

## Perinatal/Infant Health

### Linked National Outcome Measures

National Outcome Measures	Data Source	Indicator	Linked NPM
NOM 8 - Perinatal mortality rate per 1,000 live births plus fetal deaths	NVSS-2015	7.7	NPM 3
NOM 9.1 - Infant mortality rate per 1,000 live births	NVSS-2015	7.8	NPM 3 NPM 4
NOM 9.2 - Neonatal mortality rate per 1,000 live births	NVSS-2015	5.1	NPM 3
NOM 9.3 - Post neonatal mortality rate per 1,000 live births	NVSS-2015	2.7	NPM 4
NOM 9.4 - Preterm-related mortality rate per 100,000 live births	NVSS-2015	292.2	NPM 3
NOM 9.5 - Sleep-related Sudden Unexpected Infant Death (SUID) rate per 100,000 live births	NVSS-2015	129.4	NPM 4

**National Performance Measures**

**NPM 3 - Percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU)**

**Baseline Indicators and Annual Objectives**

**FAD for this measure is not available for the State.**

State Provided Data		
	2016	2017
Annual Objective	81.8	80
Annual Indicator	80.9	82.6
Numerator	1,950	1,939
Denominator	2,409	2,347
Data Source	State Statistical File	State Statistical File
Data Source Year	2016	2017
Provisional or Final ?	Final	Final

Annual Objectives						
	2018	2019	2020	2021	2022	2023
Annual Objective	81.0	82.0	83.0	84.0	85.0	85.0

**Evidence-Based or –Informed Strategy Measures**

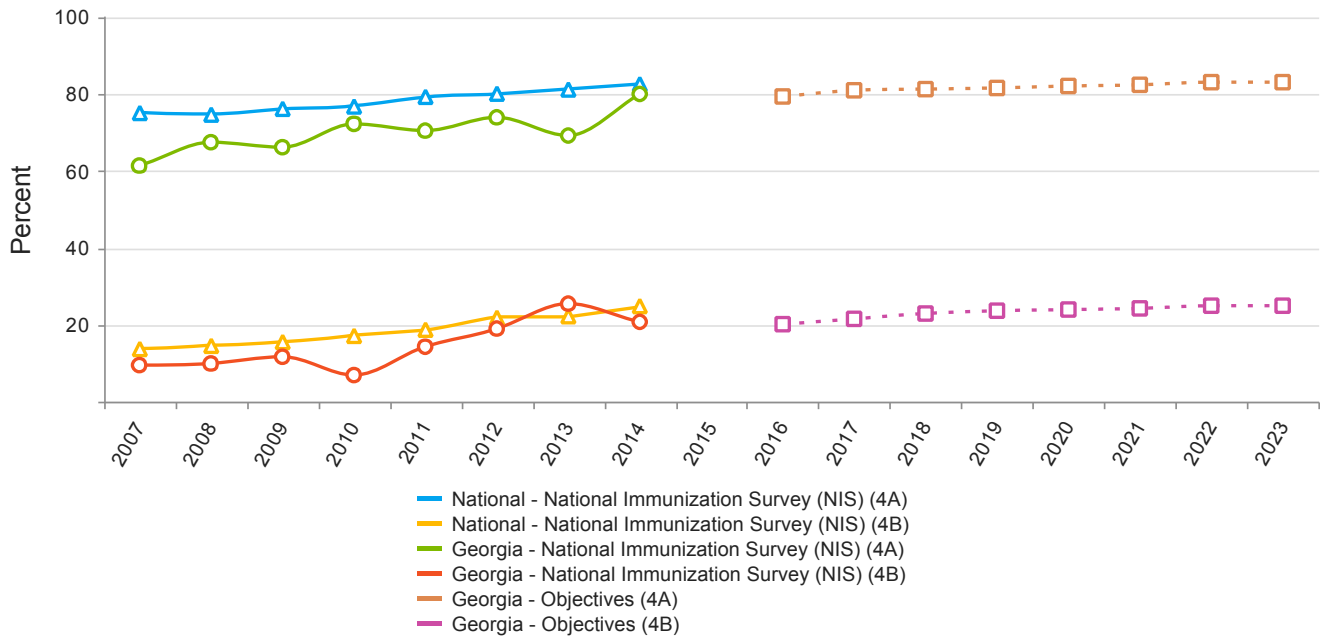
**ESM 3.2 - 3.6.1. Proportion of Regional Perinatal Centers that receive a process evaluation**

<b>Measure Status:</b>	<b>Active</b>
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<b>State Provided Data</b>	
	<b>2017</b>
Annual Objective	6
Annual Indicator	6
Numerator	
Denominator	
Data Source	Womens Health Program Data
Data Source Year	2017
Provisional or Final ?	Provisional

<b>Annual Objectives</b>						
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Annual Objective	6.0	6.0	6.0	6.0	6.0	6.0

**NPM 4 - A) Percent of infants who are ever breastfed B) Percent of infants breastfed exclusively through 6 months  
Baseline Indicators and Annual Objectives**



**NPM 4A - Percent of infants who are ever breastfed**

Federally Available Data		
Data Source: National Immunization Survey (NIS)		
	2016	2017
Annual Objective	79.3	80.9
Annual Indicator	69.2	79.9
Numerator	80,818	100,061
Denominator	116,817	125,213
Data Source	NIS	NIS
Data Source Year	2013	2014

Annual Objectives						
	2018	2019	2020	2021	2022	2023
Annual Objective	81.2	81.5	82.0	82.3	83.0	83.0

**NPM 4B - Percent of infants breastfed exclusively through 6 months**

Federally Available Data		
Data Source: National Immunization Survey (NIS)		
	2016	2017
Annual Objective	20.2	21.6
Annual Indicator	25.4	20.7
Numerator	29,130	25,611
Denominator	114,622	123,723
Data Source	NIS	NIS
Data Source Year	2013	2014

Annual Objectives						
	2018	2019	2020	2021	2022	2023
Annual Objective	23.0	23.7	24.0	24.3	25.0	25.0

**Evidence-Based or –Informed Strategy Measures**

**ESM 4.1 - 3.1.1 Number of birthing hospitals that participate in the 5-STAR Hospital Initiative**

<b>Measure Status:</b>	<b>Active</b>
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<b>State Provided Data</b>		
	<b>2016</b>	<b>2017</b>
Annual Objective		0
Annual Indicator	39	40
Numerator		
Denominator		
Data Source	Womens Health Program Data	Womens Health Program Data
Data Source Year	2016	2017
Provisional or Final ?	Provisional	Provisional

<b>Annual Objectives</b>						
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Annual Objective	10.0	20.0	30.0	40.0	40.0	40.0

**ESM 4.2 - 3.1.2 Number of Train-the-Trainer workshops conducted**

<b>Measure Status:</b>	<b>Active</b>
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<b>State Provided Data</b>		
	<b>2016</b>	<b>2017</b>
Annual Objective		1
Annual Indicator	2	3
Numerator		
Denominator		
Data Source	Womens Health Program Data	Womens Health Program Data
Data Source Year	2016	2017
Provisional or Final ?	Final	Provisional

<b>Annual Objectives</b>						
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Annual Objective	3.0	4.0	5.0	6.0	6.0	6.0

**State Performance Measures**

**SPM 1 - Percent of women (ages 15-44) served in the Georgia Family Planning Program (GFPP) who use long-acting reversible contraceptives (LARC).**

<b>Measure Status:</b>	<b>Active</b>
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<b>State Provided Data</b>		
	<b>2016</b>	<b>2017</b>
Annual Objective		11
Annual Indicator	16.6	16
Numerator	9,714	8,627
Denominator	58,434	54,076
Data Source	GFPP	GFPP
Data Source Year	2016	2017
Provisional or Final ?	Provisional	Provisional

<b>Annual Objectives</b>						
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Annual Objective	12.0	13.0	14.0	15.0	17.0	17.0



**SPM 3 - Rate of congenital syphilis.**

<b>Measure Status:</b>	<b>Active</b>
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<b>State Provided Data</b>		
	<b>2016</b>	<b>2017</b>
Annual Objective		13
Annual Indicator	17	13.1
Numerator	21	17
Denominator	123,292	129,563
Data Source	Projected Data from OASIS and SendSS, Births and C	SendSS
Data Source Year	2016	2017
Provisional or Final ?	Provisional	Provisional

<b>Annual Objectives</b>						
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Annual Objective	12.7	12.4	12.0	11.7	11.7	11.7

**SPM 4 - Rate of infants diagnosed with Neonatal Abstinence Syndrome (NAS).**

<b>Measure Status:</b>	<b>Active</b>
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<b>State Provided Data</b>		
	<b>2016</b>	<b>2017</b>
Annual Objective		6.1
Annual Indicator	6.1	13.2
Numerator	735	1,592
Denominator	120,577	120,371
Data Source	Hospital Discharge Data, Vital Records	Hospital Discharge Data, Vital Records
Data Source Year	2015	2016
Provisional or Final ?	Provisional	Provisional

<b>Annual Objectives</b>						
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Annual Objective	13.2	13.1	13.0	13.0	12.9	12.9

**SPM 5 - Percent of birthing hospitals, NICUs, and Pediatric Departments with policies and education that adhere to the American Academy of Pediatrics (AAP) Safe Sleep guidelines**

<b>Measure Status:</b>	<b>Active</b>
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<b>Annual Objectives</b>					
	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Annual Objective	20.0	25.0	27.0	29.0	29.0

## State Action Plan Table

### State Action Plan Table (Georgia) - Perinatal/Infant Health - Entry 1

#### Priority Need

Prevent infant mortality

#### NPM

NPM 4 - A) Percent of infants who are ever breastfed B) Percent of infants breastfed exclusively through 6 months

#### Objectives

- 3.1. By 2020, increase the number of birthing hospitals participating in the Georgia 5-STAR Hospital Initiative to 40
- 3.2. By 2020, develop a partnership with WIC to conduct 1 training per year for public health workers on breastfeeding

#### Strategies

- 3.1.a. Recruit and train hospitals on the Georgia 5-STAR Hospital Initiative and the 10 Steps to successful breastfeeding.
- 3.1.b. Provide Train-the-Trainer opportunities for staff of hospitals participating in the Georgia 5-STAR Hospital Initiative.
- 3.1.c. Recognize hospitals for participating in and completing steps in the Georgia 5-STAR Hospital Initiative.
- 3.1.d. Work with community partners such as Georgia Academy of Pediatrics (GA-AAP), Georgia OB/GYN Society (GOGS), and other community partners to educate and train physicians, nurses, and other direct care providers on the importance of breastfeeding for mothers and babies
- 3.2.a. Continue to provide an education series to increase the breastfeeding knowledge base of public health employees throughout the state, including topics such as promoting the importance of breastfeeding, providing lactation support for working mothers, and other topics to support breastfeeding initiation and exclusivity at 6 months
- 3.2.b. Conduct a minimum of 4 VICS trainings annually for public health staff on topics developed through the breastfeeding education series

#### ESMs

#### Status

- | ESMs  | Status |
|---|--------|
| ESM 4.1 - 3.1.1 Number of birthing hospitals that participate in the 5-STAR Hospital Initiative | Active |
| ESM 4.2 - 3.1.2 Number of Train-the-Trainer workshops conducted                                 | Active |

## NOMs

NOM 9.1 - Infant mortality rate per 1,000 live births

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NOM 9.3 - Post neonatal mortality rate per 1,000 live births

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NOM 9.5 - Sleep-related Sudden Unexpected Infant Death (SUID) rate per 100,000 live births

State Action Plan Table (Georgia) - Perinatal/Infant Health - Entry 2

Priority Need

Prevent infant mortality

NPM

NPM 3 - Percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU)

Objectives

- 3.5. By 2020, increase the percentage of birthing hospitals that have been educated on the requirements for neonatal level of care from 0 to 75%.
- 3.6. By 2020, increase the number of Regional Perinatal Centers (RPC) that have received at least one annual process evaluation

Strategies

- 3.5.1. Collaborate with the Department of Community Health and RPCs to promote the use of RPCs among Level I and Level II care hospitals
- 3.6.1. Conduct at least one annual process evaluation to determine RPC compliance with level III care at each RPC

ESMs

Status

ESM 3.1 - 3.5.1. Percentage of birthing hospitals that are in compliance with neonatal level of care requirements	Inactive
ESM 3.2 - 3.6.1. Proportion of Regional Perinatal Centers that receive a process evaluation	Active

## NOMs

NOM 8 - Perinatal mortality rate per 1,000 live births plus fetal deaths

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NOM 9.1 - Infant mortality rate per 1,000 live births

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NOM 9.2 - Neonatal mortality rate per 1,000 live births

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NOM 9.4 - Preterm-related mortality rate per 100,000 live births

State Action Plan Table (Georgia) - Perinatal/Infant Health - Entry 3

Priority Need

Decrease maternal substance use

SPM

SPM 4 - Rate of infants diagnosed with Neonatal Abstinence Syndrome (NAS).

Objectives

4.1. By 2020, decrease the discharge rate of resident live births diagnosed as having neonatal abstinence syndrome (NAS) from 3.2 (per 1,000 live births) to 2.0

Strategies

4.1.a. Educate health care providers (physicians, nurses) about NAS; includes educational classes for nurses, presentations to physicians & other health care providers who may come in contact with neonates

4.1.b. Educate pregnant women on the effects of unhealthy substance use

4.1.c. Establish a media campaign to increase community awareness of NAS

State Action Plan Table (Georgia) - Perinatal/Infant Health - Entry 4

Priority Need

Prevent infant mortality

SPM

SPM 3 - Rate of congenital syphilis.

Objectives

5.1. By 2020, decrease the rate of infants born w/congenital syphilis from 13.0 (per 100,000 live births) to 11.7

Strategies

5.1.a. Ensure GC/CT/Syphilis/HIV are a part of routine screenings for women and men at targeted locations

5.1.b. Identify pregnancy status of all females identified as a new syphilis case

5.1.c. Ensure pregnant females with syphilis are adequately treated at least 30 days prior to delivery

5.1.d. Ensure disease investigation is conducted on all females ages 15-44 diagnosed with early syphilis

5.1.e. Education providers and the general public on the new law regarding 1st and 3rd trimester testing for syphilis and HIV (HB436)



## State Action Plan Table (Georgia) - Perinatal/Infant Health - Entry 5

### Priority Need

Prevent infant mortality

### SPM

SPM 5 - Percent of birthing hospitals, NICUs, and Pediatric Departments with policies and education that adhere to the American Academy of Pediatrics (AAP) Safe Sleep guidelines

### Objectives

5.1. By 2020, 50% of birthing hospitals will have policies and education that adhere to the American Academy of Pediatrics (AAP) Safe Sleep guidelines

5.2. By 2020, 25% of NICU's, Pediatric Departments, and Children's hospitals will have policies an education that adhere to the American Academy of Pediatrics (AAP) safe Sleep guidelines

### Strategies

Recruit birthing hospitals by providing staff with a step by step guide on implementing a Safe to Sleep Program

Provide in-person trainings to hospitals participating in the program

Provide participating hospitals with education resources for staff and caregivers on the safe infant sleep recommendations

Collect pre and post crib audits and policy statements from participating hospitals

Recognize hospitals for implementing a Safe to Sleep Program and policy

## Perinatal/Infant Health - Annual Report

*Priority Need: Prevent Infant Mortality*

### NPM 3: Risk-Appropriate Perinatal Care

#### *Perinatal Regionalization*

Perinatal regionalization is a strategy to improve maternal and perinatal outcomes by establishing systems designating where infants are born or transferred according to the level of care they need at birth. Regionalized systems assign hospitals risk-appropriate levels and ensure high-risk infants are born in facilities with appropriate technology and specialized health providers. During the reporting year, DPH worked to promote the regionalized system of care. Several committees were designated to focus on data collection, transportation, oversight and branding. The branding committee was responsible for outreach materials designed to promote knowledge of the regionalized system.

### NPM 4: Breastfeeding

#### *Breastfeeding*

Georgia 5-STAR Hospital Initiative is a program that was implemented to encourage hospitals to take steps toward becoming breastfeeding-friendly and achieving the “Baby Friendly” designation. In the reporting year, Georgia 5-STAR recognized birthing hospitals for implementing evidence-based maternity care practices that promoted and supported breastfeeding with one star for every two steps implemented of the *Ten Steps to Successful Breastfeeding*, as defined by the World Health Organization (WHO) and Baby-Friendly USA. The Women’s Health Program provided educational workshops on the Ten Steps, as well as in-depth Train-the-Trainer workshops and webinars to nurses, lactation counselors and other providers throughout the state.

### SPM 3: Rate of Congenital Syphilis

#### *Congenital Syphilis*

The Sexually Transmitted Disease (STD) Office’s mission is to prevent STDs by providing quality intervention strategies, programmatic support and education throughout the state. With a focus on congenital syphilis, the STD team worked to promote 1st and 3rd trimester testing for HIV and syphilis, as well as improve the data quality of congenital syphilis. The STD Office also worked to improve the identification of pregnant females with syphilis to ensure timely and appropriate treatment.

### SPM 4: Neonatal Substance Abuse

#### *Neonatal Abstinence Syndrome*

Neonatal Abstinence Syndrome (NAS) became a reportable condition in Georgia in January 2016. In the reporting year, Women’s Health provided oversight and management of the NAS surveillance process in close collaboration with MCH Epidemiology and birthing hospital staff. Cases were verified by MCH Epidemiology staff through review and confirmation of case indicators. Georgia’s case criteria for a confirmed case of NAS is: (1) presence of one or more clinical symptoms of NAS and/or (2) a positive infant substance test result.

In 2017, 935 NAS cases were reported and 754 NAS were confirmed.

### Other Perinatal/Infant Health Programs

### *Newborn Screening*

During the reporting year, the NBS program provided education to both parents and health care providers. The program made information available to parents in hospitals, providers' offices, and health departments prior to the completion of the newborn screening through informational brochures. The NBS program educated health care providers on the NBS system through the Georgia Newborn Screening Policy and Procedure Manual, which was provided in print to each birthing hospital and health district office and was also available electronically through the NBS website. The NBS Policy and Procedure Manual outlines the processes and regulations for specimen collection and submission, and reception of results. The NBS Clinical Coordinator provided technical assistance related to specimen collection and submission to hospitals, birthing facilities and primary care providers through telephone consultations and in-person trainings as needed.

The NBS program maintained the SendSS database through which each hospital accessed its NBS specimen report. The NBS system included provisions for children to receive therapies beyond the newborn period. In collaboration with Emory University, the NBS program provided medical foods and low-protein modified foods to children and adults who would otherwise be unable to access those treatment modalities due to cost. The NBS program supports works collaboratively with CMS and Augusta University to provide telehealth and outreach clinics for children and adults with Sickle Cell disease and other clinically significant hemoglobinopathies. The NBS program supported the Comprehensive Sickle Cell Center at Grady Memorial Hospital, a 24/7 comprehensive primary care center for adults with hemoglobinopathies. Additionally, the NBS program contracted with The Sickle Cell Foundation of Georgia, Inc. to provide Community Partners, which are responsible for completing a needs assessment, a transition assessment if appropriate, identifying medical homes, and providing resource referrals to clients with clinically significant hemoglobinopathies.

In May 2017, the Georgia state legislature passed HB 241 Cove's Law, providing a pathway for parents to access Krabbe screening at the option and cost of the parent(s).

### *Safe Sleep*

The Georgia Safe to Sleep Campaign provided tools and resources that strengthened policy, provided consistent education to change infant sleep environments to prevent infant sleep-related deaths, empowered professionals to educate parents, empowered families to make informed decisions about infant sleep, and increased access to resources that support behaviors that protect infants from sleep-related deaths.

MCH continued to work with participating birthing hospitals to meet the goals of the program. Recognition of hospitals who completed all aspects of the program continued on a quarterly basis.

### *Home Visiting*

In the reporting year, the Home Visiting program gave pregnant women, children, and families, particularly those considered at-risk, necessary resources and skills to raise children who are physically, socially, and emotionally healthy and ready to learn. Home visits were provided to 1,362 families which included 227 pregnant women. Postpartum depression screenings were provided to 80% of mothers who participated in home visiting programs within three months postpartum and 93% of mothers were screened for intimate partner violence within six months of program enrollment.

To promote breastfeeding, seven Certified Lactation Consultants (CLC) were added in seven communities. The CLCs promoted breastfeeding to six months postpartum and beyond to promote bonding and attachment with the mother.

The Home Visiting program implemented the HRSA Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program Innovation Grant, competitive funding awarded through HRSA for innovation, to promote professional

development in the field of home visiting. Innovation Activities focus on increasing the quality of the home visiting applicant pool by partnering with local colleges, collaborating with state partners to include evidence-based home visiting in the statewide early childhood Professional Development System, and providing continued opportunities for empowering the home visiting leadership through training opportunities to improve skills.

### **Current Year: Oct 2017 – Sept 2018**

Priority Need: Prevent Maternal Mortality

#### NPM 3: Risk Appropriate Perinatal Care

##### *Perinatal Regionalization*

In the current year, there is increased communication with RPC stakeholders in an effort to strengthen the system of regionalization. Increased communication with data, education and budget/financial personnel from each RPC has fostered increased collaboration. Technical assistance has been provided in adherence to contract guidelines.

Five of six RPC site visits have been completed. These site visits have served as mechanisms to assess the process of service delivery in each regional perinatal center; learn the strengths and opportunities for improvement in each region; foster collaboration and team building; and provide technical assistance in contract compliance.

In the current year, RPC workgroups continue efforts to strengthen the system of perinatal regionalization. The branding committee was dissolved; however, committees continue to focus on data, transportation, and program oversight. Currently, a client brochure and a trifold brochure for physicians that detail the services of the RPCs are being designed. The client brochures will be placed in hospital waiting areas. The outreach materials will also be distributed during regional hospital site visits, conferences, and at community health fairs. The brochure can also be emailed or faxed.

#### NPM 4: Breastfeeding

##### *Breastfeeding*

In the current year, MCH worked to improve the Georgia 5-STAR Hospital Initiative infrastructure and functionality to include updating all programmatic materials, creation of marketing materials, identifying and improving barriers to success in achieving the 10 Steps to Successful Breastfeeding, and streamlining processes and procedures. Recruitment strategies to obtain and increase enrollment from all birthing hospitals statewide were developed. Efforts to enhance relationships with hospital staff have increased through in-person meetings introducing and supporting the program. MCH collaborated with the Georgia Hospital Association to introduce the program and raise awareness through webinar trainings. Webinar training sessions were conducted with participating hospitals to provide technical assistance on implementing the *10 Steps to Successful Breastfeeding*. Technical assistance by phone, emails, and in-person visits were provided. MCH continues to provide a plaque in recognition of a hospital's baby friendly status. In the current year, MCH also provides plaques to hospital who have completed one of the 10-Steps to Successful Breastfeeding to recognize hospitals who are making progress toward implementation. A star is placed on the plaque with each additional "step" that is completed.

Additional breastfeeding education was provided to increase provider and community knowledge of the importance and benefits of breastfeeding. In collaboration with the American Academy of Pediatrics, Georgia Chapter, DPH delivered the *Educating Physicians in Their Communities (EPIC)* breastfeeding program, a physician peer-to-peer training program that provides breastfeeding education to physician's offices, hospitals and residency programs,

and distributes information regarding access lactation support services in the community and free resources for patient education. MCH also partnered with WIC to provide breastfeeding educational trainings to all DPH staff including nurses, peer counselors, breastfeeding coordinators, nutritionists, and administrative staff.

### SPM 3: Rate of Congenital Syphilis

#### *Congenital Syphilis*

During the reporting year, *Syphilis During Pregnancy* was added to Georgia's Notifiable Disease List. The promotion of 1<sup>st</sup> and 3<sup>rd</sup> trimester testing for HIV and syphilis have been underway. Efforts to provide education through trainings, community outreach, provider outreach, and district STD staff have been a priority. During the current year, MCH developed Congenital Syphilis Review Board Guidelines and launched a Congenital Syphilis Media Campaign. MCH also developed and disseminated a *Dear Colleague Letter* on congenital syphilis signed by the DPH Commissioner.

The following outreach and education activities were provided:

#### District Education

- Congenital Syphilis All Day Training for district staff (Feb 15, 2018)
- District Site Visits (CS was discussed)- Augusta (Nov 28, 2017)

#### Community Outreach World Changers Health Fair (April 21, 2018)

- Center for Black Women's Wellness Annual Health Fair (Nov 11, 2017)
- Fulton-Dekalb Health Summit (Oct 17, 2017)
- Latino Health Fair (Oct 14, 2017)

#### Provider Outreach

- Georgia Academy of Family Physicians Annual Meeting (Oct 25-28, 2017)
- Georgia Academy of Family Physicians Webinar on CS (April 25, 2018)

#### District STD staff

- HIV Linkage Coordinators
- Georgia Academy of Family Physicians
- Georgia OBGyn Society

*Priority Need: Prevent Maternal Substance Use*

### SPM 4: Neonatal Substance Abuse

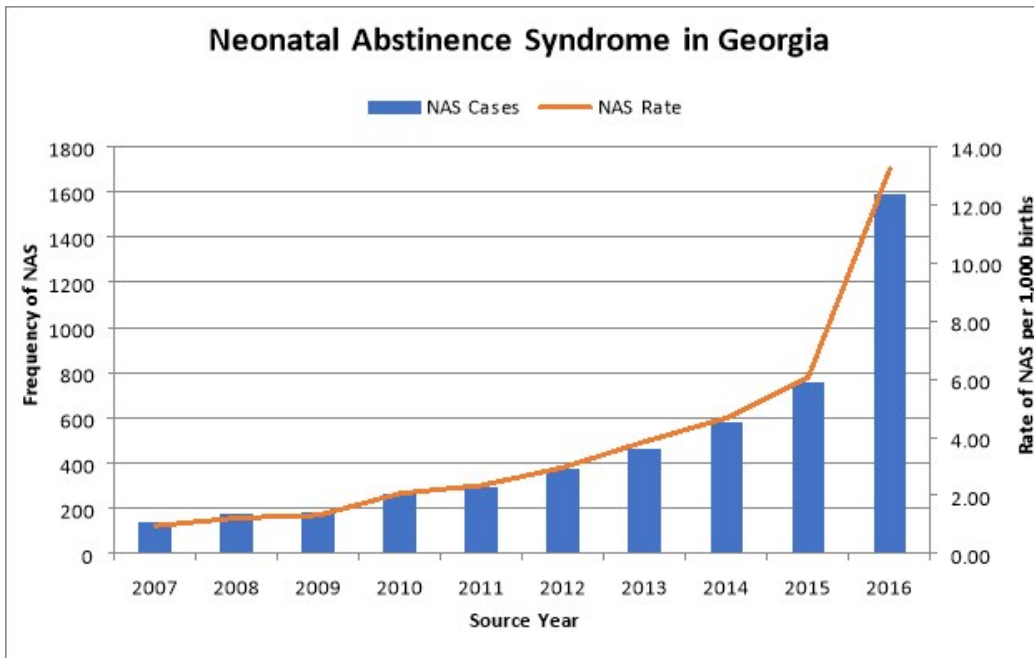
#### *Neonatal Abstinence Syndrome*

In January 2018, the Neonatal Subcommittee of the GaPQC began working on a quality initiative to impact the growing incidence of NAS. The committee developed a baseline survey for birthing hospitals to determine current practices around NAS diagnosis and treatment. The survey was piloted in 4 hospitals during March 2018 and was provided to all birthing hospitals in April 2018. NAS reporting data for 2017 was finalized in March 2018.

Surveillance continued to determine NAS rates. Hospital discharge data from 2007 to 2016 was used to determine the annual de-duplicated hospital discharge rate of NAS. Diagnosis was defined using ICD codes. For the last quarter of 2015 through 2016, (most current information available) the ICD10 codes P96.1 (neonatal withdrawal symptoms from maternal use of drugs of addiction) and P04.4 (newborn affected by maternal use of drugs of addiction) were used to diagnose NAS.

**Using ICD-9 codes 779.5 and 760.72, and ICD-10 code P96.1 and P04.4**

Source Year	NAS Cases	Total Hospital Births	NAS Rate
2007	140	146035	0.96
2008	175	142814	1.23
2009	181	137333	1.32
2010	263	127055	2.07
2011	296	126129	2.35
2012	373	125887	2.96
2013	466	120951	3.85
2014	580	124362	4.66
2015	757	124997	6.06
2016	1592	120371	13.23



**Challenges/barriers:** Although NAS is a reportable condition, hospital case reporting into SENDSS is lower than the number of cases identified through hospital discharge data.

Other Perinatal/Infant Health Programs

*Newborn Screening*

The Georgia Newborn Screening and Genetics Advisory Committee (NBSAC) is a multidisciplinary group of over 15 professional and consumer representatives with knowledge and expertise in NBS programs. On February 16th, 2018, the NBSAC convened a meeting to discuss, among other agenda items, whether to recommend three disorders for inclusion on the Georgia NBS panel. These conditions were nominated during the previous NBSAC meeting held in September 2017. Spinal Muscular Atrophy, which was recently nominated by the Secretary of the US Department of Health and Human Services for inclusion on the Recommended Uniform Screening Panel, was

nominated to the Georgia NBS panel during the February 16th NBSAC meeting as well. The NBSAC has established workgroups, including the long-term follow-up workgroup and the hemoglobin workgroup. The long-term follow-up workgroup met on October 3rd, 2017. The hemoglobin workgroup met on November 17th, 2017, February 2nd, 2018, and April 27th, 2018.

The NBS program worked with Emory University to hire a long-term follow-up coordinator for metabolic disorders. The long-term follow-up coordinator will create a subsection on the Emory NBS database to collect information on specific variables after a child is diagnosed with a NBS disorder. This will allow for longer-term tracking of NBS outcomes to enhance program evaluation and inform decision-making. The long-term follow-up workgroup, a subgroup of the NBSAC, discussed possible initiatives around this project during the October 3rd, 2017 meeting.

The NBS program has continued to collaborate with the Georgia Public Health Laboratory (GPHL) to develop policies, procedures, budgets, data exchange, evaluation, and education. In September 2017, GPHL completed a system update that allows hearing and Critical Congenital Heart Disease (CCHD) results to be fully integrated into the existing data entry system. Hearing and CCHD data is now entered at the same time, on the same module, and by the same clerk as the rest of the information on the NBS card unifying and streamlining all NBS information. Since that time, the NBS program has conducted ongoing training and technical assistance to GPHL data entry staff as well as project evaluation to ensure accuracy and efficiency of hearing and CCHD results entered into the NBS database.

The NBS program has conducted several educational activities aimed at increasing awareness around the NBS system for providers as well as improving specimen collection techniques. The NBS Clinical Coordinator traveled to Houston Medical Center on January 18, 2017 to provide in-person technical assistance on specimen collection, including an oral presentation and the supervision of several NBS collections. On March 7th, 2017, the medical foods program through Emory University, the Medical Nutrition Therapy for Prevention (MNT4P) program, presented a webinar to pediatric providers through the DPH's partnership with the Georgia Chapter of the American Academy of Pediatrics (GA AAP) to increase awareness of their services. The NBS program developed and mailed postcards to each birthing hospital and birthing center to report the number of babies each organization screened and identified in 2016. The NBS program also exhibited at the Georgia Academy of Family Physicians (GAFFP) Annual Fall Meeting on February 26-28 and their Summer CME Meeting on June 14-17, 2018.

### *Zika Prevention*

#### *Arboviral*

In July 2017, DPH's Zika testing guidelines were changed to match CDC's new recommendations. The changes made to the guidelines at that time are still in effect. Under these guidelines, only symptomatic patients are approved for Zika testing through GPHL. Exceptions include asymptomatic pregnant women who have a fetus with an anomaly and/or are uninsured. As a result of the change in guidelines, the number of patients approved for Zika testing at GPHL has significantly decreased. Since January 2016, Zika surveillance efforts in DPH epidemiology have identified 120 travel associated cases of Zika in Georgia citizens, with the last confirmed case identified in October 2017. To date, there has been no local transmission of Zika in the state of Georgia.

#### *ZIKA*

The Zika Pregnancy Registry (ZPR) Coordinator manages the investigation of pregnant women and infants identified to have laboratory evidence of Zika virus through Georgia Public Health Laboratory testing or commercial lab testing. Data is uploaded and reported monthly to the CDC US Zika Pregnancy Registry Team. As of May 2018, 17 women/infant pairs are enrolled in Georgia's Zika Pregnancy Registry. This included 3 transfer cases, and 1 fetal loss. To date, there are 2 live born infants with birth defects.



As of May 2018, 668 potentially Zika-associated birth defects cases have been identified and 488 records have been reviewed for 2016–2017 Georgia birth cohort. Of these, 155 infants (32%) have confirmed Zika-associated birth defects and an additional 144 (30%) had other general birth defects of interest to the Georgia Birth Defects Registry.

Potential cases were identified from three sources, including the ZAMS, and ZPR. Electronic birth certificates (eBCs) constituted the largest (73%) reporting source. However, birth defects reported on eBCs require confirmation through medical record review, per guidelines from CDC Zika Birth Defects Surveillance (CDC-ZBDS) and the National Birth Defects Prevention Network (NBDPN). Record requests involved mailing or faxing facilities, as well as calling facilities to ensure receipt of requests; determine which types of records are needed; and situate our efforts within the context of state and federal privacy laws. Through this effort, we have fostered relationships with these facilities, as well as drawn attention to the need for birth defects reporting, established a protocol for tracking records from initial requests through confirmation, referral to early intervention services, and reporting out to CDC.

The Zika Birth Defects epidemiologist (ZBDE) has been dedicated to this effort full-time since November 2016. The Zika Epidemiologist and the ZBDE have been collaborating to initiate medical record requests, review records for confirmation of reported birth defects, and abstract confirmed records since March 2017. In November 2017, an additional part-time epidemiologist was hired to conduct the record requests and build relationships with reporting facilities, as well as help review and abstract records. Once received, reviewed, and confirmed, the abstracted records were linked with confirmed cases from the Metropolitan Atlanta Congenital Defects Project (CDC-MACDP) and reported to CDC-ZBDS on a monthly basis.

Without these efforts, 299 infants with true birth defects, including 155 infants with Zika-associated birth defects, could have been missed. Zika birth defects surveillance has also given Georgia DPH the opportunity to develop a Birth Defects Registry. This registry will connect 17 reporting sources, including eBCs and ZAMS/ZPR; expedite referral of affected infants and their families to early intervention services; and facilitate standardized, timely, reporting and confirmation of birth defects statewide. Flexibility is inherent to the design of the registry and will greatly enhance Georgia's capacity to respond to emerging teratogens.

As of May 2018, 119 medical records were still outstanding for Zika-associated birth defects confirmation. A number of facilities receive record requests and/or send out records via mail only, which increases the amount of time needed to receive and fulfill requests as compared to facilities that have a designated fax line for medical record requests. In addition, facilities have provided conflicting information regarding the modes of receiving and fulfilling medical record requests, which further delays the overall Zika-associated birth defects surveillance effort. Nuanced language is sometimes needed to communicate exactly what information is being requested from a facility (e.g., "chart" instead of "record"). The combination of these issues has significantly delayed the confirmation of approximately 15% of the suspected Zika-associated birth defects cases.

Several facilities have refused to fulfill record requests on the basis of well-established privacy laws. Efforts have been made to redraft the medical record request forms to state the HIPPA privacy rule explicitly, in addition to providing germane state legislation, without adding unnecessary protected health information to the request. This was done to demonstrate that the request of medical records falls under the legal purview of the Georgia Department of Public Health. Once this education is provided and a second medical record request is sent, facilities generally comply with the request.

**Challenges/Barriers:** When the new Zika testing guidelines were adapted in July 2017, there was difficulty



disseminating the information to state partners and healthcare providers. Although the DPH website was updated to reflect the new guidelines, many providers had a difficult time understanding the changes and why they were made.

#### *Newborn Screening-New Disorders*

In May 2017, the Georgia state legislature passed a law to provide a pathway for parents to access Krabbe screening at the option and cost of the parent(s). In partnership with Emory University, the NBS program created an informational brochure that includes an overview of Krabbe disease, when and how to access screening on an optional basis, and NBS program contact information. The NBS program provided the Krabbe brochure to birthing hospitals, The Georgia Chapter of the American Academy of Pediatrics, The Georgia Academy of Family Physicians, Georgia Obstetrical and Gynecological Society, and public health district offices. These entities served as key partners in disseminating information about optional Krabbe screening to families.

During the reporting year, the NBS program facilitated NBSAC meetings and associated workgroup meetings. Four disorders, Pompe Disease, Mucopolysaccharidosis Type I (MPS I), X-linked Adrenoleukodystrophy (X-ALD), and Guanidinoacetate Methyltransferase (GAMT Deficiency) were nominated to the Georgia NBS panel at an NBSAC meeting on September 8th, 2017. Two workgroups were created at this meeting: one for Pompe, MPS I, and X-ALD, as these three disorders are included on the national RUSP, and one for GAMT Deficiency, which is included on the national RUSP at this time. Reports from the two workgroups covering all four disorders were presented at the NBSAC meeting on February 16th, 2018. The NBSAC voted to recommend Pompe, MPS I, and X-ALD for inclusion to the Georgia NBS panel with specific conditions. The Commissioner approved the inclusion of the three disorders to the Georgia screening panel in May 2018.

GPHL is collaborating with the Emory University Department of Human Genetics to conduct a pilot study on NBS for Spinal Muscular Atrophy (SMA). In collaboration with GA AAP, Emory University provided a webinar around the disorder as it relates to the pilot in Georgia. SMA was nominated to the Georgia NBS panel at the February 16th, 2018 NBSAC meeting. The nominating group presented information around incidence and treatment and the NBSAC voted to create a workgroup to review SMA with an emphasis on Georgia-specific data.

#### *Safe Sleep*

In the current year, all 79 birthing hospitals throughout the State of Georgia participate in the Safe Sleep Hospital Initiative. The Safe to Sleep Program provides quarterly recognition of birthing hospitals that have completed all parts of the Safe to Sleep hospital program. Efforts to track hospital submissions of requirements and ongoing trainings and follow up for staff will continue as well as the distribution of quarterly gown shipments, yearly safe sleep book shipments and twice a month bassinet shipments. To provide safe sleep education, MCH designed, developed and implemented the "floor talker" opportunity with 148 floor talkers sent to locations throughout Georgia with specific focus on the areas with the highest rates of sleep-related infant mortality from 2006-2016.

MCH presented on the topic of the Safe to Sleep Program to the American Public Health Associations Annual Meeting, GA Healthy Mothers Healthy Babies annual meeting, Prevent Child Abuse Rockdale meeting, Injury Prevention Research Center at Emory University, and at the Georgia Conference on Children and Families. The topic of merging breastfeeding and safe sleep messaging was presented on a national webinar. MCH launched a Quality Improvement Initiative at Children's Healthcare of Atlanta to improve modeling of safe infant sleep for infants at their three campuses. MCH collaborated with the Department of Family and Children Services on their "community health educators" project designed to improve safe sleep education in areas of high infant mortality attributed to sleep-related causes. MCH contributed to the DPH Worksite Wellness program's policy initiative around the employee lactation room and Baby at Work Program. MCH's Safe to Sleep Program supports community partners by attending Emergency Medical Services for Children (ESMC) meetings, GA Injury Prevention advisory council meetings, Injury Prevention Research Center meetings at Emory University, and the Georgia DPH Breastfeeding

meetings. MCH also partnered with Vital Records to track distribution of materials and reporting from hospitals and presented a poster at the Association of Maternal Child Health Programs (AMCHP) conference on the Safe to Sleep program. The following three articles were published:

- Implementing a Statewide Safe to Sleep Hospital Initiative: Lessons Learned. R.Walcott, T. Salm Ward, T. Miller, P. Corso, L. Dawson
- A Statewide Hospital-Based Safe Infant Sleep Initiative: Measurement of Parental Knowledge and Behavior. R.Walcott, T. Salm Ward, T. Miller, P. Corso
- Evaluation of a Crib Distribution and Safe Sleep Educational Program to Reduce Risk of Sleep-Related Infant Death. T. Miller & T. Salm Ward

**Challenges/Barriers:** The ability to reach all of Georgia's counties presents a challenge due to the size of the state. It can be challenging to provide management and guidance in completing the safe sleep program to 78 birthing facilities with approximately 130,000 deliveries each year.

#### *Home Visiting*

In the current year, the Home Visiting program continues its commitment to implement evidence-based, comprehensive and community-based maternal and early childhood programs in Bartow, Bill Chatham, Clarke, Crisp, DeKalb, Fulton, Glynn, Gordon, Houston, Liberty, Lowndes, McDuffie, Muscogee, Richmond, Rockdale and Whitfield counties. Home Visiting programs currently include the Early Head Start-Home Based Option (EHS-HBO), Healthy Families Georgia (HFG), Nurse-Family Partnership (NFP) and Parents as Teachers (PAT).

DPH is working with Social Solutions to update the existing data system to the new ETO platform which is a robust system that provides the infrastructure and scalability needed to effectively manage the data, share information and track progress in a secure environment.

#### *Family Engagement*

*Perinatal Health* focuses on engaging families at MCH's Regional Perinatal Centers (RPCs). MCH requires each center to incorporate a perinatal bereavement policy, which defines the process used to support families experiencing and infant loss. Social workers and case managers are trained to provide support to mothers in preparation of and following an expected or unexpected infant loss.

Families that participate in RPC Developmental Clinics receive information and resources on developmental milestones and family support. MCH's Perinatal Health and CYSHCN programs partner to provide intensive support to families that participate in RPC Developmental Clinics.

## **Perinatal/Infant Health - Application Year**

*Priority Needs: Prevent Infant Mortality and Reduce Maternal Substance Use*

### NPM 3: Risk Appropriate Perinatal Care

#### *Perinatal Regionalization*

In the coming year, the Women's Health Program plans to continue annual site visits of each RPC and provide technical assistance for implementation of the Georgia Perinatal Quality Collaborative (GAPQC) quality improvement initiatives.

Targeted marketing strategies will continue through the placement of brochures in hospital waiting rooms, community health fairs and conferences. Efforts to promote awareness of the RPCs with the goal of increasing utilization will continue. Evaluation of possible measures such as the rate of VLBW born at the RPCs will potentially occur. In the coming year, the Women's Health Program plans to promote the implementation of the Preterm Labor Assessment Toolkit (PLAT), an evidence-based, quality improvement initiative created by the March of Dimes to standardize the assessment of preterm labor to facilitate prompt interventions to improve birth outcomes. PLAT implementation will focus on Level I and Level II birthing hospitals in the southernmost region of the state to quickly identify women presenting with preterm labor and initiate risk appropriate care.

### NPM 4: Breast Feeding

#### *Breastfeeding*

In the coming year, the Women's Health Program will continue to support the 5-STAR Hospital Initiative and provide support to hospitals in completing the 10 steps to achieving Baby-Friendly designation. DPH and the Georgia Hospital Association (GHA) will continue to recognize hospitals with a star for every two of the *Ten Steps Completed to Successful Breastfeeding* that are implemented. MCH will continue work to recruit new hospitals into the program, provide training and technical assistance to participating hospitals to include mock assessments to provide feedback that will be useful in preparing hospitals for their Baby Friendly site visit.

In collaboration with the American Academy of Pediatrics-Georgia Chapter, MCH will continue to provide peer-to-peer breastfeeding training to providers throughout the state.

MCH plans to host a one-day Georgia 5-STAR Hospital Initiative Summit that will be used as a platform to publicly recognize hospitals that have made progress towards implementing the 10 steps. This summit will also provide the opportunity for hospitals to discuss any clinical updates, barriers to success, and best practices.

### SPM 3: Congenital Syphilis

#### *Congenital Syphilis*

In the coming year, the STD Office will continue working with the identified team to focus on improving the accuracy and completeness of congenital syphilis data. The STD Office will also continue to improve efforts to identify pregnant females with syphilis to ensure timely and appropriate treatment.

### SPM 4: Neonatal Substance Abuse

#### *Neonatal Abstinence Syndrome*

In the coming year, the Women's Health Program plans to continue implementation of a perinatal opioid advisory

group to explore gaps and opportunities for maternal interventions to impact birth outcomes. Educational and training for providers and the public will continue to be developed as needed.

### SPM 5: Safe Sleep

#### *Safe Sleep*

In the coming year, the Georgia Safe to Sleep Campaign's Hospital Initiative will continue to work with the participating birthing hospitals to meet the goals of the program. Recognition of hospitals who complete all aspects of the program will continue a quarterly basis. Training and education will continue as needed and requested from hospital staff, home visitors, local health departments/WIC offices, first responders, social workers, and doulas. Information on infant crying, shaken baby syndrome, and grief resources will also be provided. Additionally, the program coordinator will also assist the Georgia Bureau of Investigation (GBI) by participating in the GA Safe Infant Sleep Coalition to pilot new ideas to facilitate infant and child safety. The quality improvement initiative to other pediatric departments and NICUs will continue.

### Other Perinatal/Infant Health Programs

#### *Newborn Screening*

The NBS program will implement several quality improvement (QI) initiatives aimed at reducing the number of unsatisfactory specimens submitted to GPLH. These QI initiatives include a revised hospital report available through SendSS that includes each hospital's comparative values against national benchmarks, written educational materials outlining proper specimen collection techniques and timelines, and a NBS collection demonstration video that will be widely available to all specimen collectors.

In the coming year, the NBS program will continue to increase participation in the Georgia NBSAC. This will be done through the removal of inactive members as defined in the bylaws and the replacement of those members with engaged stakeholders of the NBS system. The program will continue to schedule meetings with adequate notice to encourage participation.

GPLH and the NBS program will collaborate to improve electronic transmission of results to providers. The goal is to increase access to electronic results and reduce the number of paper NBS results that are mailed to providers. This will also allow providers that were not listed as the provider of record on the NBS card to have easier access to their patients' NBS results.

In the coming year, the NBS program will increase family engagement. The NBS program will establish a consumer panel consisting of 5-10 parents of children with disorders diagnosed through NBS. This group will be a source of information for the program around education and outreach. They will provide feedback on the education strategies the NBS program has outlined for the coming year and provide input on the messaging developed by the NBS program and how it may be received by parents. The NBS program will also attend a baby fair within the state of Georgia. This is a new strategy to educate expecting parents about NBS prior to their child's birth. The NBS program will also help plan and participate in the second annual Newborn Screening Family Fun Day in collaboration with Emory University.

The NBS program will continue to make improvements to the NBS database through (SendSS) by frequent meetings with internal SendSS informational technology (IT) and epidemiology staff to discuss needed enhancements, build new requirements, and monitor the progress of any changes.

The NBS program will continue providing education to parents and providers. The NBS brochure given to parents

before their newborn receives a newborn screening will be revised to include a list of disorders included in the screening. The program will continue to partner with organizations that engage providers, such as GA AAP and GAFFP, to participate in webinars, provide fax communications, professional development conferences, and grand rounds. On-site and telephone technical assistance to birthing hospitals will continue as needed.

### *Zika Prevention*

The MCH Section will continue to support the Zika Prevention Team in the preparation for Zika response and prevention of perinatal Zika infection. The upcoming year will have several changes for the Zika surveillance effort. Funding for Zika surveillance as they relate to the Arboviral Epidemiology Team will be discontinued as of August 1, 2018. Zika surveillance will continue as it has been integrated into the case definition for the notifiable condition of all acute arboviral infections. There is uncertainty about surveillance activities after July 31, 2018 for the Zika Pregnancy Registry. The CDC will accept data submitted after March 31, 2018, but this data will not be counted as part of the national Zika response. Regarding Zika-associated birth defects, Georgia DPH is developing a statewide surveillance system for birth defects. This registry will connect 17 reporting sources and automate referral of affected infants and their families to early intervention services; and facilitate standardized, timely, reporting and confirmation of all birth defects statewide, including those associated with Zika. Flexibility is inherent to the design of the registry and will greatly enhanced Georgia's capacity to respond to emerging teratogens in the future.

### *Newborn Screening-New Disorders*

The NBS program will continue to support the overall process of nominating conditions for inclusion on the Georgia NBS panel. The NBS program will provide information to groups and individuals that wish to nominate a disorder to the Georgia NBS panel. The NBS program will also continue to facilitate NBSAC meetings, including scheduling, compiling meeting minutes, sharing committee reports, and providing programmatic information as needed.

The NBS program will facilitate meetings for the workgroup created to review SMA. Throughout this process, the NBS program will establish a standardized outline and format for the review of a disorder for the Georgia NBS panel focusing on Georgia-specific information. The NBS program will collaborate with Emory University and GPLH on the SMA pilot through provider education, including a blast fax to members of the Georgia Chapter of the American Academy of Pediatrics.

The NBS program will also respond in accordance with the Commissioner's decision regarding the addition of Pompe, MPS I, and X-ALD to the Georgia NBS panel. The NBSAC will vote on whether to recommend GAMT deficiency for rejection or inclusion in the Georgia NBS panel.

### *Home Visiting*

In the coming year, the Home Visiting Program plans to continue to move in the direction as suggested by DOE and Health and Human Services (HHS) to set a vision for stronger partnerships, collaboration, and coordination between awardees of the Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) and the Individuals with Disabilities Education Act, Part C Program (IDEA Part C Program). MIECHV and Part C Program staff meet regularly to discuss best practices and next steps necessary to ensure collaboration with programs and community partners.