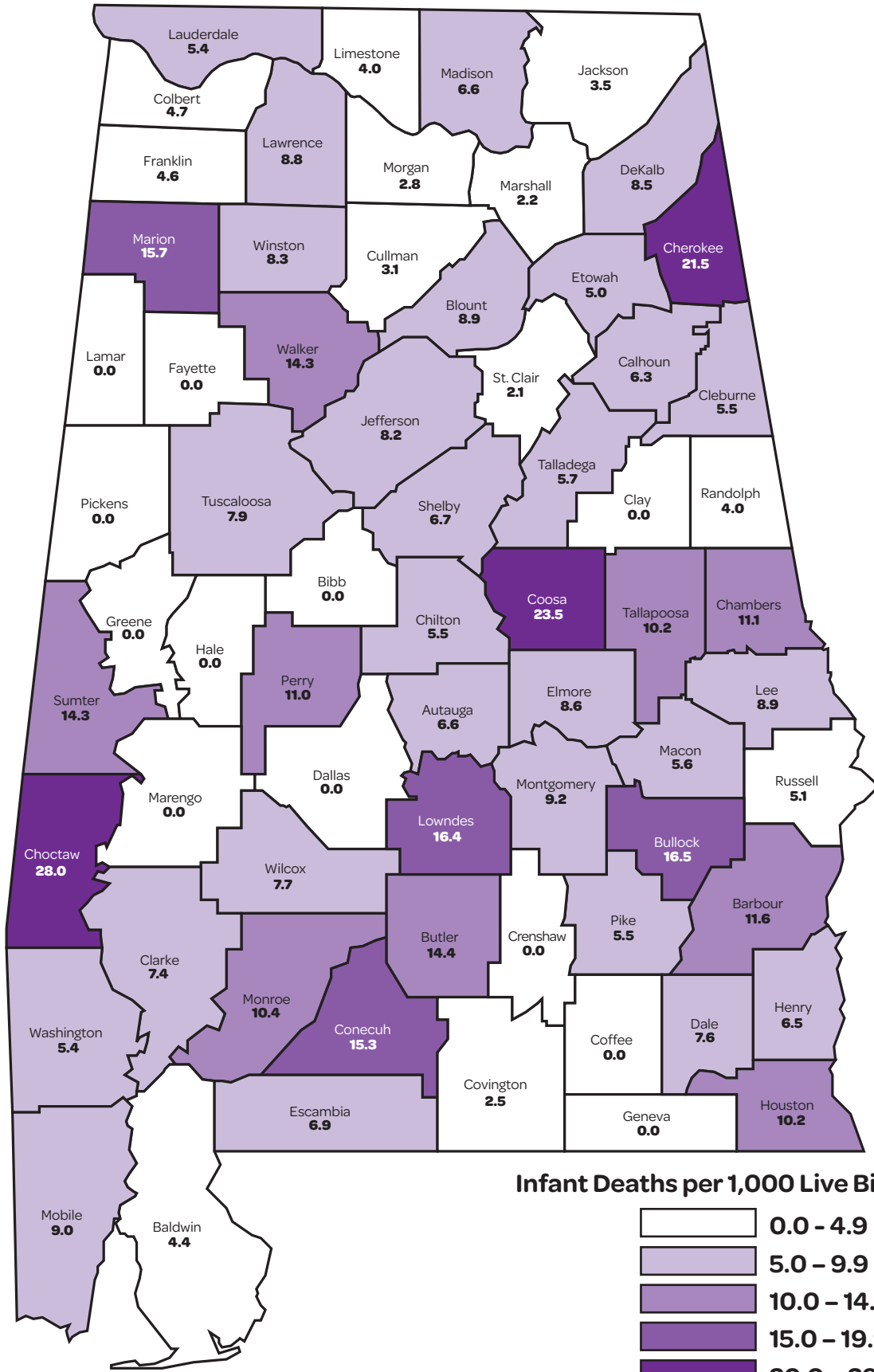


Sincerely,

A handwritten signature in black ink that reads "Scott Harris, MD". The signature is written in a cursive style.

Scott Harris, M.D.
State Health Officer

INFANT MORTALITY RATES BY COUNTY, ALABAMA, 2018



ADPH, Center for Health Statistics, 2019



STATE OF ALABAMA INFANT MORTALITY REPORT 2019



The Alabama Department of Public Health's (ADPH) Center for Health Statistics, Bureau of Family Health Services, State Perinatal Program, and Maternal and Child Health Epidemiology Branch compiled this annual report as required under §22-12A-6, Alabama Perinatal Health Act, (Acts 1980, No. 80 – 761, p. 1586, §1.)

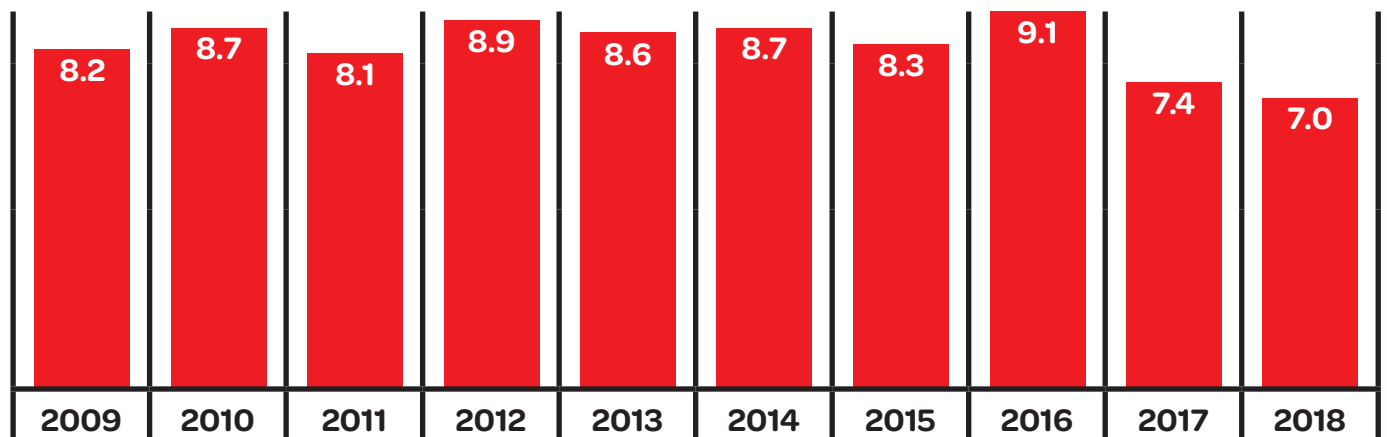
INTRODUCTION

The infant mortality rate (IMR) is defined as the death of an infant before his or her first birthday. It is the number of infant deaths for every 1,000 live births. The IMR provides key information about both maternal and infant health and is an important marker of the overall health of a society.² In 2018, the IMR declined for the second consecutive year to 7.0 deaths per 1,000 live births and is the lowest rate ever recorded in Alabama history. A total of 405 infants died before reaching their first birthday in 2018; 435 infants died in 2017 and 537 infant deaths in 2016. The Alabama rate of 7.0 deaths per 1,000 live births is higher than the national 2018 provisional rate of 5.7. Thus, we must continue the mission to improve the health of mothers and infants in Alabama.

Health outcomes are molded by the environment in which people are born, live, work, play, and age and not simply by the health behaviors of the individual. These factors, which contribute to health outcomes, are formed by the historical, social, political and economic forces in the individual's environment. Thus, addressing the factors that contribute to health outcomes, social determinants of health, will improve individual and population health and will also advance health equity within the state. Resources that enhance quality of life can have a significant influence on population health.³

Differences in health outcomes and their causes among groups of people are defined as health disparities.⁴ These differences are reflected in differences in length of life, quality of life, rates of disease, disability, death, severity of disease, and access to treatment.⁵ Health equity is working to reduce and eliminate health disparities and is achieved when everyone has the opportunity to achieve optimal health. Eliminating health inequities is crucial in reducing poor birth outcomes for mother and baby and for building a healthier Alabama. Alabama remains committed to improving birth outcomes for women, infants, and families statewide. This 2019 report provides an overview of infant mortality statistics and describes some of the current collaborating strategies to address them.

INFANT MORTALITY RATE

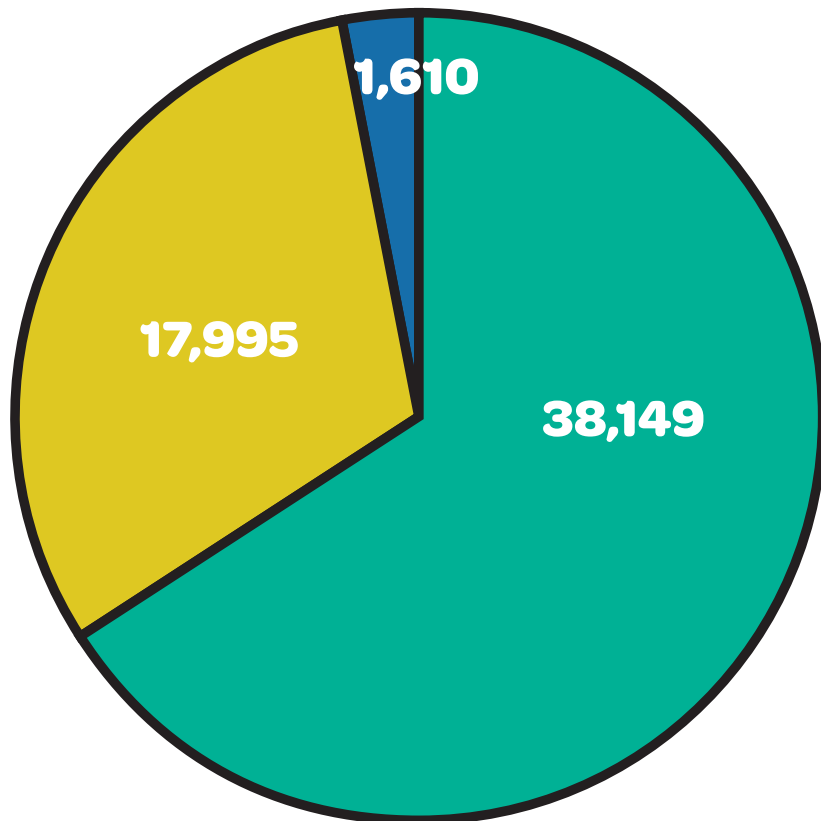


Rate per 1,000 live births. ADPH, Center for Health Statistics, 2019

TOTAL BIRTHS IN 2018:
57,754

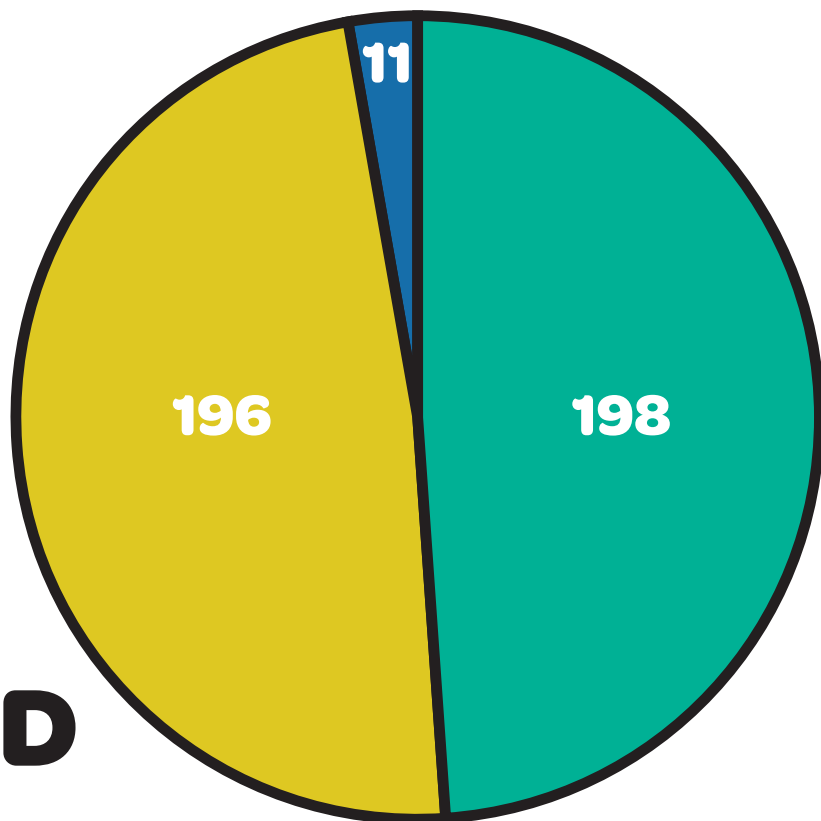
TOTAL INFANT DEATHS IN 2018:
405

THERE WERE 30 FEWER INFANT DEATHS IN 2018 COMPARED TO 2017.



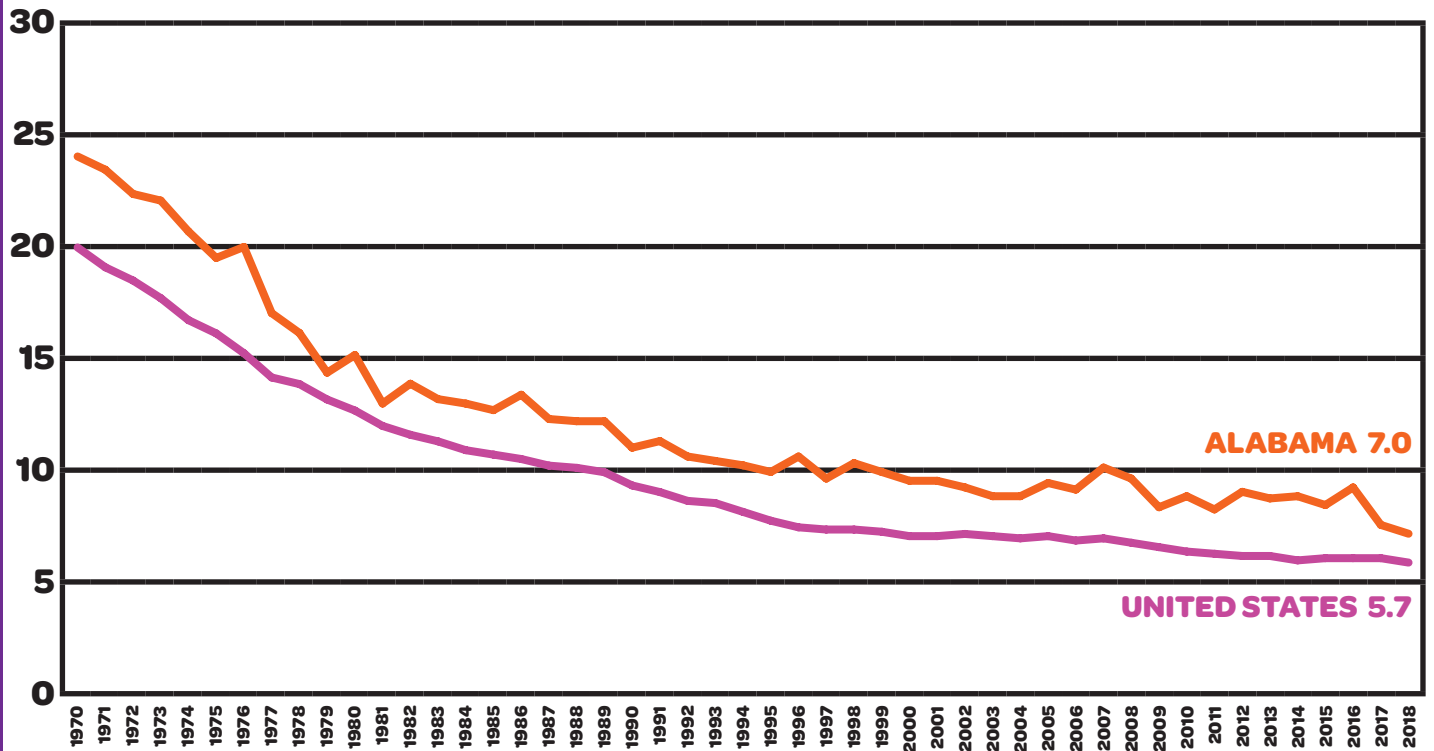
■ BLACK ■ WHITE ■ OTHER ADPH, Center for Health Statistics, 2019

TOTAL INFANT DEATHS BY RACE IN 2018



■ BLACK ■ WHITE ■ OTHER ADPH, Center for Health Statistics, 2019

INFANT MORTALITY RATES ALABAMA AND UNITED STATES, 1970-2018



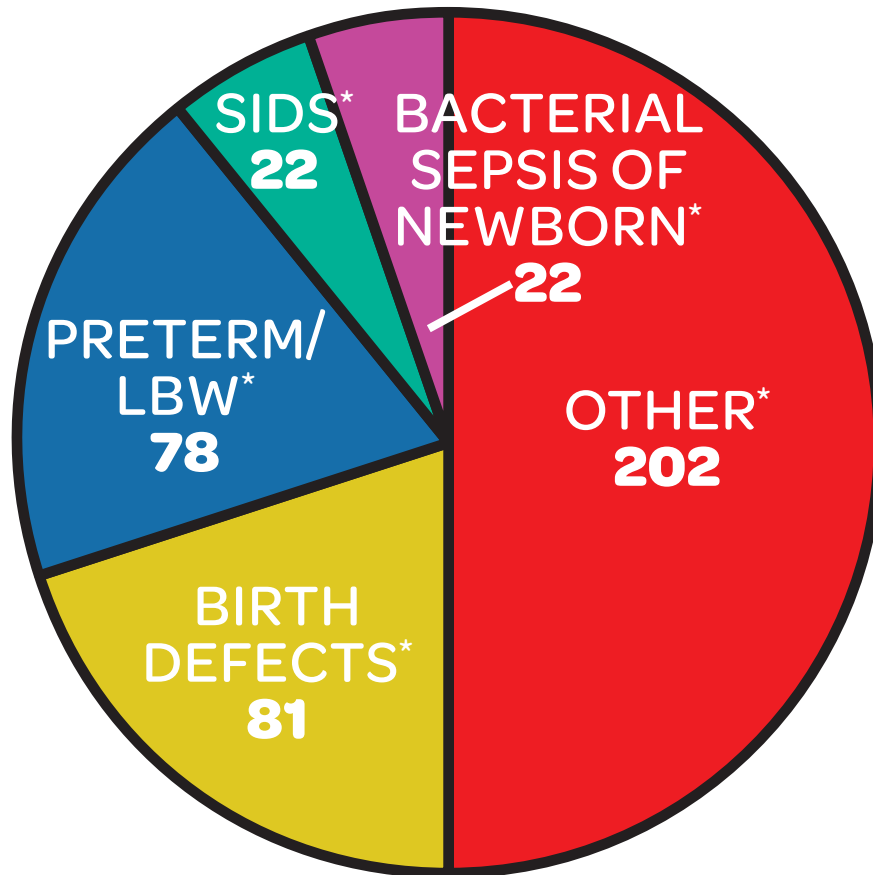
Rate per 1,000 live births. ADPH, Center for Health Statistics, 2019.

FOUR LEADING CAUSES OF INFANT MORTALITY

CONGENITAL ANOMALIES (BIRTH DEFECTS)	81*
PRETERM AND LOW BIRTH WEIGHT (LBW)	78*
BACTERIAL SEPSIS OF NEWBORN	22*
SUDDEN INFANT DEATH SYNDROME (SIDS)	22*

THE FOUR LEADING CAUSES ACCOUNTED FOR 50 PERCENT OF ALL INFANT DEATHS; AN INCREASE FROM 43.4 PERCENT IN 2017

ADPH, Center for Health Statistics, 2019 *The number of infants who died in various categories



*The number of infants who died in various categories. ADPH, Center for Health Statistics, 2019

FOUR LEADING CAUSES OF INFANT MORTALITY IN ALABAMA, 2017

1. CONGENITAL ANOMALIES

Congenital anomalies, also known as birth defects, were the leading cause of infant mortality in 2018. Birth defects are common, costly, and critical conditions.⁶ Annually about one in every 33 babies, approximately 120,000, is born in the United States with a birth defect. Birth defects can occur at any stage of pregnancy; however, most occur within the first three months of pregnancy when major organs of the baby are forming. The cause is known for some birth defects but for many the cause is unknown. Not all birth defects are preventable; however, there are steps that can be taken to increase the chances of having a healthy baby.

- Plan ahead, take folic acid daily, and see a healthcare provider regularly.
- Avoid harmful substances: alcohol, smoking, marijuana and other drugs, and prevent infections.
- Choose a healthy lifestyle.
- Talk to your healthcare providers about any medications, prescription and over the counter, family history, and vaccinations.

2. PRETERM and LOW BIRTH WEIGHT (LBW)

Preterm and LBW births were the second leading cause of infant mortality in 2018. Preterm births are infants that are born too early before 37 weeks of pregnancy have been completed.⁷ LBW births are defined as infants weighing less than 5 pounds 5 ounces at delivery. These births comprised 12.5 percent and 10.5 percent of the births respectively in 2018. They accounted for approximately 19 percent of infant deaths in 2018.

INFANT DEATHS WITH LOW BIRTHWEIGHTS:

62%

of infants died before 28 days of life (Neonatal).

38%

of infants died between the ages of 28 days and one year of life (Post-neonatal).

249

of infants who weighed less than 2,500 grams (5.5 pounds) at birth died before their first birthday.

168

of the 242 low birthweight infant deaths were extremely low birthweight births (less than 1,000 grams or 2 pounds 3 ounces).

ADPH, Center for Health Statistics, 2019

3. BACTERIAL SEPSIS OF NEWBORNS

Neonatal sepsis is a systemic infection in infants.⁸ Sepsis is a common and serious problem especially for pre-term infants. Sepsis appears during two different time intervals in infants. Early-onset sepsis occurs in the first week of life. It usually appears between 24 and 48 hours of birth. Late-onset sepsis occurs from 1 week to 3 months of age. Neonatal sepsis is a leading cause of infant death.

4. SUDDEN INFANT DEATH SYNDROME (SIDS)

Sudden Infant Death Syndrome (SIDS) was the third leading cause of infant mortality. SIDS is the sudden unexplained death of an infant less than one year of age that does not have a known cause after a complete investigation including a complete autopsy, examination of the death scene, and medical review of the clinical history.⁹ SIDS is sometimes called “crib death” because of its association with the time when the infant was sleeping. SIDS deaths can occur anytime during the first year of life. Most SIDS deaths occur between 1 month and 4 months of age with 90 percent of SIDS occurring before an infant reaches 6 months of age.

SUDDEN UNEXPECTED INFANT DEATH (SUID) is defined as the death of an infant less than one year of age who suddenly or unexpectedly dies. These deaths often occur during sleep or in the infant’s sleep area.¹⁰ SUID includes SIDS, accidental suffocation in a sleeping environment, and other undetermined causes. In 2018, there was a 37 percent decrease in SUID. In 2014, Alabama increased efforts to address SUID through collaboration, education, and outreach activities statewide. SUID was responsible for 70 of the 405 infant deaths in 2018.

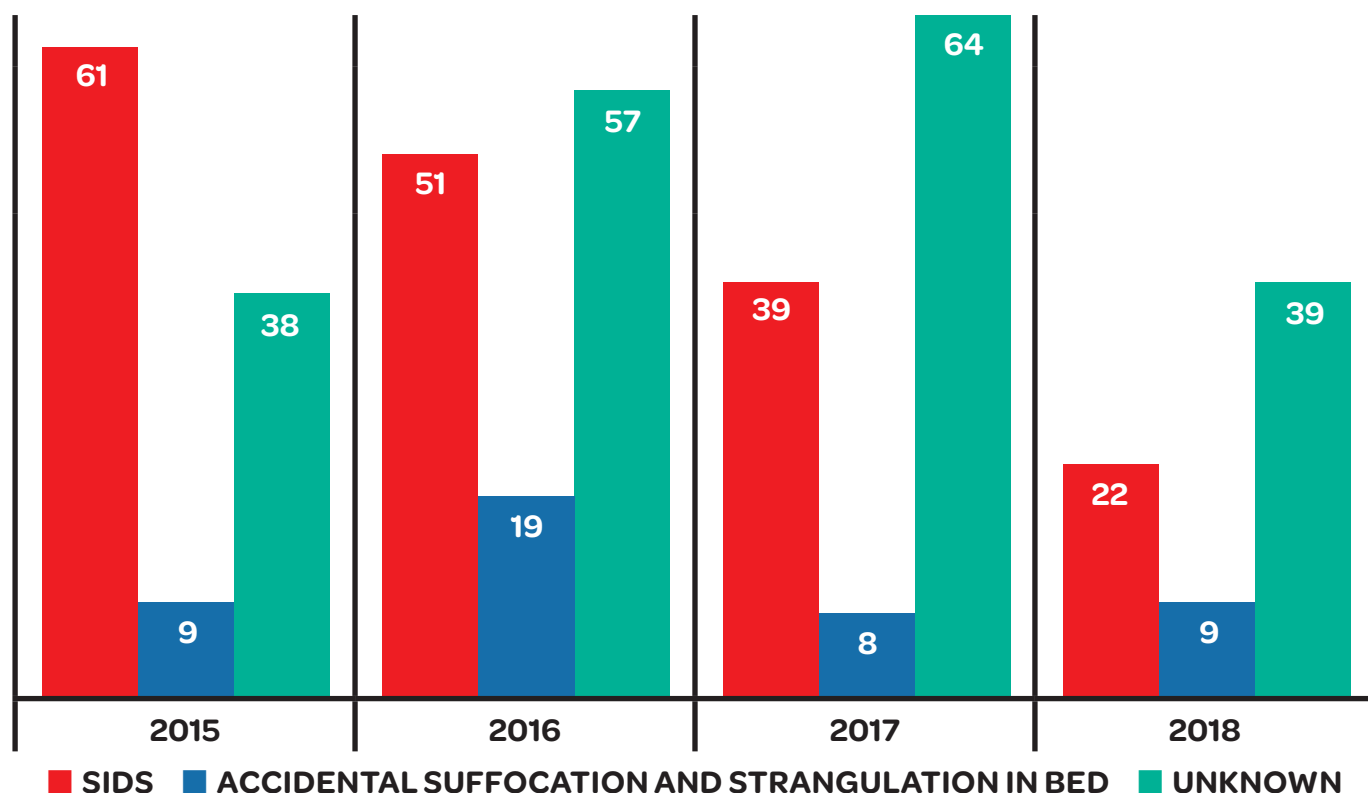
70 INFANT DEATHS WERE SUDDEN UNEXPECTED INFANT DEATHS (SUID).

THE THREE COMMONLY REPORTED TYPES OF SUID INCLUDE:

- SUDDEN INFANT DEATH SYNDROME (SIDS).
- UNKNOWN CAUSE.
- ACCIDENTAL SUFFOCATION AND STRANGULATION IN BED.

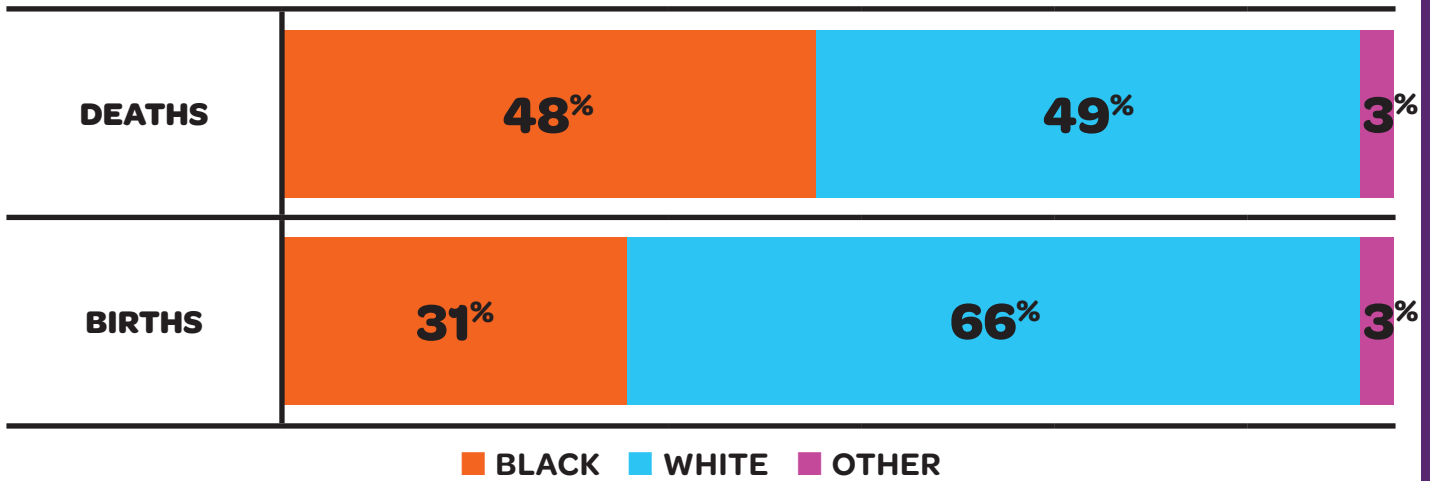
SUID DEATHS ACCOUNTED FOR **17.3%** OF THE TOTAL INFANT MORTALITY RATE IN 2018.

NUMBER OF SUID DEATHS IN ALABAMA FROM 2015-2018

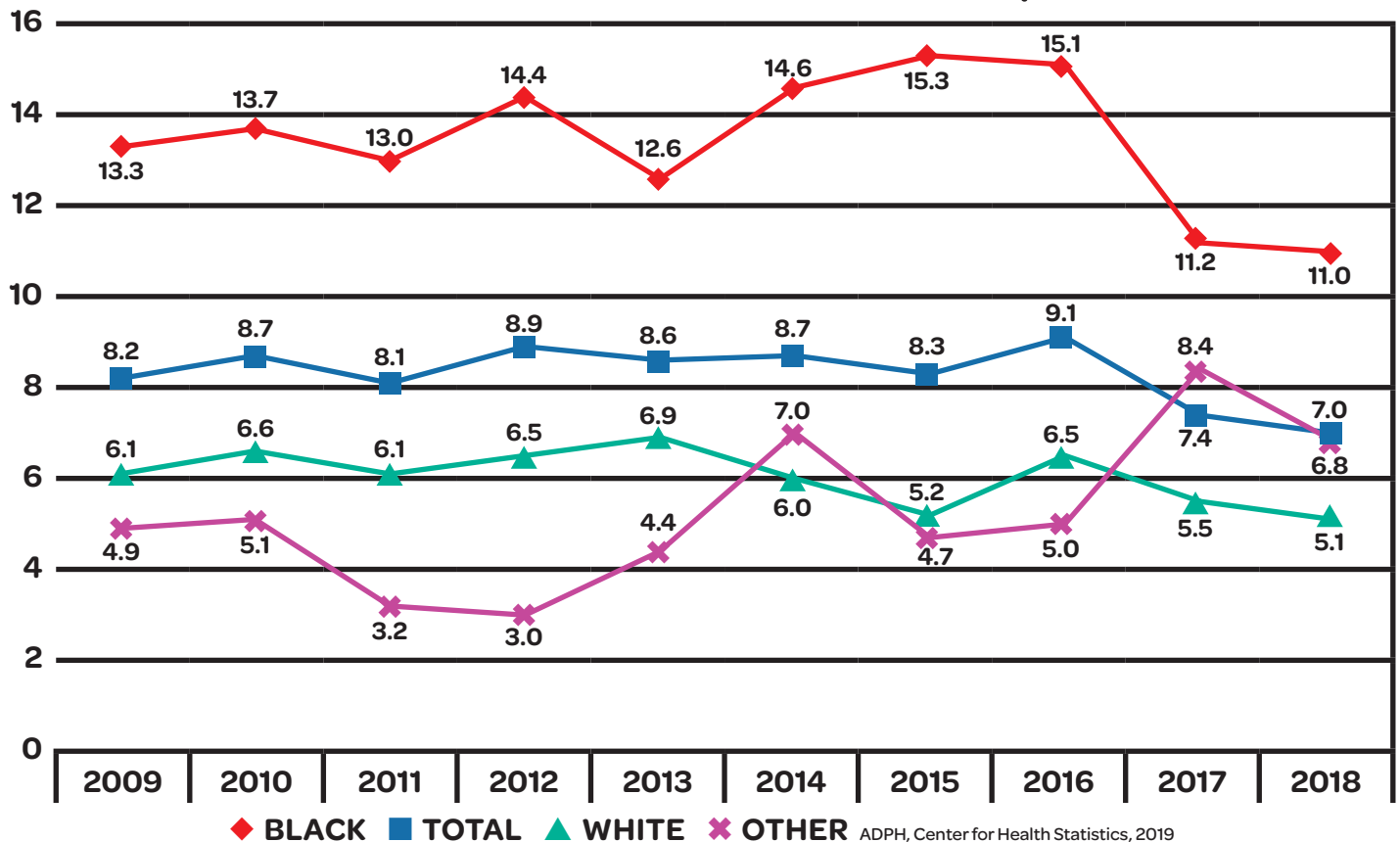


RACIAL DISPARITIES

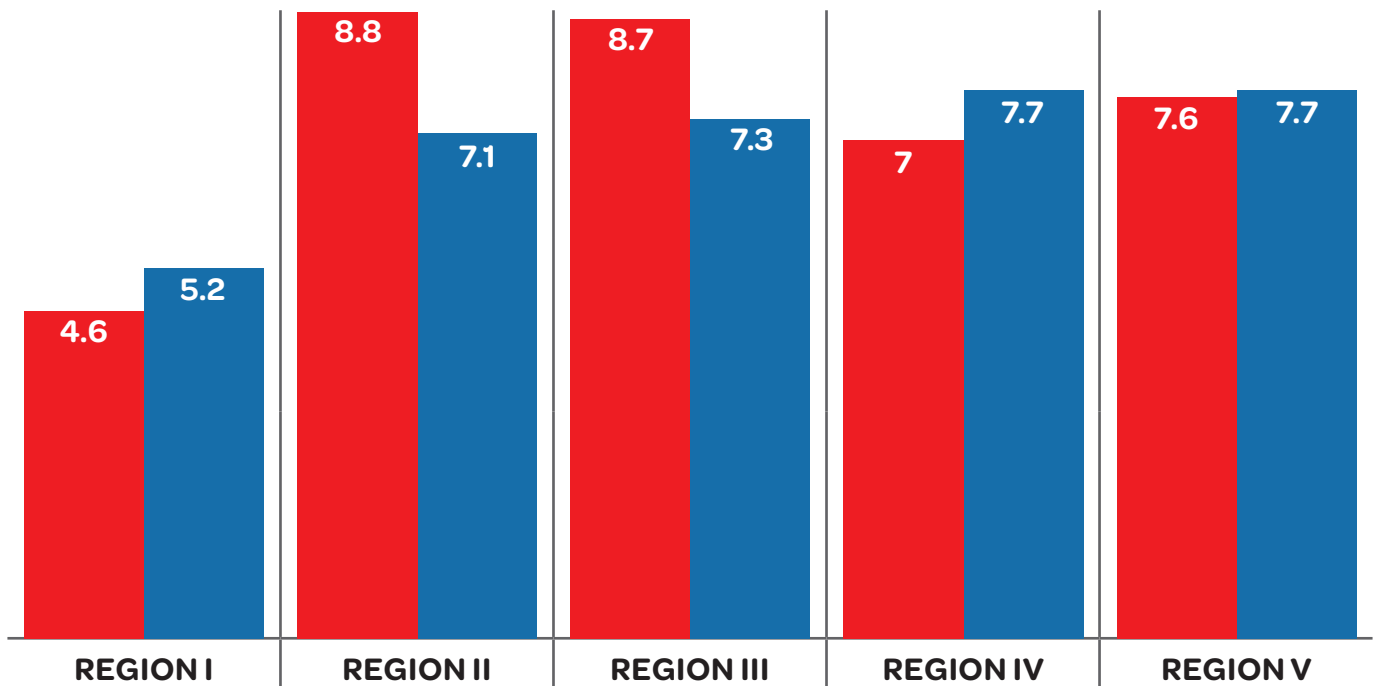
Despite the decrease in infant mortality in Alabama in 2018, racial disparities continue to persist. In 2018, black infants died at a rate of 11.0 infant deaths per 1,000 live births, while deaths among other infants and white infants occurred at rates of 6.8 infant deaths and 5.1 infant deaths per 1,000 live births, respectively. It is important to note that only 31 percent (17,995) of live births were to black mothers and 3 percent (1,610) to other mothers, while 66 percent (38,149) were to white mothers. Thus, the infant mortality rates for black and other infants are significantly higher than for white infants. Incorporating evidence-based efforts to address factors that impact health outcomes such as poverty, unemployment, education, and urban/rural dwelling/residence will provide the opportunity for all Alabamians to achieve optimal health.



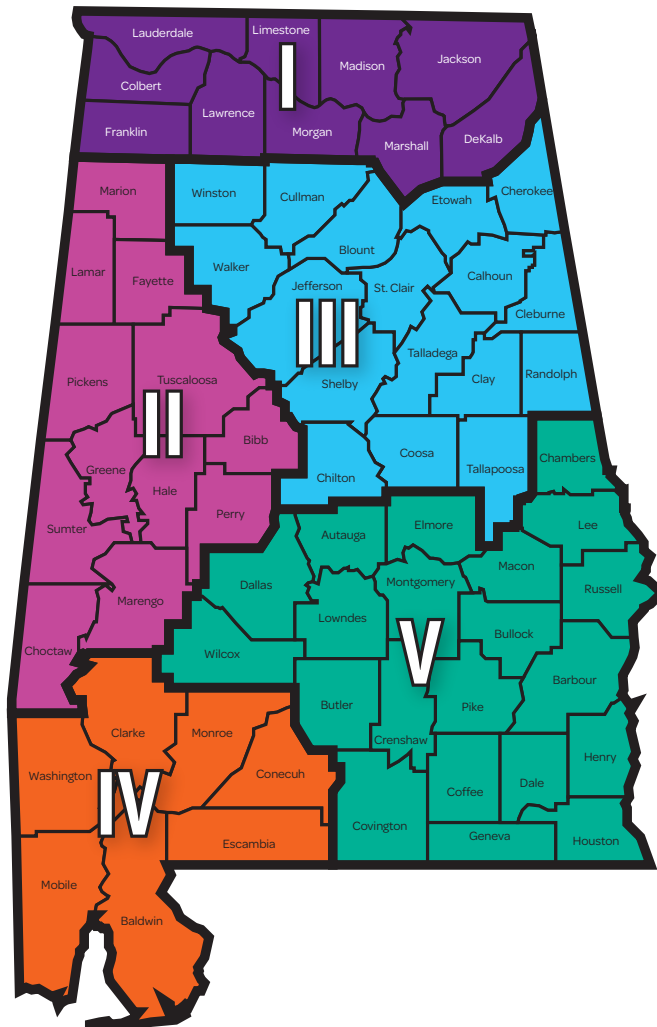
INFANT MORTALITY RATES BY RACE, 2009-2018



INFANT MORTALITY BY PERINATAL REGIONS IN ALABAMA, 2017-2018



■ 2017 ■ 2018 ADPH, MCH Epidemiology Branch, 2019



2020 PLANS TO REDUCE INFANT MORTALITY IN ALABAMA

- Continue the Fetal and Infant Mortality Review (FIMR) Program to abstract and review 100 percent of infant deaths statewide.
- Expand Community Action Teams statewide to implement FIMR recommendations.
- Continue the Maternal Mortality Review (MMR) Program in Alabama to abstract and review maternal deaths that occur during pregnancy or within one year of the end of a pregnancy regardless of pregnancy outcome.
- Continue the partnership established with the Eunice Kennedy Shriver National Institute of Child Health and Human Development Safe to Sleep® Campaign to improve safe sleep efforts at the state, regional, and community levels.
- Continue to provide “Sleep Baby Safe and Snug” books to every new family at all delivering hospitals statewide to improve safe sleep education and promote infant literacy and bonding.
- Continue to promote the Alabama Cribs for Kids® Program to ensure all infants under the age of one have a safe sleep environment as a means to reduce the risk of SUID deaths.
- Educate and raise awareness, through community partnerships, on the impact of health inequities and disparities on health outcomes within the state.
- Host a Maternal and Infant Mortality Reduction Summit.
- Continue to collaborate with multiple state agencies to execute the State of Alabama Infant Mortality Reduction Plan in Macon, Montgomery, and Russell counties as a means to reduce infant mortality by 20 percent in these counties over the next five years. The Plan includes partnerships with the following agencies:
 - o Alabama Department of Early Childhood Education.
 - o Alabama Department of Human Resources.
 - o Alabama Medicaid Agency.
 - o Alabama Department of Mental Health.
 - o Governor’s Office of Minority Affairs.
 - o Alabama Department of Public Health.

The Plan includes continuing seven strategies:

- o Expanding evidence-based home visitation services.
- o Increasing utilization of the Screening, Brief Intervention and Referral to Treatment (SBIRT) tool to identify and refer women at risk for alcohol, substance abuse, domestic violence, and post- partum depression for treatment and services.
- o Promoting safe sleep awareness through education and collaboration.
- o Expanding the Well-Woman Program so that women of child-bearing age receive preconception and inter-conception health services as a means to address chronic health conditions before and between pregnancies.
- o Providing education to women and families on the benefits of breastfeeding for both mom and baby.
- o Promoting and improving the system of perinatal regionalization which is designed to ensure women have access to hospitals equipped to provide the most appropriate level of care for their pregnancy needs.
- o Educating healthcare providers and women who have experienced a spontaneous preterm birth about benefits, processes, and access to 17P (Hydroxyprogesterone Caproate), to reduce the risk of a subsequent spontaneous preterm birth.

SOURCES

¹Data for this report have been made available by the Center for Health Statistics and the Maternal and Child Health Epidemiology Branch. http://www.alabamapublichealth.gov/healthstats/assets/IM_18.pdf.

²Centers for Disease Control and Prevention: Infant Mortality. <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm>

³Centers for Disease Control and Prevention: Social Determinants of Health: Know What Affects Health. <https://www.cdc.gov/socialdeterminants/faqs/index.htm>

⁴Centers for Disease Control and Prevention: Health Equity. <https://www.cdc.gov/healthequity>

⁵Centers for Disease Control and Prevention: Chronic Disease: Health Equity. <https://www.cdc.gov/chronicdisease/healthequity>

⁶Centers for Disease Control and Prevention: What are Birth Defects. <https://www.cdc.gov/ncbddd/birthdefects/facts.html>

⁷Centers for Disease Control and Prevention: Preterm Birth. <https://www.cdc.gov/reproductivehealth/MaternalInfantHealth/PretermBirth.htm>

⁸Early-Onset Neonatal Sepsis. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3910904>

⁹National Institute of Child Health and Human Development: SIDS. <https://www.nichd.nih.gov/health/topics/sids/conditioninfo>

¹⁰Centers for Disease Control: Sudden Unexpected Infant Death and Sudden Infant Death Syndrome. <https://www.cdc.gov/sids/about/index.htm>

ACKNOWLEDGEMENTS

The State Perinatal Program acknowledges the families touched by maternal and infant death in Alabama. The production of this document would not be possible without the efforts of Julie Nightengale, Tammie Yeldell, and William Duncan of the Maternal and Child Health Epidemiology Branch. Special acknowledgment is extended to staff of the perinatal health division, regional perinatal advisory committees, and the state perinatal advisory committee, whose participation and cooperation help make this publication possible.

