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

Session Law 2021-180, Section 9L.1.(bb)

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

February 25, 2022

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 amount and toward the same purposes for the fiscal biennium of 2017-2019, 2019-2021, and 2021-2023.

Session Law 2021-180, Section 9L.1.(bb) requires the Division of Public Health to report on (i) the counties selected to receive the allocation, (ii) the specific evidenced-based services provided, (iii) the number of women served, and (iv) any impact on the counties' infant mortality rate. The legislation requires DPH to report its findings no later than December 31, 2021 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.

ACTIONS AND RESULTS TO DATE

In June 2020, 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 2020 – 2021, the total number of LHDs who received funding was 21, with the Anson County Health Department and the Warren County Health Department both declining funding. A portion of these declined funds was redistributed to the Granville-Vance Health District to continue implementation of a pilot Doula Services Program. Another portion of these declined funds was redistributed to 16 LHDs to provide items to support clients participating in evidence-based programs and provide continued education to staff on topics associated with the evidence-based strategies selected in FY20-21. These funds were distributed only to the 16 sites whose original funding was either $38,500 or $63,500.

The following table lists the 21 LHDs who received funding in state fiscal year 2020-2021:

Local Health Department/District	Funding Amount
Alamance	$113,750
Albemarle Regional Health District	$77,000
Beaufort	$65,906
Caldwell	$65,906
Cherokee	$40,906
Cleveland	$65,906
Columbus	$65,906
Forsyth	$113,750

Local Health Department/District	Funding Amount
Granville-Vance	$104,406 (includes $38,500 for pilot Doula Services Program)
Halifax	$65,906
Lee	$65,906
Lenoir	$65,906
Montgomery	$65,906
Pitt	$113,750
Richmond	$65,906
Robeson	$113,750
Rockingham	$65,906
Sampson	$65,906
Scotland	$65,906
Swain	$40,906
Wilkes	$65,906

All LHDs 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 individuals who have a history of preterm birth. The local health department shall identify, refer, and support individuals 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, community building, and has been shown to improve birth outcomes.
Doula Services Program	A doula is a trained professional that provides pregnant individuals 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 individuals; 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 pregnant individuals with their first child. Each individual served by NFP is partnered with a registered nurse early in their pregnancy and receives ongoing nurse home visits that continue through their child's second birthday.
Reproductive Life Planning Services	The local health department shall provide an assessment of each client'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 individuals 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 delivery systems) and counseling to all adults and youth present at health care visits. LHD staff shall be trained in the evidence-based 5A's (Ask, Advise, Assess, Assist, Arrange) method of tobacco cessation counseling. The LHD 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 LHD should counsel clients on, and engage in evidence-based policy support efforts, limiting exposure to tobacco products including secondhand smoke exposure.

Many of the EBSs were already being implemented within some LHDs, 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.

Due to the continued COVID-19 pandemic, LHDs were unable to provide many of the services under each EBS. LHD staff were redirected to provide administrative and clinical support for COVID-19 testing, vaccine administration, and support; additionally, not as many clients were coming to the LHDs for services. Twenty-nine percent (29%) of the LHDs reported that program staff spent an average of 26-50% of their time conducting COVID-19 work, and 19% reported that program staff spent an average of 51-75% of their time conducting COVID-19 work. Dependent

upon the EBS, some LHDs had the capacity to provide services virtually but LHDs encountered issues such as limited internet connection and decreased patient engagement.

LHDs have reported that through the Infant Mortality Reduction program, they are able to provide additional resources, education and services to the individuals, families, and communities they serve. The Reproductive Life Planning Services (RLPS) strategy has provided individuals with comprehensive education on all birth control methods and an individual reproductive life plan. Individuals 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.

The LHDs continued to provide education and resources under the Infant Safe Sleep Practices strategy. Individuals who would otherwise be unable to obtain a safe sleep environment for their infant are provided with one after receiving safe sleep education. Even though some provided education by phone, overall LHD's capacity to provide safe sleep education sessions was very limited during this state fiscal year due to the COVID-19 pandemic.

The following is a summary of program activities, including the number of individuals served under each evidence-based strategy during the time-period of June 2020 to May 2021:

Evidence-Based Strategy (EBS)	# LHDs that Implemented EBS	# Patients Received Services	# Patients Educated	# Staff Trained	# Home Visits Conducted
17P	1	1 (14 injections)	4	0	N/A
CenteringPregnancy®	2	19	N/A	1	N/A
Doula Services Program	1 pilot	9	N/A	0	N/A
Infant Safe Sleep Practices	14	1,397	1,200 (educational sessions)	9	N/A
Nurse Family Partnership (NFP)	3	133	N/A	3	758
Reproductive Life Planning Services	14	625	12,229	52	N/A
Tobacco Cessation and Prevention	4	41 counseled; 66 QuitlineNC referrals	2,903 (screened)	6	N/A

Infant mortality is a multifactorial problem for which there is no one solution. It is influenced by the health of an individual before, during, after, 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 in supporting improved birth outcomes is whether the individual has health insurance and if they have 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, with an even greater decline in the infant mortality rate for African American births.[i] Ultimately, expanding Medicaid can be a critical tool to reducing infant mortality rates.

North Carolina's infant mortality rate for 2019 was 6.8 deaths per 1,000 live births. This represents no change from the 2018 rate of 6.8. The 2019 infant mortality rate for white non-Hispanic decreased to 4.7. The American Indian non-Hispanic rate* increased 29 percent to 12.0 and the other non-Hispanic rate decreased to 3.8. Significant racial disparities remain. The African American non-Hispanic rate (12.5) was over 2.6 times higher than the white non-Hispanic rate. After a decrease of 15.8% in 2018, the Hispanic rate increased 16.7 percent to 5.6 deaths per 1,000 births in 2019. The Division of Public Health is focusing on these disparities while addressing the overall infant mortality rate. Elimination of health disparities is a priority for DHHS and is a key area of emphasis in developing programming. (**These rates are based on small numbers and annual comparisons should be interpreted with caution.)*

The following table lists the baseline 2010-2014 infant mortality rates along with the 2015-2019 rates (per 1,000 live births) for the state and the 21 LHDs who received funding for the Infant Mortality Reduction program in 2020-2021:

- Sixteen (16) of the twenty-one (21) counties funded (76%) experienced lower rates in 2015-2019 compared to 2010-2014 rates (represented in green).
- Five (5) of the twenty-one (21) counties funded (24%) experienced higher rates in 2015-2019 compared to 2010-2014 rates (represented in blue).

Residence	**2010-2014 Infant Mortality Rates[1]**	**2015-2019 Infant Mortality Rates[1]**	**Evidence-Based Programs Implemented in FY21**						
			17P	Centering Pregnancy	Doula Services Program	Safe Sleep	NFP	RLP	Tobacco Cessation & Prevention
North Carolina	**7.1**	**7.0**							
Alamance	8.5	6.1	♦	♦		♦		♦	
Beaufort	10.5	10.3				♦		♦	
Caldwell	10.4	7.6				♦		♦	♦
Columbus	10.9	9.3					♦	♦	
Granville-Vance Health District (Vance County)	9.7	7.9		♦	♦				
Halifax	10.9	10.7				♦			
Lee	8.8	7.5				♦			
Lenoir	9.2	7.3				♦			
Montgomery	13.5	8.3				♦		♦	
Pitt	10.8	9.9		♦		♦	♦		
Robeson	12.0	10.3						♦	
Rockingham	9.6	9.1				♦		♦	♦
Sampson	8.9	6.2						♦	
Scotland	11.7	8.0				♦		♦	
Wilkes	9.2	7.9				♦		♦	
Cleveland	9.0	8.9					♦		

Albemarle Regional Health District (Bertie/Hertford counties)	10.8/15.1	12.6/11.6						♦	
Cherokee	10.0	11.6				♦		♦	♦
Forsyth	8.5	8.9						♦	
Richmond	8.7	10.1				♦			♦
Swain	10.2	11.6				♦		♦	

[1]Source: North Carolina Center for Health Statistics (2010-2014, 2015-2019)

It should also be noted that infant mortality is a multi-factorial problem that requires efforts beyond the impact provided by evidence-based strategies. The solution, therefore, must be inclusive of social determinants of health, i.e., housing, transportation, food security, institutional/structural racism, etc.

Additionally, to fully address this problem, community engagement is needed. 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 that many counties have been experiencing reductions related to their maternal and child health funding. LHDs need dedicated funding beyond the two-year timeframe that is included in the current Session Law to impact the complexities of infant mortality in their communities.

Funding was allocated to continue to support these evidence-based programs in state fiscal year 2021-2022 and each of the evidence-based strategies are included as part of a statewide collaborative Perinatal Health Strategic Plan (PHSP) being implemented by DHHS and its partners. The statewide Perinatal Health Equity Collective is currently updating the existing PHSP, and a new Plan is expected to be released in early 2022. 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 resource for local health departments to refer patients to human service agencies and additional supports for identified needs such as food or housing and confirm the provision of necessary assistance. In addition, as part of the 1115 Waiver that permitted Medicaid Transformation and the move to Medicaid Managed Care, Healthy Opportunity Pilots will be implemented in three regions of the state to address the underlying social drivers of health within the Medicaid program.

Beginning in state fiscal year 2023-2024, the Division of Public Health will award funding for the Infant Mortality Reduction program to local health departments (LHDs) through a competitive request for applications process and per the 2-year cycle stipulated in Session Law 2019-192. LHDs in counties with the highest infant mortality rates and/or which had the highest infant mortality disparity ratios during the five-year period of 2016-2020, will be eligible to apply. Using this more recent five-year period, the list of the highest-ranking counties and LHDs that are eligible to apply for funding may change. A shift in the available selection of evidence-based strategies and the funding allocations to LHDs will be considered in this competitive request for applications process.

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[i] 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