Report on Use of $1.575M for Evidence-Based Programs for Infant Mortality Reduction

Session Law 2019-192, Section 1.1. (cc)

Report to the

House of Representatives Appropriations Committee on Health and Human Services

and

Senate Appropriations Committee on Health and Human Services

and

Fiscal Research Division

By

North Carolina Department of Health and Human Services

December 31, 2020

BACKGROUND

In state fiscal year (SFY) 2015-2016, the North Carolina General Assembly appropriated one million five hundred and seventy-five thousand dollars ($1,575,000) in the Maternal and Child Health Block Grant Plan to the Department of Health and Human Services' (DHHS) Division of Public Health (DPH) for each year of the 2015-2017 fiscal biennium to be used for evidence-based programs in North Carolina counties with the highest infant mortality rates. The North Carolina General Assembly repeated this appropriation at the same level and for the same purposes for the fiscal biennium of 2017-2019 and 2019-2021.

SL 2019-192 section 1.1.(cc) The sum of one million five hundred seventy-five thousand dollars ($1,575,000) appropriated in this act in the Maternal and Child Health Block Grant to the Department of Health and Human Services, Division of Public Health, for each year of the 2019-2021 fiscal biennium shall be used for evidence-based programs in counties with the highest infant mortality rates. The Division shall report on (i) the counties selected to receive the allocation, (ii) the specific evidence-based services provided, (iii) the number of women served, and (iv) any impact on the counties' infant mortality rate. The Division shall report its findings to the House of Representatives Appropriations Committee on Health and Human Services, the Senate Appropriations Committee on Health and Human Services, and the Fiscal Research Division no later than December 31 of each year.

ACTIONS AND RESULTS TO DATE

In June 2019, the Division of Public Health allocated funding for the Infant Mortality Reduction program to local health departments (LHDs) in counties that experienced the highest infant mortality rates during the five-year period of 2010-2014. The funding distribution was based on the number of infant deaths per county during the 5-year period. Counties that had 75 or more deaths received an allocation of $113,750; counties with 20 – 74 deaths received $63,500; and counties with fewer than 20 deaths received $38,500. In SFY 2019 – 2020, the total number of LHDs who received funding was 22, with Anson County Health Department declining funding. These declined funds were redistributed to Granville-Vance Health District to continue implementation of a pilot Doula Services Program.

The following table lists the 22 local health departments who received funding in state fiscal year 2019-2020:

Local Health Department/District	Funding Amount
Alamance	$113,750
Albemarle Regional Health District	$38,500
Beaufort	$63,500
Caldwell	$63,500
Cherokee	$38,500
Cleveland	$63,500
Columbus	$63,500

Forsyth	$113,750
Granville-Vance	$102,000 (includes $38,500 for pilot Doula Services Program)
Local Health Department/District	**Funding Amount**
Halifax	$63,500
Lee	$63,500
Lenoir	$63,500
Montgomery	$63,500
Pitt	$113,750
Richmond	$63,500
Robeson	$113,750
Rockingham	$63,500
Sampson	$63,500
Scotland	$63,500
Swain	$38,500
Wilkes	$63,500

All local health departments were required to implement or expand upon at least one evidence-based strategy (EBS) that is proven to lower infant mortality rates. The following selected strategies have all proven to be an effective means to improve birth outcomes through addressing pregnancy intendedness, preterm birth, and/or infant death.

Evidence-Based Strategy	Description
17P (alpha hydroxyprogesterone)	17P is a synthetic form of progesterone that has been shown to reduce the recurrence of preterm birth for women who have a history of preterm birth. The local health department shall identify, refer, and support women through education and resource referral and once identified, assist in coordination of services and remove barriers that may impact compliance to treatment plans.
CenteringPregnancy®	CenteringPregnancy® is a model of group prenatal care which incorporates three major components: assessment, education, and support. This model of group prenatal care promotes greater patient engagement, personal empowerment and community building, and has been shown to improve birth outcomes.
Doula Services Program	A doula is a trained professional that provides pregnant women with continuous physical, emotional, and informational support before, during, and shortly after birth to achieve a healthy and positive birth experience. The local health department shall hire a doula coordinator whose responsibilities include: recruiting and

	coordinating the trainings for community members to serve as doulas; conducting outreach and education; developing procedures and educational materials; matching doulas with pregnant women; conducting follow-up and birth satisfaction surveys with program participants; and tracking and reporting data.
Infant Safe Sleep Practices	The American Academy of Pediatrics has issued an expansion of previous guidelines on infant safe sleep that have been reviewed as evidence-based strategies to reduce the risk of Sudden Infant Death Syndrome (SIDS) and sleep-related deaths. The local health department shall designate staff to be trained on infant safe sleep practices to provide group and/or individual education sessions to parents and caregivers.
Nurse Family Partnership (NFP)	Nurse-Family Partnership (NFP) is an evidence-based, home visiting program that helps vulnerable women pregnant with their first child. Each woman served by NFP is partnered with a registered nurse early in her pregnancy and receives ongoing nurse home visits that continue through her child's second birthday.
Reproductive Life Planning Services	The local health department shall provide an assessment of each woman's reproductive life plan which includes contraceptive counseling and education using a tiered approach presenting information on all birth control methods from the most effective to the least effective methods. Increasing access to long-acting reversible contraception (LARC) provides uninsured/ underinsured women with birth control methods that are effective for long periods of time, easy to use, and do not require any action on the part of the user.
Tobacco Cessation and Prevention	The local health department shall provide tobacco use screening (inclusive of electronic nicotine devices) and counseling to all adults and youth present at health care visits. Local Health Department staff shall be trained in the evidence-based 5A's (Ask, Advise, Assess, Assist, Arrange) method of tobacco cessation counseling. The local health department shall designate a staff person to become a certified tobacco treatment specialist to provide tobacco cessation counseling services to clients. Clients should be referred to QuitlineNC (1-877-QUIT-NOW) and/or appropriate community resources. The local health department should counsel clients on, and engage in evidence-based policy support efforts, limiting secondhand smoke exposure.

Many of the evidence-based strategies were already being implemented within some local health departments, and this funding served as an opportunity for expanding the reach in addressing infant mortality in these counties. They were selected based on their ability to have the greatest impact within the communities served and have proven to be effective through local health department implementation, particularly for those where the capacity for execution already exists.

Local health departments have reported that through the Infant Mortality Reduction program, they are able to provide additional resources, education and services to the women, families and communities they serve. The Reproductive Life Planning Services (RLPS) strategy has provided women with a comprehensive education on all birth control methods and an individual reproductive life plan. Women who have chosen long-acting reversible contraception (LARC) but were unable to receive a LARC because they were uninsured or underinsured, were able to receive them through this program. Some LHDs who implemented the RLPS strategy reported increasing collaborations with other providers and resources enabling them to provide additional services within their communities.

While a limited number of LHDs chose 17P as an evidence-based strategy, the number of women who received education and 17P services increased. A prompt was added to the electronic medical record to ensure that women who experienced a previous preterm birth received counseling on 17P.

The LHDs continued to provide education and resources under the Infant Safe Sleep Practices strategy. Women/parents who would otherwise be unable to obtain a safe sleep environment for their infant are provided with one after receiving safe sleep education. LHD's capacity to provide safe sleep education sessions was very limited during the last six months of the state fiscal year due to the onset of COVID-19.

The following is a summary of program activities, including the number of women served under each evidence-based strategy during the time-period of June 2019 to May 2020:

Evidence-Based Strategy (EBS)	# LHDs that Implemented EBS	# Patients Received Services	# Patients Educated	# Staff Trained	# Home Visits Conducted
17P	1	11 (83 injections)	13	0	N/A
CenteringPregnancy®	4	226	N/A	10	N/A
Doula Services Program	1 pilot	16	N/A	3 trained doulas	N/A
Infant Safe Sleep Practices	15	1,787	1,005 (educational sessions)	34	N/A
Nurse Family Partnership (NFP)	5	192	N/A	N/A	968
Reproductive Life Planning Services	15	827	12,695	62	N/A
Tobacco Cessation and Prevention	4	68 counseled; 48 QuitlineNC referrals	1,288 (screened)	20	N/A

North Carolina's infant mortality rate for 2018 was 6.8 deaths per 1,000 live births. Improvements occurred within all minority populations, however, the disparity ratio between non-Hispanic black and non-Hispanic white births remained greater than two-fold. The Division of Public Health is

focusing on this disparity while addressing the overall infant mortality rate. Elimination of health disparities is a priority for DHHS and a key area of emphasis in developing programming.

Infant mortality is a multifactorial problem for which there is no one solution. It is influenced by the health of a woman before, during, and between pregnancies. It is also further shaped by determinants of health, including the social, economic, geographical, and physical environments in which people are born, grow, live, work, and age.

Another key element is whether the individual has health insurance and access to a healthcare provider or facility. The importance of access to health insurance has been demonstrated in research. Specifically, studies have shown a greater decline in the infant mortality rate in states that have expanded Medicaid and even greater decline in rates for African American births.[1] Ultimately, expanding Medicaid can be a critical tool to reducing infant mortality rates. The following table lists the baseline 2010-2014 infant mortality rates along with the 2014-2018 rates (per 1,000 live births) for the state and the 22 local health departments who received funding for the Infant Mortality Reduction program in 2019-2020:

- Seventeen (17) of the twenty-two (22) counties funded (77%) experienced lower rates in 2014-2018 compared to 2010-2014 rates (represented in green).
- One county experienced the same rate in both time periods (represented in yellow).
- Four (4) of the twenty-two (22) counties funded (18%) experienced higher rates in 2014-2018 compared to 2010-2014 rates (represented in red).

Residence	**2010-2014 Infant Mortality Rates[1]**	**2014-2018 Infant Mortality Rates[1]**	**Evidence-Based Programs Implemented in FY20**						
			17P	Centering Pregnancy	Doula Services Program	Safe Sleep	NFP	RLP	Tobacco Cessation & Prevention
North Carolina	**7.1**	**7.1**							
Alamance	8.5	7.3	♦	♦		♦		♦	
Caldwell	10.4	8.0				♦		♦	♦
Columbus	10.9	10.5		♦			♦	♦	
Forsyth	8.5	8.2						♦	
Granville-Vance Health District (Vance County)	9.7	7.6		♦	♦				
Halifax	10.9	10.2				♦			
Lee	8.8	7.5				♦			
Lenoir	9.2	7.5				♦			
Montgomery	13.5	8.8				♦		♦	
Pitt	10.8	10.2		♦		♦	♦		
Robeson	12.0	10.6					♦	♦	

[1] Bhatt, C. B., & Beck-Sagué, C. M. (2018). Medicaid expansion and infant mortality in the United States. American Journal of Public Health, 108(4), 565–567. https://doi.org/10.2105/AJPH.2017

Rockingham	9.6	8.3				♦	♦	♦	♦
Sampson	8.9	6.0						♦	
Scotland	11.7	9.4				♦		♦	
Swain	10.2	9.1[2]				♦		♦	
Warren	10.7	8.9[2]				♦		♦	
Wilkes	9.2	7.3				♦		♦	
Cleveland	9.0	9.0					♦		
Albemarle Regional Health District (Bertie/Hertford Counties)	10.8/15.1	13.7/17.5						♦	
Beaufort	10.5	11.6				♦		♦	
Cherokee	10.0	12.0				♦		♦	♦
Richmond	8.7	9.2				♦			♦

Source: North Carolina Center for Health Statistics (2010-2014, 2014-2018)
Rates based on small numbers (fewer than 10) are unstable.

The current reporting timeframe is insufficient to determine impact on infant birth outcomes, including infant mortality, given all the complex associated factors previously noted. The $1.575M is only one source of funding for the state's infant mortality efforts, and the impact on infant mortality should be determined in the full context of the counties' resources, given counties have been experiencing other reductions related to their maternal and child health funding.

Funding was allocated to continue to support these evidence-based programs in state fiscal year 2020-2021, and each of the evidence-based strategies are included as part of a statewide, collaborative Perinatal Health Strategic Plan being implemented by DHHS and its partners. The Division of Public Health is aligning infant mortality reduction initiatives with the Early Childhood Action Plan and coordinating with other DHHS programs supporting maternal and child well-being. Additionally, the statewide implementation of NCCARE360 provides a new resource for local health departments to refer patients to human service agencies and confirm the provision of necessary assistance.

Beginning in state fiscal year 2022-2023, the Division of Public Health will award funding for the Infant Mortality Reduction program to local health departments (LHDs) in the counties with the highest infant mortality rates and highest infant mortality disparity ratios during the more current five-year period of 2015-2019. Using this five-year period, the list of the highest-ranking counties and LHDs that are eligible to receive funding may change. A shift in the available selection of evidence-based strategies and the funding allocations to LHDs will be considered as well.