Alabama Perinatal Health Act Annual Progress Report For FY2024 Plan For 2025

"A new baby is like the beginning of all things - wonder, hope, a dream of possibilities."
Eda J. LeShan

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Scott Harris, M.D., M.P.H.
STATE HEALTH OFFICER

January 6, 2025

Dear Senators and Representatives:

It is my pleasure to share the Alabama Perinatal Report, which describes the Fiscal Year 2023 infant mortality data, leading causes of infant mortality, and strategies for addressing this issue in 2025.

In 2023, Alabama's infant mortality rate was 7.8 deaths per 1,000 live births, which is an increase from the historically low rate of 6.7 in 2022. Alabama's infant mortality continues to be higher than the provisional U.S. rate for 2023, which is 5.6. Racial disparities persist in Alabama as the infant mortality rate of black infants is nearly 2.5 times the rate of white infants. The leading causes of infant deaths include congenital malformations, deformations, and chromosomal abnormalities; disorders related to short gestation and low birth weight; and sudden infant death syndrome.

The health of a mother and her infant are interwoven. Alabama, like the nation, continues to face an urgent maternal and infant health crisis. Lack of access to care, closure of labor and delivery services, poverty, poor nutrition, and chronic disease play significant roles in the health of mothers and infants. With the purpose to improve, promote, and protect health, it is essential that we address the factors that contribute to maternal and infant poor health outcomes. The State Perinatal Program is committed to collaborating with our partners across the state to reduce the barriers to healthy living and improving the quality of life for all Alabama families.

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

Sincerely,

Scott Harris, M.D., M.P.H.
State Health Officer

SH/CM/SG

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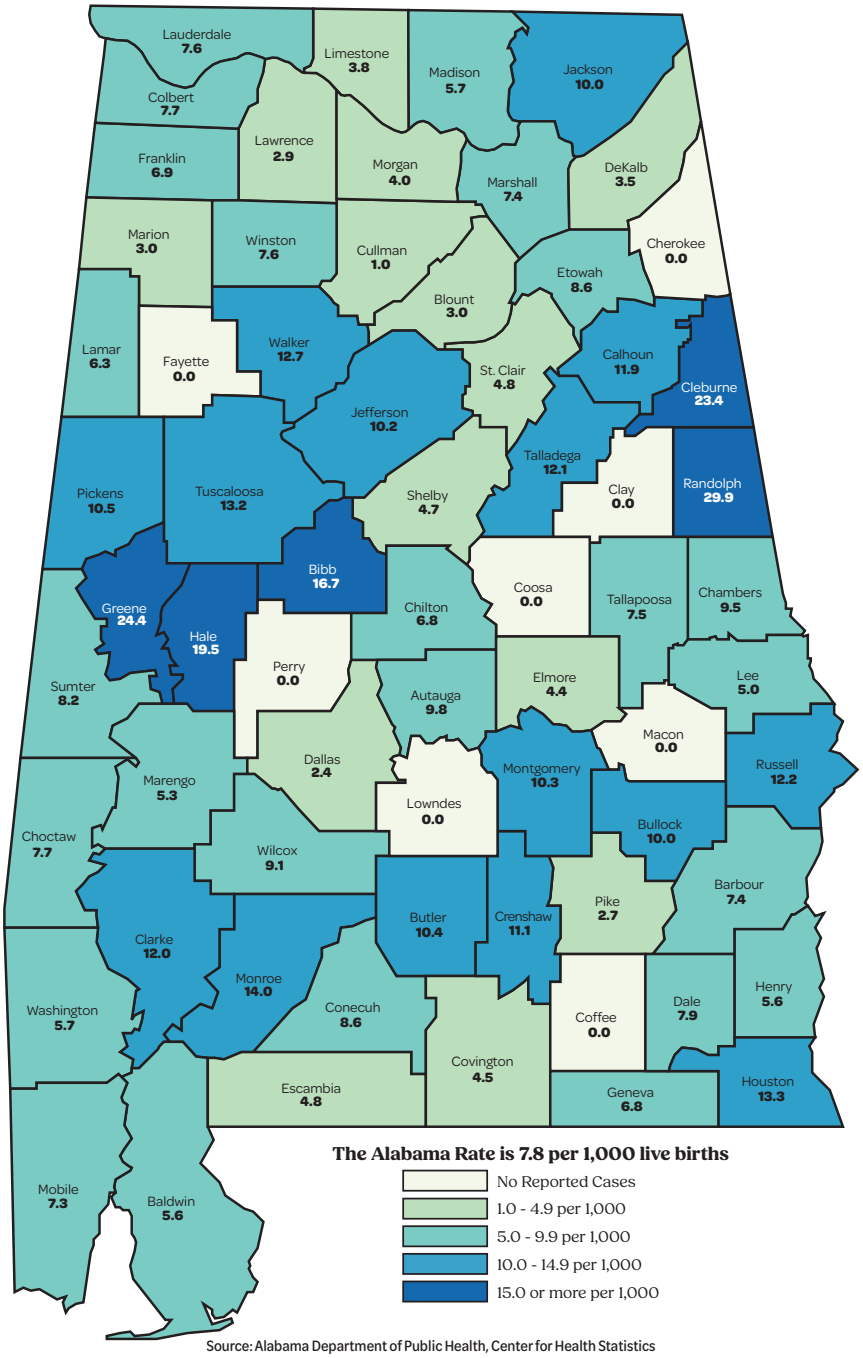
Introduction

The Alabama Department of Public Health (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.). Highlights from Alabama's most recent 2023 infant mortality report are included in the findings.[1]

Infant Mortality

Infant mortality is defined as the death of an infant before his or her first birthday. The infant mortality rate (IMR) 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] Map 1 depicts Alabama's IMR at the county level. There were five counties whose IMR was 15.0 or higher.

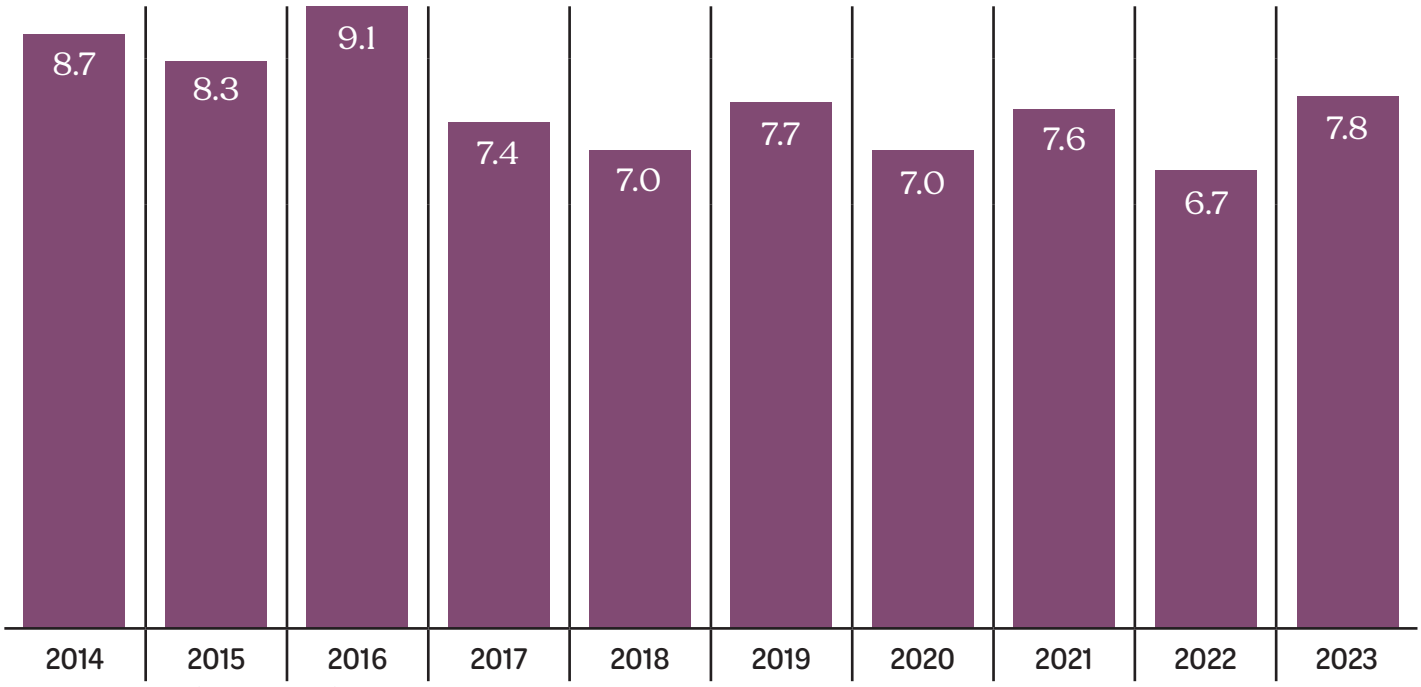
Map 1. Alabama IMR by County, 2023†



Source: Alabama Department of Public Health, Center for Health Statistics

At the statewide level, Figure 1 looks at the trends for the annual IMRs between 2014 and 2023. The 2023 IMR was 7.8 deaths per 1,000 live births, representing an increase of 1.1 compared to 2022. A total of 449 infants died before reaching their first birthday in 2023, an increase from 391 infant deaths in 2022.

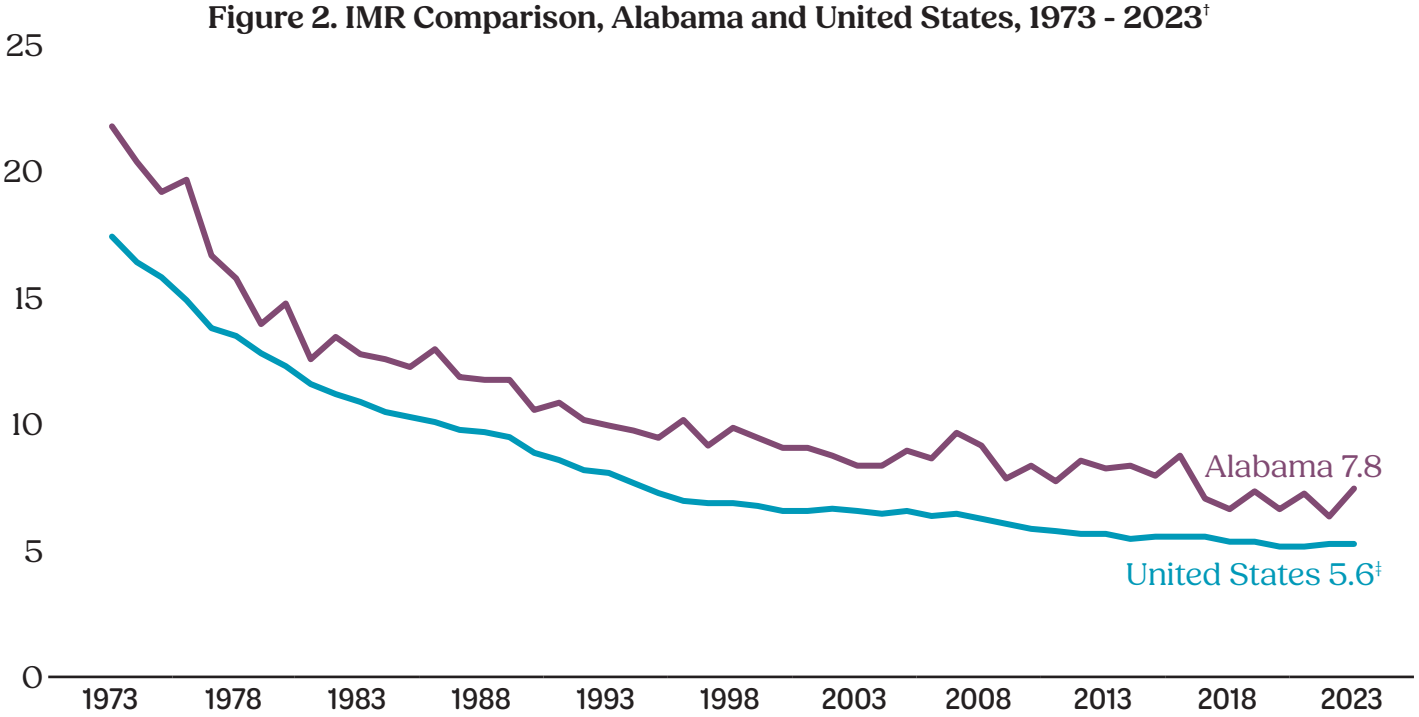
Figure 1. IMR by Year, 2014 - 2023†



Source: Alabama Department of Public Health, Center for Health Statistics
†Infant mortality rate per 1,000 live births.

As shown in Figure 2, the Alabama annual IMR has been consistently higher than the United States provisional IMR since 1973. For 2023, the state IMR rate of 7.8 deaths per 1,000 live births is higher than the national 2023 provisional rate of 5.6 deaths per 1,000 live births.

Figure 2. IMR Comparison, Alabama and United States, 1973 - 2023†



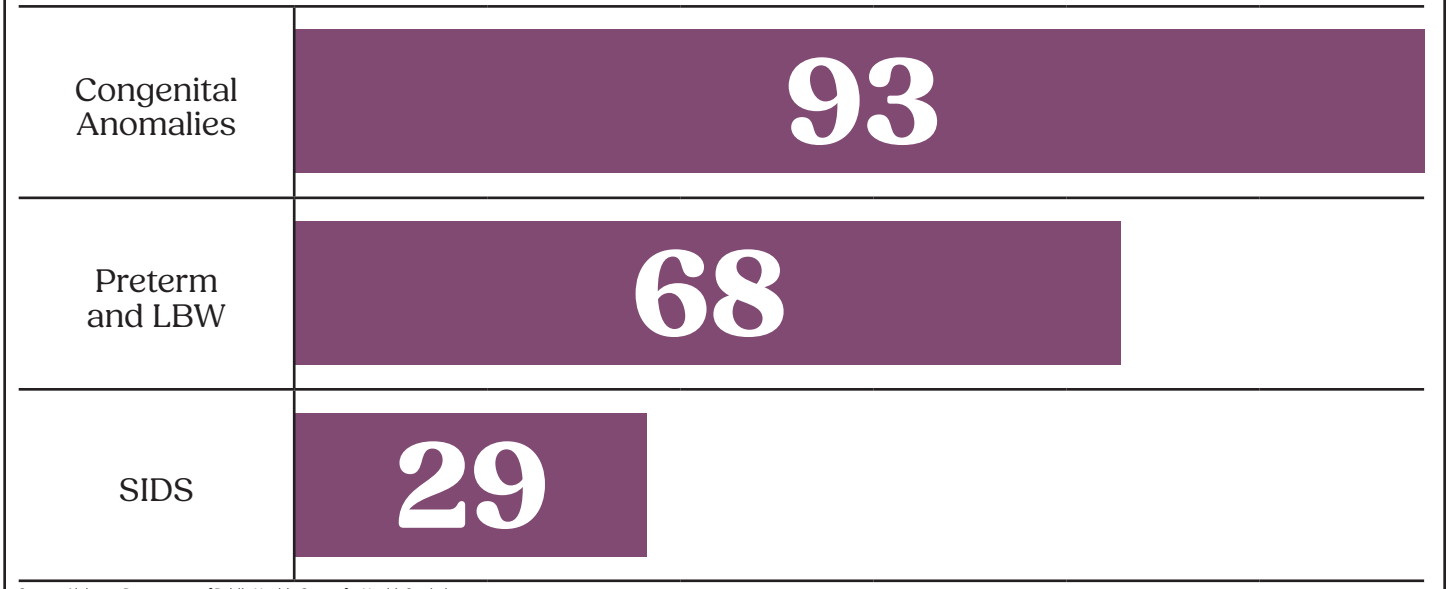
Source: Alabama Department of Public Health, Center for Health Statistics
†Infant mortality rate per 1,000 live births.
‡ 2023 national rate is provisonal.

Health outcomes are impacted by the health behaviors of each individual and social determinants of health, such as access to healthcare, adequate housing, economic stability, quality education, and transportation. Thus, addressing factors that contribute to health outcomes 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]

The ADPH aims to identify and address any health equity barriers, such as high cost of care, inadequate insurance coverage, lack of culturally competent care, and unavailability of services in a community. Eliminating health inequities is crucial to reducing poor birth outcomes for mothers and babies and for building a healthier Alabama. Alabama remains committed to improving birth outcomes for women, infants, and families statewide. This 2024 report provides an overview of infant mortality statistics and describes some of the current collaborating strategies to address them.

As shown in Figure 3, the three leading causes of infant mortality are congenital anomalies, preterm and low birth weight (LBW), and sudden infant death syndrome (SIDS). The three leading causes accounted for **42.3 percent (n=190/449)** of all infant deaths.

Figure 3. Three Leading Causes of Infant Mortality, 2023[†]



Source: Alabama Department of Public Health, Center for Health Statistics
[†]The number of infants who died from these causes.

Leading Causes of Death Overview

1. Congenital Anomalies

Congenital anomalies, also known as birth defects, were the leading cause of infant mortality in 2023. Birth defects are common and costly. Annually, about 1 in every 33 babies are born in the United States with a birth defect.[4] Birth defects can occur at any stage of pregnancy. However, most occur within the first 3 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. 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.
- Choose a healthy lifestyle.
- Talk to your healthcare providers about any medications (prescription and over the counter), family history, and vaccinations.

2. Preterm and LBW

Preterm and LBW were the second leading cause of infant mortality in 2023. Preterm births are infants that are born too early before 37 weeks of pregnancy have been completed.[5] LBW births are defined as infants weighing less than 5 pounds, 8 ounces at delivery.[6] Preterm births comprised 12.9 percent (n=7,467/57,835) and LBW 10.5 percent (n=6,051/57,835) of the births in 2023. They accounted for approximately 14.3 percent (n=64/449) of all infant deaths in 2023.

3. SIDS

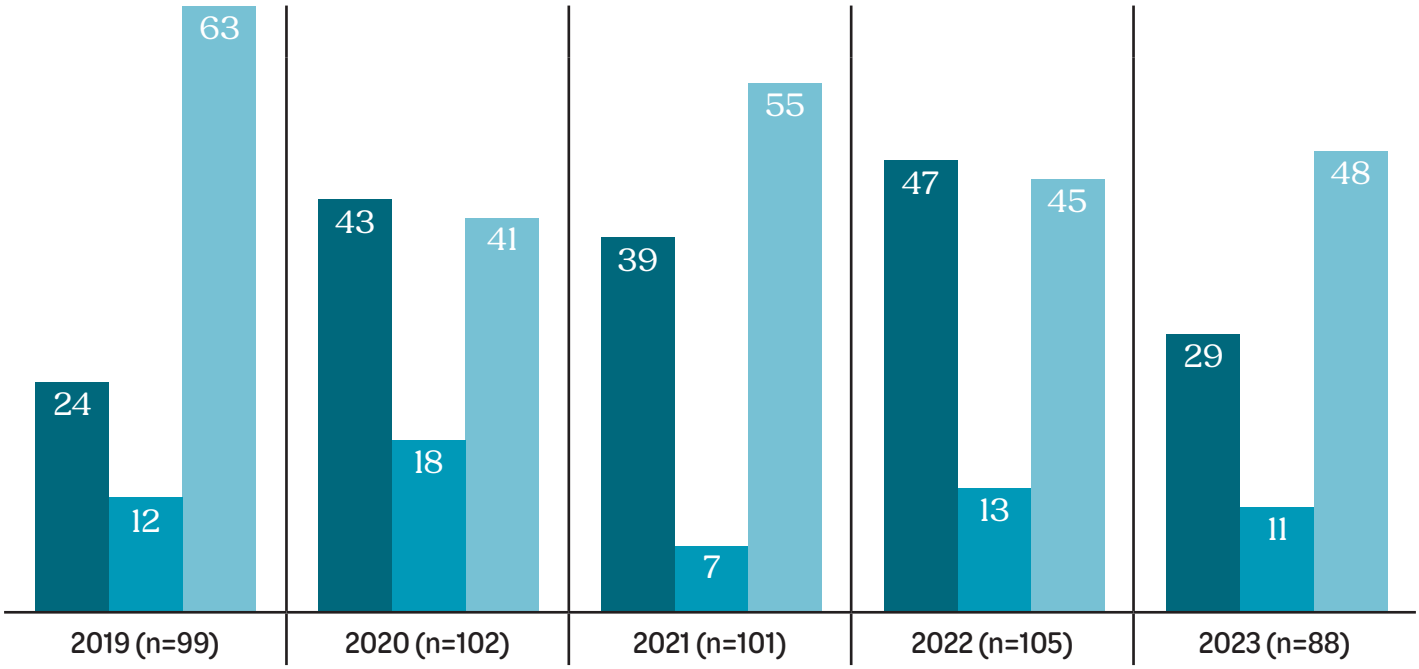
SIDS was the third leading cause of infant mortality in 2023. SIDS is the sudden unexplained death of an infant less than 1 year of age that does not have a known cause after a complete investigation, including an autopsy, examination of the death scene, and medical review of the clinical history. SIDS 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 deaths occurring before an infant reaches 6 months of age.

Sudden Unexpected Infant Death (SUID) is defined as the death of an infant less than 1 year of age who suddenly or unexpectedly dies. These deaths often occur during sleep or in the infant's sleep area.[7] There was a 7.3 percent decrease in SUID from 26.9 percent (n=105/391) in 2022 to 19.6 percent (n=88/449) in 2023. The ADPH continues to address SUID through safe sleep education, training of medical personnel and community workers, and distribution of cribs to families without a safe sleep environment.

As shown in Figure 4, 88 infant deaths were attributed to SUID during 2023. In 2023, the three commonly reported types of SUID in Alabama include:

- Unknown cause (n=48)
- SIDS (n=29)
- Accidental suffocation and strangulation in bed (n=11)

Figure 4. Number of SUIDS in Alabama, 2019 - 2023

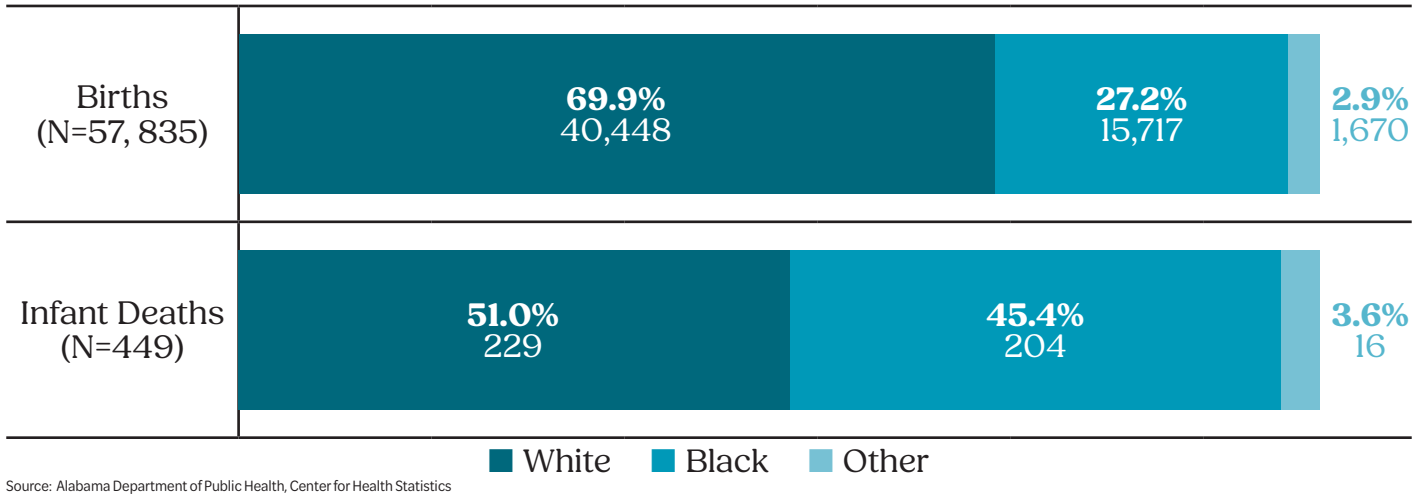


Source: Alabama Department of Public Health, Center for Health Statistics

Racial Disparities

Racial disparities continue to persist in 2023. Figure 5 looks at the racial breakdown among live births and infant deaths. In 2023, 69.9 percent (n=40,448/57,835) of the live births were white, while 30.1 percent (n=17,387/57,835) of the live births were either black or other race. Blacks had the highest number of reported infant deaths.

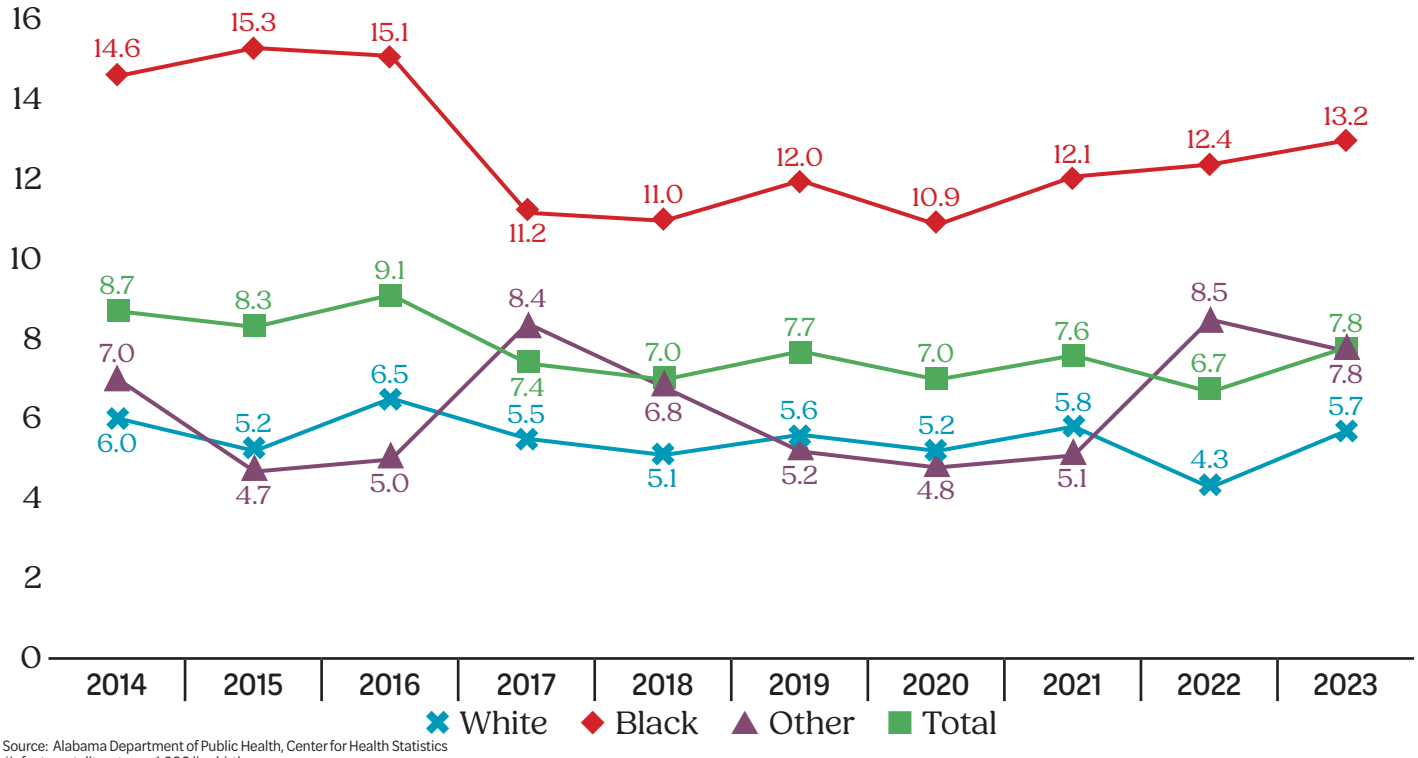
Figure 5. Percentage and Total Number of Births and Infant Deaths by Race in 2023



Source: Alabama Department of Public Health, Center for Health Statistics

In Figure 6, a trend analysis looked at 2014-2023 IMRs among these racial groups. During 2023, black infants died at a rate of 13.2 infant deaths per 1,000 live births, while deaths among other infants and white infants occurred at rates of 7.8 infant deaths and 5.7 infant deaths per 1,000 live births, respectively. Thus, the IMRs for black infants are significantly higher than for white infants. Incorporating evidence-based efforts will help address factors impacting health outcomes such as access to healthcare, geographical disparities between rural and urban communities, lack of quality education, poverty, and unemployment.

Figure 6. Alabama IMR by Race, 2014 - 2023†



Source: Alabama Department of Public Health, Center for Health Statistics
†Infant mortality rate per 1,000 live births.

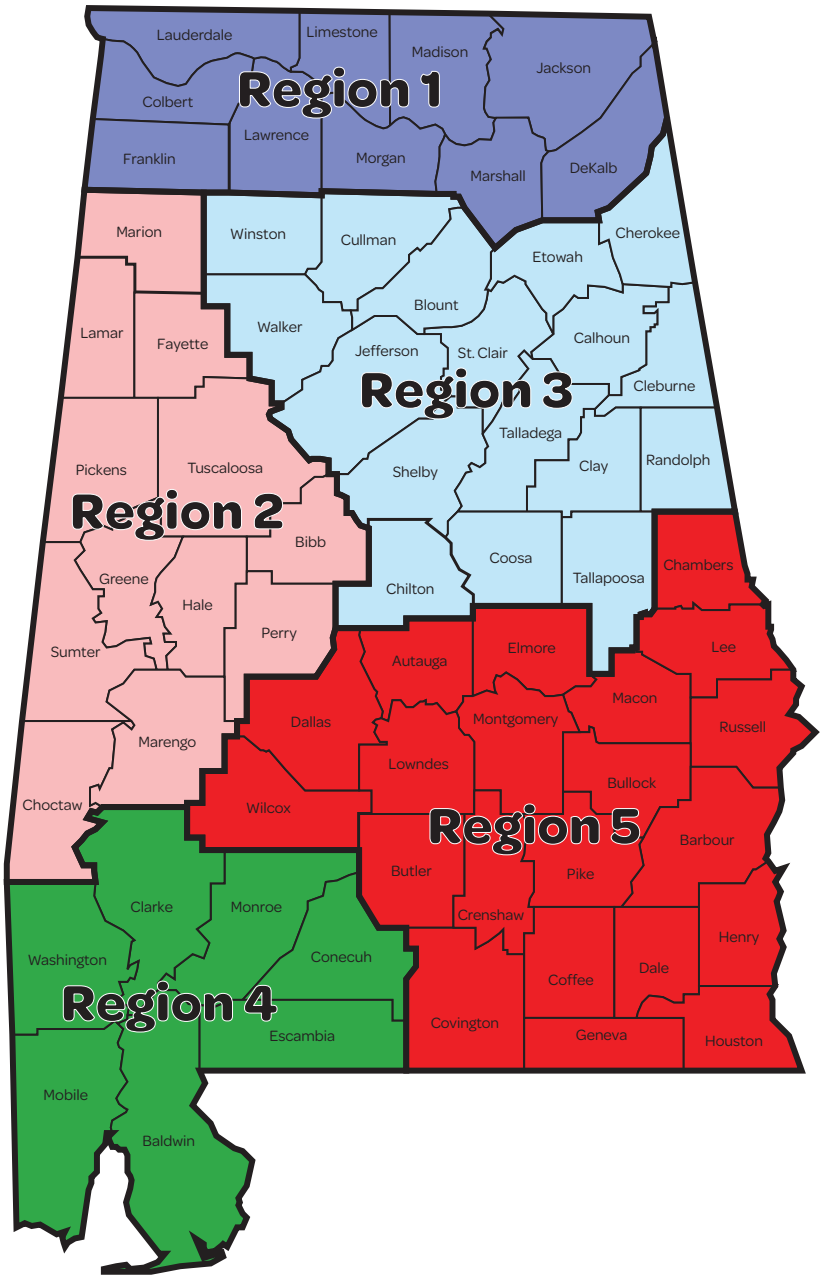
Alabama Fetal and Infant Mortality Review (AL-FIMR) Program

The AL-FIMR Program was established to identify critical community strengths and weaknesses as well as unique health and social issues associated with poor outcomes of pregnancy. The program is a community-based statewide initiative designed to enhance the health and well-being of women, infants, and families through the review of unidentified cases of fetal (stillbirth) and infant deaths and voluntary maternal interviews.

The AL-FIMR Program consists of Perinatal Nurses based at the largest delivering hospitals in five regions across the state. All Alabama counties are represented in one of the five regions. In addition to completing a review of cases of fetal and infant deaths, the Perinatal Nurses present the findings of their reviews to a multidisciplinary team ctonsisting of a broad range of professional organizations and public and private agencies that provide services and resources for women, infants, and families. The team reviews case summaries, identifies issues, and makes recommendations for community change.

As shown in Map 2, the regionalization of the AL-FIMR Program provides an opportunity to create solutions from identified needs at the local level to reduce infant mortality and improve the health of Alabama families.

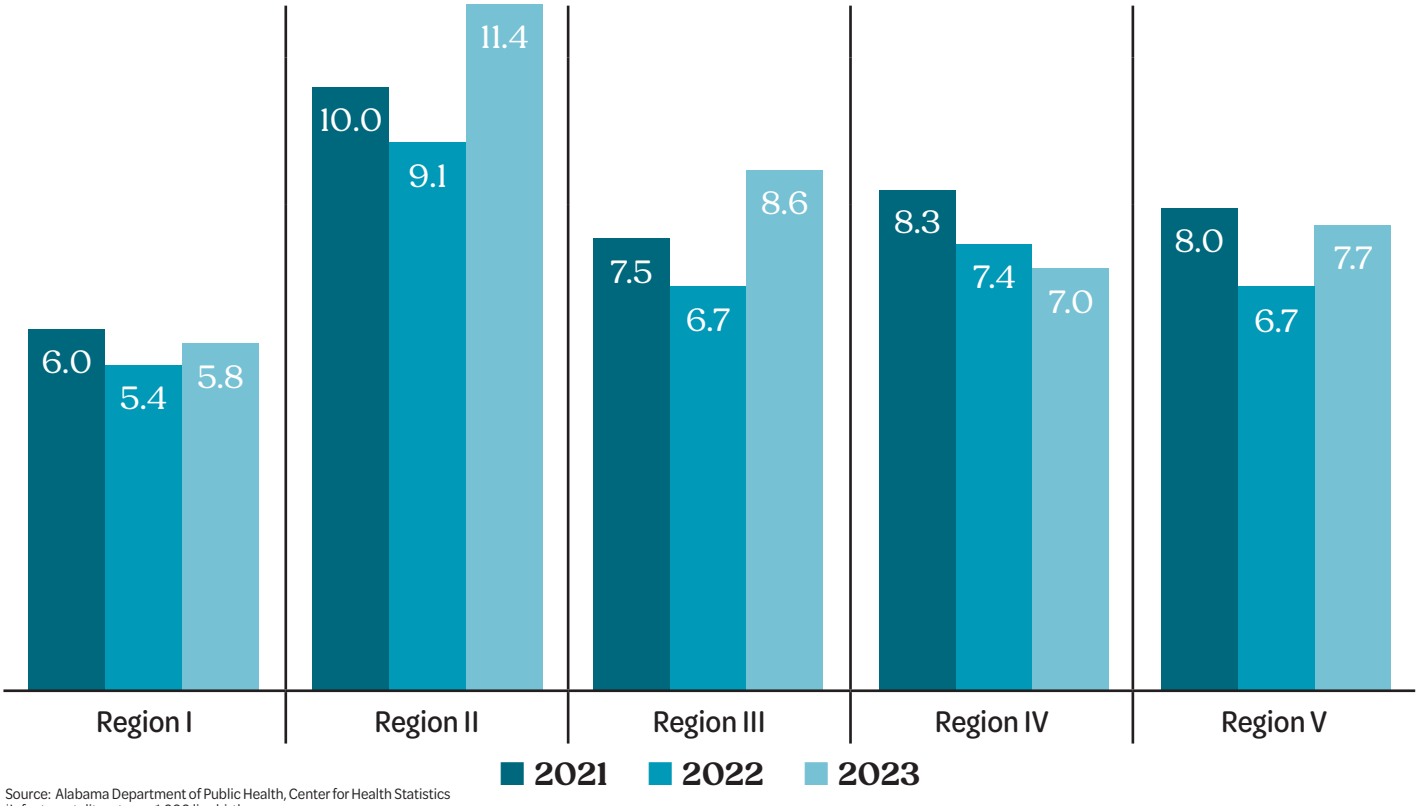
Map 2. Alabama by Perinatal Regions



Source: Alabama Department of Public Health, Perinatal Health Division

As shown in Figure 7, regional IMRs will be calculated to identify any trends in infant mortality between 2021 and 2023. Compared to other regions, Region II had the highest annual IMRs. Contributing factors may include lack of access to care in rural counties, poverty, limited transportation, and poor nutrition.

Figure 7. IMRs by Perinatal Regions in Alabama, 2021 - 2023†



Source: Alabama Department of Public Health, Center for Health Statistics
†Infant mortality rate per 1,000 live births.

2025 Plans to Reduce Infant Mortality in Alabama

- Continue the AL-FIMR Program to abstract and review 100 percent of infant deaths statewide and collaborate with community partners within each Perinatal Region to address causes of infant deaths.
- Continue the Maternal Mortality Review Program in Alabama to abstract and review maternal deaths that occur during pregnancy or within 1 year of the end of pregnancy regardless of the outcome, and present case reviews to the Maternal Mortality Review Committee to develop recommendations to prevent future maternal deaths.
- Increase the percentage of autopsies performed on maternal deaths through the Maternal Autopsy Program.
- Continue to promote the Alabama Cribs for Kids® Program to ensure all infants under age 1 have a safe sleep environment to reduce the risk of SUID.
- Educate and raise awareness, through community partnerships, of health inequities and disparities and their impact on health outcomes within the state.
- Through partnerships with state agencies and community partners, develop initiatives to increase access to prenatal care in rural areas.
- Educate and promote awareness about how infections can cause preterm labor.
- Continue the Well Woman Program so that women of childbearing age receive preconception and interconception health to address chronic health conditions before and between pregnancies.
- Increase utilization of the Screening, Brief Intervention, and Referral to Treatment tool to identify and refer women at risk for alcohol, substance abuse, domestic violence, and post-partum depression for treatment and services.
- Promote safe sleep awareness through education and collaboration.
- Provide education to women and families on the benefits of breastfeeding for both mom and baby.
- Promote and improve 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.
- Host an Infant Mortality Reduction Summit.

Sources

[1] Alabama Department of Public Health, Center for Health Statistics: Infant Mortality Alabama 2023. https://www.alabamapublichealth.gov/healthstats/assets/infantmortality2023.pdf

[2] Centers for Disease Control and Prevention: Infant Mortality. https://www.cdc.gov/maternal-infant-health/infant-mortality/index.html

[3] Centers for Disease Control and Prevention: Social Determinants of Health: Know What Affects Health. https://www.cdc.gov/about/priorities/why-is-addressing-sdoh-important.html

[4] Centers for Disease Control and Prevention: What are Birth Defects. https://www.cdc.gov/environmental-health-tracking/php/data-research/birth-defects.html

[5] Centers for Disease Control and Prevention: Preterm Birth. https://www.cdc.gov/maternal-infant-health/preterm-birth/index.html

[6] Centers for Disease Control and Prevention: Percentages of Babies Born Low Birthweight by State. https://www.cdc.gov/nchs/pressroom/sosmap/lbw_births/lbw.htm

[7] National Institute of Child Health and Human Development: Sudden Infant Death Syndrome. https://www.nichd.nih.gov/health/topics/sids

Acknowledgements

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