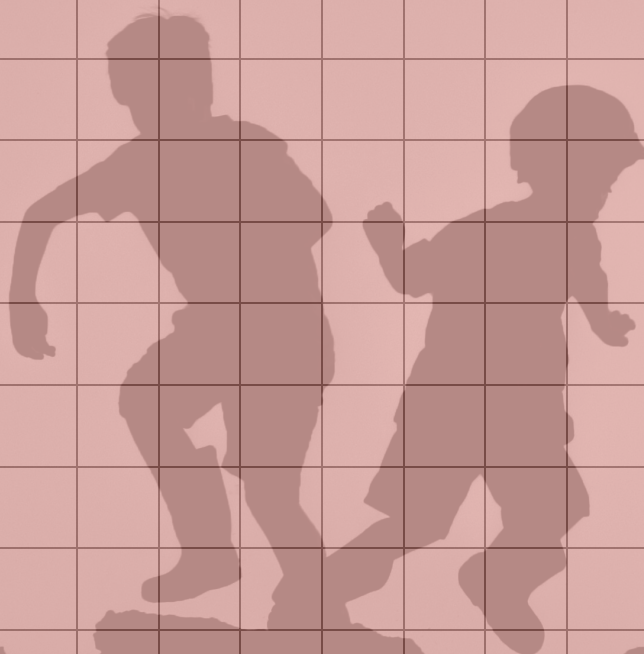


DEVELOPMENTAL SCREENING:

RECOGNIZING HEALTHY
DEVELOPMENT AS THE
NECESSARY FIRST STEP FOR
A BRIGHT FUTURE



EXECUTIVE SUMMARY

The Children’s Foundation of Mississippi set as its first goal to seek to understand the areas where the Foundation can most effectively make a positive impact in the lives of children and families in Mississippi. We asked those who have been working with children and their families in the state where the greatest needs were and which interventions were most likely to gain the support needed for change to occur. Using data from multiple surveys and reports, and detailed interviews with state leaders, we began to narrow our focus.

The result was the *CFM Blueprint for Improving the Future for Mississippi’s Children*, an in-depth, data-driven overview of pressing issues facing children in Mississippi today. Each document in this series of excerpts addresses one of these emergent areas: Developmental Screening, Quality Early Childhood Education, the Digital Divide, and Earned Income Tax Credit. For the full *Blueprint* report, including methods and references, please visit: <https://childrensfoundationms.org/research/blueprint-for-improving-the-future-of-mississippis-children>.

Like a GPS, we have used research and data to guide our efforts, charting a course forward that takes into consideration the many contributing systems, factors, policies, and procedures that structure positive outcomes. We employ an innovative approach that comprises a holistic and comprehensive view of children and helps us envision what outcomes are possible.

Our research directed the focus of this phase of the Blueprint into five priority strategies:

Developmental Screening: To ensure that all children are prepared to succeed in school, it is important to identify any developmental delays as early as possible and provide the appropriate therapies to correct problems before school entry. While Mississippi has made recent improvements, the state has historically documented very low rates of children receiving comprehensive developmental screening. By working together to structure an integrated system that ensures all children are screened at appropriate ages, referred for follow-up, and provided needed therapies, Mississippi can better equip our children for academic success.

Quality Early Childhood Education: There is a growing body of evidence supporting the effectiveness of quality early childhood education, and Mississippians strongly support expanding access to publicly funded pre-kindergarten programs. The Mississippi Legislature recently increased funding for the state’s Early Learning Collaboratives, but only enough to support enrollment of approximately 6,000 four-year-olds statewide. Quality improvement initiatives for early childhood education are also gaining ground among states, and surveys show strong support in Mississippi for proposals to assess quality of early childhood education programs. Mississippi discontinued its previous quality rating system and has yet to develop a replacement quality improvement system. Mississippi is fortunate to have a strong cadre of dedicated professionals working in early childhood education, as evidenced by the robust response to our surveys. With concerted effort, we can improve both the quantity and quality of education provided to preschool children in our state and reap the benefits of having better prepared children in kindergarten.

The Digital Divide: Participation in 21st Century society in the United States necessitates competence in the use of technology. During the COVID-19 pandemic and beyond, children must have access to the Internet for educational purposes, as well as for development of the skills they will need to compete for jobs upon graduation. Mississippi lags behind the nation in broadband access, particularly for rural areas and lower income households, but has commenced two major initiatives to correct this situation: the Mississippi Connects Program sponsored by the Mississippi Department of Education and the support of Mississippi’s electric cooperatives to expand broadband spearheaded by the Public Service Commission. With continued commitment to expanding the digital infrastructure, Mississippi will realize major benefits for the education of our children.

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Earned Income Tax Credit: The federal Earned Income Tax Credit (EITC) is a poverty reduction strategy that assists low-income working families by rewarding work and providing an incentive for unemployed people to join the workforce. The antipoverty effect of the EITC is double for households headed by single mothers. Currently, 32 states have implemented a state EITC that supplements the federal EITC. At the state level, a refundable state EITC has been associated with improvements in employment, family incomes, and healthier births. Because of Mississippi's high poverty rates, particularly for families with children, a state EITC could help reduce the high poverty rates of Mississippi families and children.

Children and Youth Ages 9 – 18: While it is critical for Mississippi to focus on preparing young children to succeed in school, it is also imperative for the state to establish policies and systems that ensure older youth graduate from high school and are well prepared to enter college and/or the workforce and ultimately become independent, productive adults. There were some primary issue areas that arose from our surveys and reports pointing to the needs of this age group in Mississippi: access to mental health services, comprehensive health education, life skills training, and transitions out of foster care. Further study is needed, however, to identify the most effective priority strategies for this population in our state and will therefore be the focus of phase two of this Blueprint.

This Blueprint is an invitation to our communities across the state to collaborate. We explore the many domains of health and well-being, holding up innovations and interventions that have been shown to work both here, and in other states, things like data-sharing and pre-kindergarten collaboratives. In the past year, we have shown that we can meet a crisis with solutions like telehealth, and by coming together as a state (public and private sectors) as part of grassroots movements like the Broadband Enabling Act. Together, we can build on these successes to make further strides to ensure that all children and youth have access to what they need to thrive. We illustrate through hopeful and inspiring examples a vision of the Mississippi we are working to create, and a reminder that we all have a role to play.

The past year has taught us a great deal about how much we need one another. We are learning more every day about how we can remove barriers, making it easier to build systems that support improved health and wellness. There is a growing team of dedicated partners who are stepping forward to invest in tomorrow's leaders, citizens, and taxpayers, and we have more knowledge than ever about what works and why.

There are several recurring themes throughout this Blueprint document that point to key strategies that successful states have used to improve the health, education, and well-being of children. These states have committed to long-term, sustainable programs that promote collaboration among all stakeholders and focus on common goals. A critical component is the development of comprehensive, coordinated data systems where stakeholders share data in order to identify needs and gaps, track progress, reduce duplication of services, and make adjustments to improve the system to point a way forward. These data systems allow successful states to measure outcomes, not just process, and to hold service providers accountable for improving outcomes.

Systems should support parents in their efforts to prepare their children for success in school and life. Too often they can unintentionally create barriers for parents. The Children's Foundation hopes to build on the solid work already being done in Mississippi, use research to point us in the right direction, take advantage of the experience of other states who have already reached the destinations we desire, and collaborate with the many individuals and organizations who share this journey. By focusing on a few key areas identified by our partners and stakeholders, the CFM hopes to capitalize on their optimism, interest, and dedication, bringing in resources (and taking advantage of available state and federal funding) and inviting collaboration as needed to create an environment where every child will prosper.

When Mississippi's children thrive, our state thrives.

We have more knowledge than ever before about what works and why.

DEVELOPMENTAL SCREENING

Our children are the future, and their healthy development is crucial to ensure that future. Child development is an intricate and multifaceted process, like a construction project, where there are periods of rapid development and a strong foundation is paramount. From birth, the brain is rapidly developing, with a million connections per second, and it nearly doubles in size within the first year of life. As they grow and interact with their environment, children are maturing in perceptual, motor, cognitive, socio-emotional, and behavioral skills. In a healthy child exposed to a rich environment these develop and support one another, building life skills such as problem-solving, resilience, and self-control and facilitating success in school [1]. Some children may experience delays in the development of these skills and abilities. It is important to detect these delays as early as possible and provide appropriate therapies that will correct developmental problems. If delays are not addressed early, they can impair a child's academic progress in school.

There are two main ways healthcare providers track child development:

- **Developmental surveillance** is an informal method that providers use to observe any noticeable delays as children engage with their environment during a well-child visit, and
- **Developmental screening** is a formalized assessment using a standardized tool to confirm children are achieving their appropriate developmental milestones.

A provider's ability to detect a developmental delay was found to be significantly increased when using a developmental screening tool, compared to developmental surveillance alone. Developmental screening is more effective because it provides a structured plan for detecting delays compared to the observational methods of surveillance.

Mississippi Developmental Screening in a Snapshot

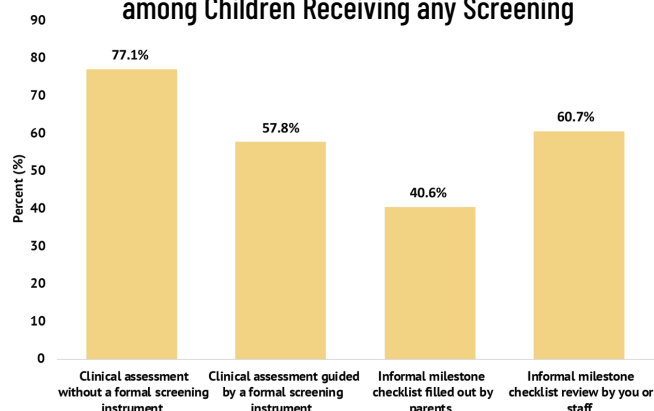
The 2011/2012 National Survey of Children's Health [2] showed that Mississippi had one of the lowest rates in the nation of developmental screening for preschool children, based upon parent reporting. In 2013, the Mississippi Legislature passed the Early Learning Collaborative Act [3], to increase access to early education for children by creating Mississippi's first state-funded pre-kindergarten (Pre-K) program. The collaboration consisted of school districts, Head Starts, childcare centers, and private non-profit preschools. As a measure of assessment for Mississippi's Pre-K program, standardized developmental screening tools were implemented. These standardized tools have played an essential role in evaluating children's cognitive development and kindergarten readiness.

In 2015, Mississippi's Division of Medicaid (DOM) authorized separate reimbursements for developmental screenings through the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit based on the American Association of Pediatrics' (AAP) Bright Futures guidelines and periodicity schedule [4]. This change allowed reimbursement of developmental screening that was otherwise not reimbursable. Since 2015 in Mississippi, well-child visits for the first 15-months of life and ages 3-6 have been generally improving for both Medicaid insured children and children's health insurance program (CHIP) beneficiaries [5].

Despite this improvement, a study investigating national developmental screening and surveillance in 2016 found Mississippi's screening and surveillance rates to be among the lowest. Among children who participate in Medicaid, the EPSDT screening rates are much higher among children in their first year of life, but these rates drastically decrease after the age of 2 years of age until children reach kindergarten age [6].

While Mississippi is moving in the right direction, there is still more work to be done. In Mississippi, for children between the ages of 9-months and 6 years old, only 3 out every 10 children received developmental screening [7]. Of the those who received developmental screening, only about a fifth of those screenings were completed by a health care provider and the majority of screenings were not completed with a formal instrument [7].

Types of Developmental Screening Received among Children Receiving any Screening



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A statewide assessment of childcare centers' developmental screening use in 2018 found that 30% of childcare centers used a validated screening tool. Head Start centers conducted over one-third of the validated screenings completed by childcare centers, despite only comprising 10% of Mississippi's childcare centers, but these centers are federally funded and required to conduct screening [8]. A majority of childcare centers, almost 60%, offered no form of developmental screening, but can serve as a good source for surveillance and referral.

These rates of developmental screening have likely been affected by the COVID-19 pandemic, though future research will be necessary to better understand this impact. The pandemic has led to many detrimental challenges in the lives of Mississippi's children and families. Some of these challenges include an increase in food, housing, and economic insecurity, disrupted routines, and school closures. As a result, these events may exacerbate the impact Adverse Childhood Experiences (ACES) (which are "potentially traumatic events that occur in childhood" [9]). ACES have been directly correlated with an increasing risk of developmental delays, giving more urgency to ensure children are screened and provided needed therapies.

Constructing an Integrated System Approach to Bolster Early Childhood Development in Mississippi

As described in the Methods and Data section, surveys and interviews of early childhood professionals were conducted to inform this report (See Appendix). The findings below describe the strategies outlined by these professionals for increasing developmental screening and surveillance rates across Mississippi.

Data Sharing

To further improve developmental screening, referral, and necessary follow up, Mississippi should strive to build on the current system. This groundwork for our community's health is a task that requires an "all-hands-on-deck" approach. There are several state agencies that serve as leaders in the domain of early childhood that should be engaged in this process: the Mississippi State Department of Health (MSDH), Mississippi Department of Education (MDE), Mississippi Department of Human Services (MDHS), Mississippi Department of Child Protective Services, the Division of Medicaid (DOM), and the Mississippi Department of Mental Health (MDMH). Enhancing communication and collaboration between these agencies can reduce duplicative efforts and conserve resources. For example, as one participant noted:

It's been a little difficult in the past to get the state agencies to kind of come together for a variety of different reasons. But I think we're in a position now in our state where, especially mid-COVID, we've seen the value in state agencies coming together, pooling resources, and working together.
- CFM Interview Respondent

An integrative early childhood data system would enhance the state's ability to track service utilization and longitudinal outcomes. An actionable first step toward this data sharing goal would be the implementation of a common developmental screening and follow-up referral form. MDE, MSDH, DOM, and Mississippi's Coordinated Care Organizations (CCOs) can thereby increase communication and collaboration among one another to ensure transition gaps are minimized. Intervention referral forms and follow-up reporting requests can be standardized to a single form and still comply with HIPPA and FERPA privacy requirements. Reports should be sent back to the referring provider from the intervention specialists once a child receives intervention services. This system of common reporting is supported by early childhood professionals, as illustrated by the participant below:

One of the things we were looking at early on is a lot of states have developed forms so that information can flow very seamlessly among childcare centers, healthcare providers, parents, and early intervention, like there is this track of communication that's already there. There's an infrastructure and we don't have that at all. So that's an area that I think we could work on.
- CFM Interview Respondent

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Other federally funded programs such as Mississippi Head Start could participate in this integrated system. Close, comprehensive monitoring of these data would be useful to measure progress and inform program effectiveness and future policy decisions for early childhood development initiatives in Mississippi. Access to this data may also more clearly demonstrate areas of improvement for which federal dollars could be obtained.

Performance Incentives for Coordinated Care Organizations (CCOs)

Two of our participants noted the critical role that CCOs play in Mississippi's system, and the opportunity to increase their role in developmental screening and surveillance:

I think the more we can move toward the value-based care and holding them accountable for outcomes, the better.

- CFM Interview Respondent

I think really what would be more helpful is if Medicaid would hold [CCOs] accountable for making sure that this gets done.

- CFM Interview Respondent

Mississippi DOM's coordinated care program, MississippiCAN (Mississippi Coordinated Access Network), was established to improve access, quality, and cost predictability. It has expanded to serve about 65% of Medicaid beneficiaries, including most children. CCOs can be a valuable asset for ensuring healthy early childhood development. DOM does not require developmental screening as a child quality metric for participating CCOs. Adding this metric would improve reporting and tracking of developmental screening and outcomes. Additionally, linking patients to appropriate services will increase if we use payment incentives and required quality improvement initiatives.

We can use these metrics to improve quality. Currently, reimbursements for participating CCOs in MississippiCAN include a value-based withhold (VBW) program, where money is withheld from programs failing to meet certain benchmarks. DOM could mandate reporting the number of developmental screenings and referrals for needed services for both Medicaid and CHIP beneficiaries. Inclusion of these metrics into the VBW program can ensure participating CCOs are held accountable to the families they serve.

Telehealth and Project ECHO

Several interview participants noted the benefits of a telehealth model for screening. As telehealth services have been widely expanded during COVID-19, the foundations for this mode of care have been broadly established.

We may not be in your area that month...but someone from the Delta wants to call in and wants their child screened so having that opportunity [telehealth] available for families is really, really good.

- CFM Interview Respondent

Because [health providers] can indirectly treat patients via the telehealth system and they can advise...rural health care providers. I think that's a good model.

- CFM Interview Respondent

Access to developmental screening via telehealth would minimize the health care access gap experienced by families with limited transportation options and areas experiencing provider shortages. Telehealth can also be utilized for appropriate follow-up services. As noted in the Risk and Reach Report, there are no licensed pediatricians in 38 of Mississippi's 82 counties [10]. Additionally, partnerships among academic centers and community health providers should be expanded for early childhood development services using telehealth.

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Project ECHO (Extension for Community Healthcare Outcomes) is one example: Through an innovative telemonitoring program, it establishes a virtual community of learners connecting healthcare providers and subject matter experts utilizing virtual conferencing technology. One health care provider interviewed noted the use of Project ECHO in Mississippi to promote child development:

We've started [ECHO] in early child development and are using that to pull in nurse practitioners and pediatricians around the state to learn more about developmental interventions, developmental pediatrics....

Use of this model has been shown to create patient outcomes as good as or better than those treated at specialized referral hospitals. ECHO models have been adapted to address various pediatric specific conditions. The American Academy of Pediatrics acts as a pediatric arm of the ECHO Institute, to help train and share best practices for partner organizations, and offers continuing medical education credits toward Maintenance of Certification, which can incentivize participating health providers.

Parent Education

Some participants described a two-fold issue with parental engagement around screenings: first, a lack of understanding of developmental milestones; and, second, a hesitation around the screening process and its potential results.

Another barrier, we have is just lack of understanding of the importance of having [developmental] screenings done. I think there's a real hesitance.

...so just helping them [parents] to understand the importance of those developmental screenings. So yeah, we have a lot of education that needs to take place holistically.

I think it's a combination of education. Both families understanding the importance of developmental screenings and monitoring development. Really, just being involved in those types of things and being aware of those developmental milestones. Then, I think too that education piece for our pediatricians and...nurse practitioners as well because in our rural communities that is who families will go see.

Providers should include parents and families in conversations about the importance of their child's development. Learning about developmental milestones is critical for early detection by parents and families, and normalizing consistent developmental screening is critical to improving parents' comfort with screenings. Engaging parents and families as partners in decisions can build trust and improve follow-up attendance for well-child visits.

Building a Brighter Future for Early Child Development

Enhancing collaboration and communication among entities promoting developmental screenings and surveillance is necessary for a broad understanding of developmental health in Mississippi. Building on these existing efforts and infrastructures could be used to leverage resources, improve strategies, and streamline implementation efforts. In doing so, Mississippi can construct a cohesive system focused on improving kindergarten readiness. This will require a collective effort from the state, community, and organizational levels to achieve an integrated system that ensures Mississippi's children can develop and flourish.

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