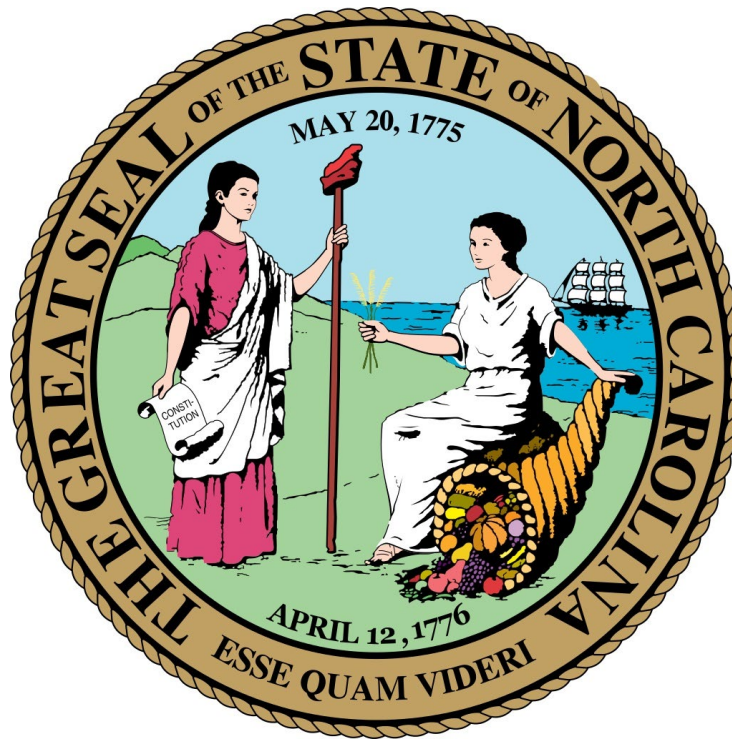


Annual Report

Pew-MacArthur Results First Initiative in North Carolina

October 2019



*Report to
The Joint Legislative Commission on Governmental Operations, the
Joint Legislative Oversight Committee on General Government, and
the Joint Legislative Program Evaluation Oversight Committee*

*Prepared by
Office of State Budget and Management*

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I. Executive Summary

North Carolina Results First is part of the Pew-MacArthur Results First Initiative. Results First is an initiative that helps states inform budget and policy decisions to improve societal outcomes and maximize the value of taxpayer dollars. The approach relies on rigorous program evaluations and benefit-cost analysis to identify high-return program “investments.” S.L. 2017-57, Section 26.3 directed the Office of State Budget and Management (OSBM) to implement the initiative and to provide an annual progress report by October 1 of each year. Through Results First, state agencies collaborate with OSBM to inventory programs, assess the value of the outcomes they produce, and estimate their costs.

To date, OSBM has worked with the Department of Health and Human Services (DHHS) and the Department of Public Safety’s Division of Adult Correction and Juvenile Justice (DACJJ). OSBM completed work with DHHS in its first policy area, Child and Family Health, in May 2019, which covers programs that impact birth outcomes and chronic disease outcomes. The final Child and Family Health Inventories include 31 programs, 13 of which target chronic disease outcomes and 18 that target birth outcomes. Several Child and Family Health programs have been rigorously evaluated to determine their effectiveness, while very limited research may be available for other programs. Seventeen of these programs received the highest rating, four received the second-highest rating, and eight received no rating or insufficient evidence, meaning strong evaluation research is not available at this time. A benefit-cost analysis was possible for six programs with birth outcomes and two programs with chronic disease outcomes.¹

OSBM is currently working with DACJJ Community Programs, looking at programs that impact juvenile delinquency and crime. OSBM and DACJJ Community Programs decided to complete the Results First Initiative in phases. The first phase focuses on programs funded through statewide contracts, such as Functional Family Therapy and short-term residential models, including gender specific services. Subsequent phases will focus on more region and county specific programs, such as Juvenile Crime Prevention Councils (JCPC) programs, JCPC Level II Endorsed programs, and Alternatives to Commitment programs. OSBM and DACJJ expect to complete the statewide contracts phase of programs by Summer 2020.²

¹ The inability to monetize outcomes at this time does not indicate that the programs are not cost-effective; more research is needed to determine the extent to which these programs produce positive outcomes.

² All published reports, program inventories, and other related materials can be found on OSBM’s Results First page located here: <https://www.osbm.nc.gov/results-first>.

II. Pew-MacArthur Results First Initiative

Results First is a joint effort of The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation. Results First works with states to implement a benefit-cost analysis approach that helps policymakers make decisions about investments in policies and programs that are proven to work. At no additional cost to the state, Results First partners receive training and technical assistance, a nationally representative clearinghouse database of evaluated programs, and a benefit-cost model that helps identify evidence-based programs that yield high returns on investment. Figure 1 below provides an outline of the Results First process.

Figure 1: Pew-MacArthur Results First Process



OSBM works with state agencies to collect data to complete the inventory of currently funded programs, review the evidence base behind each, and conduct benefit-cost analysis on programs that match to evidence in the Results First model. Once the benefit-cost analysis has been completed, OSBM and partner agencies review results and use them to inform how programs are designed and how resources are allocated across programs. For each policy area, OSBM publishes program inventories and reports on its website.

Program Inventory & Benefit-Cost Analysis

The Results First process produces two main products: the program inventory and the benefit-cost analysis. The program inventory starts as a comprehensive list of programs in a particular policy area, along with basic information on the programs' duration, frequency, oversight agency, delivery setting, and target population. Partner states then use this information to match their programs to those in the Results First Clearinghouse Database.³ The Results First Clearinghouse Database is an online resource that provides information on the effectiveness of various interventions.⁴ Included programs have different levels of evidence based on the quality, quantity, and/or scientific rigor of the research.

The Results First Clearinghouse Database helps state partners determine which of their programs are evidence-based and if so, how potentially effective they are according to available research.⁵ Not all programs will match to the Results First Clearinghouse Database; however, this does not necessarily mean they are not effective programs. Rigorous evaluations may not have been conducted for that specific program or the program may be too small to warrant a rigorous evaluation. Together, the list of programs as well as their associated level of evidence make up the program inventory.

The program inventory is used to identify which programs and services will be included in the benefit-cost analysis. After the inventory is complete and each program's level of evidence has been determined, OSBM, in consultation with the partner agency, identifies which programs qualify for the benefit-cost analysis. In its simplest form, the Results First Benefit-Cost Model calculates the monetary values of benefits and costs of a program over time. For example, if the state funds a program that improves birth outcomes for participants, the model would calculate the potential monetized benefits, such as reduced health care costs, and the costs of implementing the program.

With Results First's assistance, OSBM works with partner agencies to collect cost information and customize the benefit-cost model. The model will estimate a jurisdiction-specific return on investment for the programs in the Results First model. Only programs that have been evaluated with the highest level of rigor will match to the model. This information can be used to better understand the cost-effectiveness of programs and to compare similar programs.

Benefit-cost analyses conducted with the Results First model do not directly evaluate outcomes or effectiveness for programs delivered in North Carolina. Rather, the Results First model helps to estimate the benefits North Carolina can expect if its programs have the same impact found in previous evaluations for similar or equivalent programs. The model assumes that programs in North Carolina are being implemented with the same level of effectiveness as those in the research.

III. Results First in North Carolina

As the lead agency in North Carolina's Results First Initiative, OSBM facilitates and coordinates the process while providing technical expertise in the areas of benefit-cost analysis and evidence-based decision-

³ Results First defines programs as systematic activities that engage participants in order to achieve desired outcomes.

⁴ The Results First Clearinghouse Database can be accessed here: <https://www.pewtrusts.org/en/research-and-analysis/data-visualizations/2015/results-first-clearinghouse-database>

⁵ An evidence-based program is one that has been rigorously evaluated to demonstrate an actual cause and effect relationship between a program and its outcome.

making. OSBM works with agency staff to collect information required to build the program inventory. OSBM staff also collects data required for the benefit-cost model.

Partner agencies provide the programmatic expertise and have the primary responsibility to develop the program inventory. Additionally, partner agencies assist with the data collection and analysis required for the customization of the benefit-cost analysis. Depending on the particular policy area, this could require substantial work. Partner agencies then work with OSBM to estimate costs for the benefit-cost analysis and to provide other data as necessary. Lastly, OSBM and partner agencies review results and use them to inform how programs are designed and how resources are allocated across programs.

Child & Family Health

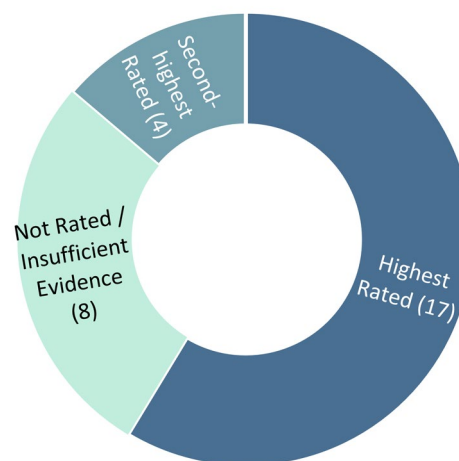
In cooperation with Results First and the Governor's Office, the Department of Health and Human Services (DHHS) was selected as the first partner agency. This first phase of the Results First Initiative focused on Division of Public Health (DPH) programs that are intended to support child and family health by improving the following specific outcomes:

- Chronic disease outcomes, including obesity and type 2 diabetes; and
- 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.

OSBM and DHHS completed work on the Child and Family Health policy area in May 2019.⁶ The final Child and Family Health Inventories include 31 programs, 13 of which target chronic disease outcomes and 18 that target birth outcomes. Many of these programs are available across the state while others are unique services targeting the specific needs of participating communities. Several programs are tailored to reach especially high-risk or under-resourced populations.

Several Child and Family Health programs have been rigorously evaluated to determine their effectiveness, while very limited research is available for other programs. Seventeen of DPH's programs targeting these outcomes are highest rated, meaning that multiple program evaluations found strong evidence that program participation improves outcomes. Four programs achieved the second-highest rating, while strong evaluation research is not available for eight programs.

Monetization of program benefits is only possible when rigorous program evaluations are available to measure the outcomes attributable to program participation. Of the 31 programs in the inventory, a benefit-cost analysis was possible for six programs with birth outcomes and two programs with chronic disease outcomes. The inability to monetize outcomes at this time does not



⁶ The final Child and Family Health report can be found on OSBM's Results First page located here: <https://www.osbm.nc.gov/results-first>.

indicate that the programs are not cost-effective; more research is needed to determine the extent to which these programs produce positive outcomes.

For seven programs, the estimated benefits generated by the program exceed the cost of implementation. In many cases, these types of interventions generate a stream of benefits over many years. The estimated lifetime benefits of the programs, minus the cost of investing in the program, ranged from \$940 per participant for Eat Smart, Move More, Weigh Less to \$15,030 per participant for Healthy Beginnings. Most benefits accrue to participants through avoided out-of-pocket healthcare expenditures, increased earnings, and reduced risk of infant mortality. Taxpayers benefit from publicly-funded healthcare cost savings and reduced risk of infant mortality. These avoided costs are shared among state, federal, and local governments. Private insurers and society as a whole benefit from reduced healthcare utilization and reduced risk of premature mortality.

Summary of Benefit-Cost Results by Target Outcome

Program Name	Lifetime Program Benefits	Net Program Cost	Benefit to Cost Ratio	Lifetime Benefits Minus Cost
Chronic Disease Outcomes				
Diabetes Prevention Program (DPP)	\$12,095	(\$471)	\$25.68	\$11,624
Eat Smart, Move More, Weigh Less (ESMMWL)	\$1,153	(\$215)	\$5.36	\$938
Birth Outcomes				
Adolescent Parenting Program	\$4,628	(\$7,254)	N/A	N/A
Baby Love Plus	\$18,523	(\$5,701)	\$3.25	\$12,822
Centering Pregnancy	\$4,682	(\$75)	\$62.43	\$4,607
Healthy Beginnings	\$18,646	(\$3,616)	\$5.16	\$15,030
Pregnancy Care Management (OBCM)	\$9,709	(\$822)	\$11.81	\$8,887
QuitlineNC for Pregnant Women	\$4,833	(\$120)	\$40.28	\$4,713

Since completion of this area, DHHS has continued working to build a performance management culture to support greater accountability and provide the best results and outcomes for those that receive services. The Results First model adds another important tool to that toolbox. As a result of participating in the Results First process, DHHS is seeking opportunities to elevate or expand programs from the Child and Family Health inventory that are proven effective and have positive benefit cost analysis findings.

Using the work that was completed through Results First in the Child and Family Health area, DHHS is outlining methods to capture more specific data in other program areas that will support the Results First process going forward. Enhancing current data that is already aligned with funding and other resources in the DHHS Open Window tool will provide a platform for continuing to assess accountability and cost effectiveness for programs. DHHS has also identified areas where research is limited or outdated and can work to prioritize these needs with the research community to strengthen future evaluations.

Additionally, in line with DHHS's ongoing efforts to invest in evidence-based programs and to promote innovation and evaluation, DHHS was recently awarded funding through the Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) and the State Maternal Health Innovation Program from the

U.S. Department of Health and Human Services. The MIECHV program supports communities by providing evidence-based home visiting services to women during pregnancy and the State Maternal Health Innovation Program assists states in addressing disparities in maternal health and improve maternal health outcomes. DHHS will work collaboratively with stakeholders, health systems, providers, prepaid health plans, individuals with lived experiences, and community-based programs to improve the state's perinatal system of care and improve maternal health outcomes.

Juvenile Justice

The Department of Public Safety's Division of Adult Correction and Juvenile Justice (DACJJ) was selected as the second partner agency for implementing Results First in North Carolina. There are several sections within DACJJ that may partner with OSBM for this project, but the section of Community Programs was selected as a priority focus. In the juvenile justice policy area, the benefit-cost analysis will estimate the benefits and costs of changes in crime, along with other outcomes, such as reduced health care costs and increased earnings, for state programs that match to the Results First model.

The juvenile justice policy area is one of the more complex policy areas within the Results First model. There are many components OSBM and DACJJ Community Programs will be required to complete for the customization of the benefit-cost model, including a recidivism analysis; resource use and cost analysis; and victimization analysis. In order to complete the analysis, OSBM and DACJJ are working with various stakeholders throughout the state, including Administrative Office of the Courts (AOC), State Bureau of Investigation (SBI), and Government Data Analytics Center (GDAC).

In addition, DACJJ Community Programs offers a wide array of programs and services, targeting at-risk youth, diverted youth, and adjudicated youth. Given the array of programs and services DACJJ Community Programs offers, OSBM and DACJJ Community Programs decided to complete the Results First Initiative in phases. The first phase focuses on programs funded through statewide contracts due to the large impact those programs have on the juvenile population in North Carolina. Statewide contracts include program services, such as Functional Family Therapy and short-term residential models, including gender specific services. Subsequent phases will focus on more region and county specific programs, such as Juvenile Crime Prevention Councils (JCPC) programs, JCPC Level II Endorsed programs, and Alternatives to Commitment programs.

OSBM and DACJJ are almost finished with the program inventory for statewide contracts, which will be available on OSBM's website upon completion. Currently, OSBM and DACJJ are working with GDAC to complete the various components required for the recidivism analysis. Once completed, they will move into the other components required for the model and complete the benefit-cost analysis for applicable statewide contracts.

Given the complexity of the juvenile justice policy area, it will take more time to complete the program inventory and benefit-cost analysis than other Results First policy areas. OSBM and DACJJ Community Programs anticipate having the benefit-cost analysis for statewide contract programs completed by summer of 2020. JCPC Level II Endorsed, Alternatives to Commitment and JCPC programs will be phased in later and a new program inventory and benefit-cost analysis will be completed.

IV. Evidence-Based Policy Developments in North Carolina

Defining Tiered Levels of Evidence

Per S.L. 2018-5, Section 26.1, OSBM was directed to develop and publish descriptive, formal definitions for tiered-levels of evidence along with the criteria needed to qualify for each tier of evidence. The definitions were included in the 2018 Annual Report and can be found on OSBM's Results First page located here: <https://www.osbm.nc.gov/results-first>. There are no changes to the definitions at this time. These new definitions for tiered-levels of evidence will be incorporated in the program inventory for DACJJ's statewide contracts. OSBM cross-walked the Results First Clearinghouse Database rating levels into the North Carolina definitions.

Trainings in Performance Management & Evidence-Based Policymaking

Over the last year, OSBM has been working on strategies to help agencies increase their capacity in using performance management and evidence-based policymaking tools. OSBM has partnered with the University of North Carolina's School of Government and The Pew Charitable Trusts, offering trainings in topics such as strategic planning, creating performance measures, and evidence-based budgeting. Going forward, OSBM will continue this work, offering more trainings related to these topic areas. Below is more information on the trainings that have been offered in the past or will be offered in the future related to evidence-based policymaking.

Evidence 101 Trainings

In November 2018, OSBM and Pew hosted trainings on understanding and applying evidence in state government. Topics covered include what is evidence, where to access evidence, how to apply evidence, and how to use evidence in budget proposals. Over 70 staff from over 10 different state agencies attended one of the three different trainings that were offered.

J-PAL Training

The Pew Charitable Trusts has partnered with J-PAL North America to provide a customized training course for state partners interested in completing rigorous evaluations of their policies and programs. J-PAL North America is a regional office of the Abdul Latif Jameel Poverty Action Lab (J-PAL), a global network of researchers who use randomized evaluations to answer policy questions. OSBM is currently organizing a training with Pew and J-PAL later this year. The training will focus on practical design considerations for measuring impact, the mechanics of randomization, and the importance of grounding evaluation methodology in a theory of change, among other topics. OSBM anticipates 15-30 staff from DACJJ, OSBM, and DHHS will attend the training.

Evaluation Grants

Both the Joint Conference Budget and the Governor's Recommended Budget for FY 2019-2021 recommended funding for evaluation grants that would be managed through OSBM and granted to state agencies seeking assistance to conduct an evaluation. If these grants are ultimately appropriated, OSBM

will develop and implement the process for soliciting and awarding funds to support agency evaluation projects.

V. Next Steps

Over the next year, OSBM will continue its work on the Results First Initiative. OSBM and DACJJ will continue their work on finalizing the various components required to complete the benefit-cost analysis for statewide contracts. They will then move into completing the work required for other DACJJ programs. In addition, OSBM is in preliminary talks with DHHS to determine the next phase of Results First within the Department. While work with DACJJ is still ongoing, OSBM and DHHS are developing a workplan for the next phase of the Results First Initiative as many of the Results First policy areas fall under DHHS' service areas.