

The Research Base for a Birth through Eight State Policy Framework



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OVERVIEW

Early experiences in childhood lay a critical foundation for later success. The relationships, environments and supports that children experience have a profound impact on their development, because critical neurological and biological systems grow most rapidly in these earliest years and lay the foundation for later growth and development. Throughout early childhood, from birth through age eight, children need early, consistent, high-quality supports to promote and sustain their developmental gains.

Building on decades of research and theory identifying the essential supports for children's development, particularly vulnerable* children, a Birth through Eight Policy Framework emphasizes *health, family support, and learning* as critical policy areas, and *standards, assessment practices, and accountability systems* as critical foundations to implement the policies.

This framework emphasizes three important messages:

1. There is an evidence base for the policy areas and policy foundations identified in the Birth through Eight State Policy Framework
2. The years starting at birth and continuing through age eight are a critical time for achieving positive health, learning, and economic outcomes later in life
3. The supports and experiences that children receive have a cumulative effect—each experience influences the next and sustains the growth and development that comes before.

The Research Base for a Birth through Eight State Policy Framework

With targeted supports, the period of time from birth through age eight can help put and keep children on a path to success. A Birth through Eight State Policy Framework focuses attention on what is critical within and across different aspects of early childhood development. By doing this, policy influencers and policy makers have a tool they can use to inform their decision making and guide policy choices. What follows is the evidence base for the framework, providing the research for the factors that contribute to, and sustain, the healthy growth and development of young children.

POLICY AREAS: HEALTH, FAMILY SUPPORT, LEARNING

Developmental Science is clear that children interact with their world in *dynamic* and *active* ways. This means that development is not predetermined but occurs in the context of children's relationships, experiences and environments. It also means that children actively shape their own development with their unique characteristics, interests and needs. Children's developmental trajectories are created over time through these transactions with their world. Patterns of interacting with the world are built on the experiences children have, and each experience influences the next. The period of birth through age eight is a critical period for this dynamic interplay between individual growth and the contexts of development—the home, early care and education, school and community. Supporting children's growth and well-being within and across these important contexts during early childhood can ultimately lead to good health, strong families, and better learning outcomes that predict high school graduation, long-term health and sustained success over time.¹ Developmental research indicates that targeted supports for children's *health*, *family supports*, and *learning* during the critical years starting at birth and continuing through age eight can make a difference in children's life trajectories.

Health Research

The first eight years of life are characterized by a series of critical periods during which development is particularly sensitive to experiences that are largely influenced by children's health and well-being. The development that occurs within these sensitive periods is often hardwired and becomes the foundation for all subsequent development. In this way, health in the first eight years of life has significant cumulative and sustained effects on child and adult outcomes. For example, poor health in utero leads to poor pregnancy outcomes² that further increase risk for poor health in early childhood. Young children with poor health are, in turn, at higher risk for serious conditions in adulthood such as obesity and cardiovascular disease³—many of which have serious economic and societal consequences.

The Research Base for a Birth through Eight State Policy Framework

When the quality of a child's life is compromised due to poor health, the quality of their subsequent development is also compromised. For example, prolonged and elevated stress due to adverse experiences early in life such as violence or abuse causes changes in neural circuitry and chemical composition in the brain, which make children less resilient over time.⁴ This reduced adaptability undercuts the developmental benefits of positive experiences and puts children at risk for physical and mental illness later in life.⁵

A child's health not only impacts their quality of life, it also dictates which experiences children can have. For example, children with poor nutrition and chronic illness are more likely to miss school, and therefore miss out on important social and academic opportunities.⁶ This is especially true for uninsured children, who are less likely to receive preventive care, needed services, and screenings that allow for the early identification and effective management of health concerns.⁷ Uninsured children living in poverty disproportionately suffer from lack of access to health care, particularly because poor children are less likely to be in excellent physical and oral health.⁸ Moreover, poor children stand to benefit the most from every high-quality developmental opportunity available to them—opportunities that are made possible largely by keeping children healthy and minimizing health risks as much as possible.

Policies that promote the health of all children—and particularly of vulnerable children—will enable these critical opportunities for development to be maximized and ensure that a strong foundation is set for all future development across the lifespan.

Health Policy Choices

- Timely and ongoing prenatal, pediatric, and oral health care⁹
- Access to affordable health insurance for children and families¹⁰
- Screening, assessment and appropriate follow-up for developmental delays or disabilities¹¹
- Partnerships to coordinate the identification and delivery of health care services with early learning programs¹²
- Community-based programs targeting sources of toxic stress such as violence, crime, substance abuse, and mental illness, combined with supports for parents and caregivers who need them¹³
- Simplify access, expand outreach, materials, training, and data use¹⁴ that will maximize¹⁵ participation of families, providers, schools and communities in the Special Supplemental Nutrition Program for Women, Infants and Children Program (WIC), the Child and Adult Care Food Program (CACFP) and the National School Lunch Program (NSLP).¹⁶

Family Support Research

Families play one of, if not the most, important role in a young child's life. Even before a child is born, families set the stage for their development, which begins with adequate prenatal care and a healthy pregnancy.¹⁷ Strong families ensure that their young children receive adequate food, shelter and medical attention¹⁸ and also ensure that children live in safe and stimulating environments in which to explore and learn.¹⁹ As children develop their skills and abilities through their relationships with those around them,²⁰ the opportunity to form secure attachments with sensitive, nurturing parents (or other primary caregivers) are critical to both their cognitive and social-emotional growth.²¹ A lack of a warm positive relationship with parents/caregivers increases the risk that children develop major behavioral and emotional problems, including substance abuse, antisocial behavior, and juvenile crime.²²

Factors such as poverty, low education and family stress can compromise parent-child relationship quality by limiting opportunities for stimulating and responsive interactions, provision of emotional support and exposure to activities that can enrich children's health, knowledge and skills.²³ Family support programs and services are designed to ensure that families are able to meet their needs and overcome stressors that may impair effective parenting. While the specific goals of family support programs may vary, they typically include increasing parents' knowledge of child development;²⁴ improving parenting skills;²⁵ providing work supports;²⁶ helping families to access health and nutrition services, job training, or treatment for substance abuse;²⁷ and reducing parental stress.²⁸ These goals are met through a variety of different activities such as parent education classes and support groups, parent-child groups and family activities, drop-in time, child care, information and referral services, crisis intervention and/or family counseling, and auxiliary support services (such as emergency food).²⁹ Overall, by helping families achieve self-sufficiency and function more effectively, support programs enable families to provide a nurturing environment that will foster the healthy development and school readiness of young children.³⁰

Family Support Policy Choices

- Voluntary, evidence-based, home visiting programs for new and expectant families at risk for poor child outcomes³¹
- Parent education and parent-child interaction programs that support development and nurturing of infants and toddlers
- Access to child care assistance for eligible families with provisions for quality and continuity of care³²
- Effective outreach and enrollment in programs that promote family economic stability and parent participation in higher education³³
- Prevention programs and services for children at risk of abuse and neglect and their families
- Family engagement policies starting with defining family engagement, establishing benchmarks of success for targeted populations, and monitoring progress³⁴
- Access to health care and education programs for children cared for by grandparents and other relative caregivers
- Core competencies for professionals tied to standards and desired outcomes.

Learning Research

Early childhood practitioners and elementary school educators have long seen the period of birth through age eight as a critical span of development for physical well-being and motor development, language and literacy development, cognitive development (including early math and science skills), social-emotional development, and motivational and regulatory skills associated with school readiness and later life success.³⁵ The years from infancy through early elementary school are ones in which *continuity* of practice and *integrated* support services are needed.³⁶ For example, this time period encompasses a shift from mastering the mechanics of language acquisition to mastering reading comprehension. Language acquisition in terms of both comprehension and production increases dramatically and rapidly in the first four years of life,³⁷ and third grade (which most children enter at age eight) is seen as a watershed for moving from “learning to read” to “reading to learn”.³⁸ Similarly, as noted earlier in this research review, tremendous gains are made in physical and motor development as well as social-emotional development from early infancy through early elementary school.³⁹

Yet research indicates that low-income children tend to lag behind their more affluent peers on a range of developmental outcomes, including at school entry.⁴⁰ The gap in skill development between advantaged and more disadvantaged children emerges early⁴¹ and is predictive of academic trajectories through later schooling.⁴²

The Research Base for a Birth through Eight State Policy Framework

Children who experience high-quality care and education tend to have better outcomes across developmental domains than similar children who are not exposed to high-quality care.⁴³ Conversely, children experiencing poor-quality child care on average display more behavior problems, fewer language skills, and lower levels of academic skills than children in medium- or high-quality care.⁴⁴ The benefits of high-quality early care and education are greater for vulnerable children⁴⁵ and there is some indication that greater exposure to high-quality early care and education environments (either by starting at a younger age or receiving more hours of such care) can improve cognitive developmental outcomes for young children.⁴⁶ Furthermore, children who enter formal schooling with stronger school readiness skills tend to maintain their advantage over the elementary school years, while children who enter with lower school readiness skills tend to maintain their relative disadvantage over time.⁴⁷ These findings emphasize the importance of insuring that all vulnerable children reach school entry with the strongest school readiness skills possible and the simultaneous need for elementary schools to support children so that early learning successes are sustained.⁴⁸ In addition, research indicates that making explicit connections between developmental contexts, especially during critical transition points (such as increasing the connections across the home and school environments when a child is moving to a new school setting) can help smooth out these developmental transitions and guard against stressful and detrimental outcomes for young children.⁴⁹ Such “bridging” activities between developmental contexts are key to supporting and sustaining the acquisition of new skills and abilities.

Learning Policy Choices

- Access to high-quality care and learning through high-quality standards based programs for infants and toddlers with educational, health, and development components; high-quality child care; voluntary, full-day preschool for all low-income 3- and 4-year-olds; and full-day kindergarten⁵⁰
- Partnerships between community and school-based early learning programs and services
- Opportunities for learning outside of the school day, including summer⁵¹
- Transition planning from early care, to preschool, to K-12 learning environments⁵²
- Core competencies for professionals tied to standards and desired outcomes⁵³
- Access to effective education, training (pre- and in-service) and in classroom practice⁵⁴
- Training and coaching for teachers working with special populations including dual language learners and children with disabilities⁵⁵
- Coordinated professional development, coaching and training that improves practice and provides effective learning opportunities for all children⁵⁶
- Specialized certification areas that reflect the education continuum, birth through grade three.

POLICY FOUNDATIONS: STANDARDS, SCREENING AND ASSESSMENT, ACCOUNTABILITY SYSTEMS

Implementation Science asserts that positive outcomes for young children and families can be achieved when programs and services are enacted by a skilled workforce working within well-designed programs under strong leadership.⁵⁷ For this reason, policy choices must be based in evidence and undergirded by standards, assessment practices, and accountability practices that monitor and evaluate the effectiveness of the investments made to improve and sustain good outcomes for young children. These foundational elements cut across the areas of health, family support, and learning and serve as the underlying framework for effective policy implementation.

Standards

Standards establish quality and practice expectations for the field, as well as expectations that guide children's developmental progress. Many states have developed a statewide quality rating and improvement system to define, measure, monitor, and promote high-quality child care in homes, centers, or school-based settings.⁵⁸ Quality standards vary across states but usually include measures of professional development or the qualifications of teachers and caregivers, the quality of the learning environment, and family engagement efforts. Core knowledge or competency standards establish a set of personal characteristics and attributes that support effective job performance for early childhood and early elementary educators, caretakers, and practitioners who work with young children.⁵⁹ Learning standards or guidelines articulate what children should know and do at all stages of development.⁶⁰ These standards and guidelines typically address cognitive skills (language, reading, math, science), and foundational skills (social skills, behavioral control, motivation, problem solving) because both are essential for success in school and in life. There are several policy options states can pursue to support the development and implementation of effective standards that guide programs and practices that benefit children birth through eight.

Standards Policy Choices

- Developmentally appropriate early learning standards that reflect the major domains of development (social-emotional, physical, cognitive, and language) and foundational skill areas (literacy, math, science, social studies, and the arts)
- Alignment of early learning standards and K-12 standards across the major domains of development and foundational skill areas

The Research Base for a Birth through Eight State Policy Framework

- Implementation of standards through teacher training, curricula and assessment, with review of results for vulnerable children
- Quality Rating and Improvement Systems (QRIS) that are financed to advance programs to higher quality ratings and improved child outcomes
- Development and use of program quality and practice standards for family support providers.

Screening and Assessment Practices

Screening provides essential information about whether a child appears to be progressing as expected or if he or she may need additional supports to address special needs or developmental delays. The results of a screening indicate whether an in-depth diagnostic assessment is needed to identify if a child needs specific intervention services. Screenings may also be effective when conducted by pediatricians during well-child visits to detect maternal depression, which can have severe and negative effects on children's development.⁶¹ When screenings indicate that interventions are needed they typically include the coordination of family members, early educators, and medical or early intervention specialists.⁶²

Assessments measure children's progress towards meeting specified standards and benchmarks of child development.⁶³ Assessment that are well designed are age appropriate in content and methodology, are tailored for a specific purpose, and are reliable, valid, and fair.⁶⁴ Effective assessment systems benefit young children by informing adults and educators about individual children's strengths and areas of growth, particularly as they transition from early care and education settings to elementary school. To promote the use of effective assessment and screening practices states have several options.

Screening and Assessment Policy Choices

- Screenings for hearing, vision, metabolic disorders, and developmental delays with appropriate follow-up
- Timely, appropriate behavioral and mental health identification and intervention including the needs of children who come to the attention of the child welfare system
- Timely and appropriate assessment, referral, and enrollment in early childhood development and prevention programs
- Child assessment tools that are formative, as well as developmentally, culturally, and linguistically appropriate

The Research Base for a Birth through Eight State Policy Framework

- Assessment of the quality of learning environments, educator/child interaction, and teaching strategies
- Statewide Kindergarten entry assessment to assess readiness and inform initial instruction
- Aligned early learning, Kindergarten entry, and K-3 assessments.

Accountability Systems

Accountability systems across the policy areas can inform good policy decisions, effective and efficient resource allocation, effective instruction and provision of services, and continuous quality improvement. For example, statewide longitudinal early childhood data systems that are linked to the K-12 data systems can provide information about workforce and program quality of programs that serve children and progress from early care and education settings into elementary school.⁶⁵ Accountability systems help define important benchmarks and outcomes for programs, children and families, and measure progress towards identified goals. States have several policy options for establishing accountability systems that support children from birth into elementary school.

Accountability Systems Policy Choices

- Clear benchmarks of outcomes for children, families, and program effectiveness from health, family support, and learning objectives
- Longitudinal, linked data systems between programs and state agencies that can be disaggregated by risk factors to inform strategies for improving program quality and child outcomes
- Early warning systems to identify problems such as chronic absence and allow for timely intervention
- Early childhood education program data collected and analyzed by children, programs and the workforce
- Professional development for data users (parents, teachers, administrators) to support the correct interpretation and use of data.

CONCLUSION

The findings from decades of developmental research are clear that early childhood, from birth through age eight, is a critical period for supporting children's health, their family relationships and their opportunities for learning. During this period, children develop patterns of relating to others, regulating their own behavior and emotions, engaging in new experiences and learning about the world through listening, talking and reading. The age range is important, as each experience influences the next and sustains the growth that comes before. A Birth through Eight State Policy Framework is a tool that reflects the essential policy areas and foundations to help guide policy decisions during this important time in children's lives.

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- * “Vulnerable” is defined as having one or more of the following risk factors, which increases the likelihood of poor health, learning, and economic outcomes: poverty, low parental education, single or teenage parent, homeless, and high residential mobility.

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The Research Base for a Birth through Eight State Policy Framework

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The Research Base for a Birth through Eight State Policy Framework

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