A Theory of Change to Improve Early Childhood Outcomes in Guilford County: "Get Ready Guilford"

Co-Developed by *Ready for School, Ready for Life* and The Duke Endowment

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A National Challenge

Despite annual public spending on children exceeding $500 billion, and about $50 billion in philanthropic contributions to human services, population outcomes for U.S. children have not significantly improved. The 2016 Duke Child Well-Being Index indicates declines over the past 40 years in young children's health, emotional well-being, and social relationships. Furthermore, disparities in health, education, and well-being across income levels continue to grow rather than decline.

These distressing trends have emerged despite rapid advances in scientific knowledge about what young children need for healthy development and in evidence-based interventions to support children and families. Our failure reflects, in part, the absence of an organized early childhood system, not a lack of knowledge in the field. No comprehensive system of care exists before children enter kindergarten, leaving no systematic way to support their needs while the brain develops more rapidly than any other period in the human lifespan. However, the encouraging conclusion is that with more intentional design, a realignment of current resources, and new capital investment, it is plausible that communities could build systems that proactively identify needs and respond with the right resources as soon as families need them.

Before proposing a new model, it is informative to understand why the total impact of current expenditures is less than the sum of individual parts. Most importantly, resources are provided in disjointed ways that sometimes result in redundant services and other times leave wide gaps within and across families. One family might have access to a prenatal home visiting program to provide parenting support but not be able to afford high-quality child care after birth. Another family might participate in an evidence-based parenting program but not have resources for proper health care. Resources must be used effectively, comprehensive across domains of well-being,[1] and continuous across the child's development without being wasteful.

Guidance from Developmental Science

The science of child development tells us that almost every child can succeed if certain fundamental needs are met at crucial points in life. During the prenatal period, the developing fetus needs nutrition and a stress-free environment that comes with good prenatal care and a physically and mentally healthy mother who is unencumbered by serious hardship. At birth, the infant needs at least one (better, two) devoted caregiver with skills in parenting and without significant distraction by financial or emotional stress. As the newborn progresses through infancy and toddlerhood, he or she needs cognitive stimulation from exposure to words and books, social stimulation from caring adults who provide "serve and return" interaction, interaction with other children who provide peer surprises, protection from toxic stress, and nutrition for physical nourishment.

An important finding from developmental science is that children have diverse needs that may change across childhood. One child might begin to display a communication disorder or autism-spectrum symptoms, whereas

[1] North Carolina has adopted cognitive, language/literacy, emotional-social, approaches to learning, and physical development as its five domains of early development.

another child might display behavior problems or attention deficits. One child's family might suffer from a substance abuse disorder, whereas another family might struggle with food insufficiency. If undetected, these challenges could grow into major barriers impeding a child's healthy development. Children experiencing multiple forms of toxic stress are particularly vulnerable. However, with intervention contingent on early detection, many of these challenges can be overcome to ensure the child's growth and success. These diverse challenges are not entirely correlated with family income, suggesting that assignment of intervention based solely on a family's demographic factors would be inefficient: many families needing intervention would be missed, and many families would receive intervention unnecessarily. To maximize efficiency and impact, every family must be screened to detect problems early and to allocate interventions judiciously. The conclusion is that growth experiences must be tailored to the individual through universal screening, triage, assessment, and specialized services that are more targeted.

Although all families struggle, many middle- and upper-class families often find a way to meet their child's needs across development, at least minimally, without a community-wide program. In contrast, low-income families receive less information about what resources they need and how to access them. Public policies have created entitlements, programs, and services for families, but communities rarely provide the infrastructure necessary for each family to receive the resources it needs. Our opportunity is to ensure all families are offered the resources they need at the right time in the child's development, without wasteful redundancy and over-expenditure.

The Guilford Opportunity

Guilford County (pop. 520,000) includes two large cities (Greensboro and High Point), 10 other smaller municipalities, and less developed unincorporated areas which include approximately 90,000 residents. Approximately 6,000 children are born in Guilford each year. In 2016, about half of those babies were born poor,[2] and about 48% are non-white. Despite North Carolina's notable state early childhood efforts[3] and the County's generally well-regarded school district, Guilford's teen birth rate, birth outcomes, and third grade reading achievement show the same direction and the same gaps seen nationally. These gaps contribute to downstream effects, including college readiness exemplified by low ACT scores for public school graduates. A vast research base shows these unacceptable early outcomes depress Guilford's economic development, enhance social problems, and trigger greater public expenditure later in life.[4]

Assets

While Guilford's challenges are not unique, we believe it has a rare opportunity to build an unprecedented system achieving better and more equitable outcomes for young children. *Ready for School, Ready for Life* ("*Ready Ready"*), a coalition leading early childhood systems change, has already organized the nonprofit, public and philanthropic sectors around goals for the prenatal to age 5 population. In February 2016, its steering committee of over forty members and broad community representation selected ten early childhood priorities that support a common set of goals. *Ready Ready* staff and leadership have taken action upon those priorities

[2] Medicaid eligibility is used as the indicator of poverty

[3] For example: North Carolina Pre-Kindergarten, Smart Start, NC Early Childhood Integrated Data System, and Child Care Quality Rating Improvement System

[4] https://heckmanequation.org/assets/2017/01/Garcia_Heckman_Leaf_etal_2016_life-cycle-benefits-ecp_r1-p.pdf, http://www.aecf.org/resources/early-warning-confirmed/, https://www.cdc.gov/violenceprevention/acestudy/index.html, http://abc.fpg.unc.edu/abecedarian-project

through a systems change framework called Above the Line Leadership ("ABLe") developed at Michigan State University. "Early wins" include a coordinated electronic referral network, a new early literacy strategy co-developed with Guilford County Schools, and the introduction of Healthy Steps for Young Children.

Say Yes Guilford ("Say Yes"), an organization with similar systems goals for the K-12 population, stands to capitalize on *Ready Ready's* success as young children enter school. Key Say Yes supports include wraparound services, a case management data system, and a college tuition scholarship for public school students. Together, *Ready Ready* and Say Yes form an actualized "cradle to career" pipeline to school and life success.

Four national programs with proven effects on child well-being – Family Connects, Healthy Steps for Young Children, Nurse-Family Partnership, and Reach Out and Read – also operate in Guilford. Anticipating an opportunity to anchor a new early childhood system, these programs have begun integrating their models for coordination, scale and population impact. The community also offers The Incredible Years – an evidence-based parent education program for children as young as age three – and over 2,000 slots for NC Pre-Kindergarten– a program for low-income four year olds with proven impact on reading achievement and special education placement through fifth grade.[5]

The Duke Endowment (TDE) has deepening interest in place-based early childhood initiatives. Recognizing its many assets, it has chosen Guilford among dozens of similar efforts across North Carolina and South Carolina for a significant potential investment. TDE seeks individual and population level impact by marrying the advantages of evidence-based programming – including a reliance on rigorously tested interventions and a relentless focus on measuring outcomes – with the collective impact framework, which aligns efforts across disparate systems, organizations, and members of a community. These complementary approaches have separately demonstrated improved outcomes for individuals and together have the potential to move the community needle. Guilford's array of effective programs and mature collective impact effort made it a logical selection.

Theory of Change

Our theory of change is designed to help *Ready Ready* and TDE align their respective strategies toward a mutual goal of individual and population level impact. Below, we overview our common target population, mutual outcomes and indicators, and the activities, resources, and organizations available. All elements are intended to be authentic to both organizations' motives, plausible to achieve, and testable to facilitate learning and improvement. The theory of change culminates in a logic model describing our hypotheses for achieving our objectives. A second, separate "strategy" document will further operationalize the theory of change (to be written in 2018).

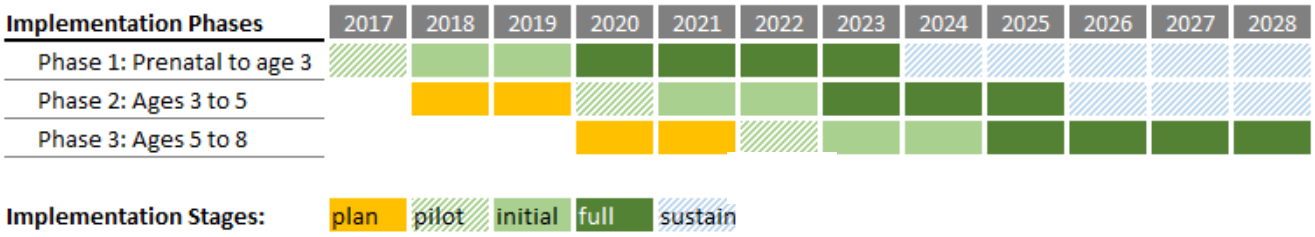
Target population

Motivated by the association between third grade reading proficiency and high school graduation, the scope of our full initiative is prenatal to age eight. However, our current strategy (**Phase 1**) only concerns the preconception to age 3 (36 months) population. Strategies for the ages 3 to 8 population (**Phases 2 and 3**) will

[5] http://journals.sagepub.com/stoken/rbtfl/rro4HwVYfIeHc/full

be developed and piloted before the evaluated birth cohort reaches 36 months (approximately 2023- see Figure 1 below).[6]

Figure 1: Implementation phases across the initiative



We have considered both purely universal and demographically targeted approaches to select a population. A purely universal model provides the same resources to all families, a strategy that might be called "equality" of resource allocation. While its inclusivity is appealing to the general public, the model is overly expensive because it fails to differentiate resources according to need. Many families would receive a costly intervention when they do not need it. In contrast, a demographically targeted approach exclusively directs resources to economically disadvantaged groups. It ensures the most economically disadvantaged groups receive resources as a way to restore "demographically-based equity," but stigmatizes those who seek help because the programs are intended for the "poor" and will lack broad political support. Demographically-targeted approaches to allocating evidence-based interventions are also inefficient. Although there might be a correlation between income and actual need for interventions such as parent-training, behavior management training, and child communication training, many low-income families do not need these interventions and many non-low-income families do need them.[7]

Best-practice pediatric care provides an example of how "universal assessment, targeted intervention" operates efficiently in health care. A child sees a pediatrician at regular intervals for "well-baby visits," which are opportunities for universal screening. The pediatrician assesses problems such as asthma and refers a subset of families for specialized care such as pulmonology. It would be imprudent and inefficient to refer every family to pulmonology, and referral based on income would be just as inefficient. In addition to well-baby visits at regular intervals, the ongoing relationship between the family and the pediatrician encourages visits and assessment whenever new problems such as an illness arise so that they can be diagnosed and treated efficiently. We are proposing a similar system for a family's psychosocial and educational needs.

Instead of choosing one model, we have adopted a hybrid design that offers universal assessment to all families but

[6] To prepare the community for our future investment in ages 3 to 8, we v… s age group by: (1) including key providers serving older children in the CQI cohort, (2) continuing *Ready Ready*'s systems change work for 3- to 5-year-olds, and (3) deepening integration with Say Yes Guilford and Guilford County Schools.

[7] These principles are highlighted by considering the example of allocation of eyeglasses to second graders. It makes no sense to provide every second grader with eyeglasses ("equality" of allocation) because most children do not need them and might be harmed by them. It makes little sense to adopt a policy to provide eyeglasses to every low-income child (and only them) because not all low-income second graders need eyeglasses and some middle-income do. Public education has realized the value that comes from low-cost universal vision screening for every second grader as a way to allocate eyeglasses for the smaller number who genuinely need them. A screening-and-targeting policy takes on [*see next page*] even greater value when hearing problems are also considered: a nurse screens for both vision and hearing problems and then targets eyeglasses to those with vision problems and hearing interventions such as cochlear implants or hearing aids to those with hearing problems.

targeted intervention to those who show a need for it.[8] Our "universal assessment, targeted intervention" strategy reaps the benefits of both the equality and demographic-equity approaches but avoids their flaws. While we will offer assessment to all families, only those presenting need will be offered services, and only at the level needed.

Because children's needs are multi-dimensional, our universal assessment covers multiple domains and our allocation process matches a family's needs with family-specific interventions. We believe this philosophy ensures all families receive only and precisely what their children need to reach developmental milestones. The strategy of "universal assessment, targeted intervention" not only efficiently allocates scarce resources, it also comforts every family with reassurance from screening information that indicates whether a child is on-track. And by acknowledging that all families – not just specific groups – may need some assistance with helping children reach their potential, we believe this method will engender the broad community buy-in needed to support and sustain our efforts.

Outcomes

As we offer assessment to all families and attempt to meet all identified needs, we hold ourselves accountable for individual- and population-level improvements in the following outcome areas at five points in time:

A. Planned and Well-Timed Pregnancies
B. Healthy Births
C. On-Track Infant and Toddler Development
D. School Readiness at Kindergarten*
E. Success in Third Grade*

Each outcome area is defined by a set of indicators (see Figure 2). Defining indicators (1-12) will measure the entire population of children at a particular age. We will also track other related indicators (13-16) that measure important *caregiver behaviors* related to the defining indicators. Our goal is to improve outcomes and reduce disparities among individuals and across the population for each indicator.[9]

Figure 2: Outcome areas and indicators

Outcome Areas	Population Indicators Defining the Outcome Areas (data source)	Other Related Indicators
A. Planned and Well-Timed Pregnancies	1. Pregnancies are planned (prenatal interview, CCNC) 2. Subsequent births occur no sooner than 24 months (birth records, NC DHHS) 3. Fewer teen births (birth records, NC DHHS)	13. Avoidance of child abuse and neglect (administrative records, NC DHHS) 14. Mothers initiate breast feeding
B. Healthy Births	4. Children are born at a healthy weight (birth records, NC DHHS) 5. Children are born after 37 weeks completed gestation (birth records, NC DHHS)	

[8] This approach is a modified version of "targeted universalism," a theory popularized by john a. powell at the University of California. Dr. powell's targeted universalism upholds a universal goal while pursuing strategies targeted to groups with poorer outcomes. We will also pursue a universal goal, but, unlike powell, couple it with a universal assessment to target resources according to the needs it identifies regardless of income, race, or other observable characteristics. More information about targeted universalism is available here and here.

[9] We will not hold ourselves accountable for improving asterisked (*) outcomes/indicators until a strategy is developed and implemented for the 3- to 8-year-old population. We will collect baseline data in the meantime.

C. On-Track Development at 18 and 36 months[10]	6. Children demonstrate age-appropriate emotional and social development (18 and 36 month home visits) 7. Children demonstrate age-appropriate emerging literacy skills (18 and 36 month home visits) 8. Children demonstrate physical well-being and appropriate motor development (18 and 36 month home visits)	(newborn home visits, Family Connects/NFP) 15. Mothers avoid depression (newborn, 18 and 36 month home visits) 16. Children avoid unnecessary emergency department utilization (Medicaid records, DHHS)
D. School Readiness at Kindergarten*	9. Children demonstrate competence in all five domains of school readiness (Kindergarten Entry Assessment, NC DPI)*	
E. Success in Third Grade*	10. Children read proficiently in grade 3 (End of Grade test [proficiency rates and means], NC DPI)* 11. Children perform math proficiently in grade 3 (End of Grade test [proficiency rates and means], NC DPI)* 12. Children have age-appropriate social-emotional skills by end of third grade (K-3 Formative Assessment, NC DPI)*	

We selected these outcomes for their scientific basis. Longitudinal research shows a planned and well-timed pregnancy improves chances for a healthy birth; a baby born healthy and to ready parents is more likely to reach developmental milestones in infancy and toddlerhood; on-track early development begets school readiness; a prepared kindergartener is ready for success in school; and a successful third grader is ready for success in life.[11] Developmental neuroscience endorses these links, finding that the human brain develops most rapidly during the earliest years of life and the brain's capacity for change decreases with age.[12] Our outcome set also emphasizes the "whole child" as cognitive, emotional, and social capacities are inextricably intertwined throughout the life course. The indicators selected also have the potential to measure the entire child population, either through administrative records, the integrated data system, or original data collection. Figure 3 (page 8) shows which evidence-based programs influence the selected indicators.

Activities and aims

Our theory of change hypothesizes that completing the five aims below will produce individual- and population-level impact across the selected indicators:

1. *Identify families' needs through universal assessment*
2. *Strengthen programs' effectiveness and efficiency*
3. *Offer targeted referrals within a coordinated network*
4. *Increase knowledge about healthy child development*
5. *Build public will for early childhood priorities*

Achieving these aims requires coordinated sets of activities and resources for implementation. We profile the activities within each aim in the summaries below.

All five aims and their supporting activities are tested against four overarching principles:

- *Responsiveness to family voice*. Regularly consult families to ensure interventions and strategies meet their needs.

[10] This is the only indicator set for which administrative data are not available. Our strategy may include original data collected at home visits and similar visits in control communities that capture a representative sample of the population.
[11] http://www.aecf.org/resources/early-warning-why-reading-by-the-end-of-third-grade-matters/
[12] https://developingchild.harvard.edu/resources/inbrief-science-of-ecd/

- *Data-driven decision-making*. Decisions will be guided by continuous improvement led by an external evaluator using data collected from a variety of sources.
- *Promote equity*. We will pursue "universal assessment, targeted intervention" to ensure children receive sufficient resources for reaching developmental milestones.
- *Value community culture and context*. All interventions and strategies will adapt to meet community conditions.

This document provides only a brief overview of each aim; **more thorough explorations will be provided in a forthcoming strategy document.** The principles are not described in any greater detail here but instead are embedded within each aim.

Aim 1: Identify families' needs through universal assessment

Development cascades across the lifespan; missing one milestone compromises attainment of others. Therefore, we will offer universal clinical needs assessment at key points in development.

In Guilford, different providers – "navigators" – will have responsibility to offer universal assessment to the population at different points in development: Community Care of North Carolina (along with other organizations) before and during pregnancy, Family Connects at birth, Healthy Steps during infancy and toddlerhood, and Guilford County Schools (via state-mandated formative assessment and potentially Say Yes case management) through third grade. Nurse-Family Partnership also administers its usual assessments to its families which could provide additional data until age 2. Each navigating program uses clinical assessment to identify each family's specific needs based on family-unique circumstances. The assessments screen children for age-specific needs across multiple domains of well-being and include the needs of their caregivers.

Universal assessment has several key benefits also evident within the other aims below. They include:

- Providing information needed to match families with resources
- Enabling monitoring of each child's development to make sure that community resources are effective in meeting their needs
- Producing an individual child record to facilitate care coordination with other providers
- Yielding aggregable data about needs and development to inform evaluation and community decision-making

AIM 1: "Offer all families"

If

- Reproductive health strategy reaches enough women at-risk of unintended pregnancy
- All pregnant women are reached and assessed
- Family Connects continues assessing all newborns through universal home visits
- All families are assessed at 15-18 months and at regular intervals until school entry
- The State of North Carolina continues assessing all five year-olds at kindergarten entry and until third grade K-3 Formative Assessment, and/or Say Yes implements case management district-wide
- Assessments chosen and developed measure all domains of well-being
- Families consent to assessments and sharing their information
- A data infrastructure can be introduced that captures information from the assessments

Then

- Children and families will be assessed at the critical stages of the lifespan
- Families' needs will be known so they can be matched with effective services
- Programs will be evaluated for effectiveness
- Service providers can coordinate care for shared families
- Data will be aggregated to inform evaluation and decision-making
- Enough families will be offered services for population impact to be feasible

Aim 2: Strengthen programs' effectiveness and efficiency

Once needs are identified, families must access effective interventions to address them. Therefore, our strategy also aims to increase the reach, effectiveness and efficiency of early childhood services**.**

Service delivery improves as programs proven to influence our targeted outcomes – namely, Family Connects, Healthy Steps, Nurse-Family Partnership, and Reach Out and Read (see Figure 3 below) – expand. These programs have documented causal impacts on child well-being through rigorous research. Each also features national infrastructure ensuring programs deliver services with fidelity to the proven model. Offering more families access to well-implemented, evidence-based interventions matched to family needs achieves individual level effects and makes a necessary contribution to population level impact.

Figure 3: Evidence-based programs and program outcomes for PN-36 months

Program	Service population	Program outcomes (Refer to Table 1)
Early Head Start	Families from birth to age 3 below the poverty line or receiving public assistance	6, 7, 8
Family Connects	Universal for newborns 2 to 12 weeks, extended for families with special needs	6, 8, 13, 15, 16
Healthy Steps	Children beginning at 1 week to age 3 (in some cases higher), with emphasis on at-risk populations	1, 6, 7, 8, 13, 14

North Carolina Pre-Kindergarten[13]	Available to 4-year-olds below 75% of state median income	10, 11
Nurse-Family Partnership	First-time, low-income women enrolling during second trimester of pregnancy	1, 2, 4, 5, 6, 7, 13, 14, 15, 16
Reach Out and Read	All families beginning from birth to age 5	7

However, simply scaling evidence-based programs has practical and political limitations. Relying on evidence-based programs alone fails to meet the diversity of needs in a community – including social determinants of health and well-being – and ignores existing services already serving and trusted by the community.

To fill service gaps left by proven programs and leverage existing programmatic assets, we will strengthen local interventions with continuous improvement ("CQI") coaching by Root Cause. The coaching helps local providers improve and/or clarify their effectiveness by increasing capacity for data collection and use. The cohort consists of thirty programs mostly serving the preconception to three population, but also includes those working with three to eight year olds to prepare for future phases of work. To maximize impact, the cohort is populated with programs filling service gaps, showing potential to influence our outcomes and indicators, and reaching large numbers of children. Within two years, Root Cause's coaching increases these programs' reach, effectiveness, and organizational efficiency. Cohort programs also receive referral priority from CCNC, Family Connects, Healthy Steps, and NFP to maximize the number of families accessing these promising programs.

Finally, *Ready Ready* solicits input from families to ensure services are responsive and accessible. Root Cause and the external evaluator support programs in adjusting their practices to maximize effectiveness given local conditions and context.

AIM 2: "Right Resources"

If

- Programs with proven impact on the outcomes are expanded without compromising implementation quality
- Remaining gaps are filled by promising programs undergoing CQI or new interventions (e.g., those meeting basic needs)
- CQI coaching improves program effectiveness
- Proven and CQI programs – along with basic needs providers – meet the breadth and depth of needs discovered through assessment
- Proven and CQI programs – along with basic needs providers – are accessible to families
- Proven and CQI programs are individually effective enough to produce individual-level impact
- Proven and CQI programs reach enough families to produce population impact
- A data system is introduced that can determine program effectiveness

Then

- Individual level effects will be achieved
- Population level effects will be feasible

Aim 3: Offer targeted referrals within a coordinated network

[13] Muschkin, Ladd, and Dodge, 2014 http://onlinelibrary.wiley.com/doi/10.1002/pam.21734/abstract

With needs identified through assessment, families can be matched to effective services tailored to their needs and preferences.

The programs assessing all families also refer them to community resources. The referral sequence begins when CCNC offers pregnancy care management, then shared postnatally among Family Connects home visits, Healthy Steps enhanced pediatric care, and public school case management. All referrals are directly informed by assessment results and a constantly-updated electronic directory of hundreds of community resources to match each family with tailored resources. This directory prioritizes evidence-based and CQI programs to maximize the community's exposure to effective services.

The community's data infrastructure also supports care coordination. A common case management data system ensures that the family "baton" is never dropped among the programs responsible for screening and referral. Navigators use the system to make referrals and hold agencies accountable for completing them. The system also captures information about each child's service history and well-being, which providers utilize to optimize efficiency. The system also reduces the burden on families to provide the same information to many different providers, thus increasing service uptake. Root Cause builds CQI providers' capacity to use the system.

AIM 3: "Right Time"

If

- Families' needs are accurately matched with community services
- Navigators refer families to effective services that families can and want to access
- Navigators capture information about children's well-being
- A case management data system is purchased/built
- Programs in the network have capacity and incentive to utilize the case management data system
- Services are accountable for accepting and completing referrals

Then

- Families cannot "fall through the cracks"
- More services will accept and complete referrals
- More families will access effective services

Aim 4: Increase knowledge about healthy child development

The system described so far offers the necessary *supply* of services and a mechanism for matching them with families; however, families' *demand* for services also warrants consideration.

Ready Ready builds families' skills, mindsets, and desire to access services by leading broad public awareness about early childhood development. Families in Guilford receive clear explanations about how and why accessing certain services will demonstrably help their children during a critical period of development, especially when facing barriers such as transportation, child care, and employment. They also know why and how to employ parenting practices perhaps different from what they previously learned. Other trusted community messengers – especially proven and CQI programs – intentionally reinforce *Ready Ready's* messages to create "surround sound" within the community. Additionally, Say Yes will extend its K-12 developmental pathway to early childhood, linking children's early development to the dream of a college education. The clarity

of how and why to take advantage of the earliest years motivates families to seek services and employ practices that promote their children's development.[14]

AIM 4: "Informed Community"

If

- Messages about early childhood development promote evidence-based practices
- Messages are compelling to families
- Messages reach enough families
- Communications from service provider and community campaigns are reinforcing
- Say Yes continues to provide scholarships and extends its K-12 pathway to early childhood

Then

- More families place greater emphasis on early childhood development
- More caregivers will improve their parenting practices

Aim 5: Build public will for early childhood priorities

The messages described in Aim 4 have a second audience: resource-controlling entities. Even with potentially significant contributions from The Duke Endowment and other outside funders, local resources – including the public sector – must increase to sustain our work.

To build the case for financial sustainability, *Ready Ready* leads efforts to build public will for early childhood priorities among private funders and public officials (both state and local). In addition to direct appeals and ongoing engagement, *Ready Ready* ensures early childhood remains on the agenda of the community's "cradle to career" governance structure that includes county government, school district leadership, and local funders. This governance body is accountable for community-wide child well-being and makes financial and programmatic decisions about how to improve outcomes. Third-party impact evaluation describes the results of the initiative. The evaluation documents both improvements in child well-being and analysis of cost savings to government. In combination, effective advocacy, public awareness, and rigorous evaluation showing positive results and cost savings will make a strong case for sustainable funding.

[14] Say Yes Guilford offers last-dollar tuition scholarships to public school students from low- and middle-income families.

AIM 5: "Sustainable system"

If

- *Ready Ready* and its partners convey the importance of early childhood to public and private funders
- An ongoing fiscal analysis is conducted and communicated, identifying where current financial resources are being allocated across public and private sources as well as the additional resources required to achieve population-level goals.
- Community members identify early childhood development as a priority
- Constituents expect elected officials to prioritize early childhood development
- Cradle-to-career governance gives proportional attention early childhood
- Evaluation demonstrates impact on child outcomes important to decision-makers
- Cost-benefit analysis demonstrates cost-savings for the public sector

Then

- Private funders and public officials will place greater value on early childhood
- Private funders will direct new resources to early childhood priorities
- Public sector (state and local) will sustain the initiative

Resources

A variety of resources are needed to realize the theory of change. Programmatic resources are needed to deliver effective services. Financial resources are needed to grow programs, underwrite capacity building, and support systems change. Political resources are needed to leverage systems change and build public will. Intellectual and technical resources are needed to build an integrated data infrastructure, lead CQI, and conduct evaluation. Fortunately, many Guilford organizations already provide for these needs. Figure 4 maps the various participating organizations' contributions to the theory of change.

Figure 4: Participating organizations and contributions to the strategy

Participating organizations	Role(s)	Role in aims	Role in outcome areas	Specific contributions
Ready for School, Ready for Life	Backbone organization (PN-5 or 8)	1, 2, 3, 4, 5	I, II, III, IV, V	• Oversee management of all aims • Implement changes identified through evaluation • Seek new funding • Build public will for early childhood priorities • Bring family voice to decision-making • Prepare community for future investment (ages 3-5)
The Duke Endowment	Funder	1, 2, 3, 4, 5	I, II, III, IV, V	• Support implementation of the aims • Oversee evaluation • Provide new funding (internal and external) • Plan for future investment (ages 3-8)
External evaluator	Consultant	1, 2, 3, 4, 5	I, II, III, IV, V	• Lead systems-level CQI • Document impact and cost-benefit
Guilford Health Department	Service provider	1, 2, 3, 4	I, II, III	• Implement Family Connects • Implement Community Care of North Carolina (CCNC) pregnancy care management • Implement Care Coordination for Children (CC4C) case management • Facilitate EBP integration • Share data with evaluator and data system
Guilford Child Development	Service provider	1, 2, 3, 4	I, II, III	• Implement Nurse Family Partnership • Implement Early Head Start • Facilitate EBP integration • Align to community messaging effort
Evidence-based programs (FC, NFP, HS, ROAR)	Service provider	1, 2, 3, 4	I, II, III, IV, V	• Anchor implementation of Aims 1-3 • Produce individual-level outcomes • Expand to reach more families • Integrate services for navigation • Utilize data system • Share data with evaluator and data system

				• Align messages to community campaign
NC Department of Health and Human Services	Service provider	1, 2, 3, 5	I, II, III, IV, V	• Share data with evaluator and data system • Contribute to sustainability
Children's Home Society	Service provider	1, 2, 3	II, III, IV	• Implement Healthy Steps • Facilitate EBP integration • Share data with evaluator and data system
Duke University	Consultant	1, 2, 3	I, II, III, IV, V	• Support development of evaluation plan • Support development of data system • Collect and analyze public sector data
Guilford County Schools	Service provider (5-8 only)	1, 3, 5	IV, V	• Share data with evaluator and data system • Provide K-3 case management (or SYG)
Programs in CQI cohort	Service provider	2, 3, 4	I, II, III, IV	• Produce individual-level outcomes • Increase capacity to collect and use data for improvement • Utilize data system • Share data with evaluator and data system
Local funders	Funder	3, 4, 5	I, II, III, IV, V	• Provide new or reallocated funding • Build public will for early childhood priorities • Contribute to sustainability
Say Yes Guilford	Backbone organization (5-8 only) Funder	3, 4, 5	V	• Build public will for early childhood priorities • Provide K-3 case management (or GCS) • Prepare community for future investment (ages 5-8)
Pediatric and family practice	Service provider	1, 2	I, II, III (initially)	• Implement Healthy Steps • Implement Reach Out and Read • Align assessment protocol with navigation
Root Cause	Consultant	2, 3	I, II, III, IV	• Lead program-level CQI • Prepare CQI programs to use data infrastructure • Share data with evaluator and data system
Programs not in CQI cohort	Service provider	2, 3	I, II, III, IV	• Complete referrals • Meet basic needs and fill service gaps
NC Department of Public Instruction	Service provider	2, 5	IV, V	• Implement N.C. Pre-Kindergarten • Share data

Conclusion

The following list summarizes the critical hypotheses – or "if-then" statements – that comprise the core of *Ready Ready* and TDE's Theory of Change. All statements are intended to be meaningful, achievable, doable and measurable.

IF

- Reproductive health strategy reaches enough women at-risk of unplanned pregnancy
- Community Care of North Carolina expands outreach beyond the Medicaid population and assesses all pregnant women
- Family Connects continues assessing all newborns through universal home visits
- All families are assessed at 15-18 months and at regular intervals until school entry
- The State of North Carolina continues assessing all five year olds at kindergarten entry and until third grade K-3 Formative Assessment, and/or Say Yes implements case management district-wide
- Assessments chosen and developed measure all domains of well-being
- Families consent to the assessments and sharing their information
- A data infrastructure can be introduced that captures information from the assessments
- Children and families will be reached at the critical stages of the lifespan
- Programs with proven impact on the outcomes are expanded without compromising implementation quality
- Remaining gaps are filled by promising programs undergoing CQI
- CQI coaching improves program effectiveness
- Proven and CQI programs – along with basic needs providers – meet the breadth and depth of needs discovered through assessment
- Proven and CQI programs – along with basic needs providers – are accessible to families
- Proven and CQI programs are individually effective enough to produce individual-level impact
- Proven and CQI programs reach enough families to produce population impact
- A data system is introduced that can determine program effectiveness
- Families' needs are accurately matched with community services
- Navigators refer families to effective services that families can and want to access
- Navigators capture information about children's well-being
- A case management data system is purchased/built
- Programs in the network have capacity and incentive to utilize the case management system
- Services are accountable for accepting and completing referrals
- Messages about early childhood development promote evidence-based practices
- Messages are compelling to families
- Messages reach enough families
- Communications from service provider and community campaigns are reinforcing
- Say Yes continues to provide scholarships and extends its K-12 pathway to early childhood
- Say Yes and/or Guilford County Schools places case managers in each elementary school
- *Ready Ready* and its partners convey the importance of early childhood to funding community
- An ongoing fiscal analysis is conducted and communicated, identifying where current financial resources are being allocated across public and private sources as well as the additional resources required to achieve population-level goals.
- Community members identify early childhood development as a priority
- Constituents expect elected officials to prioritize early childhood development
- Cradle-to-career governance gives proportional attention early childhood
- Evaluation demonstrates impact on child outcomes important to decision-makers

- Cost-benefit analysis demonstrates cost-savings for the public sector

THEN

- Families will be reached at the critical stages of the lifespan
- Families' needs will be known so they can be matched with effective programs
- Providers will be monitored for effectiveness
- Providers can share information about their care for families with each other
- Data will be aggregated to inform evaluation and decision-making
- Enough needs will be known for population impact to be feasible
- Families will not "fall through the cracks" across the lifespan
- More programs accept and complete referrals
- More families will gain access to effective programs
- More families place greater emphasis on early childhood development
- More caregivers will improve their parenting practices
- Families will accept more referrals
- Private funders and public officials will place greater value on early childhood
- Individual level effects will be achieved
- Population level effects will be feasible

THEN AND ONLY THEN

- Individual impact will be produced for all targeted outcomes
- Population impact is produced for all targeted outcomes
- Population disparities reduce for all targeted outcomes
- Private funders will direct new resources to early childhood priorities
- Cost savings will be achieved

THEN AND ONLY THEN

- The public sector will sustain the initiative
- Children throughout Guilford County will be healthy, developmentally on track, and prepared to succeed in school and in life