PATHWAYS to grade-level reading

10 YEARS
NC EARLY CHILDHOOD FOUNDATION — EST. 2013

PATHWAYS to GRADE LEVEL READING POLICY & PRACTICE ACTIONS TOOLKIT

PART FIVE

MEDICAID is a POWERFUL TOOL to IMPROVE OUTCOMES for YOUNG CHILDREN and THEIR FAMILIES

NORTH CAROLINA EARLY CHILDHOOD FOUNDATION // MAY 2024

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LEVERAGING MEDICAID

This five-part toolkit is designed to provide guidance for how policymakers, advocates, community non-profits, the business community, and other stakeholders can support the well-being of all North Carolina children with strategic, early-life investments. A broad tent of stakeholders from across the state came together from 2016-2019 to develop NC's Pathways to Grade-Level Reading Initiative (Pathways) over the course of three years.

In this fifth part of the Pathways toolkit, we focus on how Medicaid can be leveraged to support a broad range of services that can strengthen child and family wellbeing. Medicaid holds enormous potential because it touches such a huge number of families: Nearly half of children under age three in the United States get their health insurance through Medicaid and the Children's Health Insurance Program (CHIP). The importance of Medicaid for strengthening the health and wellbeing of children in low-income households cannot be understated: At least three-fourths of children under age 6 in low-income households rely on Medicaid or CHIP for health coverage. Of the general population of children in North Carolina, approximately 33% of African-American and 20% of White children had Medicaid coverage.

Because Medicaid serves families with low or moderate incomes, it is important to think beyond direct provision of health care and address broader social determinants of health. The large number of children that are served, the high number of touch-points that families experience with pediatric care providers over the first three years of life, and the deep level of trust parents often have with their pediatric care provider, all make Medicaid a critical leverage point for promoting children's on-track development and well-being, beyond the provision of basic healthcare services.

Because Medicaid eligibility is typically determined by low income, families who are eligible for Medicaid are often at higher risk for experiencing a host of challenges that can adversely affect their physical, psychological, and behavioral health. Some of the effects are direct, such as hunger, housing insecurity, and exposure to violence in the community and at home. Some of the effects are indirect, related to caregiver stress and coping with trauma. A substantial amount of research informs us that the best healthcare is only of marginal benefit unless health insurance systems and providers also address the social factors that can have such profound impacts on health.

On January 17th, 2024 The North Carolina Department of Health and Human Services announced updated policies for its a first of its kind statewide health plan to ensure access to comprehensive physical and behavioral health services for Medicaid-enrolled children, youth and families served by the child welfare system. The plan will cover an array of Medicaid-covered physical and behavioral health benefits, regardless of the geographic location or situation the beneficiary is experiencing. Additionally, the Children and Families Specialty Plan will be responsible for addressing unmet health-related resource needs, including housing, food, transportation, and interpersonal violence.

TWELVE IDEAS FOR LEVERAGING MEDICAID

In support of this expansive view of Medicaid-covered services, we are highlighting a curated list of resources that can help policymakers, practitioners, and advocates leverage Medicaid to address the social determinants of health, and the interconnections between physical and psychological health. States including North Carolina have used the Medicaid waiver process to undertake a wide range of reforms to improve program quality and efficiency, and move from simply providing a high-volume of care to higher-quality, preventive, and coordinated care.

Because Medicaid serves populations who are often most over-burdened and under-resourced, the program is also at the forefront of initiatives to combine access to health care with broader efforts to improve the social determinants of health, by strategically using health care as an entry point for more comprehensive responses to health and social risks. As stated in a report by the National Academy of Social Insurance:

"Medicaid insures a greater and more sustained range of clinical services that promote health, including services for children and adults with severe disabilities such as extended mental health care and habilitative services. Medicaid also emphasizes coverage of preventive services, especially for children and adults of childbearing age. Unlike private insurance, Medicaid covers treatments in community settings—such as schools, Head Start programs, and adult day treatment settings—as well as in the home—through home-visiting programs for new mothers and infants."

The toolkits listed below can be used by state policy-makers and advocates to be at the leading edge of moving from sick-care to health promotion, which is especially important when focusing on infants and young children.

1. LEVERAGING MEDICAID TO IMPROVE CONSISTENCY OF CARE FROM BIRTH TO KINDERGARTEN ENTRY

We start by thinking big and sharing ideas for implementing five-year continuous eligibility for Medicaid. Children experience many developmental milestones in the early years, and loss of health coverage—even a temporary one—can mean significant disruptions in care that impact child development, Kindergarten readiness, and family finances. North Carolina's move to merge Medicaid and the Children's Health Insurance Program (CHIP), in the Spring of 2023, was a great start to minimizing gaps in coverage that often occurred when children aged out of Medicaid and transitioned to CHIP. More can be done through continuous eligibility to reduce gaps in coverage during children's first several years of life.

As of January 1, 2024, states are required to provide 12 months of continuous coverage to children under Medicaid and CHIP, allowing them to remain enrolled for a year regardless of fluctuations in income or family size (states have long had this option, but are now required to do so). Continuous coverage reduces disruptions in children's care, which is especially important when aiming to prevent illness and promote health. This report on several states' initiatives to develop and implement multi-year continuous eligibility for children provides a starting place for legislators interested in improving continuous coverage in their own states.

2. LEVERAGING MEDICAID TO ADDRESS BROADER SOCIAL DETERMINANTS OF HEALTH

Early childhood specialists are increasingly seeking innovative ways to mitigate the impacts of children's exposure to childhood trauma, unsafe housing, environmental toxins, food insecurity, and many more developmental challenges that particularly face children living in poverty. North Carolina Medicaid has implemented a set of new billable codes that capture primary care provider activities to address social drivers of health for their Medicaid members. For now, these codes are being used to track data about children's experiences, and to test an innovative Alternative Payment Model through North Carolina Integrated Care for Kids (NC InCK).

However, the pilot program could pave the way for new approaches and financing models for both primary prevention, and promoting Kindergarten readiness.

Much can be learned from the ways that the Office for Community Child Health at Connecticut Children's takes a broader systems-level approach to health care. Based within one of the state's leading hospitals and pediatric networks, the Office for Community Child Health works in collaboration with partners from a variety of sectors to address the factors that impact children's health. The office focuses on children who have been identified of being at-risk, *"but don't yet have delays and disorders, in the hopes of moving them from an "at risk" or "vulnerable" trajectory to a "healthy" trajectory, instead of watching them spiral downwards towards a "delayed or disordered" trajectory."* This community-based approach is built on the large body of evidence that ensuring families' basic needs are met—including early care & education, food & nutrition, and housing—is foundational to children's health and development.

In addition, the briefs linked below highlight some of the ways that Medicaid is being used to improve specific social determinants of health:

- Medicaid Supportive Housing Services Crosswalk (Corporation for Supportive Housing—CSH)
- Leveraging CHIP or Medicaid to Eliminate Lead Exposure (Children's Defense Fund)
- State Medicaid Agencies Can Partner With WIC Agencies to Improve the Health of Pregnant and Postpartum People, Infants, and Young Children (Center on Budget & Policy Priorities)

Medicaid can also be leveraged to address the social determinants of health by taking advantage of its infrastructure. Some states are using their computerized Medicaid application as a "no wrong door" gateway that increases efficiency by also determining applicants' eligibility for other programs. Through system integration, children and families can enroll not only in health coverage, but also in other critical programs for which they qualify, such as nutrition or housing assistance.

3. LEVERAGING MEDICAID GUIDANCE TO ENABLE CARE PROVIDERS TO IDENTIFY THE ARRAY OF CHILDHOOD AND FAMILY SERVICES THAT CAN BE BILLED TO MEDICAID

The federal Medicaid law specifically requires that children under the age of 21, who are eligible for Medicaid, receive all medically necessary services through Early and Periodic Screening, Diagnosis, and Treatment (EPSDT)—regardless of whether those services are included in the North Carolina State Medicaid Plan. Greater awareness and use of EPSDT by clinicians can enhance children's care.

Health care providers need assistance navigating Medicaid billing and reimbursement to provide infants and children with care that goes beyond responding to illness. Several organizations provide such guidance to clinicians. The American Academy of Pediatrics provides comprehensive listings of codes for preventative pediatric care. The National Center for Children in Poverty provides an overview of state billing codes for social-emotional screening, maternal depression screening, dyadic treatment, parenting programs, and infant and early childhood mental health consultation services. Another example is Colorado's creation of a manual that aligns specific early childhood services with allowable Medicaid billable codes. The manual will include learning modules to make the Medicaid billing process easier and more efficient for providers. Services included in the guidance manual include Nurse Family Partnership, Healthy Steps, Early Intervention, child abuse and neglect, and early childhood mental health consultation.

4. LEVERAGING MEDICAID TO ADVANCE MENTAL HEALTH PARITY IN REIMBURSEMENT RATES

Many note that low mental health reimbursement rates make it difficult to recruit mental health professionals to serve communities where a high percentage of residents' access to care is dependent on Medicaid reimbursement. North Carolina's legislators are addressing this issue through Medicaid behavioral health rate increases that went into effect in January 2024. Several of these rate increases target the needs of young children, such as increases for family therapy, developmental testing, and child and adolescent day treatment. More work is needed to ensure that lower reimbursement for behavioral and mental health services compared with other health services do not pose a barrier to increasing the number of pediatricians who invest in training to meet children's behavioral health needs.

5. LEVERAGING MEDICAID TO IMPROVE PARENTS' MENTAL HEALTH

Sometimes the best way to support an infant or young child is by addressing their parents' mental and behavioral health needs. Infants' and children's development occurs within the context of parent-child relationships. Direct interventions targeting children are ineffective without the engaged participation of their parents. States need to be intentional about ensuring that treatment policy guidelines incentivize family-based interventions, and enable parents to receive treatment without the child present when such treatment is in direct relation to the child's identified needs.

There are many ways that Medicaid can be used to address parental needs, such as parent mental health screenings during well-child visits, 24/7 parent support phone-lines, in-person and virtual home visiting support aimed at strengthening parent wellbeing and caregiving skills, Medicaid-funded parent support groups, and parents' own treatment providers. Ensuring the implementation of billable codes for dyadic treatment–mental health services provided to the parent/caregiver within the context of routine well-child care in the pediatrician's office–is a critical component of how Medicaid can be leveraged to ensure that children are growing up in a healthy household.

6. LEVERAGING MEDICAID TO PROVIDE INFANTS AND CHILDREN WITH BEHAVIORAL AND MENTAL HEALTH SUPPORTS

Because children's eligibility for Medicaid and CHIP are typically income-based, a high proportion of Medicaid-eligible children are at elevated risk for exposure to stressors and traumas that can undermine their mental health and resilience. These can include factors like hunger, homelessness, and parents who face untreated health conditions that hinder the responsiveness of their parenting. As a result, Medicaid and CHIP are uniquely positioned to help families access the professional care they need, especially preventive care. This summary of five states' journeys to strengthen Medicaid support for infant and early childhood mental health (IECMH) offer lessons for other states seeking to more effectively prevent, identify, and address mental health conditions among young children. This more comprehensive 50-state survey on Medicaid Policies to Help Young Children Access Infant-Early Childhood Mental Health Services provides a wealth of implementation opportunities.

Attending to mental, emotional, developmental, and behavioral health challenges is an important part of how Medicaid can advance health equity. The National Survey of Children's Health showed that children from households with an income below the federal poverty line are 40% more likely to face mental, emotional, developmental, or behavioral challenges than those living in wealthier households. Behavioral health care is an increasingly important use of Medicaid-eligible services. With their decision to invest federal Medicaid expansion incentives into mental health care, North Carolina's lawmakers have set substantial structural changes into motion that will improve low-income children's access to behavioral health care.

7. LEVERAGING MEDICAID USING A TWO-GENERATION FRAMEWORK

So far in this brief we have mostly discussed interventions that address parents' and childrens' needs separately. However, by broadening the scope of health care from considering just the individual parent or child to considering the family unit, Medicaid can be used to support interventions for health and well-being, and provide a greater opportunity to thrive among generations. Two-generation programs combine interventions for health and well-being, education, social capital, and economic assets for children and their parents or caregivers. This Aspen Institute toolkit provides a checklist of specific Medicaid policies and design choices adopted in Colorado to implement a two-generation approach to improve the lives of children and their families.

Most states (including North Carolina) have now extended Medicaid coverage from 60 days to 12 months following the birth of a child, as detailed in this report. The report suggests five coordinated actions states can take to ensure the extended postpartum coverage period works as intended to improve physical and mental health for both babies and their parents:

1. Enhance primary care to serve more effectively as a care hub for families;
2. Monitor and reward successful connections to timely care;
3. Finance and remove barriers to appropriate services;
4. Support expanded workforce capacity; and
5. Prioritize maternal mental health and infant-early childhood mental health in Medicaid.

8. LEVERAGING MEDICAID TO ADVANCE HOME VISITING

Home visiting is an evidenced-based two-generation strategy. Home visiting programs attend to the mental health of new parents, help parents create strong early attachments with their children, and build their skills and capacities to promote positive development and prevent developmental delays. Home visiting programs also have demonstrated benefits for children's short-term early-language and cognitive development, as well as long-term educational and life outcomes.

A recent guide on how Medicaid can be leveraged to increase home visiting highlights that despite the demonstrated effectiveness of home visiting models, the limited amount of federal funding reached only around 300,000 families with home visiting services in 2021, reaching less than 4% of the

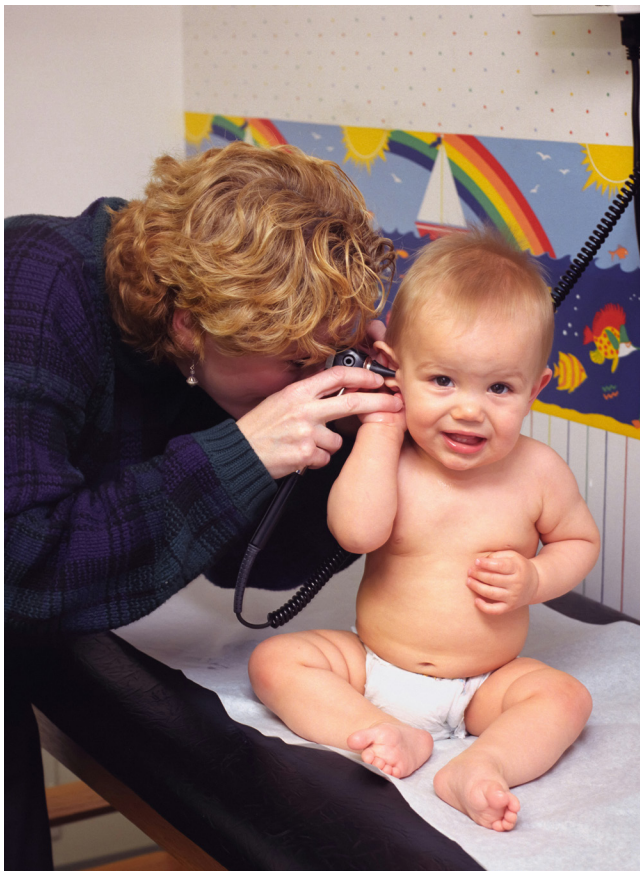
children and families who might benefit. Reaching more families with demonstrated need requires sustainable, ongoing financing. Requiring all states to cover home visiting as a benefit for pregnant women and newborns through Medicaid and the Children's Health Insurance Program (CHIP) would greatly expand its impact. Twenty-one states now cover home visiting models through Medicaid for eligible pregnant women, children, or parents. There is much to be learned from what is already working in states where Medicaid supports home visiting – both the barriers they faced, and the strategies they use to leverage and streamline the accessibility of Medicaid funds to support home visiting programs.

9. LEVERAGING MEDICAID TO ADVANCE INTEGRATED AND COLLABORATIVE CARE

North Carolina is making strides in using Medicaid to advance the utilization of collaborative care as a way to meet behavioral health needs. Collaborative care is the integration of staff members with behavioral health expertise into the primary physician's care team, providing behavioral health treatment in tandem with the primary care provider. In December 2022, North Carolina Medicaid began paying primary care practices that are using the collaborative care model 120% percent of the Medicare rate. This is a significant increase, given that Medicaid typically pays substantially below Medicare rates for most reimbursement codes. Strong guidance on Medicaid billing codes for collaborative care is an important part of reducing barriers of administrative complexity for physicians seeking to provide collaborative care.

Integrated care can also be achieved by co-locating behavioral health practitioners within the same facility as pediatric providers. This enables a "warm-handoff" from the pediatrician to the behavioral health clinician, and increases the likelihood that families will actually be able to use the referral for mental health care services

Integrated care is also greatly facilitated by the use of non-specific Medicaid billing codes for mental health services during the time that a specific diagnosis is still being determined. This means that clinicians can provide early care and intervention to children who need it, while they are still determining a



specific diagnosis. North Carolina has enabled non-specific billing codes since 2009, but many managed care organizations (MCOs) and mental health care providers aren't fully aware of how to use this provision.

10. LEVERAGING MEDICAID FOR SCHOOL-BASED SERVICES

To address children's increasing needs for mental health care and the many barriers to access to care, states are increasingly utilizing Medicaid reimbursement to build out and offer new school-based behavioral health services. A 2019 General Accounting Office report found that many Medicaid-covered children do not receive recommended screenings and services due to barriers like transportation, appointments conflicting with school and work hours, and other factors. Providing children with access to such screenings and services through their school reduces many of the barriers that prevent children from getting the mental health care they need.

School-based behavioral health programs may rely on Medicaid in several ways, including reimbursement for medically necessary services that are part of a student's Individualized Education Plan (IEP), covering eligible health services for students who have Medicaid coverage, and for some administrative activities. State policymakers can also maximize the Centers for Medicare and Medicaid Services (CMS) guidance on "free care" by using Medicaid reimbursement for school-based services provided to children who do not have IEPs. This survey of 41 state Medicaid officials provides a wealth of information about initiatives to promote access to Medicaid behavioral health services in school-based settings.

11. LEVERAGING MEDICAID TO IMPROVE OUTCOMES FOR THOSE IN THE CHILD WELFARE SYSTEM

Nearly all children and youth involved with a child protection agency are eligible for Medicaid; in fact Medicaid is often the primary source of funding for their physical, behavioral, and dental health care. When children are involved in the child welfare system, their healthcare expenditures in Medicaid are typically driven more by behavioral than physical health care.

As a result, several states have undertaken collaborative efforts across child protection, Medicaid, and behavioral health systems to ensure that Medicaid financing can help meet the needs of children and their caregivers. This action-oriented report describes the many of the tools within Medicaid, associated with financing, covered services, and coverage of evidence-based practices, that can be leveraged to improve care coordination for children and families involved with a child protection agency. This set of technical assistance briefs describing the role of Medicaid for children involved with the child welfare system can be used to increase cross-system coordination between state Medicaid and child welfare agencies, and take advantage of new opportunities available under the Family First Prevention Services Act.

12. LEVERAGING MEDICAID TO EXPAND ACCESS TO DOULA SERVICES

As stated by the Doula Medicaid Project, people with low incomes in the United States are at a higher risk of poor birth outcomes. People of color who are pregnant and birthing, especially Black and Indigenous/Native American people, are at elevated risk for both infant and maternal mortality. Doula care is one promising approach to combating inequities in maternal health. Doula care has been demonstrated to improve health outcomes for both new parents and their infants, including fewer low birth weight babies, lower rates of cesarean births, and higher rates of breastfeeding.

Doulas can also help reduce the impacts of racism and racial bias in health care on people of color by providing individually tailored, culturally appropriate, and client-centered care and advocacy. North Carolina's Doula Landscape report shows that Medicaid coverage of doula services is an important avenue for improving maternal and infant health in the state. Much can be learned from states like Nebraska, South Dakota, and Tennessee that are developing policies that enable doula services to be covered under Medicaid.

SUMMARY

As detailed in a recent report, Medicaid offers a unique set of policy tools that can be leveraged to equitably advance many aspects of health and wellbeing. Medicaid provides coverage across the lifespan. It is the largest payer of behavioral health services, institutional and community-based long-term care services, nursing home care, reproductive health care coverage, and over 40% of births nationally. Medicaid is particularly important in the health of historically marginalized racial and ethnic groups: nearly 60% of adults enrolled in Medicaid and 70% of children enrolled in Medicaid/CHIP identify as American Indian and Alaska Native, Asian American and Pacific Islander, Black, Hispanic/Latino, or multiracial. Because of the persistent mental health crisis and increasing need for preventative access to mental health care, leveraging Medicaid and CHIP in the delivery of behavioral health services for children is a critical component of improving health and wellbeing.

Leveraging Medicaid asks policymakers and other government officials to look upstream as they move towards increasing investments in promoting health and wellbeing, versus treating disease and disorders. There are numerous existing resources such as this series of webinars on optimizing Medicaid payment innovations to develop, launch, and sustain activities that foster this shift by addressing the social determinants of health. When states maximize the opportunities to leverage Medicaid to provide more than access to a provider, they are advancing equity in children's developmental experiences and outcomes. We will continue to watch and learn from North Carolina's Healthy Opportunities Pilots, which utilize Medicaid financing to cover evidence-based non-medical services like groceries and rent that impact health, with the aim of improving health outcomes and reducing health care costs.

PATHWAYS ACTIONS

To facilitate improvement in children's developmental contexts and experiences, Pathways stakeholders identified 44 Pathways Actions that policymakers and practitioners can take to improve outcomes. These actions are the result of asking what would be possible by coordinating policies and strategies across all levels of state government and types of organizations to support optimal development from birth through the end of third grade with one central outcome: reading at grade level by the end of third grade. Pathways Actions are comprehensive and multisector because despite the focus on one shared, tangible, and galvanizing goal, Pathways is undergirded by a whole child approach with the understanding that reading scores are a transparent proxy indicator for overall child well-being and a critical predictor of future outcomes.

To ensure that the Design Team's work was grounded in the local realities across North Carolina, Pathways created a feedback loop between communities and the state-level Design Team. Participants included pediatricians, superintendents, early educators, social services providers, community college and university representatives, principals, child care center directors, and more. These conversations resulted in the creation of a matrix of hundreds of possible actions for improving outcomes in the prioritized areas of focus, with these recommendations shared with the Design Team to provide local input as they made final decisions about which actions to recommend.

The remainder of this *Part 5* Pathways Toolkit highlights five important actions identified by Pathways stakeholders that can help ensure that parents and their young children can be resilient and thrive, even in the face of adversity:

Expectation 2 • Systems Serve Children in the Contexts of Families and Communities

- Action 2.1—Screen Children and Families for Social Determinants of Health and Connect them to Appropriate Services
- Action 2.2—Invest in Two-Generation Interventions
- Action 2.3—Expand Maternal Depression Screening and Treatment

Expectation 4 • Social-Emotional Health System is Accessible and High Quality

- Actions 4.7—Use Data to Track Community Needs and Service Provision
- Action 4.9—Include At-Risk Children in Early Intervention

ACTION 4.7

Early childhood data related to social and emotional health, both qualitative and quantitative, are necessary to ensure equitable and effective service. Population-level measures of young children's social-emotional health are currently a data gap in North Carolina and are under development though some program and community-level data exist that can be used and expanded on to inform policies, funding, and advocacy.

USE DATA to TRACK COMMUNITY NEEDS and Service Provision

Early childhood data systems help program leaders and policymakers better understand the needs of the families they serve. Data can illuminate answers to questions around access, program effectiveness and quality, and young childrens' needs, ultimately serving to inform the allocation of federal, state, and private funds. Comprehensive and integrated data systems enable investments in early care and education to be driven by where the greatest need is identified, and by existing gaps as identified by data collection.

For young children in North Carolina, this data gap is particularly apparent with regards to social and emotional health (SEH). Currently, there is no statewide data available on young children's overall SEH, despite its importance as a critical foundation for children's development and learning. Both early and regular SEH screenings that identify children who may be at risk and follow-up comprehensive assessments of those who screen at-risk are crucial in addressing this data gap.

WHAT WE KNOW

It is well established that social and emotional skills, the intrapersonal and interpersonal capacities and practices that young children have, are immensely important in shaping their adolescent and adult outcomes. Compared to their peers, children who are socially and emotionally healthy and have well-developed self-control have better oral language development, interpersonal skills and physical health; have fewer behavioral problems; and are more successful in school and future employment.

A meta-analysis of 213 studies revealed

AN 11% GAIN IN ACADEMIC ACHIEVEMENT

for students who participated in evidence-based social and emotional learning (SEL) programs over those who did not.

Measuring what matters is frequently the first step in shifting the needle because data can empower policymakers to make informed decisions that support all aspects of childrens' wellbeing, including their mental and behavioral health. Population-level data on children's SEH would enable informed discussions about the allocation of resources by asking:

- How does children's SEH in one NC county compare to that of children in another county?
- What groups of children face disparate SEH needs and strengths?
- How is children's SEH changing over time compared to other social and economic conditions?
- What policies and practices are associated with stronger SEH?
- Where and how should the state allocate resources to address system needs?

Dive Into the Data

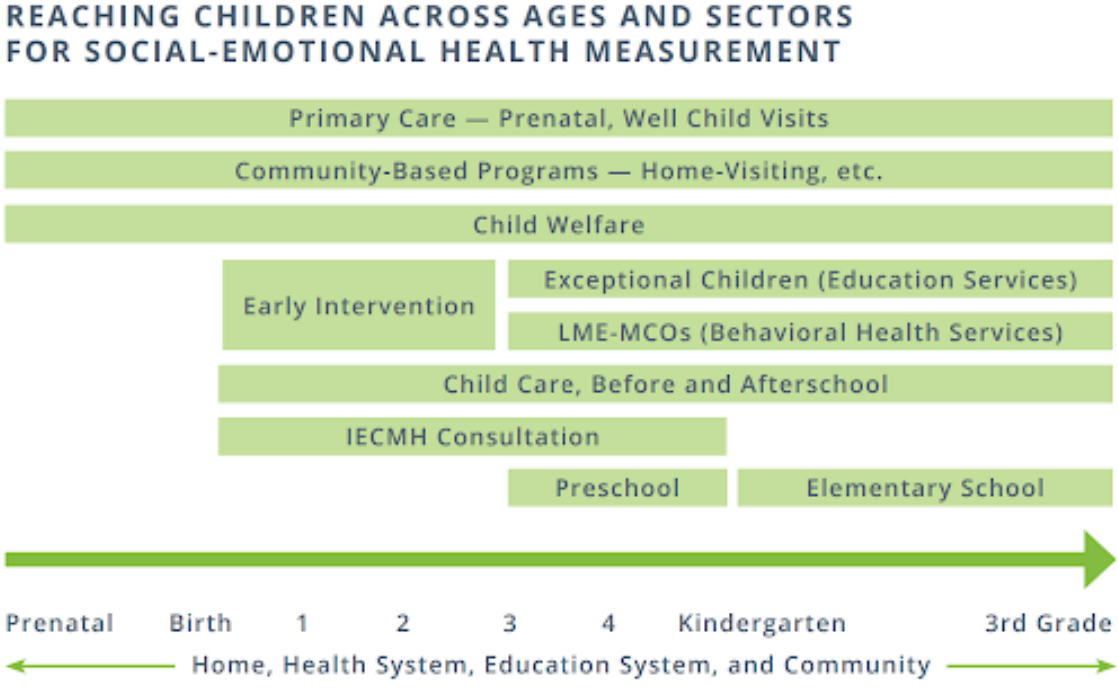
Data on this issue are urgently needed. There is currently no good source of information. Explore other North Carolina early childhood data indicators on the **Pathways Data Dashboard**.

WHAT WE NEED

The Children's Social-Emotional Health data workgroup convened by the North Carolina Early Childhood Foundation provided a detailed set of **Recommendations for Population-Level Measures of Young Children's SocialEmotional Health in North Carolina**. A phased-in approach to collecting data is recommended, starting with sectors where most children are reached and/or where shared data systems are already in place or most feasibly implemented. Pediatric, child care, preschool, and K-12 contexts all provide opportunities for implementing brief needs assessments that can be used to identify which children and in what developmental areas need additional support. In order to have a comprehensive understanding of children's SEH at the population-level in NC, the workgroup recommends using a portfolio of measures that includes measurement of the child and family systems that impact children's SEH.

As shown in Figure 1 below, ideal measures of young children's SEH would include children across the age spectrum engaging with different early childhood sectors.

Figure 1



HOW TO SUPPORT

Continuing to support the convening of NC's Early Childhood Data Advisory Council (ECDAC) is one way to foster the collection and integration of population-level measures of children's SEH. Durable, equitable data infrastructure requires fostering statewide collaborations across all levels of government, as well as with a diverse community of child and family serving organizations. This is best accomplished when there is a formal networking infrastructure such as the ECDAC, which thoughtfully recruited early childhood data owners and users from across the state. NC's ECDAC serves a critical role in maximizing the utility/usability of the data capacities rapidly growing across the state. It provides a valued circle of experts that can steward the creation of new data integration and visualization

> Addressing the existing data gap in North Carolina when it comes to young childrens' SEH is an investment that will enable children and their families to thrive.

INITIATIVES WORKING IN THIS AREA

Leading on Opportunity developed the Opportunity Compass, a publicly available tool for tracking Charlotte-Mecklenburg's collective progress on economic mobility. The Opportunity Compass measures community indicators in the areas of: College and Career Readiness, Child and Family Stability, Early Care and Education as well as Segregation, using primarily publicly available data, such as the American Community Survey, to establish a baseline, and help local leaders determine the most effective interventions to improve lives in the Charlotte area.

The NC Healthy & Resilient Communities Initiative supports local multi-sector coalitions in North Carolina who are working to address adversity and trauma. Peer support, trainings, and connections to statewide and local resources are provided, including a Landscape Analysis tool for local collaboratives which includes data, graphics, definitions (for shared language), and a Theory of Change Model to encourage cross-agency/system collaborations with a shared understanding of community resilience and adversity. Developing policy to expand doula services to support communities and young children and mothers in need.

Child First is an evidenced based mental health program which helps struggling families build strong, nurturing relationships that heal and protect young children from the impact of trauma and chronic stress. We use a two-generation approach, providing psychotherapy to parents and children together in their homes, and connecting them with the services they need to make healthy child development possible.

Visit the Pathways Action Map to learn more about these and other initiatives leading efforts in this area.

ACTION 2.1

Social determinants screening should include risk factors, such as adverse childhood experiences (ACEs), trauma, poverty, and homelessness, and protective factors, such as resources that would help families and children recover from difficulties and exhibit resilience.

SCREEN CHILDREN & FAMILIES for SOCIAL DETERMINANTS OF HEALTH and CONNECT THEM to APPROPRIATE SERVICES

Social determinants or drivers of health are the conditions in which people are born, grow, live, work, and age. The conditions of children's neighborhoods, homes, and child care have a strong influence on their health, development, and school success. Children living in families with low incomes face many obstacles to healthy cognitive and emotional development, such as parental unemployment, housing instability, inadequate nutrition, and toxic stress. Screening for social determinants of health helps to identify families and children who need access to preventative formal and informal developmental supports.

WHAT WE KNOW

The **social determinants of health have been shown to have a larger significance for health than either access to healthcare services or genetic factors**. Because differential access to the social determinants of health is the primary driver of racial, ethnic, and socioeconomic health disparities, screening for them and directly connecting families and children in need to services is a crucial step in working towards health equity. Historical and contemporary practices restricting access to housing, education, wealth, and employment for members of communities of color places individuals and their communities at greater risk for poor health outcomes.

SOCIOECONOMIC FACTORS ALONE ACCOUNT FOR APPROXIMATELY 47% OF HEALTH OUTCOMES, while health behaviors, clinical care, and the physical environment account for 34%, 16%, and 3% of health outcomes, respectively.

Several studies in recent years have shown that these social and structural factors—from education, race, social support, and poverty—**contribute to over a third of deaths in the US in a given year**.

Dive Into the Data

Access to quality housing is a key factor influencing health and overall wellbeing. The **Pathways Data Dashboard** indicates that 50% of households in Pitt County are cost burdened, with this data broken down for other counties and disaggregated by race and ethnicity.

WHAT WE NEED

Given the complex and multi-layered nature of the social determinants of health, collaboration across sectors, such as transportation, education, housing, and healthcare, and across various organization types, such as government agencies, private industry, and community-based organizations, are needed to create positive change. These collaborations must also extend across scales–local, state, tribal, and national levels. Each of these sectors, organization types, and scales have differing reach and capabilities in connecting families and communities to supportive services.

HOW TO SUPPORT

It is important for legislators and those implementing health policies to have information based on screening for the social determinants of health so they can make targeted investments in supportive resources and services in communities with the greatest need. Coupled with this, there is increasing need for guidance regarding the development and use of linguistically appropriate screening and referral services to keep equity at the forefront and narrow gaps in access to services.

Thankfully, there are several **successful evidence-based interventions, addressing the social determinants of health**, that improves immediate and long-term health and wellbeing outcomes.

Social determinants of health—from housing to education to food security—are key drivers in health inequities, and have more of an impact than factors including clinical care to overall health.

Below is a short list of several interventions that can interact with each other to significantly change the course of a child's life. Increasing access to:

- Education and training needed to increase income
- Tax credit and supplemental income support for low-income and disabled individuals
- Affordable housing that is safe and stable
- Affordable and reliable transportation to work, school, and health care facilities
- Affordable, healthy food
- Case managers who can coordinate care across for those managing complex challenges

INITIATIVES WORKING IN THIS AREA

Wake Connections is a coordinated intake and referral system that matches young children (prenatal-5) and their families in Wake County with home-based and group services that best fit their needs. Wake Connections includes 12 partner programs focused on areas including parenting skills, child development, pregnancy and postpartum support, school readiness, behavioral health and resource linkage. One online application allows a family to be screened for eligibility for multiple services and matched with the best fit program.

Healthy Steps is an evidence-based, interdisciplinary pediatric primary care program designed to promote nurturing parenting and healthy development for babies and toddlers particularly in areas where there are persistent inequities for families of color or with low incomes. A child development professional, known as a HS Specialist, connects with and guides families during and between well-child visits as part of the primary care team.

Child Care Health Consultants (CCHCs) are health professionals with expertise in child and community health who work collaboratively with early educators to promote healthy and safe environments for children, staff, and families in child care. Located in about 38 counties across NC, they provide technical assistance, professional development, and coaching and serve as liaison between the child care provider, the family and the child's health care provider to identify needs as early as possible and connect families to services.

Visit the Pathways Action Map to learn more.

ACTION 2.2

Invest in treatment and services that focus on creating opportunities for and addressing the needs of both children and the adults in their lives together.

INVEST in TWO-GENERATION INTERVENTIONS

Two generation approaches are centered around the principle that outcomes for children are closely related to the well-being of their families and caregivers. And likewise, parents' abilities to create positive change in their own lives often relies on the availability of safe and reliable care for their children. Two generation interventions recognize the interdependence of families and children, often with a focus on interrupting generational cycles of poverty. Interventions combine physical health, social-emotional health, child development, parenting education and social support and address issues such as substance addiction, child abuse and neglect prevention, family planning, and supporting families of children with disabilities.

WHAT WE KNOW

Two-generation approaches can be particularly beneficial for families that face systemic barriers, particularly members of communities of color who face disproportionately high rates of poverty. As stated by Areeba Haider, a research associate for the Poverty to Prosperity Program at the Center for American Progress: **"Child poverty in the United States is persistent, it's structural. But it's also really solvable."** Two generation programs help to reduce poverty by simplifying access to various forms of assistance for families in crisis while simultaneously addressing the root causes of poverty such as lack of educational and employment opportunities.

> Those providing care are often themselves in need of care—with child care wages averaging $12 per hour, **TOO MANY EARLY CHILDHOOD EDUCATORS, DESPITE WORKING FULL-TIME, ARE FINANCIALLY INSECURE** and struggling to support their own children.

There is strong evidence that parents' wellbeing, from mental health to economic security, strongly influences children's development by providing the foundational developmental environment—both physical and emotional. Similarly, healthy child development supports parents' economic and mental health because needing to take time off to care for sick children can cost parents' their jobs and can take a toll on their wellbeing. Two-generation policies that recognize this reciprocal relationship are needed to address the needs of both parents and children in tandem. Research demonstrates that **successful two-generation approaches** seek to improve access to opportunities for improving family economic security, improve access to high quality care and education for children, and increase access to programs, services, and networks that help parents understand and advocate for their children's healthy development.

Dive Into the Data

Family Support Programs can increase family engagement, parents' knowledge of child development, and support connection initiatives with learning from families. Home visiting programs are one piece of this infrastructure and their availability varies greatly by county. For example, Guilford county has **15-20% of their population** served by home visiting programs and Lincoln county has less than 1% of their population served. Explore other North Carolina early childhood data indicators on the **Pathways Data Dashboard**.

WHAT WE NEED

The **2Gen Resource Library** provides numerous evidence-informed materials to advance the development of social support programs that build whole family well-being by intentionally and simultaneously working with children and the adults in their lives together. Their 2Gen model is based on five key principles, such as simultaneously accounting for outcomes for both children and their parents, and aligning and linking systems and funding streams to simultaneously provide services to parents and their children.

There are **effective two-generation family self-sufficiency programs** in North Carolina that are operating in **Asheville**, **Charlotte**, **Durham**, and **Greensboro**. These programs use a combination of coordinated services and supports from community partners and an escrow savings account to help participants grow their earned income and savings and increase their financial well-being. Case managers help families with complicated lives link to child care, a critical component of facilitating workforce involvement. These initiatives need support from state and local policymakers to ensure they are sustained and expanded.

HOW TO SUPPORT

Support is needed for low-income families, including low wage early childhood educators. As noted above, early childhood educators' low wages present a barrier in their ability to achieve financial stability, and those of them who are parents are often left unable to pay for quality childcare environments that would support the wellbeing of their children. Two initiatives, the **Infant Toddler Educator AWARD$ program and WAGE$** seek to redress this specifically as it occurs for this group through financial incentives and opportunities to grow professional skills and knowledge.

> Children's wellbeing thrives when their caregivers are well-supported and likewise, parents thrive when their children are well-equipped to succeed.

INITIATIVES WORKING IN THIS AREA

Book Babies partners with families of Medicaid eligible children to develop their child's early language and literacy skills. An evidence-informed literacy coaching partnership, Book Babies begins when a baby is born and is sustained over five years. The organization builds rich relationships and provides families with the information and resources they need to develop the foundation for their children's school readiness and school success.

Durham Children's Initiative's cradle-to-career pipeline is designed using a holistic model that focuses on the entire family. They offer two-generation supports that can take the form of employment and vocational supports, family stability interventions and support, parent education, and technology support. Families who enter the pipeline during the stage of early childhood are offered interventions such as kindergarten readiness preparation, parent education and support, and access to childcare.

Charlotte Bilingual Preschool prepares Spanish-speaking children for success in school and life by providing superior dual language, multicultural early childhood education. Charlotte Bilingual Preschool provides a suite of two generation programs, including a four-year pilot of the national home visiting program ParentChild+. Early Learning Specialists hired and trained from their family community support quality parent-child interactions, connect families to resources, and equip them with skills to support kindergarten readiness at home over two years of twice-weekly visits while children are two to four years old.

Visit the Pathways Action Map to learn more about these and other initiatives leading efforts in this area.

ACTION 2.3

Continue to track North Carolina's rates of maternal postpartum depression screening at well-baby visits and the amount and effectiveness of maternal depression and evidence-based two generation (mother and child) treatment services. Determine the extent of racial, ethnic, and geographic disparities in screening and service delivery to mothers with depression. Expand access to screening and treatment services based on the results.

EXPAND MATERNAL DEPRESSION SCREENING and TREATMENT

Prenatal and postpartum depression are risks to healthy parent-child interactions. A comprehensive review of the research finds that maternal depression endangers young children's cognitive, socio-emotional and behavioral development, as well as their learning, and physical and mental health over the long term. These risks occur through many channels, including the ways that untreated depression increases the risk of child maltreatment as well as children's own risk of depression, anxiety, and difficult behavior. The good news is that if the parent's depression can be successfully treated, the child's mental health is markedly improved too.

WHAT WE KNOW

The prevalence of maternal depression ranges over the course of pregnancy and the postpartum period: as many as 20% of pregnant women experience depression, up to 80% experience the "baby blues" during the first two-weeks after delivery, and as many as 20% experience postpartum depression lasting longer than two-weeks after delivery. Low socioeconomic status and associated economic distress increases the risk for postpartum depression, Specifically, women with four SES risk factors (low monthly income, less than a college education, unmarried, unemployed) were **11 times more likely than women with no SES risk factors to have clinically elevated depression scores**.

Currently, **ONLY 68% OF PREGNANT WOMEN IN NORTH CAROLINA RECEIVE THE NECESSARY PRENATAL CARE**; far behind the national average of 77%.

It is important that we extend our understanding of postpartum depression to fathers and other caregivers involved with infant care. Our understanding of postpartum depression among fathers is new and we don't yet have established diagnostic criteria, but **the risk factors include a history of depression in either parent, poverty, and hormonal changes**. It is estimated that **one in ten fathers** experience postpartum depression and anxiety. Similar to supporting mothers experiencing postpartum depression, fathers need support from their partner, educational programs, paid parental leave, and professional mental health care.

Dive Into the Data

In North Carolina, approximately, **92% of mothers receiving Medicaid are screened for postpartum depression during well-baby checkups**. New parents develop trusting relationships with their child's pediatrician and these relationships can be leveraged to improve the health of parents and children. Explore other North Carolina early childhood data indicators on the **Pathways Data Dashboard**.

WHAT WE NEED

Routine postpartum pediatric, obstetric, and gynecological visits are the healthcare system contacts that are most likely to **catch early stages of postpartum depression**. There are well-established two question screening assessments that can be followed by a more extensive diagnostic assessment for those who screen positive for being at-risk. However, many primary care providers need support to take the next steps in care after a patient screens positive.

Mental health consultation services like **NC MATTERS** are key to ensuring that primary care providers can access specialized mental health knowledge needed to appropriately screen and refer to more intensive care. NC MATTERS provides physicians with no-charge, real-time psychiatric consultation, resource and referral services, and training opportunities.

HOW TO SUPPORT

Just like it takes a village to raise a child, it takes a collaborative of service providers to provide a safety-net for at-risk families. North Carolina has a strong history of maternal depression screening to build on and NC MATTERS works closely with state programs such as **Perinatal Quality Collaborative of North Carolina** and **Attachment Network of North Carolina**, and **other organizations**. All of these programs need philanthropic and government support to ensure that cost is not a barrier to physicians and patient access. For example, NC MATTERS relies on funding from the Health Resources and Services Administration, Maternal and Child Health Bureau.

> Over the past several decades, in much of the world, the maternal mortality rate has declined. But in the U.S. the problem has only worsened.

Investing in home visiting is one way of attending to the mental health of new parents. A recent assessment found that **there are high costs to untreated perinatal mood and anxiety disorders (PMADs) among birthing parents**. PMADs are mental health conditions that develop during pregnancy and the year after delivery. They are the most common complication of pregnancy and childbirth and include diagnoses such as depression and obsessive-compulsive disorder.

INITIATIVES WORKING IN THIS AREA

Family Connects universal newborn nurse home visiting program is an evidence-based model that combines engagement and alignment of community service providers with short-term nurse home visiting. It is a voluntary program and is provided at no cost to families. A registered nurse connects with a family in their home shortly after birth to: share the joy of the birth; assess the child's and birthing person's physical health status (as applicable); assess unique family strengths and challenges; and respond to immediate family needs. Working together with the family and building on identified strengths, the nurse connects the family with local community resources based on individually identified needs, priorities and preferences.

The Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) gives pregnant women and families, particularly those considered at-risk, necessary resources and skills to raise children who are physically, socially, and emotionally healthy and ready to learn. By electing to participate in local home visiting programs, families receive help from health, social service, and child development professionals. Through regular, planned home visits, parents learn how to improve their family's health and provide better opportunities for their children. Two of the home visiting programs supported by MIECHV in North Carolina include Healthy Families America (HFA) and Nurse-Family Partnership (NFP). Both models are evidence- based, which is a requirement to receive MIECHV funding.

Visit the Pathways Action Map to learn more about these and other initiatives leading efforts in this area.

ACTION 4.9

Include at-risk children in NC's definition of eligibility for the Individuals with Disabilities Education Act (IDEA) Part C Early Intervention Program.

INCLUDE AT-RISK CHILDREN in EARLY INTERVENTION

Early intervention is a system of services designed to support families with young children who have, or are at-risk for, disabilities. Early intervention providers include early childhood special educators, physical therapists, occupational therapists, speech and language pathologists, and health professionals that work in partnership with parents and caregivers to understand and provide services that build on children's strengths, so they can reach their highest possible potential.

WHAT WE KNOW

More than 20 years of research demonstrates conclusively that early intervention is associated with immediate gains in development and a positive return on investment. There are two frameworks for deciding which families are targeted for receiving early intervention services:

- **Targeted selective** interventions are offered to families and children based on whether they meet demographic risk criteria, such as low family income, single parenthood, adolescent parenthood, or racial/ethnic minority status. These selection criteria aim to reach children who may not yet be experiencing a specific developmental delay, with the hope that early provision of services can prevent serious problems from occurring.
- **Targeted indicated** interventions are offered to families and children who are actively exhibiting a serious problem and can be diagnosed as having a specific disorder. For these families, early intervention can no longer prevent problems from occurring, but provision of services can treat the problem and mitigate or even reverse long-term developmental harm.

5.5% OF NC CHILDREN AGE 0 TO 3 ARE ENROLLED IN EARLY INTERVENTION SERVICES to reduce the effects of developmental delay, emotional disturbance, and/or chronic illness through the North Carolina Infant-Toddler Program.

NC's current eligibility criteria for early intervention provided via the NC Infant and Toddler Program (Part C of IDEA) is target indicated, requiring that young children (up to age 3) have either an established condition or a certain level of developmental delay. Establishing an eligibility category based on targeted selective criteria, which several other states currently have and North Carolina had in the past, would help to address issues earlier for children who are placed-at-risk for delays and increase the likelihood of early school success.

Broader 'targeted selective' criteria for identifying those who would be eligible for supportive services would also advance equity as **racial disparities exist with existing eligibility categories**. Black children are overrepresented in targeted selective categories while being underrepresented in targeted indicated. Making services available to families and children based on selective (at-risk) criteria will help prevent the development of disabling conditions, reducing the need for costly special education services once the child reaches school age.

Dive into the Data

North Carolina's efforts to effectively link information on participation in Individuals with Disabilities Education Act programs for informed decision making. As in many states, North Carolina's early intervention (Part C) and early childhood special education (Part B, 619) programs are in two agencies. Early intervention programs are housed in the Department of Health and Human Services and early childhood special education programs are housed in the Department of Public Instruction. This makes it difficult to know how many children who participated in early intervention and are potentially eligible for early childhood special education are effectively transitioned and enrolled and how many do not transition and miss out on receiving services that can foster their school and later life success?

WHAT WE NEED

Research shows that infancy and early childhood offer special opportunities for **maximizing the return on investment (ROI) for dollars spent on supportive services**. The following list shows the many levels at which prevention and intervention services can be provided. It goes from the least intensive interventions that touch the most families to reach those placed at-risk for, but not yet experiencing developmental challenges.

Least intensive, touches the most families, highest ROI

Primary prevention addresses universal needs in an attempt to avoid serious injury and illness or relationship disruption, with the aim of reaching all members of a group or the whole population.

Secondary prevention uses limited screening criteria to identify individuals and groups placed-at-risk for developmental challenges, such as preterm infants and children living near polluting industries.

Early intervention attempts to identify and deliver services to children, families, and neighborhoods with known adverse circumstances that place them at-risk for serious disruptions of healthy development.

Tertiary intervention services include intensive supports and therapies provided to children with diagnosable conditions, with the aim of returning the child or family to an improved level of functioning.

Most intensive, touches the fewest families, lowest ROI

Unfortunately, **most states, including North Carolina, provide limited support for proactive and preventative interventions**, forcing many families and children to wait until developmental challenges are causing serious impairment before they become eligible for support.

HOW TO SUPPORT

Early intervention harnesses the tremendous knowledge that we have on the individual, family, community, and society level factors that can harm children's development and limit their future social and economic opportunities. Using this knowledge to identify infants and children who may need more support than their parents and caregivers can provide enables us to reduce the likelihood of adverse outcomes. Therefore, it is critical that legislators and others charged with writing and implementing policies that affect young children and their families develop policies that are proactive and preventative in getting children access to early intervention services. These efforts must also be intentional about reducing existing racial, ethnic, and socioeconomic disparities in developmental screening, identification, and referral for services.

INITIATIVES WORKING IN THIS AREA

REACH, a program offered by Passage Home, offers case management services with the goal of addressing the social-emotional, behavioral, developmental, and academic needs of children. Creating a special focus on these childhood needs contributes to Passage Home's multi-generational self-sufficiency approach.

Visit the Pathways Action Map to learn more about these and other initiatives leading efforts in this area.

THE COMPLETE PATHWAYS TOOLKIT

PART ONE *(Click Here to Access)*

- Support Families in Advocating for their Children
- Require Linked Strategies Across Programs to Engage and Learn from Families
- Ensure Assessment Instruments are Culturally and Linguistically Relevant
- Ensure Education Accountability Systems are Culturally Relevant
- Provide Professional Development for Teachers on Cultural Competency/Working with Families
- Support Schools and Child Care Programs to Engage Deeply with Families

PART TWO *(Click Here to Access)*

- Recruit and Retain Educators and School Leaders of Color
- Adjust Hiring Practices to Ensure High-Quality Educators
- Invest in School Health and Mental Health Staff and Clinics
- Eliminate or Minimize Suspension and Expulsion

PART THREE *(Click Here to Access)*

- Create Family-Friendly Employment Policies
- Ensure Accessible Transportation to Early Care Programs, Schools and Health Services
- Provide Wraparound Services for High Quality Early Care and Education
- Expand Child Care Subsidies for Children; Raise Child Care Subsidy Rates; and Provide Higher Subsidy Rates to Providers in Underserved Communities
- Increase Standards and Compensation of Birth-through-Age-Five Educators

PART FOUR *(Click Here to Access)*

- Address Barriers in Health Insurance Coverage of IECMH Services to Ensure Adequate Benefits
- Create a Mental Health Professional Development System Focused on Infant and Toddler Clinicians
- Increase Professional Development in Mental Health Treatment for Pediatricians and Family Physicians
- Integrate Mental Health Providers with Pediatric and Other Primary Care Practices
- Expand the NC Child Treatment Program

PART FIVE *(current toolkit)*

- Use Data to Track Community Needs and Service Provision
- Screen Children and Families for Social Determinants of Health and Connect them to Appropriate Services
- Expand Maternal Depression Screening and Treatment
- Invest in Two-Generation Interventions
- Increase Access to Affordable Housing
- Include At-Risk Children in Early Intervention

APPENDIX A

OVERVIEW OF PATHWAYS

Pathways to Grade Level Reading (Pathways) began in 2015 as a uniquely North Carolina, statewide collaborative focused on creating a shared whole child, birth-to-end-of-third-grade framework outlining the developmental experiences and contexts that can significantly increase the likelihood that children will be reading at grade-level by the end of third grade.

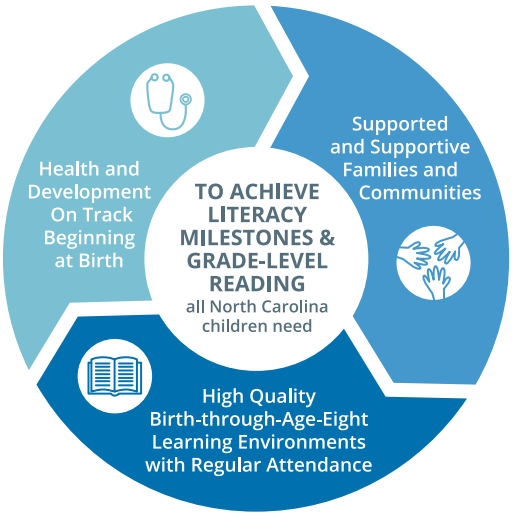
Stakeholders identified coordinated strategies that can support children's optimal development beginning at birth and aligned policies and practices that are rooted in the science of how children develop. Pathways has grown into a partnership of hundreds of diverse leaders from across the state who have worked across sectors, geographies, and the political aisle with the goal of building a comprehensive, publicly-funded early childhood system for North Carolina and improving outcomes for young children.

Equity of opportunity is central to Pathways and its guidance for implementation. Stakeholders believe that attending to equity is the only way to achieve the singular vision that aligned their efforts:

All North Carolina children, regardless of race, ethnicity or socioeconomic status, are reading on grade-level by the end of third grade, and all children with disabilities achieve expressive and receptive communication skills commensurate with their developmental ages, so that they have the greatest opportunity for life success.

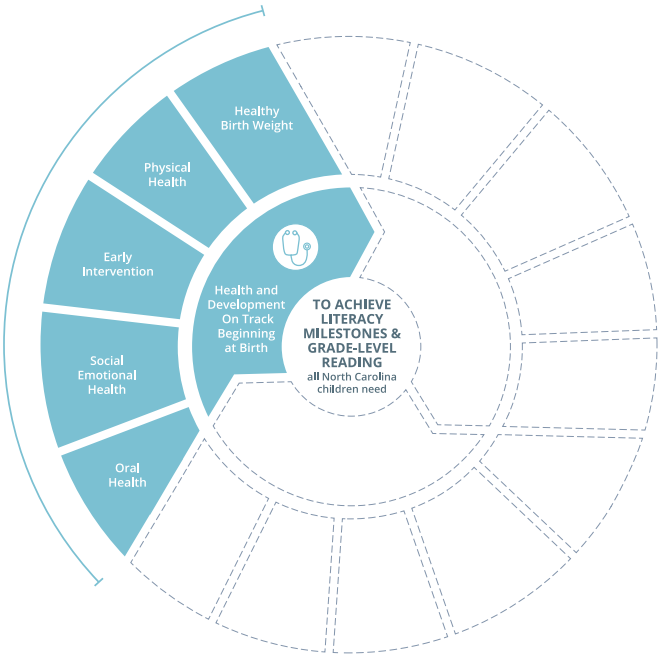
Pathways is comprised of three core interdependent components:

1. Health and development on track beginning at birth
2. Supported and supportive families and communities
3. High quality birth-through-age-eight learning environments



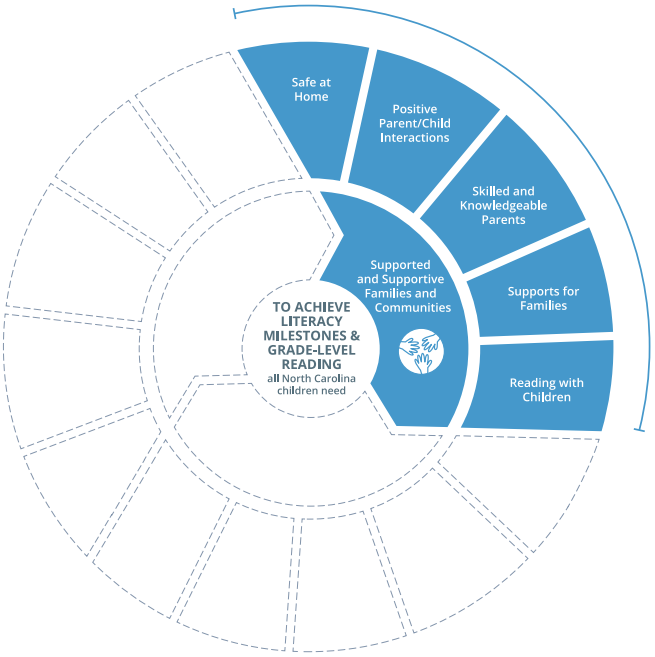
Each component is as important as the other because successful achievement of one facilitates success in the other two. Each component includes five research based Measures of Success that specify the experiences and developmental environments that children need to thrive. These measures are not an exhaustive list of all that matters to create the conditions that place children on the pathway to grade-level reading. However, they are the ones that have strong research-based connections to early literacy.

The first component is Health and Development on Track Beginning at Birth. Both physical and emotional health form the building blocks for a child's development, and prioritizing these from the earliest years lays the foundation for children's well-being in later years. This component is achieved when infants are born with a healthy birth weight, experience good physical health, are showing positive social emotional health, have good oral health, and receive early intervention when they have characteristics that place them at risk for poor developmental outcomes.



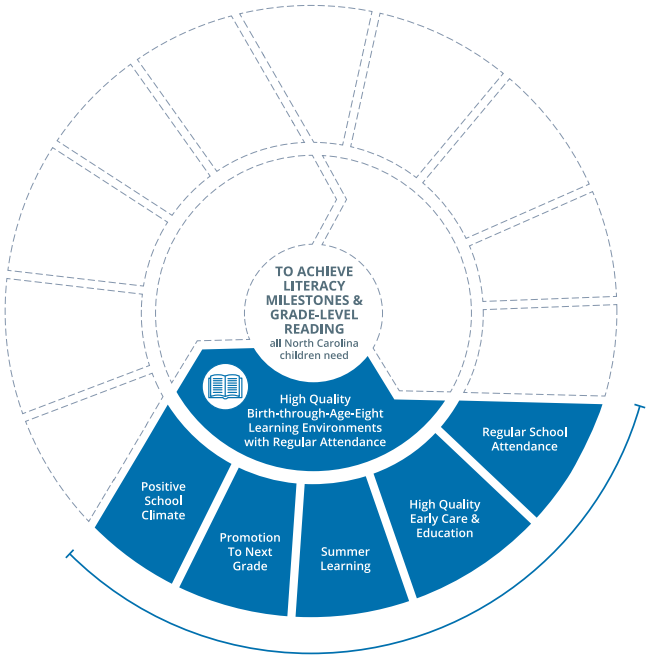
Pathways stakeholders identified 18 factors that influence or increase the likelihood that children will have these positive developmental experiences beginning at birth. Some of these influencers include pregnant women receiving timely prenatal care, children who are screened for social-emotional needs, and children receiving regular well-child visits. The others can be found on pages 15 to 18 of the Measures of Success.

The second component is Supported and Supportive Families and Communities. A stable and nurturing environment for young children cultivated by caregivers is a critical factor in supporting optimal development and overall well-being. This component is achieved when children are safe at home, have positive parent-child interactions, are being read to by their caregivers, learn from skilled and knowledgeable parents, and have parents who receive sufficient social support. Resources and services that recognize the crucial role caregivers play help to improve their capacity to effectively parent and improve children's early literacy outcomes.



Stakeholders identified 10 factors that influence the likelihood that children will grow up in supportive developmental contexts. Some of these influencers include families screened for poverty at well-child visits, parents with access to mental health, domestic violence and substance abuse services, and families having access to the Family Medical Leave Act. The others can be found on pages 22 to 24 of the Measures of Success.

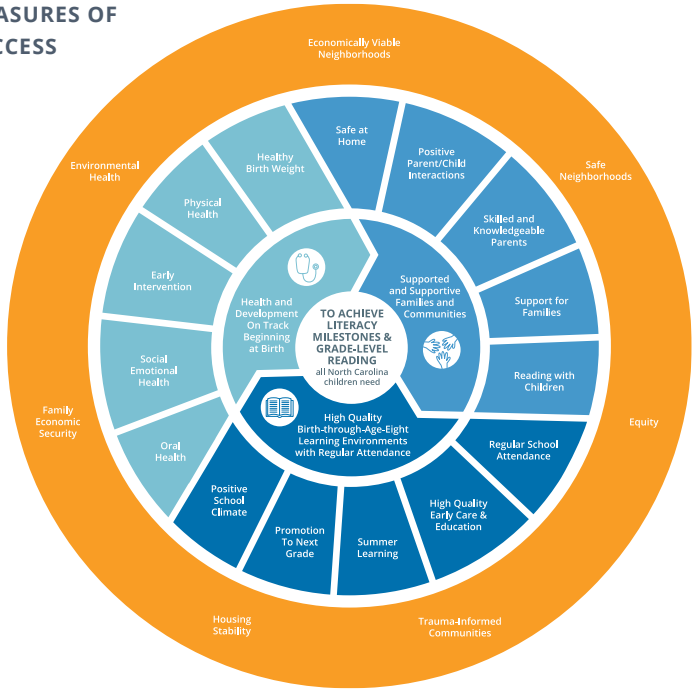
The third component is High Quality Birth-Through-Age-Eight Learning Environments with regular attendance. It is well established that high quality early learning environments are a huge factor in preparing children for success by providing a strong cognitive foundation. This component is achieved when children have quality early care and education settings, experience a positive school climate, have regular school attendance, meet the requirements for grade level promotion, and have summer learning experiences that enable them to maintain literacy gains. Adequate supports and resources for educators and caregivers work to ensure that all children's needs are met in the learning environment.



Stakeholders identified 13 factors that influence the likelihood that children will have these positive learning experiences. Some of these influencers include minimizing suspension and expulsion from programs and schools, ensuring students have access to programs and learning materials in their native language, and maximizing the number of eligible children under age six receiving child care subsidies. The others can be found on pages 28 to 32 of the Measures of Success.

Figure 1 illustrates how these three components create a whole-child multisystem framework for creating the environments and experiences that can set all children on a pathway to reading at grade-level by the end of third grade.

FIGURE 1: **CORE COMPONENTS AND CORRESPONDING MEASURES OF SUCCESS**



APPENDIX B

LEADING WITH RACIAL EQUITY

Pathways stakeholders identified racial equity as a critical lens that can aid in understanding and improving outcomes for children. This is because race in America plays a large role in determining children's life outcomes. As stated by Tamika Williams, associate director of child care with The Duke Endowment: "If we're going to be talking about need, then we need to know the folks who are in need," she said. "If we have any hope of changing population level outcomes, we have to know the true data and who is most impacted."

Leading with racial equity means prioritizing strategies that specifically work to improve outcomes for children of color. It also involves giving special consideration to the wisdom and innovation of people of color to develop responses that are lasting and reach all children. Convening a broad tent of stakeholders enables North Carolinians to learn together, support each other, and partner to advance racial equity work for young children. As stated by those who came together to develop Pathways: "when our systems work collaboratively and are shaped using a racial equity lens, we ensure the best possible future for our children and North Carolina."

Pathways is evidence-based and enables stakeholders to see with a racial equity lens by disaggregating data so that we can clearly see and then address racial disparities in developmental experiences and outcomes.

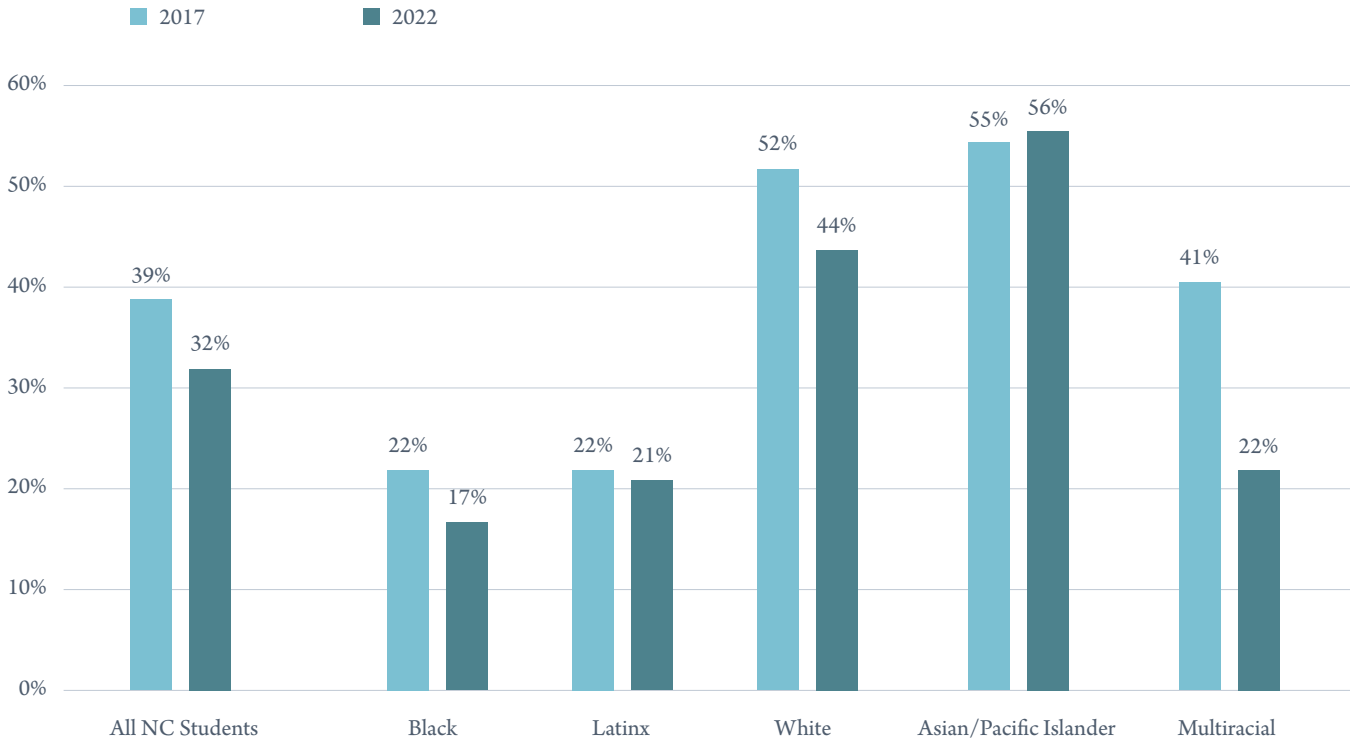
When Pathways was being developed, too many children in North Carolina from all racial groups were not meeting the critical developmental milestone of reading on grade level by the end of third grade, and there were vast differences between racial groups. Students' National Assessment of Educational Progress (NAEP) scores showed that in 2017, 20% of white children in North Carolina were not meeting this benchmark, compared to 44% of Black and 43% of Latinx children.

If we're going to be talking about need, then we need to know the folks who are in need. If we have any hope of changing population level outcomes,

WE HAVE TO KNOW THE TRUE DATA AND WHO IS MOST IMPACTED.

As shown in *Figure 2* below, the latest NAEP scores reveal the need to maintain our focus on creating the contexts and experiences that will increase all children's likelihood of reading at grade-level. In addition, they highlight the need for new urgency regarding the aim of narrowing racial and ethnic gaps. In 2022, 44% of white fourth graders were meeting the benchmark of being proficient in reading, compared to 17% of Black and 21% of Latinx children.

FIGURE 2: **PERCENT OF STUDENTS READING PROFICIENT AT THE START OF FOURTH GRADE, 2017 AND 2022**

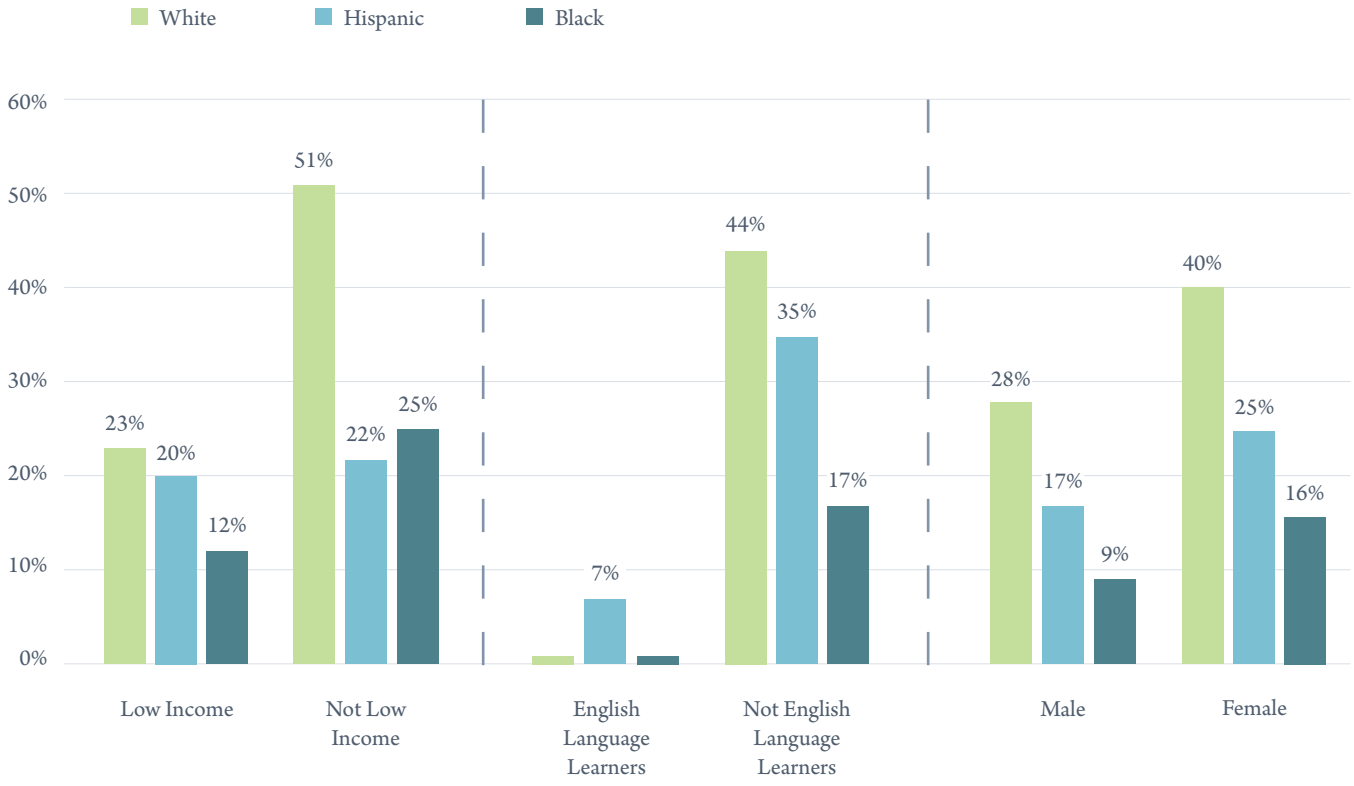


Note: Missing data on American Indian/Alaska Native students.

Pathways stakeholders identified income, ability, language of origin, geography, and gender as important status categories that are also associated with disparities in children's developmental opportunities and outcomes. Consequently, the framework and associated policy and practice recommendations identify interventions that aim to minimize the negative effects of these inequities. The figure below shows that race and ethnicity matters as a stand alone category for targeted intervention and in combination with the other status categories.

Figure 3 below illustrates that race is a key stratifying factor in relation to all of the other status categories. For example, even among not low-income students a significantly higher percentage of Latinx and Black students are not reading at grade level compared to white students. The results in the figure also allow us to see that race intersects with the other status categories to create some highly vulnerable groups, such as English learning Latinx students (only 7% of fourth graders are reading proficient), low-income Black students (12% are reading proficient), and Black male students (9% are reading proficient).

FIGURE 3: **PERCENT OF STUDENTS READING PROFICIENT AT THE START OF FOURTH GRADE, 2022**



NC EARLY CHILDHOOD FOUNDATION — EST. 2013

www.buildthefoundation.org

The NC Early Childhood Foundation promotes understanding, spearheads collaboration, and advances policies to ensure each North Carolina child is on track for lifelong success by the end of third grade.

PROMOTING UNDERSTANDING

SPEARHEADING COLLABORATION

ADVANCING POLICIES

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