Getting Ready

Findings from the

National School Readiness Indicators Initiative

A 17 State Partnership

February 2005

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Why is School Readiness Important?

Today we know more than ever before about how young children develop and about how to best support early learning.

Ready or not?

The first five years of life are critical to a child's lifelong development. Young children's earliest experienes and environments set the stage for future development and success in school and life. Early experiences actually influence brain development, establishing the neural connections that provide the foundation for language, reasoning, problem solving, social skills, behavior and emotional health.[1,2]

Families and communities play critical roles in helping children get ready for school. Children from families that are economically secure and have healthy relationships

are more likely to succeed in school. Infants and young children thrive when parents and families are able to surround them with love and support and opportunities to learn and explore their world.[3] Communities are vibrant when they provide social support for parents, learning opportunities for children, and services for families in need.

Schools can improve the readiness of young children by making connections with local child care providers and preschools and by creating policies that ensure smooth transitions to kindergarten. Children entering kindergarten vary in their early experiences, skills, knowledge, language, culture and family background. Schools must be ready to address the diverse needs of the children and families in their community and be committed to the success of every child.[4]

We know what works to support early learning and improve school readiness.

Children will not enter school ready to learn unless families, schools and communities provide the environments and experiences that support the physical, social, emotional, language, literacy, and cognitive development of infants, toddlers and preschool children.[5,6] Efforts to improve school readiness are most effective when they embrace the rich cultural and language backgrounds of families and children.[7,8] Today we know more than ever before about how young children develop and about how to best support early learning. The strongest effects of high quality early childhood programs are found with at-risk children—children from homes with the fewest resources and under social and economic stress.[9]

State policymakers play a critical role in allocating resources to support the school readiness of young children. Increasingly, state policymakers are asking for results-based accountability in making their funding decisions. While policymakers may recognize the importance of early learning and school readiness, they also need measurable indicators that enable them to track progress. The school readiness indicators that are included in this report were selected because they have the power to inform state policy action on behalf of young children. They emphasize the importance of physical health, economic well-being, child development and supports for families.

We can't wait. Success in school begins before a child ever enters a classroom.

Studies show that at least half of the educational achievement gaps between poor and non-poor children already exist at kindergarten entry.[10] Children from low-income families are more likely to start school with limited language skills, health problems, and social and emotional problems that interfere with learning.[11,12,13] The larger the gap at school entry, the harder it is to close. If we want all children to read proficiently by fourth grade—and to grow into healthy teens and productive adults—then we must make wise investments in the early years.

section

Framing School Readiness

The National School Readiness Indicators Initiative

Too many children enter kindergarten with physical, social, emotional and cognitive limitations that could have been minimized or eliminated through early attention to child and family needs. Ongoing research confirms that children's readiness for school is multifaceted, encompassing the whole range of physical, social, emotional, language, and cognitive skills that children need to thrive.[14,15] This multidimensional view of school readiness set the context for a three-year, 17 state initiative supported by the David and Lucile Packard Foundation, the Kauffman Foundation and the Ford Foundation.

The National School Readiness Indicators Initiative: Making Progress for Young Children was a multi-state initiative that developed sets of indicators at the state level to track results for children from birth through age 8. The goal was for states to use the school readiness indicators to inform public policy decisions and track progress in meeting key goals for young children.

The attention to tracking state-level outcomes for the youngest children was a unique focus of the Initiative's work. State level data are not always available from federal statistical data systems and states often do not organize available data to look specifically at the needs of young children and their families. The task of participating states was to develop a comprehensive set of school readiness indicators from birth through third grade. Research shows that children who are not performing proficiently in reading by the end of third grade are at very high risk for poor long-term outcomes, such as dropping out of school, teen pregnancy and juvenile crime.[16]

Objectives

1 To create a set of measurable indicators related to and defining school readiness that can be tracked regularly over time at the state and local levels.

2 To have states and local governments adopt this indicators-based definition of school readiness, fill in the gaps in data availability, track data over time and report findings to their citizens.

3 To stimulate policy, program and other actions to improve the ability of all children to read at grade level by the end of third grade.

Participating States

The National School Readiness Indicators Initiative: Making Progress for Young Children involved teams from 17 states, including Arizona, Arkansas, California, Colorado, Connecticut, Kansas, Kentucky, Maine, Massachusetts, Missouri, New Hampshire, New Jersey, Ohio, Rhode Island, Vermont, Virginia and Wisconsin. Over the course of the Initiative, 17 state teams worked to increase their capacity to obtain and use data, to develop effective communications strategies and to inform a school readiness policy agenda.

The lessons learned from the 17 states are a starting point for other states as they develop state and local school readiness indicator systems.

This report shares the core set of common indicators and the lessons learned from the collective work of the participating states. The goal of the 17 state Initiative was achieved when states produced state-level reports on the set of school readiness indicators selected by their state team and released the reports to highlight key issues affecting young children in their states. Equally important, the states agreed on a core set of common indicators that had emerged from their state work. It is hoped that this rich list of critical measures—based on hard research and state experiences—will serve as a framework to focus more attention on the needs of the youngest children and their families.
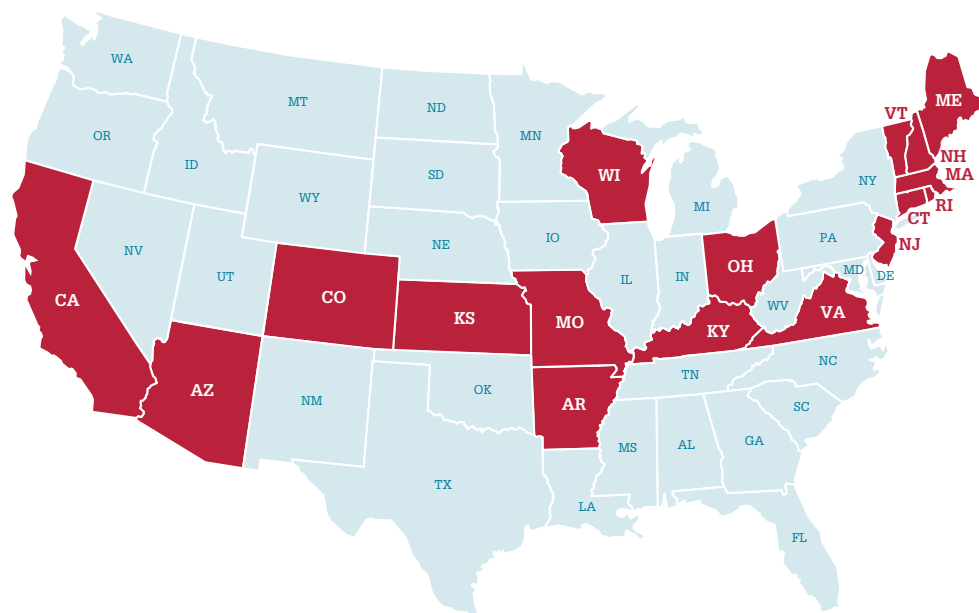
The complete sets of school readiness indicators selected by each state are available on the Initiative web site at www.GettingReady.org.

The Ready Child Equation

Ready Families   ✚   Ready Communities   ✚

The Ready Child Equation

Children's readiness for school is made up of multiple components and shaped by numerous factors. Improving school readiness, therefore, must address children's development of skills and behaviors as well as the environments in which they spend their time.

Early childhood leaders at the state and national level agree that efforts to improve school readiness must address three interrelated components:

- **Children's readiness for school.**
- **School's readiness for children.**
- **The capacity of families and communities to provide developmental opportunities for their young children.**[17]

The School Readiness Indicators Initiative used this view of school readiness as the foundation for its work and created the "Ready Child Equation" to describe the range of components that influence children's ability to be ready for school:

- Ready Families:
  Describes children's family context and home environment.

- Ready Communities:
  Describes the community resources and supports available to families with young children.

- Ready Services:
  Describes the availability, quality and affordability of proven programs that influence child development and school readiness.

- Ready Schools:
  Describes critical elements of schools that influence child development and school success.

Ready Services ✚ **Ready Schools** ═ **Children Ready for School**

The Five Domains of School Readiness

There is consensus, based upon a wealth of research, that a child's readiness for school should be measured and addressed across five distinct but connected domains:

- Physical Well-Being and Motor Development.
- Social and Emotional Development.
- Approaches to Learning.
- Language Development.
- Cognition and General Knowledge.

While separate and distinct, these domains interact with and reinforce each other.[18,19] The need for children to develop across all five domains is supported by kindergarten teachers. They agree that physical well-being, social development, and curiosity are very important for kindergarten readiness. In addition, teachers want kindergartners to be able to communicate needs, wants, and thoughts and to be enthusiastic and curious when approaching new activities. Teachers also place significant importance on skills such as the ability to follow directions, not being disruptive in class, and being sensitive to other children's feelings.[20]

Improving school readiness must address children's development of skills and behaviors as well as the environments in which they spend their time.

Families, communities and schools play critical roles in helping young children get ready for school. Ultimately, the success of policies and programs to improve school readiness must be measured by improved child outcomes in each of the five domains of early childhood development:

Physical Well-Being and Motor Development

This domain covers such factors as health status, growth, and disabilities; physical abilities, such as gross and fine motor skills; and conditions before, at, and after birth.[21]

Social and Emotional Development

This domain combines two interrelated components affecting children's behavioral health and learning. Social development refers to children's ability to interact with others and their capacity for self-regulation. Emotional development includes children's perceptions of themselves, their abilities to understand the feelings of other people, and their ability to interpret and express their own feelings.[22]

Approaches to Learning

This domain refers to children's inclination to use skills and knowledge. Key components include enthusiasm, curiosity, and persistence on tasks.[23]

Language Development

This domain includes communication and emergent literacy. Communication includes listening, speaking, and vocabulary. Emergent literacy includes print awareness, story sense, early writing, and the connection of letters to sounds.[24]

Cognition and General Knowledge

This domain refers to thinking and problem-solving as well as knowledge about particular objects and the way the world works. Mathematical knowledge, abstract thought, and imagination are included.[25]

School readiness strategies are most effective when they are responsive to the rich cultural and language backgrounds of families and children.

Early experiences actually influence brain development, establishing the neural connections that provide the foundation for language, reasoning, problem solving, social skills, behavior and emotional health.[26]

section

Core Indicators

While policymakers may recognize the importance of early learning and school readiness, they also need measurable indicators that enable them to track progress. The core indicators and emerging indicators presented here are informed by child development research and the experience of 17 states.

A core set of school readiness indicators can guide state and national policy action for young children.

The indicators selected by the 17 states point to a core set of common school readiness indicators. Highlighted on the following pages are core indicators in the areas of ready children, ready families, ready communities, ready services (including health care and early education), and ready schools. Policymakers and community leaders can use the core set of indicators, as well as other indicators that emerge from their own work, to measure progress toward improved outcomes for young children and families. Annual monitoring of key school readiness indicators can signal if things are moving in the right direction—and if they are not. Measuring progress over time can lead to more informed decisions about programs, policies and investments.

The set of **core indicators** were selected based on several criteria:

- Each of the core indicators had been selected as a high priority school readiness indicator by multiple states involved in the School Readiness Indicators Initiative.

- The core indicators reflect conditions that can be altered through state policy actions.

- A change in one or more of the core indicators will influence children's school readiness.

- Each of the core indicators is currently measurable using state and local data.

Also highlighted on the following pages are **emerging indicators.** Emerging indicators are critically important to the school readiness of young children but are currently difficult to measure and track at the state level. The emerging indicators could be tracked if additional work is done to identify appropriate measures and methods for collecting the data over time at the state level and across communities.

School readiness indicators are an important tool for helping government and community leaders better understand whether or not young children will arrive at school ready to succeed. By using the data provided by a comprehensive set of school readiness indicators, states can establish baseline measures for key areas that

influence a child's school readiness. Although school readiness indicators cannot be used to establish causal relationships between specific interventions and outcomes, they can be used to monitor progress toward outcomes over time.[27]

School readiness indicators can play a critical role in documenting whether changes are occurring in the desired direction. The most powerful sets of indicators combine information on child outcomes with indicators related to families, communities, service systems and schools.

State policymakers can enhance the usefulness of indicators by analyzing how sets of indicators vary by community of residence, socioeconomic status and racial and ethnic background. School readiness indicators can be used to monitor broad trends and to inform public policy decisions and community level strategies.[28]

Toward a Core Set of School Readiness Indicators

When the School Readiness Indicators Initiative was created, it was hoped that the work of the 17 states would result in a core set of common indicators that could be used as a starting point for other states interested in monitoring school readiness. The intent was to reach a point at which a majority of the nation's states would choose to adopt a common set of indicators that could serve as a national framework for promoting policies that ensure school readiness and school success.

The core indicators and emerging indicators presented here are the result of a synthesis of the 17 states' individual work. This core set of school readiness indicators can be a useful tool to guide policies, programs and investments in young children and families.

The School Readiness Indicators Initiative supported 17 state teams as they developed a set of indicators to track and assess progress in supporting the school readiness of young children in their state.

States identified and developed indicators based on the research and science of early childhood development, advice and resources from experts across the country, and peer-to-peer learning during national meetings. The school readiness indicators are being used to measure and track progress towards achieving school readiness and improving the lives of infants and young children.

The individual state products are posted on the School Readiness Indicators Initiative web site at www.GettingReady.org.

Core Indicators at a Glance

The following chart summarizes the core set of common indicators agreed upon by the 17 states involved in the National School Readiness Indicators Initiative. This core set of common indicators is based on the national research and informed by the state experiences in selecting measurable indicators relating to and defining school readiness.

In the section of the report that follows, the core indicators are explained more fully and accompanied by a list of emerging indicators. Emerging indicators are critically important to the school readiness of young children but are currently difficult to measure and track at the state level.

Ready Children

Physical Well-Being and Motor Development
% of children with age-appropriate fine motor skills

Social and Emotional Development
% of children who often or very often exhibit positive social behaviors when interacting with their peers

Approaches to Learning
% of kindergarten students with moderate to serious difficulty following directions

Language Development
% of children almost always recognizing the relationships between letters and sounds at kindergarten entry

Cognition and General Knowledge
% of children recognizing basic shapes at kindergarten entry

Ready Families

Mother's Education Level
% of births to mothers with less than a 12th grade education

Births to Teens
# of births to teens ages 15-17 per 1,000 girls

Child Abuse and Neglect
Rate of substantiated child abuse and neglect among children birth to age 6

Children in Foster Care
% of children birth to age 6 in out-of-home placement (foster care) who have no more than two placements in a 24-month period

Ready Communities

Young Children in Poverty
% of children under age 6 living in families with income below the federal poverty threshold

Supports for Families with Infants and Toddlers
% of infants and toddlers in poverty who are enrolled in Early Head Start

Lead Poisoning
% of children under age 6 with blood lead levels at or above 10 micrograms per deciliter

Ready Services – Health

Health Insurance
% of children under age 6 without health insurance

Low Birthweight Infants
% of infants born weighing under 2,500 grams (5.5 pounds)

Access to Prenatal Care
% of births to women who receive late or no prenatal care

Immunizations
% of children ages 19-35 months who have been fully immunized

Ready Services – Early Care and Education

Children Enrolled in an Early Education Program
% of 3- and 4-year-olds enrolled in a center-based early childhood care and education program (including child care centers, nursery schools, preschool programs, Head Start programs, and pre-kindergarten programs)

Early Education Teacher Credentials
% of early childhood teachers with a bachelor's degree and specialized training in early childhood

Accredited Child Care Centers
% of child care centers accredited by the National Association for the Education of Young Children (NAEYC)

Accredited Family Child Care Homes
% of family child care homes accredited by the National Association for Family Child Care (NAFCC)

Access to Child Care Subsidies
% of eligible children under age 6 receiving child care subsidies

Ready Schools

Class Size
Average teacher/child ratio in K-1 classrooms

Fourth Grade Reading Scores
% of children with reading proficiency in fourth grade as measured by the state's proficiency tests

Ready Children

Indicators in this section describe characteristics of children's health and development.

A valid, reliable assessment of children's skills and behaviors between birth and age 3, in the preschool years and at kindergarten entry is important for promptly meeting the needs of young children and their families as well as monitoring state progress in achieving school readiness for all children. Age-appropriate assessment of skills and behaviors can help to ensure that children are making progress in all areas of development and identify groups of children that need additional intervention.[29] Health providers and early childhood program providers are often able to conduct developmental screening and assessment as part of their routine interactions with children and their families.[30,31]

Core Indicators

Physical Well-Being and Motor Development
Healthy children are more able to engage in the full range of life experiences that promote early learning. Children's motor skills and coordination have an important influence on their cognitive and social-emotional development, as well as their academic achievement.[32,33]

- Core Indicator: % of children with age-appropriate fine motor skills

Social and Emotional Development
Children's school experience is more positive and productive when they have a sense of personal well-being established through stable, caring relationships in their early lives. Emotional health and social competence enable children to participate in learning and form good relationships with teachers and peers.[34,35,36,37]

- Core Indicator: % of children who often or very often exhibit positive social behaviors when interacting with their peers

Language Development and Literacy
Language proficiency is a key predictor of school success. Early literacy skills (size of vocabulary, recognizing letters, understanding letter and sound relationships) at kindergarten entry are good predictors of children's reading abilities throughout their educational careers. Language and literacy skills enable children to develop cognitive skills and knowledge and to interact effectively with peers and adults.[38,39,40,41]

- Core Indicator: % of children almost always recognizing the relationships between letters and sounds at kindergarten entry

Cognition and General Knowledge
Cognitive skills, reflecting an array of experiences in the early years, help make children ready to acquire new knowledge and information. Through cognitive development, children learn to observe, note similarities and differences, solve problems and ask questions.[42,43]

- Core Indicator: % of children recognizing basic shapes at kindergarten entry

Approaches to Learning

Children's school success depends not only on academic skills, but also on the learning styles, habits and attitudes with which they approach learning. Curiosity, creativity, independence, cooperativeness and persistence enhance early learning and development.[44,45,46]

- Core Indicator: % of kindergarten students with moderate to serious difficulty following directions

Emerging Indicators

Emerging indicators are critically important to the school readiness of young children but are currently difficult to measure and track at the state level.

Assessment of Skills and Behaviors for Infants, Toddlers and Preschoolers

Research shows that it is critical to intervene early in order to address delays in any of the five domains of child development: physical health and motor development, social-emotional development, language and literacy, cognition and approaches to learning.[47] More work needs to be done to identify valid, reliable, age-appropriate tools and measures that can be widely used to assess individual children and to monitor progress among groups of children at different ages.

- Emerging Indicator: % of infants and toddlers with developmentally-appropriate skills and behaviors (in each of the five domains of child development)

- Emerging Indicator: % of 3- and 4-year-olds with age-appropriate skills and behaviors (in each of the five domains of child development)

Mathematical Skills

Basic understanding of number concepts is present very early in children's development. Early math skills (such as counting, spatial relationships, and patterns) serve as the starting point for more formal mathematical instruction in preschool and kindergarten. Because mathematical skills build upon each other, children lacking basic skills will have difficulty with math in the first grade and beyond.[48]

- Emerging Indicator: % of children at kindergarten entry who can count beyond 10, sequence patterns and use nonstandard units of length to compare numbers

Ready Families

Indicators in this section describe children's family context and home environment.

Core Indicators

Mother's Education Level

The level of education attained by parents strongly affects their children's development. Higher levels of maternal education are associated with better school readiness among young children, better health throughout childhood and adolescence, and an increased likelihood of finishing high school and going to college. Higher education levels of parents contribute to a more supportive home learning environment and more involvement in the child's school.[49]

- Core Indicator: % of births to mothers with less than a 12th grade education

Births to Teens

Children born to teen mothers are more likely to be born low birthweight, suffer poor health, experience behavior problems, and have limited language and literacy skills. Teen mothers are less likely to have the financial resources, social supports and parenting skills needed for healthy child development.[50,51]

- Core Indicator: # of births to teens ages 15-17 per 1,000 girls

Child Abuse and Neglect

Children who have been neglected or physically or sexually abused are more likely to have cognitive and emotional problems. Abuse and neglect are strongly linked with many negative outcomes for children including poor school performance, frequent grade retention, juvenile delinquency and teenage pregnancy. Children are most at risk of maltreatment if their families are overwhelmed by multiple problems such as inadequate income, lack of a job, inadequate housing, emotional stress, drug or alcohol abuse, mental illness or domestic violence.[52,53,54]

- Core Indicator: Rate of substantiated child abuse and neglect among children birth to age 6

Children in Foster Care

Children need stability, permanency and safety in order to flourish. All children, but especially young children in the process of establishing trust with adults, require a safe and stable home and caring, permanent relationships. Long-term stays in temporary out-of-home placement can negatively affect children, causing emotional, behavioral and educational problems.[55]

- Core Indicator: % of children birth to age 6 in out-of-home placement (foster care) who have no more than two placements in a 24-month period

Emerging Indicators

Emerging indicators are critically important to the school readiness of young children but are currently difficult to measure and track at the state level.

Family Reading to Young Children
Young children who are read to regularly by their parents develop better early literacy skills, are better readers when they reach elementary school and are more likely to succeed in school. Reading to young children helps to develop imagination, creativity, vocabulary and early literacy skills. Children who are read to on a regular basis and who have books in the home are more likely to enjoy books and to read on their own.[56,57,58]

- Emerging Indicator: % of infants and toddlers (ages 4 months to 35 months) who were read to by their parents every day in the last week

- Emerging Indicator: % of children ages 3 to 5 who were read to by a family member every day in the past week

Maternal Depression
Young children with depressed mothers are more likely than other children to demonstrate social-emotional and behavior problems, difficulties in school, trouble with self-control, poor peer relationships and aggression.[59]

Parents who are depressed experience feelings of sadness, stress, inability to sleep, and other symptoms that can compromise their ability to parent their children effectively. Mothers suffering from depression are less likely to interact with, play with or read to their children.[60]

- Emerging Indicator: % of mothers experiencing depression (of all mothers with young children)

- Emerging Indicator: % of kindergartners with parents considered at risk for depression

All children, but especially young children in the process of establishing trust with adults, require a safe and stable home and caring, permanent relationships.

Ready Communities

Indicators in this section describe the critical elements of children's community or neighborhood environment.

Core Indicators

Young Children in Poverty
Poverty during early childhood can have negative effects on children's health and development. On average, poor children between the ages of two and five have significantly lower scores on intelligence and verbal tests than other children. They are more likely to experience behavioral problems that compromise learning. Poor children are less likely to be ready for school due to the lack of economic resources in the family as well as the social factors associated with poverty, such as low parental education, teen parenting, and lack of community resources.[61]

- **Core Indicator: % of children under age 6 living in families with income below the federal poverty threshold**

Supports for Families with Infants and Toddlers
Interventions for children and families identified as at-risk for poor social and educational outcomes are most effective if they begin early. Children who are most at-risk benefit when programs are comprehensive, intensive and work with the family as well as the child. Research has demonstrated the long-term cost-effectiveness of high quality early childhood programs for young children with multiple social and economic risk factors.[62,63]

- **Core Indicator: % of infants and toddlers in poverty who are enrolled in Early Head Start**

Lead Poisoning
Children with elevated blood lead levels in early childhood are more likely to have a lowered IQ and behavioral problems, resulting in academic failure, need for special education services and increased risk of juvenile delinquency. Lead exposure is a significant problem, especially in poor and urban communities. The lack of affordable housing forces many low-income families to live in older dwellings with deteriorating lead paint, placing children at risk for exposure to lead-based paint chips and lead-contaminated dust and soil.[64,65,66]

- **Core Indicator: % of children under age 6 with blood lead levels at or above 10 micrograms per deciliter**

Emerging Indicators

Emerging indicators are critically important to the school readiness of young children but are currently difficult to measure and track at the state level.

Housing
Inadequate, crowded, or unaffordable housing has a negative impact on children's health, safety, education and emotional well-being. Families with high housing costs are more likely to go without other basic necessities in order to pay for rent and utilities. High housing costs can increase the likelihood of frequent moves and doubling up with family members or friends. Frequent moves have a negative affect on school performance and behavior. Children in unstable living conditions are more likely to repeat a grade and to drop out of school before graduating.[67,68]

- Emerging indicator: % of families with children under age 6 paying more than 30% of their income for housing (rent or mortgage plus heat and utilities)

- Emerging Indicator: # of times a student changes schools between kindergarten and fourth grade

Homeless Children
Infants, toddlers and preschoolers who are homeless develop more slowly and may develop emotional problems serious enough to require professional care. Homeless children are more likely to get sick, develop mental health problems, have academic problems, be victims of violence, and exhibit delinquent or aggressive behavior than children who are not homeless. School-age children who are homeless are more likely to be behind academically and to have social and emotional issues that result in poor academic performance, behavior problems and depression.[69,70]

- Emerging Indicator: # of children under age 6 receiving emergency housing services

- Emerging Indicator: # of children enrolled in grades K-3 who are homeless or doubled up with family members or friends

Neighborhood Conditions
The neighborhoods in which children live have an influence on their development. As a group, children from low-income families who live in more affluent neighborhoods score higher on tests of verbal ability, reading recognition and overall achievement than children with the same income levels who live in high poverty neighborhoods. Children growing up in neighborhoods with high rates of poverty are more likely to attend under-resourced and low-performing schools, to have fewer playgrounds, parks and libraries and to have less access to high quality early education programs.[71,72]

- Emerging Indicator: % of children under age 6 living in neighborhoods in which more than 20% of the population lives in poverty

Ready Services – Health

Indicators in this section describe the availability, quality and affordability of health care and health issues that influence child development and school readiness.

Core Indicators

Health Insurance

Children and families with health insurance are more likely to access primary health care services that can prevent health problems or address existing chronic or acute health conditions. Lack of health insurance can affect a child's school attendance and ability to participate in school activities. Lack of health care or delays in treating children's health problems can negatively affect cognitive, emotional, behavioral, and physical development, sometimes with lifelong consequences.[73,74]

- Core Indicator: % of children under age 6 without health insurance

Low Birthweight Infants

Infants born weighing less than 2,500 grams (5.5 pounds) are at greater risk for physical and developmental problems than infants of normal weight. Children who are born at a low birthweight are at higher risk for long-term illness or disability and are more likely to be enrolled in special education classes or to repeat a grade. Teens, women who smoke, Black women and women with inadequate prenatal care are more likely than other women to have an infant who is born low birthweight.[75,76]

- Core Indicator: % of infants born weighing under 2,500 grams (5.5 pounds)

Access to Prenatal Care

Early, comprehensive prenatal care increases the likelihood that a child will be born healthy. Prenatal care presents a critical opportunity to identify and treat maternal health conditions that threaten the birth of a healthy child. Mothers who receive good prenatal care are less likely to have preterm or low birthweight infants and are more likely to obtain regular pediatric care for their young children.[77,78]

- Core Indicator: % of births to women who received late or no prenatal care

Immunizations

Receipt of timely, age-appropriate immunizations usually indicates that a child has access to regular medical care. Vaccines are cost-effective tools that prevent children from developing severe diseases. Children without a regular medical provider are less likely to have timely immunizations. Late or missing immunizations can result in preventable illnesses that can lead to long-term physical and developmental problems.[79,80]

- Core Indicator: % of children ages 19–35 months who have been fully immunized

Lack of health care or delays in treating children's health problems can negatively affect cognitive, emotional, behavioral and physical development, sometimes with lifelong consequences.

Emerging Indicators

Emerging indicators are critically important to the school readiness of young children but are currently difficult to measure and track at the state level.

Well-Child Visits
Young children visit a primary care provider many times between birth and age five. These well-child visits provide an opportunity for health professionals to monitor children's physical and behavioral health and development, provide age-appropriate guidance to parents, and screen for maternal depression. Well-child visits are an opportunity to screen children for common concerns in early childhood, including lead poisoning, hearing and vision problems, behavior problems and delayed speech and language development.[81]

- Emerging Indicator: % of children under age 6 who received a well-child check-up in the past year

- Emerging Indicator: % of 2-year-olds with a recent well-child visit that included a lead screening, vision screening, hearing screening, and comprehensive developmental screening.

Developmental Screening and Assessment
Access to developmental screening and assessment throughout infancy and early childhood is critical in order to identify problems early and provide appropriate intervention. A comprehensive developmental assessment that addresses all domains of child development (physical health and motor development, speech and language, social-emotional, cognitive and approaches to learning) is an important component of well-child care for infants, toddlers and preschoolers.[82,83]

- Emerging Indicator: % of children under age 6 with a comprehensive developmental screening within the previous year

- Emerging Indicator: % of children birth to age 3 in the care of the state child welfare system who received a developmental assessment through Early Intervention (Part C of the Individuals with Disabilities Education Act)

Ready Services – Early Care and Education

Indicators in this section describe the availability, quality, affordability and other critical elements of early care and education services that promote healthy child development.

Core Indicators

Children Enrolled in an Early Education Program
Children who attend a high quality early education program in the year or two before kindergarten are better prepared for school—academically, socially and emotionally. Economically disadvantaged 3- and 4-year-old children who participate in high-quality preschool programs have better school achievement, social skills and behavior than children who do not participate in a preschool experience or who are enrolled in a low quality program.[84,85,86]

- Core Indicator: % of 3- and 4-year-olds enrolled in a center-based early childhood care and education program (including child care centers, nursery schools, preschool programs, Head Start programs, and pre-kindergarten programs)

Early Education Teacher Credentials
Early care and education programs (including preschool programs, center-based child care programs and family child care homes) with highly qualified staff are more likely to produce positive outcomes for children's learning and development. Research shows that preschool teachers with at least a four-year degree and specialized training in early childhood are more effective and more actively engaged with the children they teach.[87,88,89]

- Core Indicator: % of early childhood teachers with a bachelor's degree and specialized training in early childhood

Accredited Child Care
High-quality child care provides a safe and nurturing learning environment for infants and young children. Children who have received high quality child care score higher on tests of both cognitive and social skills in their early childhood years than children in low-quality care. To obtain national accreditation, early childhood programs must meet specific quality standards, such as low child-teacher ratios, increased teacher training, improved facilities and formalized management procedures.[90,91]

- Core Indicator: % of child care centers accredited by the National Association for the Education of Young Children (NAEYC)

- Core Indicator: % of family child care homes accredited by the National Association for Family Child Care (NAFCC)

Access to Child Care Subsidies

Families rely on child care to enable them to work and to provide the early education experiences needed to prepare their children for school. The high cost of child care puts quality care and early education out of reach for many families, particularly low-income families. Access to child care subsidies helps families afford higher quality child care.[92]

- Core Indicator: % of eligible children under age 6 receiving child care subsidies

Emerging Indicators

Emerging indicators are critically important to the school readiness of young children but are currently difficult to measure and track at the state level.

High-Quality Child Care and Early Education Programs

Compared to children in lower-quality child care and early education programs, children in higher-quality programs have more advanced language and pre-math skills, more advanced social skills and warmer relationships with their teachers. Elements of quality include well-trained and well-compensated teachers, language-rich classroom environments, small group sizes, low staff-child ratios, low staff turnover rates and practices that involve and support parents.[93,94]

- Emerging Indicator: % of child care and early education classrooms that rank at the top level in a statewide quality rating system

Parent Involvement in Early Care and Education Programs

Parent involvement in early care and education settings benefits children, families, and programs. Parents become more knowledgeable about their children's activities and are more able to continue the learning process at home. Families receive support and referrals to needed services. Programs that incorporate parent input and involvement on a regular basis are more likely to improve child and family outcomes.[95]

- Emerging Indicator: % of early care and education programs with multiple strategies to involve and support parents

Schools must be ready to address the diverse needs of the children and families in the community and be committed to the success of every child.

Ready Schools

Indicators in this section describe critical elements of the elementary school environment that influence child development and school success.

Core Indicators

Class Size
Smaller classes (with a lower pupil-to-teacher ratio) give teachers the ability to identify the needs of young children and address them with individualized strategies. Research has found that smaller class sizes, especially in the early grades, result in increased student achievement.[96]

- Core Indicator: Average teacher/child ratio in K-1 classrooms

Fourth Grade Reading Scores
Fourth grade reading scores are a key predictor of future academic success, a reliable indicator of a child's school readiness and a measure of whether or not children's needs have been met between birth and fourth grade. Students who cannot read proficiently by fourth grade are more likely to be absent from school, exhibit behavior problems, have low self-confidence, and perform poorly in school.[97,98]

- Core Indicator: % of children with reading proficiency in fourth grade as measured by the state's proficiency tests

Emerging Indicators

Emerging indicators are critically important to the school readiness of young children but are currently difficult to measure and track at the state level.

Transition Practices Between Pre-School and School
The transition from early childhood care and education settings or home to kindergarten is a significant milestone in the lives of young children, their families, and their teachers. A smooth transition into kindergarten forms the basis for later academic achievement and success. When transitions are well-planned, children have fewer adjustment problems and more continuous developmental progress.[99]

- Emerging Indicator: % of schools with formal working transition plans between early childhood settings and kindergarten

Special Education and Early Intervention
Without appropriate supports and services in the early years, children with special educational needs are less likely to be ready for school and are at higher risk for poor educational outcomes. Under the Individuals with Disabilities Education Act, Part C, each state has an Early Intervention program that provides services for infants and toddlers with developmental delays or disabilities. Local school districts provide special education services for eligible children ages 3 to 21.[100]

- Emerging Indicator: % of kindergarten children enrolled in special education who were not previously enrolled in Early Intervention (Part C) or preschool special education services

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Indicators as a Policy Lever

The regular tracking of school readiness indicators enables policymakers and community leaders to identify areas most in need of intervention, track the results of investments, and monitor trends over time.

States selected indicators that could be used to inform policy decisions affecting the school readiness of young children.

There are six key purposes for using indicators:

- Describe child, family, and community conditions.

- Track trends over time.

- Measure progress towards improving child outcomes.

- Improve programs for children and families.

- Inform state and local planning and policymaking.

- Monitor the impact of investments and policy choices.

In addition, school readiness indicators are most powerful as a public policy tool when they are selected based on three specific criteria:[101,102]

- **Relevance** – The indicator describes a behavior, condition or status that influences a child's school readiness.

- **Measurability** – It must be possible to measure changes in the indicator over time at the state level and ideally, at the county, city, town and/or neighborhood levels.

- **Communication Power** – Changes in the indicator can be used to tell a story compelling enough to inform policy decisions.

States involved in the School Readiness Indicators Initiative were encouraged to select indicators that were based in the research on child development and had the power to inform state policy action on behalf of young children. School readiness indicators must be measurable so that you have the ability to know the current baseline and track trends over time at the state and local levels.[103,104,105]

Selecting a combination of different types of indicators enables states to monitor the capacity to meet the variable needs that exist across communities:

- Child Indicators:
  Describe characteristics of children's health and development.

- Family Indicators:
  Describe children's family context and home environment.

- Community Indicators:
  Describe the county, city, town and/or neighborhood in which children live.

- Services Indicators:
  Describe the availability, quality and affordability of proven programs that influence child development and school readiness.

- School Indicators:
  Describe critical elements of the elementary school environment that influence child development and school success.

School readiness indicators are a tool for policy action.

The regular tracking of school readiness indicators enables policymakers and community leaders to identify areas most in need of intervention, track the results of investments, and monitor trends over time. Top-notch school readiness indicator sets at the state and local level are necessary to sustain current investments in the most effective programs for children and to make the case for changes that will improve outcomes for young children and their families.[106,107,108,109]

The focus of the 17 state Initiative was on selecting indicators that could track states' progress in improving the school readiness of young children. Therefore it was important that the indicators related not only to school readiness but also had relevance to state policy.

Criteria that Guided the Selection of School Readiness Indicators

To be most useful as a tool to inform policy decisions, each indicator selected should meet the following criteria:

- **Is something you care about enough to measure and track.**
  - Reflects an important child, family, or community outcome.
  - Reflects access to service systems or programs that are "widely accepted" as important to child outcomes. (For example, health insurance coverage, early prenatal care, high quality child care).

- **Has policy relevance.**
  - Can be influenced by program or policy changes.
  - Helps to better understand the impact of investments or policy choices.
  - Is something policymakers want to know.

- **Enables states to assess gaps, with special attention to populations at high risk.**
  - Measures the conditions of children, by race/ethnicity and family income.
  - Uses accessible data that is timely and available on an annual basis.
  - Tracks data for the state as a whole and for local communities (county, city, town, neighborhood).

- **Uses measures that are developmentally-appropriate.**
  - Addresses special considerations by age group:
    birth to age 3
    preschool
    kindergarten to third grade.
  - Addresses the special needs of children with disabilities.

- **Uses measures that are relevant across all racial, cultural and language groups.**

School Readiness: Closing the Gap in School Achievement

Studies show that at least half of the educational achievement gaps already exist at kindergarten entry. Children from low-income families are more likely to start school with limited language skills, health problems, and social and emotional problems that interfere with learning. The larger the gap at school entry, the harder it is to close.[110,111]

Race, Ethnicity and Income

Children from low-income families and from minority racial and ethnic backgrounds are much more likely to start school already behind their peers in the set of skills that correlate with future school success.[112]

While children from minority racial and ethnic backgrounds are more likely to be poor, research also shows that Black, Hispanic and Native American children consistently have lower educational achievement levels than White and Asian children of similar socio-economic status.[113]

The Role of Culture in Child Development

Efforts to improve school readiness are most effective when they are responsive to and embrace the diverse cultural and language backgrounds of families and children. Children entering kindergarten vary in their early experiences, skills, knowledge, language, culture and family background. Early childhood programs and schools must be ready to address the diverse needs of the children and families in their community and be committed to the success of every child.

It is critical that the design and implementation of early childhood policies and practices be examined through a cultural lens.[114] Parent belief systems and patterns of parent-child interactions provide some of the most important ways in which culture is embedded in early child development.[115] There are cross-cultural differences in how parents' access information, make decisions about early learning, and interact with early childhood programs, social services and schools.[116,117]

Closing the school readiness gap will require attention to the multiple influences on early child development, including the contributions of family and neighborhood, home environments related to language and literacy, parenting practices, health status, health behaviors, child care and early education.[118] The growing racial, ethnic, linguistic, and cultural diversity of young children requires that health, mental health, early childhood and education programs periodically reassess their appropriateness and effectiveness for the wide variety of families they serve.[119,120]

It is critical that the design and implementation of early childhood policies and practices be examined through a cultural lens.
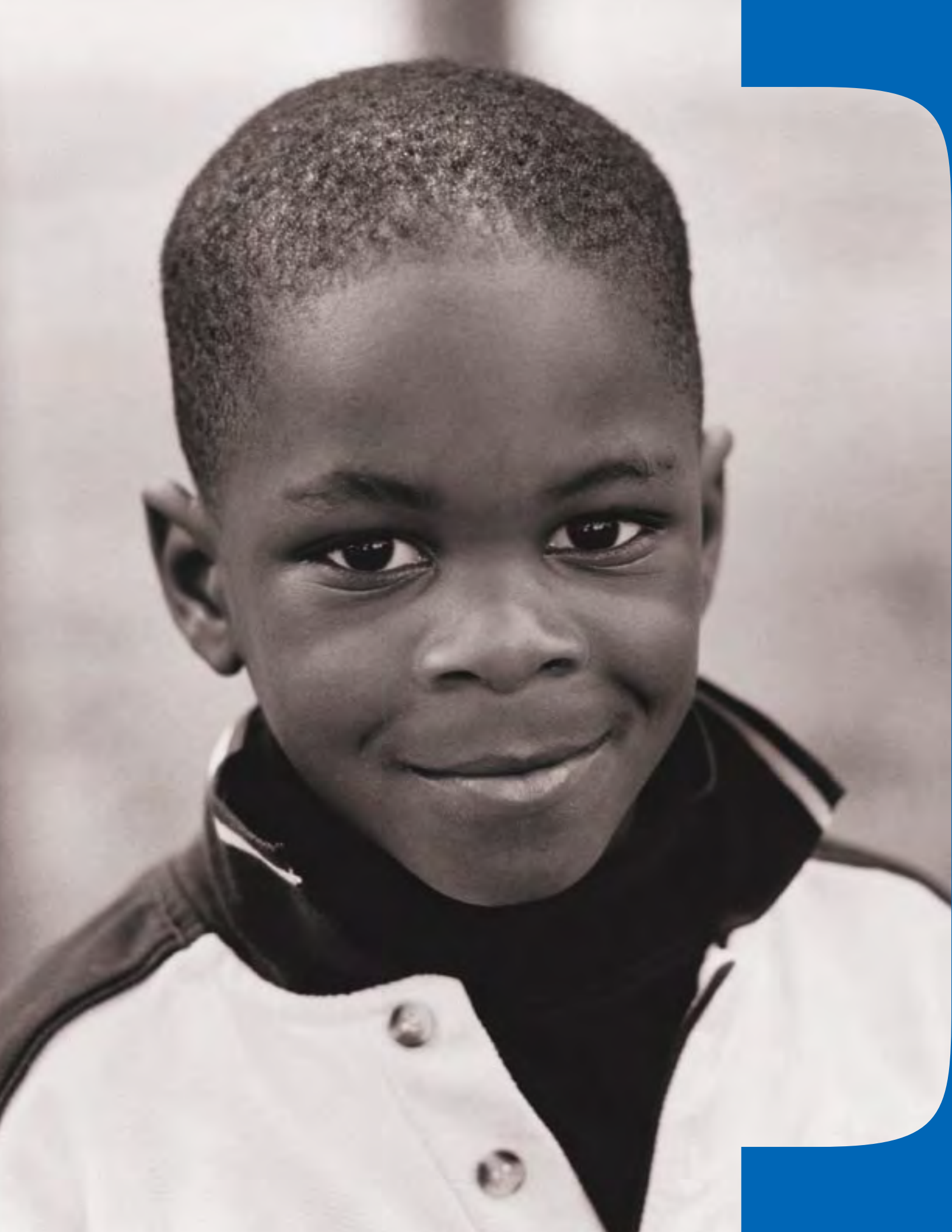
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A Sampling of Policy Options

Policy Options to Improve School Readiness

The goal of the School Readiness Indicators Initiative was to develop indicators not just for data's sake, but to inform and influence policy decisions to improve school readiness. The list of core indicators and emerging indicators provide a good reference point to begin looking at the policies and programs that can help children become ready for school. There are a variety of viable policy options that states can adopt to influence the trajectory of young children as they grow and develop.

The policy options outlined in this section represent a sampling of actions that states can consider as strategies to address the conditions that influence school readiness. State and national policies can be effective tools to strengthen family and community environments, provide access to comprehensive health care, significantly increase access to high-quality early education programs and ensure that schools are structured to help all children succeed.

Ready Children

School Readiness Assessment at Kindergarten Entry
Assessing the readiness of children as they enter kindergarten can be useful for planning more effective services and investments for young children and their families. There are models of effective kindergarten assessment that either assess all children or a representative sample of children. Effective school readiness assessment practices are conducted annually, address all domains of child development and are appropriately aligned with early learning standards and K-3 education standards.

Developmental Screenings as a Routine Part of Well-Child Care
Medical conditions at birth and developmental delays in the first five years of life place a child at risk of entering schools without the physical, social, emotional and cognitive skills to succeed. Children who do not receive early attention to developmental problems are more likely to need intensive special education or other services later on. States can develop systems that require health providers and health insurers to include comprehensive developmental screening (including hearing, vision, dental, and social-emotional assessments) as a routine part of well-child care. This can also point to areas in which Medicaid coverage can be expanded or changed to better ensure access to developmental services and follow-up to EPSDT screenings.[121]

Ready Families

Early Head Start
Early Head Start serves children and families beginning during pregnancy until the child turns 3. The program promotes healthy prenatal care for pregnant women, teaches the care and education of infants and toddlers and helps families build healthy relationships. Vulnerable children in Early Head Start are more likely to get their health and developmental needs met. States can consider targeting expansions to families with multiple risk factors, such as teen parents and families with early warning signs for abuse and neglect.[122]

Adult Literacy, Adult Education and English as A Second Language (ESL) Programs
Improved literacy skills, English language skills and higher levels of educational attainment enhance a parent's ability to obtain and retain a stable job with benefits. Adult literacy and ESL programs equip parents to engage their children in reading and other learning activities. When parents enroll in literacy programs, their children's reading skills and test scores improve.[123]

Ready Communities

Income Support Programs
Research shows that although income supports, such as WIC, health insurance, food stamps and child care subsidies do not increase a family's cash income, they do provide real economic resources to families and greatly enhance quality of life. Access to income support programs increases the chances that young children will have food, housing and health insurance, and that their families can maintain jobs and enroll children in high quality early education programs.[124]

Lead Paint Inspection and Abatement

Requiring lead inspections and subsidizing abatement can significantly reduce the risk of lead poisoning. Targeting these interventions to low-income communities with older housing stock will have the most impact on preventing the cognitive and behavioral disabilities caused by lead poisoning.[125]

Affordable Housing

Safe, stable, affordable housing is vital to the school readiness of young children. Housing subsidies that limit rental payments to 30% of family income, the national standard, can have a positive impact on family conditions that affect school readiness. Research indicates that recipients of housing subsidies have better work retention, more available income, and better housing security.[126]

Ready Services – Health

Health Insurance

Research indicates that health insurance coverage of children and of parents is a strong predictor of a child's use of health services. When a parent is not covered by health insurance, their children are less likely to get timely health care services and their health and development is compromised. Providing coverage for parents at higher income levels and for two-parent families helps ensure that investments in children's health insurance will be most effective.[127,128]

Access to Health Care

Health insurance is a major determinant in whether children have access to primary care, but it takes more than a health insurance card to keep children healthy and ready for school. In order to stay physically and emotionally strong, children must have access to a range of primary and specialty care as well as the transportation and translation services that enable them to access care. State policies and reim-bursement systems can provide incentives for comprehensive well-child care that includes developmental services, mental health services and dental care.[129]

State and national policies can be effective tools to strengthen family and community environments, provide access to comprehensive health care, significantly increase access to high quality early care and education programs and ensure that schools are structured to help all children succeed.

Ready Services – Early Care and Education

Highly-Qualified Early Education Providers
Research shows that early education providers who have a bachelor's degree are more effective. Knowledge of early childhood development, including social-emotional development and emergent literacy, is essential for early care and education teachers. Increased compensation is critical to attract and retain qualified early childhood teachers and to improve the quality of the early education system. Initiatives designed to increase wages and benefits can improve workforce education and reduce turnover, particularly when professional development and education are linked to pay increases.[130]

Affordable, Accredited Child Care and Preschool Education
Child care subsidies and affordable preschool opportunities are important tools for ensuring that low-income children have access to high quality early care and education. Research shows that child care centers and family child care homes that comply with additional standards, such as accreditation, provide better care for children. State funded pre-kindergarten initiatives that build on the state's existing child care and education infrastructure can increase access to early education experiences for all children. Tiered reimbursement rates and other efforts to develop high quality early education programs are important strategies to achieve school readiness.[131]

Ready Schools

Transition to Kindergarten
The transition from home or an early care setting to kindergarten is an opportunity to involve parents and create continuity in children's educational environment. School departments can work with parents, early care providers and teachers to prepare children for the transition and share relevant information about their skills and needs.[132]

Small Class Size
Lower pupil-teacher ratios, especially in the early grades, are associated with higher achievement levels. Class sizes can most effectively be reduced by a combination of strategies including classroom size limits, additional funding for schools and team teaching. States can provide incentives to attract highly-qualified teachers to schools in high poverty communities, as well as work to develop a culturally diverse teaching force reflective of the students in the school community.[133]

Early and Appropriate Intervention for Children with Special Needs
Children with special physical, emotional, developmental and educational needs are at higher risk for poor school performance. States can expand capacity and create linkages among Early Intervention services for infants and toddlers, pre-school special education, child development services and family support programs. Children need services that respond to their individualized needs and challenges before they enter school and in the early school years. Many children fall behind long before they enter the public school system. Once they are behind, the achievement gap tends to widen and becomes more and more difficult to close.[134,135]

Overview of the Initiative

State Teams

The work of the School Readiness Indicators Initiative was largely conducted through individual state teams. Members of each state team were uniquely selected to fit the context of each state and all 17 teams were comprised of representatives from both the public and private sectors. Teams generally included heads of the departments of education, health, social or human services, senior data and policy staff from state departments, child advocacy organizations and researchers. Some state teams included legislators and/or staff from the Governor's Office. In order to participate in the Initiative, each state team needed support from the Governor.

The intention behind the formation of state teams was to secure ownership of the school readiness indicators at the highest levels of state government and to develop the capacity of state departments to measure and track school readiness indicators over time. Each state team developed a set of school readiness indicators, policy strategies and a communications plan that fit their state's unique political, social, and economic context.

To do their work, state teams were responsible for identifying:

- A definition of school readiness that was based in the research.

- Policies to enhance the school readiness of children from birth to the beginning of fourth grade.

- Indicators that could be tracked annually at the state and local levels and be used to show progress in achieving outcomes related to the school readiness policy goals.

- Measurement and tracking systems to ensure that indicator data would be available at the state and local levels.

- A communications strategy to facilitate the use of indicators by policymakers and community leaders.

Selected members of the state teams traveled to National Meetings and Residency Roundtables. They served as a key workgroup and coordinating body for a much broader group of individuals and organizations working on school readiness issues in their home state. Ultimately, each state created a communications strategy and publication to disseminate the indicators for use by decision makers within their state. These individual state reports provide data on the indicators each state decided to measure and track. Each state's school readiness indicator product is available on the Initiative web site at www.GettingReady.org.

Initiative Strategies

Rhode Island KIDS COUNT, a multi-issue children's policy organization, was selected as the lead agency for the National School Readiness Indicators Initiative. The organization had a history of tracking indicators in Rhode Island and had an effective

approach focused on identifying relevant indicators, communicating indicator trends, and using the data to influence targeted policies. In partnership with other key stake-holders, Rhode Island KIDS COUNT has provided project leadership and worked closely with the participating states to meet project goals, develop credible indicators, and inform local, state and national policy change.

A peer-to-peer learning network of the 17 state teams was created and facilitated by Rhode Island KIDS COUNT. Because the states were at different stages of developing and using indicators for policy change, they provided valuable technical assistance to their peers. The state teams used collaborative decision making to guide the development of forums for learning, sharing and achieving state and cross-state goals for developing and strategically using indicators to make change for young children.

National meetings were held in order for state team members to learn from experts and to provide peer-to-peer support on policy issues, indicator development, data and technology, and communications strategies. Six national meetings were held with the kick-off meeting in October 2001 and the final meeting in May 2004.

Residency roundtables were convened to address important school readiness topics that lacked well-developed indicators. During these meetings, 30-40 state leaders and field experts worked together to make accelerated progress in priority areas, including identifying and developing indicators of social and emotional development, language and literacy, cognitive development and infant-toddler development. In addition, a meeting on kindergarten assessment was co-sponsored with the State Early Childhood Policy Technical Assistance Network (SECPTAN) to share best practices in the states. Formal written reports and conclusions from these meetings have been distributed to the 17 states and are posted on the Initiative web site for widespread dissemination.

A web site for the Initiative (www.GettingReady.org) was designed to share information on best practices in policies and programs for young children, to enable states to post relevant materials and provide updates on progress, and to link to print and organizational resources. Participating states and other interested parties can access the web site and find each state's school readiness indicators report, examples of indicators and measures, updates on state policy issues, and links to materials and resources shared at National Meetings and Residency Roundtables.

A listserv was developed that provides a vehicle for problem solving and for the interactive sharing of ideas and resources.

Expert consultants with selected skills and experience were engaged as needed to support the work of the Initiative. The primary role of the consultants was to provide assistance to the network of states as a whole or to groups of states with common issues. The consultations took a variety of formats, including participation at National Meetings and Residency Roundtables and on-site consultation to individual states in order to advance their early childhood policy and indicator work.

State Early Childhood Policy Technical Assistance Network (SECPTAN)

Policymakers often face the challenge of making decisions under time and resource constraints in areas in which they sometimes do not have direct experience or expertise. To improve school readiness, policymakers need the best available information about effective policies and practices that positively impact the ability of young children to be successful in school.

The funding partners that created the School Readiness Indicators Initiative were struck by three factors in particular when considering how to most effectively use indicator data to inform policymaking:

- Information needs to cover the wide range of issues related to school readiness.

- The information needs to be considered bi-partisan and objective.

- Assistance needs to be available to states in the most timely manner.

In January 2002, the State Early Childhood Policy Technical Assistance Network (SECPTAN) was launched to provide specific, timely, and targeted technical assistance to states as they linked indicators to policy. SECPTAN was formed to provide evidence-based technical assistance to decision-makers (Governors and their staff, state legislators and their staff, and state department directors) on early childhood issues identified within the state as a focus for policy making. Charles Bruner, Executive Director of the Child and Family Policy Center in Des Moines, Iowa, manages SECPTAN. Together with three senior policy analysts, SECPTAN worked closely with Rhode Island KIDS COUNT to provide technical assistance as states used their indicator data to inform policy discussions.

SECPTAN served as a resource by responding to requests for assistance from states that was:

- In keeping with executive and legislative time frames and deadlines.

- Useful in making connections between evidence, policy and budget options.

- Consumer-driven, focusing on issues that policymakers and decisionmakers identified as important.

- Evidenced-based and grounded in the best available research.

- Tailored to the needs of the state's political, social, and economic culture.

SECPTAN was structured to operate as a centralized broker for technical assistance in order to address the broad range of policy issues related to school readiness. To meet state needs, SECPTAN worked with the national organization partners and other experts to meet the needs of the states and prevent the duplication of services. The early childhood experts from SECPTAN informed Initiative participants through consultation, publications, presentations, workshops, conferences, on-line support and other resources.

In response to a common policy challenge described by all 17 states, SECPTAN hosted meetings on Kindergarten Assessment and on Financing Early Learning Systems.

In addition, SECPTAN produced a series of publications to advance school readiness policy work in the states. These and other resources can be found on the SECPTAN web site: www.finebynine.org.

The Initiative's Five National Partner Organizations

The five national partner organizations provided advice and guidance throughout the Initiative and serve as dissemination partners. Their constituencies include governors, state legislators, state school officers, education leaders, and early childhood providers, researchers, and advocates. In addition, these organizations provided information, training and Technical Assistance at the National Meetings and Residency Roundtables.

The National Governors Association (NGA) Center for Best Practices helps governors and their key policy staff, develop and implement innovative solutions to challenges facing their states. Visit www.nga.org for more information.

The National Conference of State Legislators (NCSL) is a bipartisan organization that serves the legislators and staff of the nation's 50 states, its commonwealths and territories. NCSL provides research, technical assistance and opportunities for policymakers to exchange ideas on the most pressing state issues. NCSL is an effective and respected advocate for the interests of state governments before Congress and federal agencies. Visit www.ncsl.org for more information.

The Council of Chief State School Officers (CCSSO) is an organization with a vision that all children should be successful in school, work and life. Through leadership, advocacy and service the Council assists its state education agencies as they build systems to support this vision. Visit www.ccsso.org for more information.

The Education Commission of the States (ECS) is an interstate group of individuals who work to improve the status of public education, through the exchange of information, ideas and experiences. Each state is represented by six officials, including the Governor, who work to solve a focal issue. Visit www.ecs.org for more information.

The National Association for the Education of Young Children (NAEYC) is the national leading group of Early Childhood educators and supporters, striving to create and improve quality programs for children. NAEYC serves children and families of children from birth through 3rd grade. Visit www.naeyc.org for more information.

section

Lessons Learned from the 17 State Initiative

The goal of the 17 State School Readiness Indicators Initiative was to develop indicators, not just for data's sake, but to inform policy decisions in order to improve school readiness. There are a variety of viable policy options that states can adopt to influence the trajectory of young children as they grow and develop.

Following are key lessons learned and challenges that emerged during the course of the School Readiness Indicators Initiative. They reflect the individual work within the 17 states and the collective work across the participating states. The intent is for these lessons to serve as a learning model for other states interested in using school readiness indicators to inform policies aimed at helping children enter school with the skills and capacities needed to be successful.

What Works

What Do You Care About Enough to Measure and Track?

The most powerful sets of indicators show baseline measures and track progress or declines in key issue areas at the state or local level. Indicators are only useful when they measure something for which there is a constituency of people willing to take action. Monitoring trends that are moving in the wrong direction and celebrating progress when trends are moving in the right direction is critical.

Indicators Must Be Linked with Policy and Communications

To have an impact on real outcomes for children, school readiness indicators must be developed with the policy context and a communications strategy in mind. Indicators can be used to inform state policy choices by tracking trends over time and measuring progress in meeting the needs of young children and families. Indicators are most powerful when there is a deliberate plan to use them as a tool to communicate with policymakers and the public.

School Readiness is "Both/And"

Despite the polarization that has existed between those who emphasize literacy and those who emphasize social-emotional development, the fact is that both are critically important to children's school readiness. Social-emotional development is the foundation for cognitive development. It's not either/or. Both social skills and literacy skills are needed to be successful in school and in life.

The Ready Child Equation Adds Up

Ready Families + Ready Communities + Ready Services + Ready Schools = Ready Children

Just as school readiness is multi-faceted, so is the environment in which a child grows and develops. To successfully ensure that many more children enter school ready to learn it is important to consider the family and community context in which they live, the schools they attend, and the services that are available to support their healthy growth and development.

Kindergarten Assessment – Necessary but Not Sufficient

While kindergarten assessment data are important, we know that the achievement gap begins long before a child enters kindergarten. Closing the educational achievement gap between poor and non-poor children will require attention to the child's earliest learning environments, beginning at birth and continuing through the preschool years. School readiness indicator sets are most effective when they track measures relevant to infants, toddlers, and preschoolers as well as kindergarten children.

Closing the Gap: Service System Indicators

There is a solid research base that shows how critical it is for children to have healthy, nurturing and enriching environments in the early years. Access to quality health care and high quality early childhood development programs that involve the child as well as the family are a critical resource for young children and their families, especially those at social or economic risk. A comprehensive set of school readiness indicators enables states to track these kinds of service system improvements.

It is Essential to Include Policymakers

When indicators are used as score-cards to grade elected officials and agency directors, they often have limited impact. However, when policymakers and government leaders are involved in the development and selection of priority indicators, they are more likely to embrace indicators as a policy tool. They are also more likely to use them as baseline measures and track progress over time.

Build Cross-Sector Teams

The most effective indicator work is done when a team is formed that includes both governmental and non-governmental members. The unique skills, resources and assets of each group can be powerfully combined to improve the lives of children. The most successful states had teams in which senior policy and data staff from state departments worked together with an effective child advocacy organization. Teams also benefited from the participation of legislators, Governor's policy office staff, researchers and community leaders.

What Gets Measured Gets Done

It is critical to pick a manageable number of indicators that you care about enough to measure and to track over time. Although indicators are not the only tool for promoting policy change, effectively tracking a limited number of key indicators can influence the types of programs and policies that states support. Long lists of indicators can be overwhelming. It is important to be comprehensive but also to make strategic decisions about which indicators are selected and monitored.

The only way we can successfully ensure that many more children enter school ready to learn is to consider the family and community context in which they live, the schools they attend, and the services that are available to support their healthy growth and development.

Use the Data You Have

Every state already has data it can use to begin to gauge children's school readiness. School readiness indicator sets often do not require whole new data systems, but rather a commitment to using existing data and improving its quality over time.

Celebrate Progress

It is important to celebrate forward motion as well as to highlight opportunities for improvement. If the data focus only on negative issues and trends, there is less motivation to sustain tracking and to support difficult to reach policy goals.

Measuring Results Takes Time

For indicators to be effective levers for policy change, there must be a long-term commitment to track the indicators, analyze the data, and keep the press and policy-makers interested in the results. States across the nation have made major shifts in state policy as a result of the development and tracking of important child indicators.

Strategically Pursue Emerging Indicators

Some of the indicators most critical to school readiness do not have data at the state level. These emerging indicators can be used to highlight important issues and create the impetus for new data collection. Often, there are comparable federal data sources or research studies that states can learn from to identify ways to collect new data at the state and local level.

Challenges

Linking Early Learning to K-12

One of the biggest challenges to making dramatic improvements in children's school readiness is bridging the artificial divide between the early learning years and the K-12 system. Both parts of the system are essential, so the School Readiness Indicators Initiative focused on children birth through age 8 (rather than stopping at age 5) and included indicators on ready schools.

Which is It: Universal Access? Or the Most Vulnerable?

While the goal is for all children to enter school ready to learn, it is important to acknowledge the fact that some children are much more vulnerable than others. There is a significant gap in early literacy and school achievement between poor children and their more affluent peers. States face the conflict between the positive public response to an all-children's agenda and the tremendous needs of infants and young children at high risk.

Multiple Initiatives

The 17 State School Readiness Indicators Initiative is not the first project to work on school readiness and will not be the last. State teams connected their work to other related efforts at the state and local levels. States continue to integrate the learning from the Initiative to ongoing work to improve outcomes for young children.

Successful Transitions

Many states had the challenge of making sure that the school readiness indicators work was successfully transitioned as a priority when a new governor took office. This transition was most successful when state teams included members that could transcend administrations, such as senior policy and data staff from state departments and outside partners like child advocacy organizations, researchers and community leaders.

Data Requirements

In order to be used effectively as a school readiness indicator, data need to be reliable, available on an annual basis, and able to be broken down to the local, county or city level. To make the data more than just a number on a page, the best available data need to be put in context and linked to the policy issues at hand.

Investments in Data Capacity

In order for data to be available to inform policy, states must have the financial and human resources to develop, track, and report indicators on an annual basis. Once states have mined existing data available from state or federal systems, it is time to explore new investments that can improve the ability to track outcomes in priority areas.

State Level Indicators May Not Match Community Level Indicators

The school readiness indicators selected at the state level may not match up completely with school readiness indicators selected by local communities. Local indicator sets may include issues that are a high priority at the community level but may not be relevant at the state policy level. Likewise, data may be available at the local community level that may not be available statewide. School readiness indicators for the state can be informed by school readiness indicators selected by local communities and vice versa.

The strongest effects of high quality early childhood programs are found with children most at risk. States face the challenge of making sure that all children are ready to learn while also addressing the tremendous needs of infants and young children at high risk.
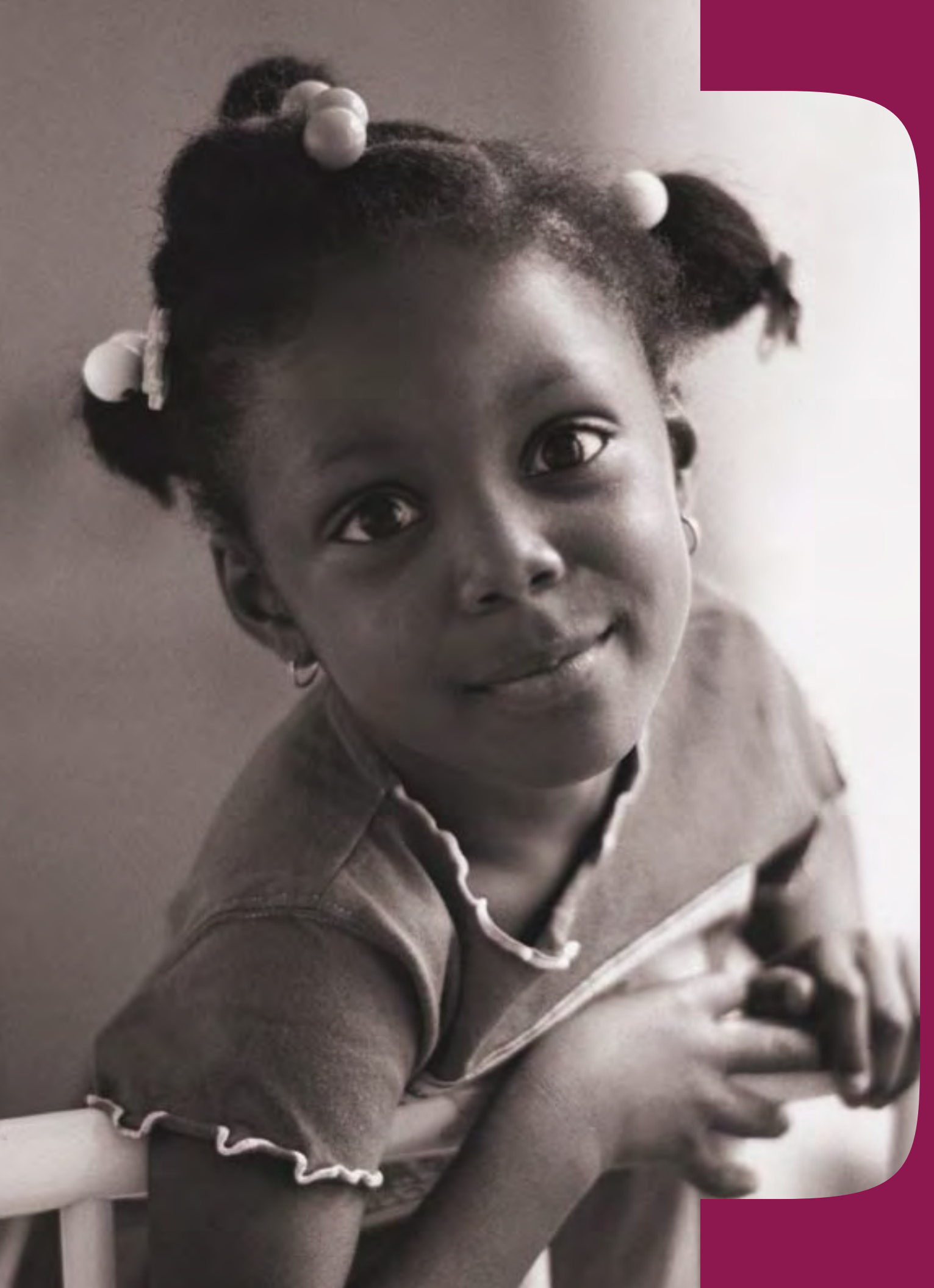
section

Residency Roundtables

All of the domains of child development are interrelated. Healthy social-emotional development is the foundation for cognitive development. Physical development can strongly affect language and literacy skills.

Residency Roundtable Topics

The School Readiness Indicators Initiative convened four Residency Roundtables that addressed important school readiness topics that lacked well-developed indicators.

A fifth meeting on kindergarten assessment was co-sponsored with the State Early Childhood Policy Technical Assistance Network (SECPTAN) to learn from the experts and share best practices in the states.

1   Social and Emotional Development

2   Language and Literacy

3   Cognition and Approaches to Learning

4   Children Birth to Three

5   Kindergarten Assessment

During these roundtables, state team members became familiar with the research base through presentations and interaction with national experts and peers from other states. Participants worked to develop comprehensive sets of potential school readiness indicators in each of the focus areas.

It is important to note that while the residency roundtables usually focused on a specific domain of child development, participants were encouraged to develop indicators across the five domains, recognizing that all of the domains of child development are interrelated. For example, healthy social-emotional development is the foundation for cognitive development and physical development has the power to affect language and literacy skills. In addition to the five domains of school readiness, participants were encouraged to include indicators that related to ready children, ready families, ready communities, ready schools, and ready services.

States used the research and indicators developed at the residency roundtables to inform their state work. Many of the potential indicators generated at the residency roundtables were refined for use in the states and appear in the state school readiness indicator reports. Some of the potential indicators suggested at the residency roundtable are not currently measurable. Complete proceedings for the Residency Roundtables are available on the Initiative web site at www.GettingReady.org.

Social and Emotional Development

Introduction

Young children's social and emotional development is the foundation for their cognitive development. Children are more likely to do well in school when they have a positive sense of personal well-being, developed through consistent, caring relationships in their early years. Emotional support and secure relationships build a child's self-confidence and the ability to function as a member of a group.[136,137,138]

Healthy social and emotional development comes from stable interactions and nurturing environments during infancy and childhood.[139] Children function better in the school setting when they have the social skills and behaviors that enable them to develop meaningful relationships with adults and peers.[140] Key social skills for building and maintaining positive relationships include: respecting the rights of others, not being too shy or withdrawn or too overbearing or aggressive, willingness to give support, the ability to communicate wants and needs, and treating others as one would like to be treated.[141]

Children who are unhappy, fearful, or angry are often too preoccupied to get involved and engaged in learning experiences. Children who are socially competent and emotionally secure are better able to participate fully in learning experiences, form good relationships with peers and teachers, and participate in classroom activities in ways that are positive for themselves, their classmates and their teachers.[142]

Potential Indicators

Child Outcomes
- % of kindergarten students who can establish and maintain positive relationships with peers and adults
- % of kindergarten students who can function appropriately in group learning activities, participating actively, taking turns, following directions and working cooperatively

Child Factors
- Vulnerable child index (# of children with one or more risk factors, including domestic violence, substance abuse, maternal depression, homelessness, incarcerated parent, etc.)
- # of children suspended or expelled from early care and education programs.

Family Environment
- Rate of child abuse and neglect for children under age 6
- Socio-demographic risk index (# of children with one or more risk factors, including teen parent, single parent, poverty, low education)

Community Conditions
- % of children growing up in neighborhoods of concentrated poverty

Service Systems – Health
- % of children with a developmental screening at age 3 that includes a social-emotional development component
- % of prenatal visits that include screening for maternal depression

Service Systems – Early Care and Education
- % of early care providers with training in strategies to support positive behavior and emotional development
- # of children suspended/expelled from preschool/child care

Service Systems – Schools
- % of all children in elementary special education with a diagnosis of behavior/emotional disorder

Service Systems – Child Welfare
- % of children ages 0-6 with 2 or more moves in the past 24 months
- % of children ages 0-6 re-entering the foster care system within the past 12 months

Language and Literacy

Introduction

Language proficiency is a key predictor of school success. Children's emergent literacy skills at kindergarten entry predict their reading abilities throughout their educational careers. Some elements of emergent literacy include vocabulary, print awareness, early writing, and recognition of the connection between letters and sounds. Language and literacy skills enable children to participate in classroom activities and to develop relationships with teachers and peers. Experience with written and oral language equips children with the tools to represent their thoughts, feelings, and experiences and to interact with others.[143,144,145,146]

Children exposed to a rich language environment in the early years acquire a significantly larger vocabulary, stronger knowledge of the words and structures that articulate ideas, and better capacity to use language to interact with others. As they read, write and communicate with teachers and peers, children construct understanding and acquire knowledge related to various school subjects. The depth of children's language and literacy skills are directly related to their early experiences with books, story-telling and conversation. Early exposure to literacy activities at home, in the community, and in early childhood education programs is essential to young children's development of reading and communication skills.[147,148,149]

Potential Indicators

Ready Child – Physical Well-Being and Motor Development
- % of children with untreated hearing/vision problems at school entry
- % of children ages 0-5 who receive periodic vision, hearing and dental screenings

Ready Child – Social and Emotional Development
- % of children who express needs, wants, or thoughts using verbal or nonverbal communication at an appropriate developmental level using their primary language

Ready Child – Language and Literacy Development
- % of children, birth through school entry, with age-appropriate pre-literacy and emerging literacy skills
- % of children, birth through school entry, who show developmentally appropriate familiarity with the concept of print
- % of children, birth through school entry, who show appropriate development of oral language skills

Ready Child – Cognition and General Knowledge
- % of children who recognize letters of the alphabet at kindergarten entry

Ready Child – Approaches to Learning
- % of children who demonstrate eagerness to learn about and discuss a growing range of topics, ideas, and tasks

Family Environment
- % of children who are read to at home on a daily or almost daily basis
- % of children with mothers with less than a 12th grade education

Community Conditions
- Availability of public libraries and accessibility of public libraries
- % of child care centers and family home providers that are nationally accredited

Ready Schools
- % of K-3 teachers with appropriate certification for grade level
- % of teachers trained in state English/Language Arts standards and use developmentally appropriate practices in providing instruction in them
- % of students who score at or above state reading proficiency standards at 4th grade (or earlier)
- % of students receiving English as a Second Language evaluation at kindergarten entry

Ready Services – Early Care and Education
- % of eligible children participating in Head Start and Early Head Start
- % of child care providers with training in language and literacy
- % of early education and child care classrooms with language-rich environments

Cognition and Approaches to Learning

Introduction

The cognitive skills that grow out of a child's everyday experiences are what help children to acquire new knowledge and information. From these experiences, children learn to observe, recognize differences and similarities, ask questions, and solve problems.[150] The best foundation for later learning is provided when children have multiple and varied opportunities to interact with their environment and are encouraged to learn from their experiences.[151] Cognitive development encompasses language and literacy, mathematical knowledge, scientific thinking, the arts, music and other vehicles for knowledge acquisition, creative expression, reasoning and problem solving.[152]

Success in school also depends on the child's approaches to learning, including learning styles, habits and attitudes. Approaches toward learning are the various inclinations, dispositions, and styles that children use to become involved in learning.

Early learning is enhanced by curiosity, creativity, independence, cooperativeness, and persistence.[153,154] Young children vary widely in their approaches to learning. Some children may be very open to new learning tasks while others may be slower to experiment or take on new challenges. All children can succeed when their care-givers and teachers understand the various ways that different children approach learning and encourage their engagement.[155,156]

Potential Indicators

Ready Child – Physical Well-Being and Motor Development
- % of children ages 0-5 with elevated lead levels
- % of children ages 0-5 who receive regular developmental screenings

Ready Child – Social and Emotional Development
- % of children with age-appropriate social skills

Ready Child – Language and Literacy Development
- % of children who enter kindergarten with age-appropriate literacy skills

Ready Child – Cognition and General Knowledge
- % of children who enter kindergarten with age-appropriate emerging math skills
- % of kindergarten students retained
- % of first grade students retained

Ready Child – Approaches to Learning
- % of children able to concentrate and persist on a task until completed
- % of children who demonstrate curiosity and eagerness to learn

Family Environment
- Maternal educational level

Community Conditions
- % of children living in poverty

Ready Schools
- % of children scoring at or above basic level on first grade assessment
- % of teachers K-3 certified/degreed in early childhood education

Ready Services
- % of child care centers with an identifiable educational curriculum linked to state early learning standards
- % of children receiving early intervention services

Children Birth to Three

Introduction

From birth to age three, the pace of human development exceeds that of any subsequent stage of life. Beginning in the prenatal period and extending through the early childhood years, virtually every aspect of human development, from the brain's evolving circuitry to the capacity for empathy, is affected by children's experiences and environments. The first three years of life are a time of great vulnerability and great opportunity.[157,158]

During the first few years of life, children rapidly develop the social, emotional, behavioral and cognitive capacities that provide the foundation for their future development. In addition to remarkable gains in language and cognition, infants and toddlers make dramatic progress in their social-emotional, self-regulatory, and moral capacities. Healthy development during the first months and years of life is crucial, not because it provides an indelible blueprint for lifelong well-being, but because it creates either a sturdy or fragile foundation for future development.[159,160]

Striking disparities in what children know and can do are evident well before they enter kindergarten. These disparities are related to differing life experiences in the early years. Stable, caring relationships with caregivers are an essential element of early child development. Dependable relationships that provide nurturance, security, responsive interaction, and encouragement help young children grow and thrive. In addition, the environments in which children spend their time each day can either contribute to healthy physical, cognitive, language and social-emotional development or set the stage for compromised development that may have lifelong consequences.[161,162]

Potential Indicators

Ready Child – Physical Well-Being and Motor Development
- % of children ages 0-3 without health insurance
- % of two year olds who are fully immunized
- % of infants and toddlers who have elevated levels of lead

Ready Child – Social and Emotional Development
- Rate of expulsion from child care placements for behavior problems

Ready Child – Language and Literacy Development
- % of children ages 0-3 who are read to by an adult four times per week

Ready Child – Cognition and General Knowledge
- % of children ages 0-3 in Early Intervention
- % of children ages 0-3 with appropriate developmental screenings

Family Environment
- Child abuse and neglect rates for children ages 0-3
- Rate of depression in mothers of children ages 0-3
- % of mothers with higher than a high school diploma
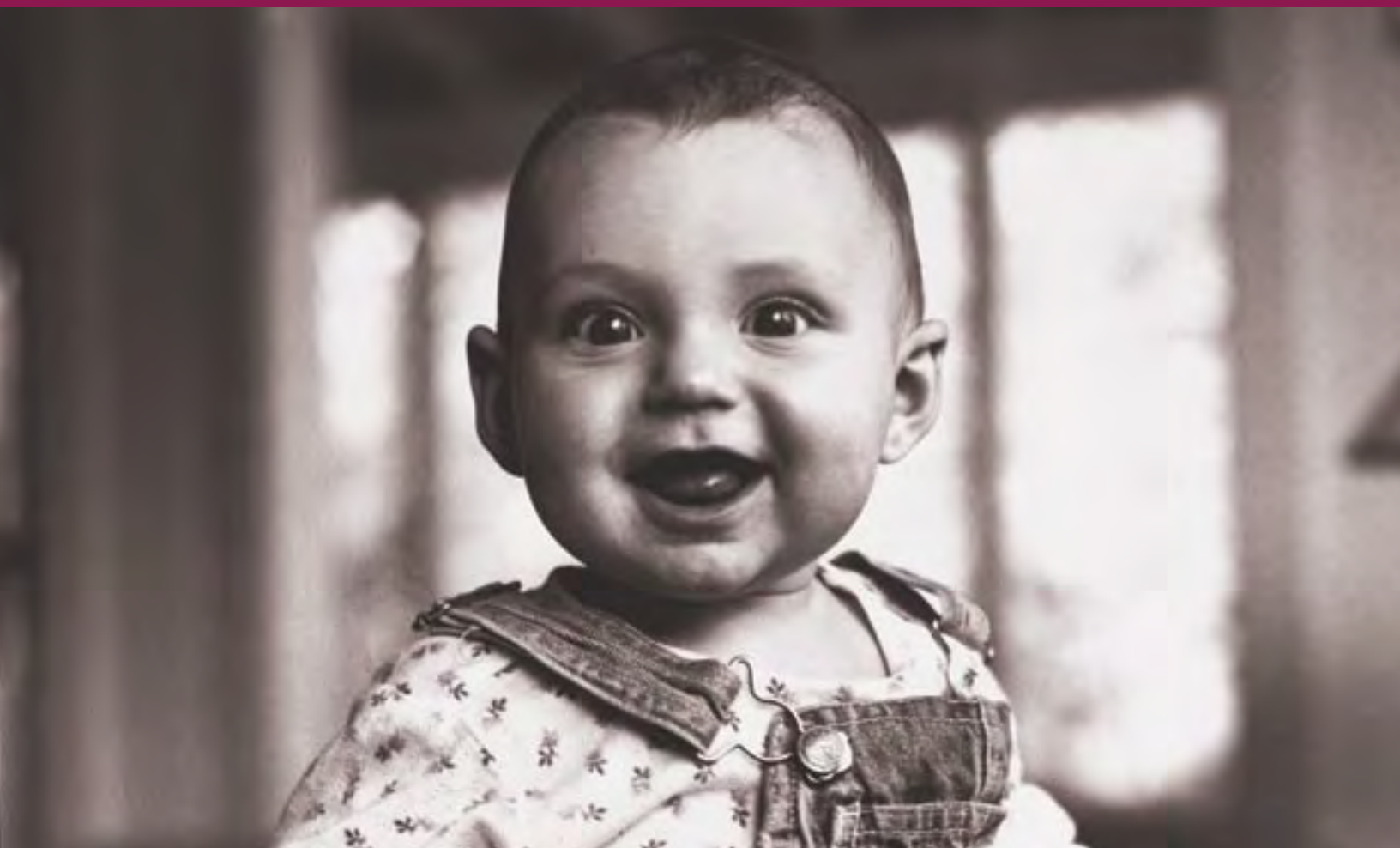
Community Conditions
- Residential mobility rate for families with children ages 0-3
- % of health care providers who accept Medicaid and SCHIP
- Capacity of home visiting programs and family resource centers

Ready Schools
- % of secondary schools with explicit teen parent support programs
- % of children in Early Intervention who are referred to and assessed by preschool special education

Ready Services – General
- % of infants who receive recommended developmental evaluations
- % of eligible children enrolled in WIC
- % of eligible children enrolled in Early Head Start

Ready Services – Child Care
- % of eligible infants and toddlers receiving child care subsidies
- % of caregivers trained in infant/toddler development
- % of providers with access to infant/toddler mental health and health consultation

Kindergarten Assessment

Introduction

Kindergarten assessments measure what children know and can do. The results can be used at the individual level to tailor teaching and identify special needs; at the program level to measure effectiveness; and at the city, county or state level to monitor trends in school readiness.[163]

Young children's development is rapid, episodic, and highly influenced by the environments in which they spend their time. As a result, accurately assessing children in the earliest years of life is difficult. Because young children learn differently from older children and adults, assessments must be designed differently. Considerations for developing assessments for young children include:[164]

- Young children often represent their knowledge better by showing than by talking or writing.

- Young children develop and learn quickly, so an assessment given at one point in time is not likely to give a complete picture of the child's knowledge and skills.

- Young children often do not understand the goals of formal testing, so the assessment needs to be structured accordingly.

Before age 8, standardized achievement measures are not accurate enough to be used for decisions about individual children. Naturalistic, observational methods, rather than paper and pencil tests, are most appropriate in assessing children's emerging capacities. From a practical perspective, these assessments are often done by kindergarten teachers themselves, after observing their students over a period of time and selecting appropriate times for conducting specific aspects of the assessment. It is important for kindergarten assessments to include multiple measures from each of the five domains of school readiness.[165] Matrix sampling, a statistical technique for getting an overall picture of school readiness by having different children be assessed using different parts of the assessment, can be used to ensure technical accuracy and safeguard against using results to rate or label individual children.[166]

Currently only a few states have established, either on a sample basis or for the full population of kindergartners, an assessment system that provides information on what children know and can do at the time of kindergarten entry across the five domains of school readiness. At the same time, such an assessment is central to an overall indicator system for school readiness that can inform and drive policy.

Policymakers can use kindergarten assessment data to:[167]

- Show the level of "school readiness" in the state and raise public awareness on the need to improve school readiness, especially among at-risk groups.

- Determine which groups of children lack school readiness skills.

- Identify policies and strategies to close the gaps in school readiness and school achievement.

- Track progress made in the state over time in achieving school readiness.

Assessing Children's "School Readiness" at Kindergarten: A Workshop for Practitioners and Policymakers

In the Fall of 2003, the State Early Childhood Policy Technical Assistance Network (SECPTAN) convened a meeting of national experts and representatives from the 17 states in the School Readiness Indicators Initiative to discuss kindergarten assessment.

The workshop addressed the needs of policymakers and practitioners by discussing the general purpose and uses of kindergarten assessment, the specific caveats and considerations in using assessments to monitor trends over time and make policy, and states' real world experiences with assessment systems.

Presentations and resources from the meeting can be accessed on SECPTAN's web site, www.finebynine.org.

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