

Results First Child & Family Health Program Inventory

Birth Outcomes

The Pew-MacArthur Results Initiative helps states identify programs that are proven to work and inform policymakers and other stakeholders on how to best invest limited resources. The Office of State Budget and Management (OSBM), in partnership with the Pew Charitable Trusts and MacArthur Foundation, works with state agencies to collect data to complete the inventory of currently funded programs, review the evidence base behind each and conduct a benefit-cost analysis.

For each policy area, OSBM publishes program inventories and reports. This document presents the Program Inventory on selected programs that have impacts on birth outcomes, such as reducing unnecessary cesarean sections, infant mortality, low birthweight, preterm birth, small for gestational age, very low birthweight, and Neonatal Intensive Care Unit (NICU) admissions. The research includes outcomes verified by systematic reviews conducted by respected sources such as [Washington State Institute of Public Policy \(WSIPP\)](#), [What Works for Health](#), and the [California Evidence Based Clearinghouse for Child Welfare](#). The inventory was created in collaboration with the Department of Health and Human Services (DHHS). Combined with the benefit-cost analysis, the inventory may be used to better understand the programs that have impacts on birth outcomes and their levels of evidence, helping to inform program design and resource allocation across programs.

Some of DHHS' programs included in this inventory have evidence at different units of analysis. An initiative may have evidence at the "umbrella" program level, in addition to the subcomponents of individual programs. For example, Pregnancy Care Management is an umbrella program that provides care management and supportive prenatal care services, including 17P and smoking cessation. The Pregnancy Care Management program matches to Washington State Institute of Public Policy's Enhanced Prenatal Care Programs Delivered through Medicaid. In addition, individual subcomponents within Pregnancy Care Management, such as 17P, have an evidence rating in the What Works for Health Clearinghouse.

OSBM and DHHS included both units of analysis in the Program Inventory. In the Program Inventory, you will see two tables. The first table will include the list of umbrella programs and details about the available evidence of effectiveness for each umbrella program. The second table will include the list of subcomponents and details about the available evidence of effectiveness for each of the subcomponents.

In addition, some of the agency's activities include subcomponents that are outside of this Program Inventory's scope (for example, have impacts that are beyond birth outcomes) or are not considered a program under Results First's definition (for example, screenings). Both of these subcomponent types have been excluded from the Program Inventory. There are also programs, (for example, Adolescent Parenting Program), in which sites can select which curriculum will be appropriate for implementation in a community; the curricula may match to one of the clearinghouses or have other evidence.

Lastly, related programs are sometimes grouped under a common name that reflects a collective goal. In those cases, you will see N/A (not applicable) in the source of evidence, evidence ranking, and other evidence columns.

Rating Category	Definition
Highest Rated	The program had a positive impact based on the most rigorous evidence.
Second-highest Rated	The program had a positive impact based on high-quality evidence.
Insufficient Evidence	The program's current research base does not have adequate methodological rigor to determine impact.
No Evidence of Effects	The program had no impact based on the most rigorous or high-quality evidence. That is, there was no difference in outcomes between program participants and those in the comparison group.
Mixed Effects	The program had inconsistent impacts based on the most rigorous or high-quality evidence. That is, study findings showed a mix of positive impact, no impact, and/or negative impact.
Negative Effects	The program had a negative impact based on the most rigorous or high-quality evidence.
Not Rated	The program is not in the Results First Clearinghouse Database.
Not Applicable	This category reflects a name for a collection of related programs that reflect a common goal.

Other Definitions	
Source of Evidence	Source of evidence for the programs with evidence rankings. These include the Washington State Institute of Public Policy (WSIPP) , What Works for Health and the California Evidence Based Clearinghouse for Child Welfare .
Other Evidence	Even though a program may not have a match in one of the clearinghouses or WSIPP's meta-analyses, additional evidence may exist. Where available, DHHS experts and Results First provided additional context or research.

Results First Child & Family Health Program Inventory – Birth Outcomes Umbrella Programs

Program	Program Description	Target Population	Delivery Setting	Source of Evidence	Evidence Ranking	Other Evidence
Adolescent Parenting Program	<p>The Adolescent Parenting Program (APP) is a secondary prevention program (i.e., prevention of second or higher order pregnancies) for pregnant or parenting teens. A coordinator provides home visiting services, individualized goal plans, intensive case management and services, and group educational sessions to a caseload of 15-25 pregnant or parenting teens. Providers are required to use Partners for Healthy Baby or Parents as Teachers curricula.</p> <p><u>Average Duration of Program:</u> Varies; Enter program when pregnant or parenting and remain in program until graduate from high school or GED program, or age out at age 20. Average enrollment time is 16 months.</p> <p><u>Frequency of Service:</u> At least monthly home-visiting services and quarterly group education sessions</p>	Pregnant and parenting teens age 19 and under and enrolled in school or GED program	Home and community settings	Adolescent Parenting Program (California Evidence-Based Clearinghouse for Child Welfare)	Second-Highest Rated	Sites are required to use Parents as Teachers or Partners for a Healthy Baby curriculum
Baby Love Plus	<p>Baby Love Plus is an enhancement to Pregnancy Care Management (OBCM) that provides outreach, care coordination, interconception health education, home visits, and group education sessions to pregnant women in the postpartum and two-year interconception period. Baby Love Plus is offered in six urban and rural counties where perinatal health disparities are persistently high.</p> <p><u>Average Duration of Program:</u> During the postpartum period and up to 2 years interconceptionally</p> <p><u>Frequency of Service:</u> Monthly group sessions and regular home visits. Home visit and other contact frequency is determined by the service delivery level and age of the child.</p> <p><u>Subcomponents Include:</u> Breastfeeding Education and Support, Reproductive Life Planning/Effective Contraception, Safe Sleep, Tobacco Cessation and Counseling</p>	Pregnant women in the postpartum and 2-year interconception period. 80% must be African American or American Indian; 20% can be from other races or ethnicities.	Home, local health departments, and various community settings	Other Prenatal Home Visiting Programs (WSIPP) ¹	Highest Rated	
Centering Pregnancy	Centering Pregnancy is a group prenatal care program that provides 10 prenatal visits to groups of 8-10 women. Each visit is 90 minutes to two	Pregnant women	Local health departments	Centering Pregnancy	Highest Rated	

¹ Baby Love Plus is a supplement to Pregnancy Care Management in six NC counties. All Baby Love Plus participants also receive Pregnancy Care Management services in those counties. Together, the services of both programs, as all Baby Love Plus participants receive care, match to WSIPP's "Other Prenatal Home Visiting Program" with a Highest Rated evidence ranking.

Program	Program Description	Target Population	Delivery Setting	Source of Evidence	Evidence Ranking	Other Evidence
	hours long. Providers and support staff lead discussions and activities designed to address important health topics, such as nutrition, labor and delivery, breastfeeding, and infant care. <u>Average Duration of Program:</u> 9 months <u>Frequency of Service:</u> 10 group prenatal visits			(What Works for Health)		
Family Connects	Family Connects is a newborn home visiting program that uses a triage model of care, providing one to three home visits to every family living within a defined service area, typically when the infant is 2 to 12 weeks old. Families with identified needs can receive further support, including additional home visits and connections to community resources for longer-term services. <u>Average Duration of Program:</u> Initial contact is prenatal. First home visit occurs within 2 weeks of birth, lasting for about 12 weeks. <u>Frequency of Service:</u> 1 to 3 home visits	All newborns born in the 3 selected counties	Home	Early Childhood Home Visiting Programs (What Works for Health)	Highest Rated	WSIPP's meta-analysis shows favorable effects based on this NC study .
Healthy Beginnings	Healthy Beginnings is a case management program that aims to reduce the infant mortality rate among minority babies. Healthy Beginnings provides care coordination, individualized care plans, home visits, and group education. Topics such as tobacco cessation, breastfeeding, safe sleep, reproductive life planning, healthy weight, and well-child care are covered in the group classes. <u>Average Duration of Program:</u> Most participants enroll prenatally, but up to 20% can enroll within 60-days postpartum. Participants remain in the program until their baby turns 2 years old. <u>Frequency of Service:</u> Monthly contacts, a minimum of 6 home visits annually, and 6 group educational sessions. <u>Subcomponents Include:</u> Breastfeeding Education and Support, Reproductive Life Planning/Effective Contraception, Safe Sleep, Tobacco Cessation and Counseling	Minority pregnant and postpartum women	Community and faith-based organizations, local health departments, homes, and community settings	Other Prenatal Home Visiting Programs (WSIPP)	Highest Rated	
Healthy Families America (HFA)	Healthy Families America (HFA) is a home visiting program in which families enroll within three months after birth and can stay enrolled up until the child turns 5 years old. HFA includes screenings and assessments to determine families at risk for child maltreatment or other adverse childhood experiences; home visiting services; and routine screening for child development and maternal depression. HFA encourages local sites to implement enhancement services, such as parent support groups, that further address the specific needs of their communities and target populations.	Families facing challenges such as low-income; substance abuse; mental health issues; and/or	Home	Healthy Families America (What Works for Health)	Second-Highest Rated	

Program	Program Description	Target Population	Delivery Setting	Source of Evidence	Evidence Ranking	Other Evidence
	<p><u>Average Duration of Program:</u> Prenatally or within 3 months after birth until the child is 3 to 5 years old</p> <p><u>Frequency of Service:</u> 1 home visit per week for the first 6 months after child's birth; less frequent after first 6 months. Frequency is based on families' needs and progress. Visits typically last 1 hour.</p>	domestic violence.				
Improving Community Outcomes for Maternal and Child Health (ICO4MCH)	<p>The Improving Community Outcomes for Maternal and Child Health (ICO4MCH) is an initiative that provides funding to local health departments to implement or expand upon at least three areas from a list of specified strategies that aim to improve birth outcomes, reduce infant mortality, and improve health among children aged 0-5. Funding currently is provided to five local health departments serving 14 counties.</p> <p><u>Average Duration of Program:</u> See specific subcomponent for more information.</p> <p><u>Frequency of Service:</u> Varies</p> <p><u>Subcomponents Include:</u> Breastfeeding Education and Support, Family Connects, Reproductive Life Planning/Effective Contraception, Tobacco Cessation and Counseling, Positive Parenting Program.</p>	Preconception, pregnant and parenting families; providers	Clinic, home, and community	N/A	N/A	
Infant Mortality Reduction	<p>Infant Mortality Reduction is an initiative that provides funding to local health departments in counties with the highest infant mortality rates to implement or expand upon at least one of a list of specified strategies that aim to lower infant mortality rates.</p> <p><u>Average Duration of Program:</u> See specific subcomponent for more information.</p> <p><u>Frequency of Service:</u> Varies</p> <p><u>Subcomponents Include:</u> 17P, Centering Pregnancy, Nurse Family Partnership, Reproductive Life Planning/Effective Contraception, Safe Sleep, Tobacco Cessation and Counseling</p>	Varies	Varies	N/A	N/A	
Nurse Family Partnership (NFP)	<p>Nurse Family Partnership (NFP) is a home-visiting program aimed at improving the health and life-course of first-time, low-income mothers and their children. Registered nurses trained in the NFP model provide one-on-one home visits with participating families. During visits, nurses assess and evaluate clients; encourage positive behaviors and accomplishments; and reinforce maternal behaviors that are consistent with program goals. Topics covered include obtaining prenatal and postpartum care; parenting and caring for an infant; and development of young children.</p>	First-time, low-income mothers and their children up to age 2	Home	Nurse Family Partnership (What Works for Health)	Highest Rated	

Program	Program Description	Target Population	Delivery Setting	Source of Evidence	Evidence Ranking	Other Evidence
	<p><u>Average Duration of Program</u>: 39 weeks. Enroll by the end of 28th week of pregnancy and graduate when the child turns 2. Ideally, participants enroll early in the second trimester.</p> <p><u>Frequency of Service</u>: Weekly home visits for the first month; biweekly until the baby is born. Weekly home visits for the first 6 weeks after the baby is born; biweekly until the baby is 20 months; monthly from 20-24 months. Home visits last 60-75 minutes.</p>					
QuitlineNC	<p>QuitlineNC is a tobacco cessation program. Trained tobacco quit coaches provide phone-based tobacco cessation counseling services using the 5As approach. Quitline has a specific curriculum for pregnant women. Pregnant women are also referred to this program as part of prenatal care.</p> <p><u>Average Duration of Program</u>: Varies</p> <p><u>Frequency of Service</u>: Non-pregnant participants are offered up to 4 calls and a custom quit plan. Pregnant participants are offered a special 10-call protocol that includes relapse prevention.</p>	Tobacco users	Telephone counseling	Tobacco Quitlines (What Works for Health)	Highest Rated	Tobacco Quitlines does not specifically measure outcomes for pregnant women; rather for the general population.
Pregnancy Medical Home (PMH)	<p>Pregnancy Medical Home (PMH) provides prenatal and postpartum services for pregnant women who are eligible for Medicaid. The program engages and enrolls obstetrical providers as PMHs, provides risk screenings, coordinates care with a Pregnancy Care Manager, and refers pregnant women with a high-risk condition to Pregnancy Care Management (OBCM).</p> <p><u>Average Duration of Program</u>: Pregnancy until 2 months after delivery</p> <p><u>Frequency of Service</u>: Varies with pregnancy risk, start of prenatal care</p> <p><u>Subcomponents Include</u>: 17P, Tobacco Cessation and Counseling, Reproductive Life Planning/Effective Contraception</p>	Pregnant and postpartum women	Prenatal care providers including Local health departments, community health centers, and private providers		Not Rated	What Works for Health cites evidence for Medical Homes , but prenatal outcomes are not measured.
Pregnancy Care Management (OBCM)	<p>Pregnancy Care Management (OBCM) is a care management program that provides prenatal care and other services for pregnant and postpartum women with high-risk pregnancies. Care Managers conduct a comprehensive medical and social assessment to identify participants' needs, develop care plans, and provide follow up services.</p> <p><u>Average Duration of Program</u>: Typically, first prenatal visit until 60 days post-partum</p> <p><u>Frequency of Service</u>: Depending on risk, patient receive from 4 up to 10 face-to-face interventions and telephone calls. Contacts occur every 30 days.</p>	Pregnant and postpartum women who have a MUIS score over 200 (Medicaid & limited low-income, uninsured women)	Provider offices, local health departments or homes. Some contact may be by phone.	Enhanced Prenatal Care Programs Delivered through Medicaid (WSIPP)	Highest Rated	Two NC studies are included in WISPP's review: Hillemeier et al. (2015) and Buescher et al. (1991)

Program	Program Description	Target Population	Delivery Setting	Source of Evidence	Evidence Ranking	Other Evidence
	<u>Subcomponents Include:</u> Breastfeeding Education and Support, Reproductive Life Planning/Effective Contraception, Tobacco Cessation and Counseling					
You Quit, Two Quit	You Quit, Two Quit (YQTQ) is a tobacco cessation program that provides training and technical assistance to health care providers on tobacco screening and cessation using the 5As method (Ask, Advise, Assess, Assist, and Arrange) for women of reproductive age. <u>Average Duration of Program:</u> 1.5 hours <u>Frequency of Service:</u> Training provided once	Health care providers in, federally qualified health centers, and private providers	Clinic settings	Health Care Provider Reminder Systems for Tobacco Cessation (What Works for Health)	Highest Rated	

Results First Child & Family Health Program Inventory – Birth Outcomes Subcomponents

Program	Program Description	Target Population	Delivery Setting	Source of Evidence	Evidence Ranking	Other Evidence
17 alpha-hydroxyprogesterone caproate (17P)	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 spontaneous preterm birth. The 17P program provides consumer and provider education, technical assistance, and the injection itself. <u>Average Duration of Program:</u> Approx. 5 months between 16 weeks and 36 weeks gestation <u>Frequency of Service:</u> Approx. 20 weekly injections <u>Umbrella Program:</u> Infant Mortality Reduction, Pregnancy Medical Home	Low-income pregnant women with history of spontaneous preterm birth	Clinic or participant's home	Synthetic progesterone (17P) access (What Works for Health)	Insufficient Evidence	Note: This insufficient evidence looks at both increasing access to 17P and the injection itself.
Breastfeeding Education and Support	The Breastfeeding Education and Support program provides education, support, and referral to encourage breastfeeding initiation and maintenance for at least six months. Peer support is also provided. Social workers, community health workers, and/or outreach workers provide the services. <u>Average Duration of Program:</u> Prenatally (focus on third trimester) through the duration of breastfeeding, typically up to 6 months <u>Frequency of Service:</u> Varies	Providers, businesses, community settings, and pregnant women in selected counties	Clinic, home, and community settings	Breastfeeding promotion programs (What Works for Health)	Highest Rated	

Program	Program Description	Target Population	Delivery Setting	Source of Evidence	Evidence Ranking	Other Evidence
	<u>Umbrella Program</u> : Baby Love Plus, Healthy Beginnings, Improving Community Outcomes for Maternal and Child Health, Pregnancy Care Management					
Reproductive Life Planning / Effective Contraception	<p>Reproductive Life Planning/Effective Contraception is a program that encourages women and men to reflect on their reproductive intentions and find a method of contraception that is suitable for their plans. Services provided include contraceptive services, pregnancy testing and counseling, helping clients achieve pregnancy, basic infertility services, preconception health services, and sexually transmitted infections services. This also includes increasing access to long acting reversible contraception.</p> <p><u>Average Duration of Program</u>: Preconception, postpartum, and interconception periods.</p> <p><u>Frequency of Service</u>: Varies, depends on the reproductive life plan and/or contraceptive method selected.</p> <p><u>Umbrella Program</u>: Baby Love Plus, Healthy Beginnings, Improving Community Outcomes for Maternal and Child Health, Infant Mortality Reduction, Pregnancy Care Management, Pregnancy Medical Home</p>	Varies	Program or clinic site, participants' home, or at a community location	Long-acting reversible contraception access (What Works for Health)	Second-Highest Rated	
Safe Sleep	<p>The Safe Sleep program provides education and outreach for parents and caregivers on safe sleep guidelines to reduce the incidence of Sudden Infant Death Syndrome (SIDS) and sleep-associated deaths.</p> <p><u>Average Duration of Program</u>: Varies - Typically occurs prenatally through the child's first year of life.</p> <p><u>Frequency of Service</u>: Varies</p> <p><u>Umbrella Program</u>: Baby Love Plus, Healthy Beginnings, Infant Mortality Reduction</p>	Varies	Varies		Not Rated	Program based on CDC guidelines , which cites this American Academy of Pediatrics review .
Tobacco Cessation & Counseling	<p>Tobacco Cessation & Counseling is a program that uses the 5As method (Ask, Advise, Assess, Assist, Arrange) of tobacco cessation counseling. Providers offer interventions to pregnant smokers at the first prenatal visit, as well as throughout the course of pregnancy. Motivational interviewing is utilized, and referrals are also made to Quitline.</p> <p><u>Average Duration of Program</u>: Preconception, prenatal, postpartum, and interconception periods</p> <p><u>Frequency of Service</u>: Varies, however the method is used at each in-person visit for tobacco users.</p>	Pregnant and postpartum women; healthcare providers	Clinic and/or home setting	Health Care Provider Reminder Systems for Tobacco Cessation (What Works for Health)	Highest Rated	Guidelines from Agency for Healthcare Research and Quality (AHRQ)

Program	Program Description	Target Population	Delivery Setting	Source of Evidence	Evidence Ranking	Other Evidence
	<u>Umbrella Program</u> : Baby Love Plus, Healthy Beginnings, Improving Community Outcomes for Maternal and Child Health, Infant Mortality Reduction, Pregnancy Care Management, Pregnancy Medical Home					