

STATE OF ALABAMA INFANT MORTALITY REDUCTION PLAN

Fiscal Year Two Report
(October 2019 – September 2020)



INTRODUCTION

Infant mortality, a key measure of the health of women of child-bearing age within a state, has been a longstanding public health issue within Alabama. Multiple factors, such as socioeconomic, environmental, and behavioral factors, act as contributors to this dilemma. Between 2016 and 2018, the state’s infant mortality rates (IMR) were 9.1, 7.4, and 7.0 per 1,000 live births, respectively. Leading causes of infant deaths statewide included sudden unexplained infant death (including sleep-related deaths), premature births, and birth defects. Alabama IMRs were all above the national rates in comparison and require a multifaceted approach in order to reverse current trends.

To mitigate this issue, Governor Kay Ivey convened the Children’s Cabinet in December 2017 to address the problem of infant mortality in Alabama. A subcommittee was created to develop an action plan. This subcommittee is comprised of leaders from the following agencies:

- Alabama Department of Early Childhood Education
- Alabama Department of Human Resources
- Alabama Department of Mental Health
- Alabama Department of Public Health
- Alabama Medicaid Agency
- Alabama Office of Minority Affairs

The Alabama Legislature appropriated \$1 million for the State of Alabama Infant Mortality Reduction Plan. The Children’s Cabinet adopted the recommendations of the working subcommittee to implement a pilot program to reduce infant mortality rates by at least 20 percent in three counties (Montgomery, Macon, and Russell), within the next five years. Pilot county IMRs are shown in Figure 1, with the percentage of infant deaths accounted for by the leading causes in Table 1.

This report outlines the progress of the initiative and the year two activities of each strategy team.

Figure 1. Infant Mortality Rate (IMR) by Pilot County, Alabama 2016–2018

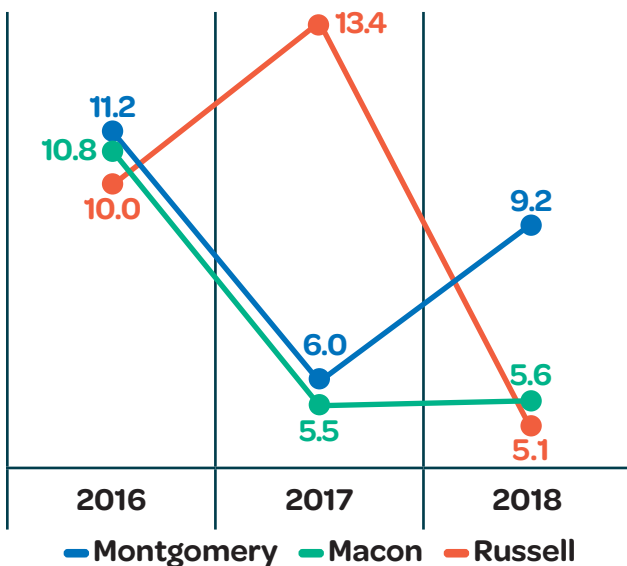


Table 1. Percentage of Leading Causes Out of Total Infant Deaths in Montgomery, Macon, and Russell Counties, Alabama – 2016–2018*

	2016	2017	2018
Montgomery	51.4	52.6	41.4
Macon	100.0	100.0	100.0
Russell	62.5	81.8	50.0
All Three Pilot Counties	55.6	64.5	44.1

*Among total deaths, the percentage accounted for by leading causes of infant deaths. Leading causes of death include: premature births (disorders related to short gestation and LBW, not elsewhere classified), sudden unexplained infant death (including sleep-related deaths; ICD-10 classified R95, R99, and W75), and birth defects (congenital malformations, deformations, and abnormalities).

YEAR TWO HIGHLIGHTS

- The Baby Friendly Provider Program was successfully launched, which aims to increase breastfeeding awareness among clinicians, mothers, and communities.
- Within the Home Visitation program, 145 families were active and received services, including pertinent screenings and referrals.
- Initial analyses were completed to begin implementation of a functional perinatal regionalization model.
- Significant progress was made on the development of an online training module for providers to incorporate screening, brief intervention, and referral to treatment (SBIRT) into patient care.
- Over 200 women were enrolled in the Preconception/Inter-conception (Well Woman) Program and began the journey to a healthier lifestyle.
- The distribution of surveys to providers gave insight into management and treatment of patients with previous preterm births.
- Digital and printed ads were put forth to broaden the reach of people educated on safe sleep practices.
- For Infant Mortality Awareness Month in September 2020, a press release was issued statewide to inform the public on national and state trends and initiatives to improve related outcomes.
- The Alabama Department of Public Health hosted another successful Infant Mortality Summit and welcomed key partners from a number of organizations.

Many of the activities of several teams involved continued program implementation, quality improvement, and assessment of programs to reach the overarching initiative goals. The progress of the teams is outlined below.

Evidence-Based Home Visitation

The Alabama Department of Early Childhood Education (DECE) contracts with two programs to provide home visiting services in the three target areas using the Parents as Teachers (PAT) and Nurse Family Partnership (NFP) models of service delivery. The programs began the year fully staffed and trained. However, throughout the year staff turnover caused new staff to go through the processes of becoming both model and DECE trained, which usually takes at least a few months. During and after the training period, staff members continued to work to gain public awareness in the communities and recruit families to participate. Despite the challenge of staff turnover, the goal to serve 100 families across the target counties was achieved, with 145 active families in FY2020; disaggregation by county is shown in Figure 2.

State funding was blended with federal (Health Resources & Services Administration Maternal, Infant, and Early Childhood Home Visiting) funding which allowed more families to be served. Additionally, matched funding from the Alabama Medicaid Agency, funds from the Department of Human Resources, and increased research and training allowed DECE to expand home visiting to all counties in the state. One of the models provided phones and service plans to families who were without these means. These provisions allowed home visitors to continue to maintain contact with families and refer them to resources for necessities, such as housing and food. Some of the screenings and assessments were completed virtually and allowed the continuation of data collection. Table 2 notes the number of referrals made and screenings conducted throughout the year in Montgomery, Macon, and Russell counties. Collectively, 190 screenings were provided, which assessed child development, parent-child interaction, and intimate partner violence. Additionally, five women were referred for tobacco cessation services.

Figure 2. Number of Active Families Enrolled in the Home Visitation Program, October 2019 – September 2020

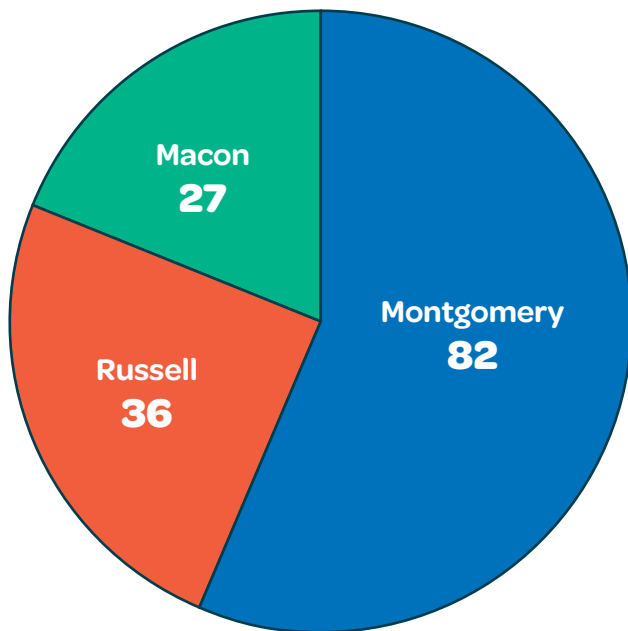


Table 2. Home Visitation Program Referrals and Screenings Provided in Target Counties During FY2020

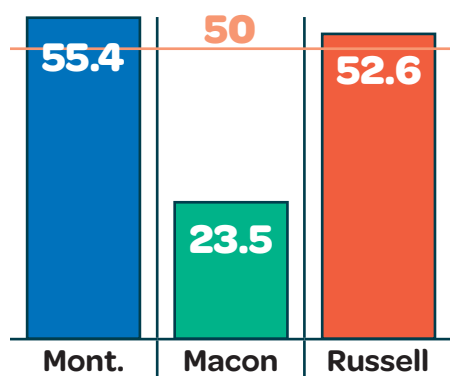
	Referrals or Screening No. (% of Total Eligible)
Tobacco Cessation Counseling/ Services Referrals	5 (83.3)
Parent/Child Interaction Screening	49 (52.1)
Child Developmental Screening	66 (71.7)
Intimate Partner Violence Screening	75 (89.3)

There were many challenges to overcome during this year. The narrow eligibility requirements for NFP of first-time mothers prior to 28 weeks gestation, made it difficult to find enrollees. When eligible mothers were identified, it was challenging to get them to reschedule after the initial visit. This challenge is typical in communities where there is limited awareness about a new program. It is hoped that with increased enrollment, more mothers will find out about the program through word of mouth, which is often the best form of advertisement. Similarly, receipt of referrals from usual sources decreased with business closures and staff transitioned to working from home. Program staff continued to reach out to establish new referral sources.

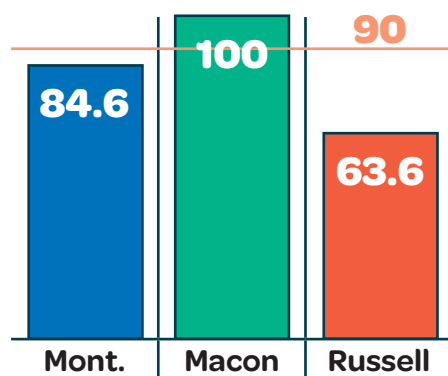
Reliable referral sources for the program were more difficult to locate, due to the location of one of the pilot counties and the impact of the COVID-19 pandemic. The program using PAT only serves Russell County, which is large, both urban and rural, and with a transient military community. It also borders Georgia, where some families choose to receive medical and other services. Many families choose physicians and delivering hospitals in Georgia (who accept Alabama insurances), and the programs have to rely on them for referrals. Regarding the effects of the COVID-19 pandemic, it was difficult to identify new referral sources due to limited travel and the inability to go into offices and meet with staff in person. Many agencies and programs transitioned to providing services remotely, making referrals an afterthought in dealing with the demands of virtual service delivery. However, both programs serving Russell County reported progress, new partnerships, and referral sources over the past year.

The novel coronavirus (COVID-19) pandemic presented the most significant challenge this year. However, both models of home visiting were quick to provide guidance on how to continue visiting families virtually. The transition was almost seamless, and the programs were able to retain most of the families. This transition resulted in positive movement on team goals. Figures 3a – 3c depict select performance measures and outcome indicators, with targets where applicable, for the second year. At least 50 percent of primary caregivers in Montgomery and Russell counties reported safe sleep practices. More than half of the mothers who delivered during the time period initiated breastfeeding in all three counties. The percentage of infants born preterm varied by county.

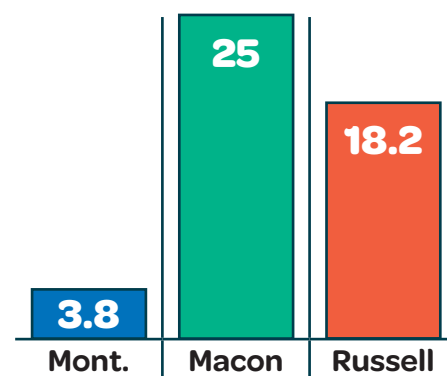
Figures 3a. % Primary Caregivers Reporting Safe Sleep Practices



Figures 3b. % Women Who Initiate Breastfeeding



Figures 3c. % Infants Born Preterm



Program Success Stories

Gift of Life (GOL) (Montgomery County): “A participant overcame several challenges, yet she defined resiliency. She was in an abusive relationship, which she managed to escape. She worked quite a bit after becoming pregnant to make ends meet and attend school. She received no financial support from anyone during this time. Despite her circumstances, she finished college after her son was born and graduated from Alabama State University with a degree in biology. She recently purchased a car and saved enough money for her and her child to move to Houston, Texas, to make a fresh start. She has been an amazing advocate for GOL and breastfeeding. She did an interview with WSFA 12 News about breastfeeding and its benefits. She has also been a great referral source for GOL. We enrolled twins in the program due to her commitment to see other women succeed. She has been an inspiration to many.”

East Alabama Mental Health (Russell County): “We participated in the Mayor’s Summer Reading Club with our Columbus, Georgia, partners. We were able to host a small giveaway as participants picked up meals at Phenix City Housing Authority, with books and character costumes borrowed from a local church. One of our home visitors experienced success when she helped one of her Spanish-speaking family’s children get into a pre-K program. We were also able to host an event where staff provided car seat safety training and gave each family a free booster seat. We provided over 70 free booster seats!”

Safe Sleep Education

Activities continued throughout the year to increase safe sleep education throughout the pilot counties. This year, the team took a different approach to educational outreach. Social media and digital educational campaigns were initiated. The team worked to place digital media ads and articles within newspapers throughout the counties. In the fourth quarter, nearly 170,000 destination URL links were displayed in the three counties (for example, via Google, Facebook, and Instagram), corresponding to a total of 233 viewers who selected the links for additional information. In Montgomery County, an additional 52 indoor digital screens were displayed. These numbers are indicative of the success of using mixed media to reach a broader audience for increased awareness. The team will continue to utilize social media platforms for digital placement of educational materials to increase awareness of safe infant sleep practices. In addition to the educational outreach, the Alabama Department of Human Resources continues to be a distribution site for Baby Boxes and the Alabama Department of Public Health (ADPH) continues to be the provider for the Cribs for Kids program.

Preconception and Inter-Conception Care (Well Woman)

The project year started off strong for the Well Woman team, with a total of 120 participants enrolled in the pilot counties within the first quarter. However, the onset of the COVID-19 pandemic in the second quarter was particularly challenging for the Well Woman team, which serves clients who are at increased risk of severe outcomes. Groups at risk include those with underlying health conditions, such as obesity, hypertension, diabetes, high cholesterol, and heart disease. The goal to enroll 500 women across all six counties during FY2020 (which averages to approximately 83 enrollees per county) was not met, as a result of the pandemic. However, 371 participants were enrolled across all six counties, 221 of which were in the pilot counties (Table 3). Among those enrolled, 59 (27 percent) women were hypertensive and underscored the need for chronic condition management and healthy lifestyle adjustment.

Table 3. AL Well Woman Program Enrollment by FY2020 Quarter

	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Montgomery	90	46	0	4
Macon	14	5	0	0
Russell	16	44	0	2

Clinic visits were postponed in the second quarter and resumed in the fourth quarter on August 27. Though new clients could not be enrolled, existing clients continued to receive services via telehealth phone visits and virtual means. Telehealth/telemedicine was incorporated into protocols, which allowed continuation of services, such as health and nutrition coaching sessions, risk assessment and counseling, as well as other educational opportunities. New protocols for safety measures were put into place, to ensure the well-being and protection of staff and clients. These new safety measures included provision of personal protective equipment to both staff and clients, social distancing, and screenings for COVID-related symptoms. Nurse practitioners conducted risk assessments by reviewing the participant’s history and physical and lab results. Treatment was initiated, if needed, and the participant was counseled on any identified conditions (such as hypertension). Web cameras were purchased for social workers and the nutritionist to host and participate in virtual opportunities. Participants benefitted from the web cameras also, with virtual nutritional classes held twice weekly with a registered nutritionist. As physical activity is an important component of ensuring health, partnerships with local communities allowed multiple daily exercise classes to be offered via Facebook. The team hosted a virtual, 3-day course for its second annual training for social workers. This training focused on motivational interviewing.

Near the final quarter of the fiscal year, the Well Woman program was selected to host two student interns for summer 2020 through the National Maternal Child Health Workforce Development Center. The internship ran from June 8 through July 31. The interns worked with the program virtually and in-person to increase client awareness/understanding about the program and to identify and develop ways to collect and analyze data on program participants, including blood pressure readings, weight, current health issues, and reproductive and medical history. The interns also helped to develop an electronic version of the periodic newsletters sent to staff for program updates, which allowed for easy dissemination. Though manual data collection remains a challenge, program staff work closely with the epidemiology division for assistance, with increased usage of data available in the ADPH electronic health record system. In subsequent years, improved data collection and analyses will likely have a long-term positive effect for quality improvement of the program and patient care.

Program Success Story

“One participant, from Russell County, joined the Well Woman program in February 2019. She desired to lose weight and become healthier. She was determined to reach her goals from the start and has continued her journey throughout the pandemic by participating in daily virtual exercise classes. She has lost over 20 pounds and is committed to her goals.”

Perinatal Regionalization

To inform the perinatal regionalization (PR) strategy, epidemiologists and research analysts analyzed pertinent data to create an evidence base upon which to act. These analyses included information on birth characteristics and outcomes in the state. Unfortunately, loss of staff during the fiscal year, coupled with the reassignment of team members to COVID response efforts, hindered the anticipated progression of PR activities. Moving forward, efforts will continue in order to effectively communicate the findings of the analyses, such that stakeholders may begin implementation of the PR model. Once the PR model is adopted, trainings will be provided to hospital administrators and staff, as well as Emergency Medical Services workers. In this way, those involved in the care and transport of at-risk mothers will have all the resources needed to ensure transport to the appropriate level of care hospital, which consequently will improve maternal and child health.

Breastfeeding

Throughout the second year, the breastfeeding team worked towards efforts which emphasized the benefits of breastfeeding primarily through education and partnerships. To further support educational outreach, a media campaign was launched statewide, with both online and printed educational materials geared towards parents, caregivers, and communities. The framework for a new Baby Friendly Provider Program led by ADPH, was established. The program will provide obstetricians, pediatricians, and other professionals the opportunity to undergo trainings to support optimal breastfeeding practices. After successful completion of these teachings, participants will obtain certification and receive materials to support their own professional knowledge. Toolkits will also be distributed through the program and will include materials for both providers and patients to ensure mothers receive information to support healthy infant nutrition through breastfeeding.

A satellite webcast conference was broadcasted on September 16 statewide for nurses, social workers, and physicians. Conference topics included the following: identification of political, economic, and social barriers to successful breastfeeding; risks posed by formula feeding; breastfeeding barriers, resources, and supportive strategies in different clinical settings; and an introduction to the Baby Friendly Provider Program. Conference faculty included staff of the Simon Williamson Clinic, Reaching Our Sisters Everywhere, and ADPH. There were 131 participants in attendance. This session allowed a diverse audience, who frequently work with maternal clients, to gather information for use in practice.

By joining forces with the Wellness Coalition, outreach was extended to a broader population, increasing awareness of this imperative topic. Additionally, continued collaboration with partners on the Breastfeeding Workgroup improved understanding of the work of each participating organization. Meaningful discussions provoked thoughts about the ways in which resources could be mobilized for this portion of the initiative.

As with other strategy teams, a key challenge during this second project year was staff turnover. Though new staff was brought on later in the year, a considerable amount of time was required to ensure adequate training. As additional team members are hired, it is hoped that staff preparation and retention will aid in advancing future breastfeeding efforts.

Increase Utilization of Alpha Hydroxyprogesterone Caproate (17P)

Strategy members worked throughout the year to develop and distribute a survey to providers. Completed in the third quarter, the survey was sent to obstetricians and assessed beliefs, practices, and challenges pertaining to 17P. The survey captured pertinent factors that both

aid and hinder 17P prescribing and usage for eligible women. Responses to several key survey indicators and questions are included in Table 4, though the low response rate (21 percent) inhibited the team from drawing major conclusions. Among those who responded, only one provider indicated a need for assistance to increase use of 17P. Additionally, other ways the physicians noted as proven and effective ways to reduce preterm births included family support, early and adequate prenatal care, and other medications.

Table 4. Provider Responses to 17P Survey, Alabama 2020

Key Survey Indicator/Question	No. (%)
Practice Area	
Montgomery	9 (100.0)
Russell	0 (0.0)
Macon	0 (0.0)
Method of 17P Delivery	
Vascular Injection	6 (66.7)
Vascular Injection and Suppository	1 (11.1)
Did not answer	2 (22.2)
Approximate % Patients Who Decline 17P Treatment (range)	0.0 – 10.0
Main Reasons for Patient 17P Treatment Declination*	
Inadequate/Lack of Medical Insurance	2 (22.2)
Did Not Want	3 (33.3)
Transportation Barriers	2 (22.2)
Too frequent Office Visits	3 (33.3)
Cultural Discordance	1 (11.1)
Lack of support to receive treatment	1 (11.1)
Previous Injection Site Reaction	1 (11.1)
Barriers Encountered when Prescribing 17P*	
Patient Understanding	2 (22.2)
Patient Commitment	3 (33.3)
Transportation	5 (55.6)
Availability of 17P	2 (22.2)
Lengthy 17P Procurement	3 (33.3)

*Indicates a multi-select question. Sum percentage will not equal 100 percent.

The 17P implementation team faced impeding challenges during this project period. Firstly, staff turnover during the first quarter delayed pending tasks. A new coordinator, hired in January 2020, required training to be brought up to speed on both the initiative and strategy-specific activities. Secondly, the lack of interest for help increasing 17P usage from survey respondents required the team to begin thinking of ways to refocus resources. Controversy surrounding the use of 17P, in addition to conflicting reports of its efficacy, likely contributed to providers' disinterest in increasing 17P usage. As a result, the team discontinued future plans geared towards increasing 17P usage. The decision to cease project efforts was further supported by the announcement by the Food and Drug Administration to withdraw 17P from the market due to insufficient evidence to support clinical benefits and effectiveness.

Screening, Brief Intervention, Referral to Treatment (SBIRT) Tool

To increase the number of providers who use SBIRT, the team worked diligently throughout this year to construct an Alabama-specific, online training module. After conducting extensive research into evidence-based literature, the content of the training was drafted. The process towards production remained ongoing, which involved working with a software development company to solidify plans to bring the project to fruition. The team also explored different opportunities to involve other partners whose clients may benefit from the screening tool. This exploration resulted in discussions and implementation of virtual SBIRT training with ADPH staff involved in the ALL Babies and Family Planning programs. Moreover, coordination was initiated with the Alabama Medicaid Agency on the ways in which Alabama Coordinated Health Network (ACHN) case managers may use the SBIRT model with pregnant women. In this way, more at-risk women may be identified and receive appropriate follow-up care. Grant funds will be used to help offset costs for ACHNs on incorporating the screening tool into their electronic health records system. To further increase awareness of the model and its relevance, the team plans to present at a conference in the next fiscal year for healthcare professionals, introducing them to the model and process in OB/GYN practices.

EVALUATION SUMMARY

In the second year of the initiative, the seven strategy teams continued efforts to reduce infant mortality in Montgomery, Macon, and Russell counties. Teams were at different stages of implementation, following a successful first year of establishing objectives, performance measures, and evaluative indicators. Data were collected using tools developed by the Maternal & Child Health Epidemiology (MCH-Epi) Branch and reported quarterly. The MCH-Epi Branch monitored activities, provided guidance throughout the year, and assessed data reported by the teams.

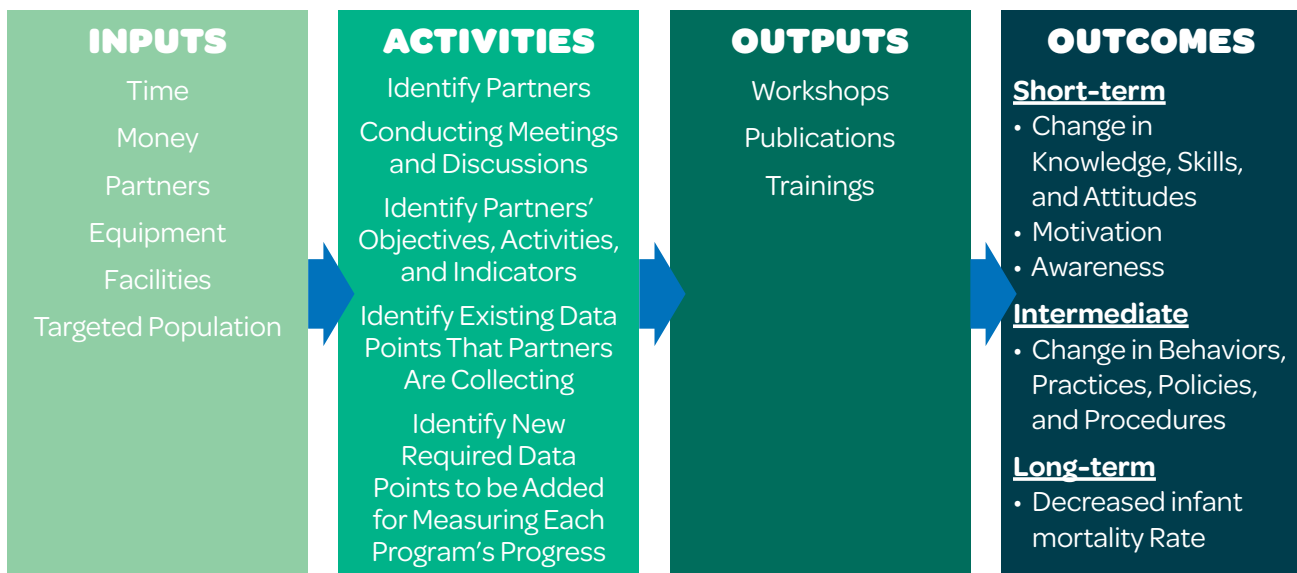
































Figure 4. Logic Model for Alabama's Infant Mortality Reduction Initiative

TABLE 4. ANTICIPATED MEASURABLE OUTCOMES FOLLOWING IMPLEMENTATION OF THE GOVERNOR'S INITIATIVE

      						
Measurable Outcomes	Increase(↑) or Decrease (↓)	Contributing Strategy Team(s)*				
Number of Preterm Deliveries	↓	 				
NICU admissions	↓	 				
NICU costs	↓	 				
Sleep-related infant deaths	↓	 				
Infant deaths	↓	  				
Number of low birth weight deliveries	↓	 				
Infants delivered at a healthy weight	↑	 				
Deliveries with adequate birth spacing	↑	 				
Breastfeeding initiation and duration	↑	 				
Women screened and referred for treatment	↑	  				
Very low birth weight infants delivering at an appropriate facility	↑					

*May be directly or indirectly involved in contributions towards the anticipated outcomes.

KEY SUCCESSES

- In the face of challenges brought on by the ongoing COVID-19 pandemic, teams quickly adapted programs to ensure continuity of services. Programs demonstrated resiliency in the face of an ever-evolving public health crisis.
- Teams devised new strategies to ensure clients received routine services, in addition to other essential resources.
- Additional strategies outside of the Governor's Initiative were implemented and complement efforts to reduce infant mortality.
- The annual Infant Mortality Summit drew in nearly 200 stakeholders from various organizations, including academic universities, the Alabama Medical Association, the Maternity Care Coalition, and others, to further discuss issues which impact infant health.

BEYOND THE GOVERNOR'S INITIATIVE

The fight to reduce infant mortality in Alabama extends beyond the Governor's Initiative to maximize impact. Two programs, ALL Babies and Project HOPE, are dedicated to this cause and thus complement the work of the initiative. Below are summaries of these programs.

ALL Babies: This ADPH-led program was designed to improve the health of mothers and babies in Alabama by providing low-cost, comprehensive healthcare coverage for pregnant women in Montgomery, Macon, and Russell counties. There are no premiums for coverage and the eligibility criteria are broad, which allows more mothers to become enrolled. Mothers who meet eligibility requirements are offered a wide range of benefits, including but not limited to mental health and substance use disorder services and all-inclusive healthcare services (for example, maternity, preventive, hospital, pharmacy, dental, etc.). Benefits begin from the date the approved application is received up to the baby's birth. Care coordination services provided by social workers provide easy navigation of all aforementioned services to promote the health of both mother and baby. Referrals are provided, as needed, which link mothers to social resources, such as transportation and housing.

Noteworthy accomplishments:

- Eligible women began enrollment in medical care beginning January 23, 2020.
- As of September 17, 2020, over 270 women have been enrolled and 73 deliveries reported.
- Approximately 60 percent of September enrollees entered coverage during the first trimester of their pregnancy.

Project HOPE (Harnessing Opportunity for Positive Equitable Early Childhood Development):

Project HOPE centers on promoting and achieving equitable health and educational outcomes in children, from prenatal to five years. Montgomery and Macon counties were selected as the target areas to initiate this project, which is sponsored by the Robert Wood Johnson Foundation and implemented by the BUILD Initiative in Alabama. The BUILD Initiative supports state leaders in development of early childhood systems and related policies by connecting programs, services, and resources. By focusing on children and families who experience disparities across different factors (for example, racial/ethnic, economic), strategies can be implemented to give disadvantaged youth opportunities to succeed in life. A core leadership team works to assist in the advancement of member agencies' existing programs. Member agencies include the Alabama Department of Early

Childhood Education; Alabama Partnership for Children; ADPH; Alabama Medicaid Agency; Alabama Department of Rehabilitation Services, Early Intervention; and the Governor's Office of Minority Affairs. The team works collaboratively to identify and address factors which lead to race and health equity issues and inhibit child development. Qualitative and quantitative data indicators were chosen in conjunction with community leaders from the selected counties in early 2019 to serve as a baseline to evaluate the efficacy of the project. Between November 2019 and April 2020, processes and plans were put into place to frame the specifics for improving access and quality of services to children and families. Specifics included confirming the equity challenges faced by beneficiaries and identifying and selecting at least one policy, practice, or funding vehicle, which upon modification may lead to anticipated changes. Throughout the implementation of this project, continuous feedback, communication, and evaluation has facilitated progress towards the team's goals.

In light of the COVID-19 pandemic, up to \$30,000 in direct aid was provided to children and families in Montgomery and Macon counties. In Macon County, the following items were purchased: 900 cloth masks, 252 quart-sized bottles of hand sanitizer, 90 Amazon Fire tablets, and 25 Teach My Learning kits. In Montgomery County (West), 66 Chromebooks were delivered to children entering kindergarten in fall 2020. Additionally, the local school district equipped school buses with Wi-Fi, to serve as hot spots in locations around the county for areas with limited internet access. Provision of these items in both counties allowed the safe continuation of learning and allowed disadvantaged students to have equitable access to technology.

*"...We are here for you as Head Start and we stand with you. Whatever resources and partnerships we can develop, that is what we are here to do." – **Lashaunda Richardson, Family and Community Partnerships Manager (Tuskegee Macon County Head Start)***

*"One of the things we were excited about was that we could connect with [the] next generation of kids to have the resources to still get their lessons." – **Darryl Rock, Macon County Community Liaison for the Southern Christian Leadership Conference***

