Action for Children North Carolina

PUTTING THE PIECES IN PLACE: A NORTH CAROLINA SCHOOL READINESS REPORT

JUNE 2008

Action for Children
North Carolina

Working to make North Carolina
the best place to be and raise a child

Action for Children is a leading independent, nonpartisan, nonprofit organization working to make North Carolina the best place to be and raise a child.

Action for Children North Carolina
1300 Saint Mary's Street, Suite 500
Raleigh, NC 27605-1276
919-834-6623
admin@ncchild.org
www.ncchild.org

The information provided in this report is based on work done by the Shared Indicators for School Readiness Project and by leading researchers at the national level.

The **Shared Indicators for School Readiness Project** is a partnership between the N.C. Early Childhood Comprehensive System grant, Smart Start's N.C. SPARK (Supporting Partnerships to Assure Ready Kids) Project, the N.C. Department of Public Instruction and the N.C. Ready Schools Initiative. A group of strategists worked diligently to develop a set of data indicators for school readiness in North Carolina.

The **National School Readiness Indicators Initiative** worked with 17 states to develop a comprehensive set of school readiness indicators to inform public policy for young children and their families. The initiative was sponsored by the David and Lucile Packard Foundation, the Ewing Marion Kauffman Foundation and the Ford Foundation. More information is available online at: http://www.gettingready.org/matriarch/.

The **School Readiness Pathway Project** gathered a broad and coherent body of information about what it takes to increase the number of children who are ready for school by the time they enter kindergarten. This project is sponsored by Harvard Medical School and the Annie E. Casey Foundation. More information is available online at: http://www.pathwaystooutcomes.org/.

The **SPARK** initiative, a national project launched by the W.K. Kellogg Foundation, seeks to align early learning and elementary school systems—as well as health and critical services—for children who are likely to be unprepared to learn. The North Carolina Ready Schools Initiative, a group working to make sure all N.C. schools are ready for all children, is part of this national project. More information is available online at: http://www.ncreadyschools.org.

School Readiness

The critical components of school readiness can be imagined as a jigsaw puzzle. An optimal transition from infancy to preschool to kindergarten demands that the interlocking pieces of children, schools, families and communities are all comprehensively prepared.

- **Ready Children** are healthy physically, socially, emotionally and cognitively.
- **Ready Schools** involve parents in their children's education, transition all students into school and across grades and provide quality instruction and alignment from preschool to grade 3.
- **Ready Families** are healthy, educated, safe and stable and provide supportive environments rich with opportunities to learn and grow.
- **Ready Communities** are clean, safe and connected to the mainstream, and offer resources, services and supports for families with young children.

North Carolina must ensure that *all* our children are ready to learn when they enter school, that schools are ready to successfully teach all children and that families and communities have the resources to support their children's education. School readiness is an attempt to combine all these factors to create optimal outcomes for our children and our state.

*North Carolina must ensure that **all** our children are ready to learn when they enter school, that schools are ready to successfully teach all children and that families and communities have the resources to support their children's education.*

WHY IS SCHOOL READINESS IMPORTANT?

Ready Children

Children begin preparing for school long before the first day of kindergarten. Starting even before birth, a child's brain builds slowly, layer by layer. The circuits that control simple cognitive, social and emotional skills serve as the foundation for the later development of more complex thinking, reasoning and social-emotional capacity. By the time a child starts school, the experiences and environments of the first five years of life are literally built into the architecture of his or her developing brain. These early influences help set the stage for future success or failure.[i] A determination of a child's readiness for school is based upon factors such as language, pre-literacy and early math skills, but also upon reasoning, problem solving, health, and physical, social, emotional and behavioral development.

Ready Schools

When children move from home or preschool into kindergarten, their success is partly determined by the capacity of the **schools** to transition them smoothly into the classroom environment and to teach them effectively. North Carolina's children are more culturally, ethnically, linguistically and economically diverse than ever before, and it is critical that schools identify and address the increasingly varied strengths and needs of incoming students. Effectively teaching all students in the primary grades will help ensure the gains of high-quality preschool.

Ready Families and Communities

A stable, nurturing **family** environment in the early years supports all the important aspects of children's growth. Consistent and responsive relationships with parents and other early caregivers lay the groundwork for healthy development, giving infants and toddlers the emotional resources necessary to adjust to change, handle stress and relate to the world.[ii] As a changing economy and social norms send more and more parents into the workforce, the availability and affordability of high-quality child care and other family supports in the **community** becomes increasingly critical.

By the time a child starts school, the experiences and environments of the first five years of life are literally built into the architecture of his or her developing brain.

Ready Children, Ready Schools, Ready Families and Communities—when each of these key puzzle pieces is in place, children can succeed in school and in life.

North Carolina's children are more culturally, ethnically, linguistically and economically diverse than ever before, and it is critical that schools identify and address the increasingly varied strengths and needs of incoming students.

"By the time our investment in public education begins at age 5, a substantial amount of brain architecture has already been built, and children who miss important learning opportunities or who experience significant adversity are already behind their peers on the first day of school."

– Jack P. Shonkoff, M.D.,
Center on the Developing Child,
Harvard University

This Report

Putting the Pieces in Place: A North Carolina School Readiness Report examines the key aspects of school readiness—children, schools, and families and communities—in North Carolina. Lessons learned from school readiness work throughout the state are highlighted. The report concludes with public policy recommendations for furthering school readiness in North Carolina.

School Readiness Indicators

School readiness indicators measure whether children, schools, families and communities are meeting key benchmarks that affect readiness. Collectively, the indicators in this report examine information on individual child outcomes with broader systemic data that look at the capacity of child-serving systems to meet the needs of all children in the community.

The goal for this first statewide indicator-based school readiness report is to provide a baseline of data which can be used in the future to measure North Carolina's progress in increasing school readiness. The report also notes where data are not available but are needed to fully understand North Carolina's current degree of school readiness.

By regularly tracking these indicators, policymakers, community leaders and concerned citizens will be able to identify prevention services, intervention services, key programs and policies needing investment. The data may then be tracked over time to assess the results of those investments, monitor trends and document successes.

Consistent and responsive relationships with parents and other early caregivers lay the groundwork for healthy development, giving infants and toddlers the emotional resources necessary to adjust to change, handle stress and relate to the world.[ii] *As a changing economy and social norms send more and more parents into the workforce, the availability and affordability of high-quality child care and other family supports in the community becomes increasingly critical.*

READY CHILDREN

Researchers and practitioners agree that children's readiness for school is best measured by looking at the whole child. The five "domains" of Ready Children were described by the North Carolina Ready for School Goal Team[iii] as follows:

- **Health and physical development** includes children's physical development, health status and physical abilities;
- **Social and emotional development** includes children's feelings about themselves and others, interest in and skills needed to form and maintain positive relationships with adults and children, ability to understand the perspectives and feelings of others and skills needed to get along well in a group setting;
- **Approaches to learning** includes curiosity, enjoyment of learning, confidence, creativity, attention to task, reflection and interests;
- **Language development and communication** includes verbal and nonverbal skills to convey and understand others' meaning, as well as early literacy skills; and
- **Cognition and general knowledge** includes basic knowledge about the world and other cognitive competencies like early mathematical skills and basic problem-solving skills.

Each "domain" affects the others, and children need to develop across all five before they can be ready to learn and succeed in school.

What are the Indicators of Ready Children?

The North Carolina Shared Indicators for School Readiness Project established a set of indicators important to a child's readiness for kindergarten (see text box below). Many of these indicators are collected as part of North Carolina's Kindergarten Health Assessment (KHA), and they offer a way to measure how we are doing on one piece of the school readiness puzzle.

Since 1985, North Carolina law has required a KHA for each child entering public kindergarten in the state. The assessment must be completed by a highly trained health care provider and it must be submitted to the school within 30 days of school entry. The KHA provides a comprehensive review of factors important to school readiness, including key health indicators and screening results for vision, hearing and development.

The original purpose of the KHA was to encourage parents, schools and physicians to talk about and plan for children's health needs so that they would have the best possible chance to succeed in school. In the last two years, several communities in North Carolina have been piloting the use of the KHA as a population-based assessment of child health and development at school entry.

A pilot KHA project in Guilford County in 2006 led to the aggregation and analysis of several school districts' data in 2007. KHA data for the seven westernmost counties in the state (Cherokee, Clay, Graham, Haywood, Jackson, Macon and Swain), Guilford County in the Piedmont and four school districts in the northeast (Roanoke Rapids,

Indicators for Ready Children

Percentage of children with:

- Normal Body Mass Index (BMI)
- Adequate or corrected vision
- Adequate or corrected hearing
- No untreated tooth decay
- Appropriate fine and gross motor skills
- Developmentally-appropriate behaviors and skills in the following areas:
  - Emotional/social
  - Cognition and general knowledge
  - Approaches to learning
  - Language development and communication

Northampton County, Warren County and Weldon City Schools) were collected by school nurses and others and analyzed by the N.C. State Center for Health Statistics. *Putting the Pieces in Place: A North Carolina School Readiness Report* presents selected indicators from the regional 2007-08 KHA data. The chart below shows, by indicator, the percentage of KHAs that noted concern about a child. For each indicator, the percentage of forms that were missing data are also noted.

The data for the three regions show that concern about body weight was higher than any other issue. The data also indicate that a large percentage of forms were missing information. Missing data reduces sample size and limits reliability. Greater education of parents, health care providers and school staff is needed to improve the quality of KHA reporting, in order to better monitor child health and flag issues as they arise.

Two indicators are available for children statewide. The data show that 1-in-5 children enter kindergarten with untreated cavities. More than 30 percent of young children fall outside the normal weight range for their age. More must be done to understand and address the causes of these problems.

Ready Children: Statewide Data

Indicator	2002	2007
Percent of kindergarten children with no untreated tooth decay	76.0%	81.0%
Indicator	**2001**	**2006**
Normal Body Mass Index (BMI) for children ages 2 to 4	68.4%	65.1%

Note: Tooth decay data are statewide. BMI data are based on children seen in N.C. Public Health-sponsored WIC and Child Health Clinics and some School-Based Health Centers. Normal BMI >= 5th to <85th percentile.

Ready Children: 2007-08 Kindergarten Health Assessment

	Guilford County		Westernmost N.C.		Northeast N.C.	
Indicator	**Concern for Child Identified**	**Missing Data**	**Concern for Child Identified**	**Missing Data**	**Concern for Child Identified**	**Missing Data**
Body Mass Index (BMI)	16.6%	13.1%	17.0%	13.3%	14.4%	8.8%
Vision	7.4%	18.4%	5.4%	19.9%	3.4%	13.3%
Hearing	3.3%	18.5%	4.9%	17.9%	4.6%	14.3%
Fine Motor Skills	3.2%	15.0%	4.7%	18.4%	6.4%	17.6%
Gross Motor Skills	1.1%	15.2%	1.1%	18.8%	2.1%	17.8%
Emotional/Social Development	1.9%	14.9%	2.1%	18.2%	1.9%	17.4%
Problem Solving Development	2.0%	15.3%	1.9%	18.7%	2.6%	17.6%
Language/Communication Development	4.2%	14.8%	3.7%	18.5%	4.8%	17.6%

READY SCHOOLS

Research shows that ready elementary schools are critical to ensuring successful children. Ready Schools prepare for new kindergarteners by communicating and coordinating with families, early care and education programs and their communities to ensure smooth transitions for students.

With a grant from the W.K. Kellogg Foundation and using research as a foundation, the N.C. Ready Schools Initiative was launched in 2006 to focus on assuring a seamless continuum of education for children ages 3-8. A task force was co-convened by the N.C. Department of Public Instruction, Smart Start and the N.C. Office of School Readiness to focus on developing a plan for the initiative and a definition for what it means to be a Ready School. In 2007, this definition was endorsed by the N.C. State Board of Education and included the following:

A ready elementary school provides an inviting atmosphere, values and respects all children and their families, and is a place where children succeed. It is committed to high quality in all domains of learning and teaching and has deep connections with parents and its community. It prepares children for success in work and life in the 21st century.

Listed below are the pathways to ready elementary schools that are part of the N.C. Ready Schools definition.

- Children succeed in school
- A welcoming atmosphere
- Leadership
- Connections to early care and education and across grades
- Connects culturally and linguistically with children and families
- Partners with families
- Partners with communities
- Uses assessment results
- Quality assurance

The N.C. State Board of Education also endorsed a recommendation that every elementary school conduct a self-assessment around the elements of this definition and develop a Ready Schools action plan as part of its school improvement plan.

This definition and N.C. State Board action is an outgrowth of work that was piloted in Nash and Edgecombe Counties and the seven counties in the far western part of the state. Ready Schools-related efforts were first launched in these counties in 2004 as part of a grant to Smart Start from the W.K. Kellogg Foundation's SPARK Initiative (Supporting Partnerships to Assure Ready Kids). Their work will inform the initiative as it moves forward.

In Fall 2007, Ready Schools planning teams in 90 counties and more than 100 school systems participated in a statewide launch of the N.C. Ready Schools Initiative. In March 2008, grants were made to eight counties representing twelve school systems. The grants will be used to further their Ready Schools efforts over the next year. Two dozen other counties were invited to join the Ready Schools Learning Community. It is anticipated that this effort will continue to expand across the state in the upcoming year.

In the next year, a team will begin work to develop a set of data indicators to assess readiness of elementary schools under the state definition. Once developed, these indicators can be tracked in future North Carolina School Readiness reports.

For more information on the N.C. Ready Schools Initiative, go to: www.ncreadyschools.org.

READY FAMILIES AND COMMUNITIES

Ready Children and Ready Schools both need the influence and input of stable, nurturing, engaged Ready Families who are able to support their children and be involved with their education. Ready Families exist in Ready Communities, where the public is engaged and supports high-quality public education for all children. Comprehensive systems of community services and supports enable families to help foster children's success. Research has demonstrated that children living in communities where poverty is highly concentrated and family services and supports are less available start school behind their peers. Ready Communities work to ensure that all children and families have access to the types of resources that help children enter kindergarten ready for school, such as health insurance and health care, high-quality early education and support services for families in need.

Children who are healthy are more likely to do well in school. Ready Communities ensure that children and families have access to adequate and affordable health care that starts before a child is born and continues through adulthood. Communities with access to health insurance, prenatal care, preventive health care and supports for at-risk children and those with developmental delays are more likely to have children entering school healthy and ready to learn.

Almost 10 percent of children under age 5 in our state do not have health insurance and, of Medicaid-enrolled children under age 6, nearly one-third do not receive preventive care. While North Carolina does an excellent job ensuring that entering kindergarteners have the necessary immunizations, the state has room for improvement in ensuring that babies and toddlers get their shots on time.

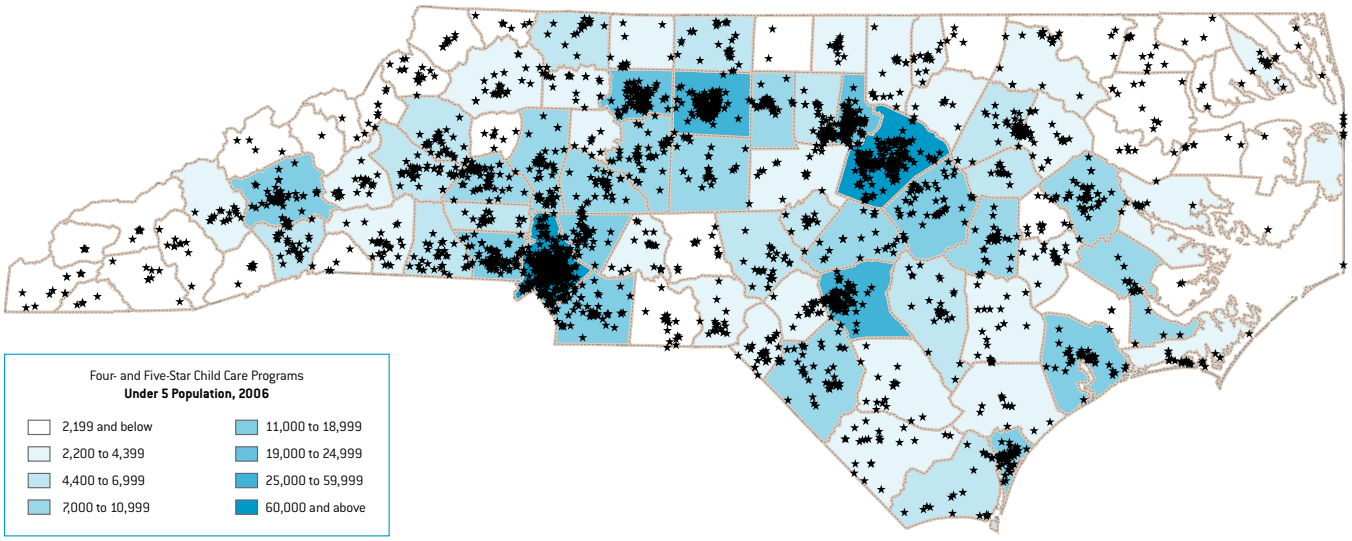
High-quality early care and education programs help prepare children for school academically, socially and emotionally. Ready Communities have accessible and affordable high-quality early care and education and strive to make such programs available to all children. Participation has been shown to be especially beneficial for economically disadvantaged children. Despite the proven importance of high-quality early education, spending on these programs nationally is equal to only about one percent of spending on K-12 education.[iv]

Ready Families and Communities: Health

Indicator	2001	2006
Percent of children entering kindergarten with up-to-date immunizations	97.6%	98.0%
Percent of children 19-35 months of age with required immunizations	80.4%	82.3%
Percent of children born at a healthy birth weight	91.0%	90.9%
Percent of children between 12 and 24 months who were screened for elevated blood lead levels	35.1%	42.8%
Number of children under age 6 who were screened for elevated blood lead levels	120,167	135,595
Percent of children under age 5 reported by parents to be without health insurance now or any time in the last 12 months	unavailable	9.3%
Percent of children under age 5 reported by parents to have a regular source of primary care	unavailable	83.9%
Percent of children under age 5 reported by parents to be receiving preventive care	unavailable	91.5%
Percent of Medicaid-enrolled children under age 6 receiving preventive care	72.0%	73.0%

Indicator	2003
Percent of children under age 6 who have a medical home	43.4%

Note: "Percent of children 19-35 months of age with required immunizations" is an estimate based on a sample of a few hundred children. The numbers reported for North Carolina Childhood Blood Lead Surveillance Data may vary somewhat from previous reports due to ongoing data corrections. CHAMP survey questions for health insurance and preventive care indicators: "During the past 12 months, was there any time when [child] was not covered by any health insurance?" "Do you have one or more persons you think of as the personal doctor or nurse for [child]?" and "During the past 12 months has [child] had a preventive care visit or well child check-up?" The National Survey of Children's Health question on medical homes reads, "How many children/youth (ages 0-17) receive health care that meets the American Academy of Pediatrics (AAP) definition of medical home?" Subquery results for ages 0-5. Medical home is defined by the American Academy of Pediatrics as "primary care that is accessible, continuous, comprehensive, family-centered, coordinated, compassionate and culturally effective."



Source: Special data request to Department of Child Development at NCDHHS for child center and family home location. Population under 5 from National Center for Health Statistics.

The map above shows the distribution of four- and five-star (high quality) child care providers across the state, and the population of children under age 5, by county. As would be expected, rural counties have fewer high-quality child care resources than urban areas.

North Carolina has been very successful in recent years in increasing the percentage of young children in high-quality early care and education programs. However, of those children enrolled in center-based care, a higher percentage of preschoolers are in high-quality care than babies and toddlers. The number of children receiving child care subsidies fell over the past five years, partly due to funding shortages. Of those children receiving subsidies, however, a higher percentage of them are now in four- and five-star centers.

While the child care subsidy waiting list can vary substantially over time, it has been hovering near or above 30,000 children in recent years. In February 2008, the number of children waiting for subsidies was 28,234.

Ready Families and Communities: Early Care and Education

Indicator	2001	2006
Number of children under age 6 in regulated child care	165,719	190,173
Percent of children under age 6 in regulated child care	23.7%	26.0%
Of the regulated early care and education programs serving preschool-age children, percent at the four-star level	10%	26%
Of the regulated early care and education programs serving preschool-age children, percent at the five-star level	3%	13%
Of those children under age 3 enrolled in regulated early care and education centers, percent enrolled in four- or five-star centers	unavailable	51%
Of those children ages 3 to 5 enrolled in regulated early care and education centers, percent enrolled in four- or five-star centers	unavailable	62%
Number of children under age 6 receiving child care subsidies	72,246	63,587
Of those children under age 6 receiving child care subsidies, percent enrolled in a four- or five-star center	15.7%	43.0%
Number of children under age 6 who are eligible to receive a child care subsidy but are on the waiting list	19,036	36,755
Indicator	**2003**	
Percent of children under age 6 who are read to everyday	49.7%	

Note: All child care data are from the month of May. CHAMP question for the last indicator: "During the past week, how many days did you or other family members read stories to [child]?"

Children in stable and low-stress families are more likely to perform well in school. Ready Communities provide comprehensive prevention, intervention and support services to families who are less able to foster their children's learning, such as very young parents, those with limited education and those struggling with mental illness or substance abuse.

Ready Families and Communities: Risk Factors

Indicator	2001	2006
Teen birth rate, ages 15 to 19 (per 1000)	25.5	23.6
Ages 15 to 17	14.8	12.8
Ages 18 to 19	39.9	38.5
Percent of repeat births to mothers 15 to 19 years old	29.7%	27.5%
Ages 15 to 17	16.5%	15.0%
Ages 18 to 19	36.1%	33.3%
Percent of live births where mother received adequate prenatal care	unavailable	79.0%
Percent of births to mothers with at least a high school education	76.7%	76.2%
Indicator	**2000**	**2005**
Percent of mothers who report experiencing physical abuse during pregnancy	5.2%	4.6%
Percent of mothers who report using alcohol during the last three months of pregnancy	5.0%	8.5%
Percent of mothers who report having someone they could talk with about problems	88.3%	89.2%
Percent of mothers who report that they were moderately to severely depressed in the months after delivery	19.6%	13.9%

Note: Adequacy of prenatal care is determined by the Kotelchuck Index, which combines when prenatal care began with the number of prenatal visits throughout the pregnancy. PRAMS questions: "During your most recent pregnancy did (an ex-husband or ex-partner) (your husband or partner) (anyone else) push, hit, slap, kick, choke or physically hurt you in any way?" "During the last three months of your pregnancy, how many alcoholic drinks did you have in an average week?" "Since you delivered your new baby, would you have had the kinds of help listed below if you needed them? (Someone to talk with about my problems)." "Since your new baby was born, how often have you felt down, depressed or hopeless?" (Combined percentages to responses "Always" and "Often.")

For children to thrive, they must have safe, stable homes free from abuse and neglect and strong, caring, permanent relationships with adults who nurture their development. Children from unsafe or unstable homes are more likely to suffer from behavioral and emotional problems and struggle in school. Ready Communities provide families in need with appropriate prevention and intervention services.

In North Carolina, the number of children's cases investigated by the Department of Social Services has increased since 2001, but the number of cases requiring action has not changed significantly in that time.

Ready Families and Communities: Child Maltreatment

Indicator	2001	2006
Number of children under age 6 subject to investigation/assessment	40,831	46,102
Number of children under age 6 with a substantiated report of abuse/neglect	13,953	8,790
Number of children under age 6 with a finding of "services needed"	NA	4,383
Number of children under age 6 with a finding of "services provided but no longer needed"	NA	563
Number of children under age 6 with a finding of "services recommended"	NA	6,327
Percent of parents reporting that anyone in their household has insulted their child (under age 6)	See Note below	
Percent of parents reporting that their child (under age 6) has been left alone for more than one hour without any adult supervision within the past month	See Note below	

Note: The decline in the number of children with substantiated reports of abuse or neglect since 2001 may be attributed in part to the implementation of the Multiple Response System (MRS) in 2005. MRS allows more options for case decisions. When MRS findings of "services needed" and "services provided but no longer needed" are considered, the decrease in the number of children found to have been maltreated is not as significant. "Services recommended" means that social workers engage the family in an assessment process and refer the family to needed services. CHAMP questions for indicators about children being insulted and left alone: "How many times in the past month has anyone in your household insulted [child] by calling [child] dumb, lazy or another name like that?" and "How many times has [child] been left alone for more than one hour without any adult supervision?" Data for these two indicators were not statistically significant, since the sample size was fewer than 20 respondents.

Diversity: Young Child Demographics in North Carolina

Children arrive at school with a range of different skills, backgrounds and needs that influence how easily they can adapt to and succeed in the school environment. Schools receive these diverse children with the goal of helping them master grade equivalent standards by the end of third grade. A critical factor in achieving school readiness is identifying and understanding the strengths, needs and cultures of the incoming school population, and North Carolina's young child population is growing substantially more diverse every year.

While the number of young white children in the state has grown by less than four percent in the last five years, the number of young black children has increased by more than six percent and the number of young Asian and Pacific Islander children has increased by 27 percent. The number of young Latino children has grown by 58 percent; in fact, the share of babies in North Carolina born to Latino mothers grew from two percent in 1990 to 14 percent in 2004, a seven-fold increase.[v]

Economic Insecurity: Poverty is Growing in North Carolina

The number of young children (those under 6 years old) living in poverty in North Carolina has increased more quickly in the last five years than has the population of young children as a whole (17 percent vs. 10 percent). A greater percentage of young children living in poverty makes focusing resources on ensuring school readiness all the more important.

The percentage of children enrolled in the free or reduced lunch program is often used as a proxy for the economic security of a community. The percentage of children enrolled in the program in North Carolina has increased over the last five years.

Indicator	2001	2006
Percent of children enrolled in the free or reduced lunch program	47.0%	55.0%
Note: For school lunch data, years are school years ending in the year noted; schools included are any public school serving any grades Pre-K through fifth.		

Children from low-income families and/or impoverished communities are more likely to start school with limited language skills, health problems and social, emotional and behavioral problems than other children. It is estimated that up to half of school problems and eventual school dropout start with children entering school behind developmentally.[x] Compared to their peers, these children tend to come from poorer communities and enter elementary schools with fewer resources to support their success.

Young Child Demographics in North Carolina

Indicator	2000	2005	% Change
Birth rate (per 1,000 of the estimated population)	14.9	14.2	NA
Indicator	**2001**	**2006**	**% Change**
Number of children under age 5	556,119	611,110	9.9%
Number of children under age 6 living under the federal poverty level	138,291	165,794	16.6%
Number of low-income children under age 6	302,958	348,123	14.9%
Number of white children under age 5	341,922	354,511	3.7%
Number of black children under age 5	141,337	150,301	6.3%
Number of Asian Pacific Islander children under age 5	11,368	14,434	27.0%
Number of Latino children under age 5	53,398	84,100	57.5%
Number of American Indian children under age 5	8,094	7,764	- 4.1%
Note: The 2001 federal poverty level for a family of four was $17,050 per year; in 2006, it was $20,000. "Low-income" is considered to be at or below 200 percent of the federal poverty level.			

Addressing Diversity: Early Education and Care for Latino Children

National studies have shown that most very young Latino children do not attend child care programs[vi]. While research has shown that high-quality early education programs can have a significant positive impact on low-income children's school success, those Latino children who do attend child care programs do not seem to receive that school readiness benefit.[vii] Our early childhood programs must adapt to meet the needs of this new generation of Latino children.

A 2004 national survey of state administrators of early childhood programs conducted by the FPG Child Development Institute at the University of North Carolina at Chapel Hill found that administrators and teachers are facing challenges in learning to meet the needs of Latino children in child care.[viii] The most urgent issues reported were the lack of bilingual staff and insufficient preparation and cultural competency training for early childhood professionals. Other concerns included communication difficulties with Latino families and a lack of written information in Spanish about early childhood programs.

The survey found that child care centers have begun employing various strategies to better serve Latino children, including translating written materials into Spanish, hiring interpreters and referring families to other community agencies where they can get additional support and services. Another key strategy involves transforming curricula to better teach culturally diverse children by embedding materials and activities that enhance children's appreciation of other racial, ethnic and cultural experiences and validate the experiences of children from diverse backgrounds.

Dina Castro, Ph.D., a scientist at the FPG Child Development Institute and co-principal investigator of the 2004 study, has begun *New Voices/Nuevas Voces*, a program to better train early child care professionals to meet the needs of Latinos and other English language learners.[ix] Participants in the trainings have included preschool teachers, speech language pathologists, early intervention specialists and occupational and physical therapists, among others. Dr. Castro has also led the development of the *Nuestros Niños Early Language and Literacy Program*, which provides core concepts, teaching strategies and classroom resources to aid teachers in promoting early language and literacy development among young Latino English language learners.

Given the state's demographics in recent years, raising Latino student achievement is an important educational priority for North Carolina, and intervening well before the start of kindergarten is essential for ensuring children's success. Programs like Dr. Castro's and others are breaking new ground in how to train early education professionals to better meet the needs of the state's increasingly diverse student population.

The percentage of families living in poverty is another relevant proxy for determining the overall readiness of a community. Two percent of North Carolina's census tracts are considered to have "concentrated poverty," meaning that 40 percent or more of the total population lives below the federal poverty level. In nearly 1-in-5 census tracts in the state, at least 20 percent of residents are poor.

North Carolina Communities: Poverty

Indicator	2000
Number of children under age 6 living in a concentrated poverty neighborhood	8,584
Percent of poor children under age 6 living in a concentrated poverty neighborhood	4.8%
Percent of census tracts with concentrated poverty	2.4%
Number of children under age 6 living in a high poverty neighborhood	94,770
Percent of poor children under age 6 living in a high poverty neighborhood	33.9%
Percent of census tracts with high poverty	19.1%

Note: "Concentrated poverty neighborhood" means that 40 percent or more of the total neighborhood population is living below the federal poverty level. For "high poverty neighborhood," the cutoff is 20 percent. A census tract is a small, relatively permanent statistical subdivision of a county, usually with a population of 1,500 to 8,000.

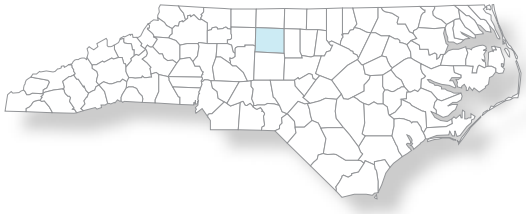
Growing diversity and poverty rates highlight the importance of ensuring that the state's schools excel at teaching economically disadvantaged students, children of color and English language learners effectively and with cultural competence.

Much work has been done in the state in recent years to better prepare children for school and schools for children. The pilot Kindergarten Health Assessment projects in northeast North Carolina, Guilford County and westernmost North Carolina have yielded informative lessons as North Carolina thinks about expanding the collection and analysis of KHA data statewide. The Ready Schools work in two regions of the state—westernmost North Carolina and Down East—can inform other school districts in which Ready Schools work is just getting started.

LESSONS LEARNED: READY CHILDREN

Three regions of North Carolina have used Kindergarten Health Assessment results to improve outcomes for children.

Spotlight on Guilford County: Early Childhood Developmental Screenings



Guilford Child Health, Inc. (GCH), in Guilford County, consists of three clinics that serve low-income children. The practice sees a lot of children with chronic health issues as well as behavioral and developmental conditions. With two developmental pediatricians, a child psychologist, a child psychiatrist, four licensed clinical social workers and a speech and language pathologist on staff, GCH screens patients for developmental delays from infancy to preschool age, and many are referred to developmental services before they even arrive at kindergarten. It was partly this focus on developmental screening that made GCH an ideal demonstration site for North Carolina's Assuring Better Child Health and Development (ABCD) project.

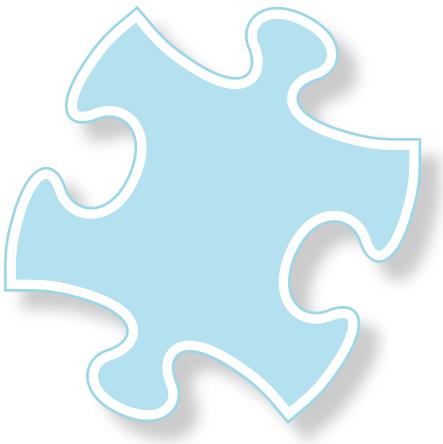
Assuring Better Child Health and Development. The national ABCD initiative, funded in 1999 by the Commonwealth Fund and administered by the National Academy for State Health Policy, aimed to improve the capacity of the health care system to support the early development of children from low-income families.[xi] North Carolina received a three-year grant to pilot use of a standardized developmental screening tool at certain well-child visits and create a system of follow-up case management for families concerned about their children's development. The model was intended for future replication throughout the state. GCH piloted the program in its clinics, and Marian Earls, M.D., a developmental and behavioral pediatrician and GCH's medical director, oversaw the project at the practice level and served as its physician champion. In subsequent years, the project was expanded to other counties, including the westernmost region of the state (see profile page 13). The ABCD project will soon be expanded to eight additional counties through special grants made by Smart Start in 2007.

Improving the Kindergarten Health Assessment. Beginning in early 2005, Dr. Earls worked with the N.C. Division of Public Health and other stakeholders to develop an updated Kindergarten Health Assessment form. The new form, which includes developmental measures, is intended to be a communication tool among schools, pediatricians and parents, as well as a way to gather useful community data and provide feedback to pediatricians about their patients. The form can be used by schools to review any recommended or developmental services provided for what type of follow-up might be needed once the child enters school, and it can also be used to track the child's progress. For children with chronic health conditions, coordinated review of Kindergarten Health Assessments can ensure that the school knows the child's status and what interventions may be needed. The pilot KHA form was distributed for the 2006-2007 school year, and in 2007, KHA data in Guilford County were analyzed for the first time and compiled in the *Guilford School Readiness Report Card*.[xii]

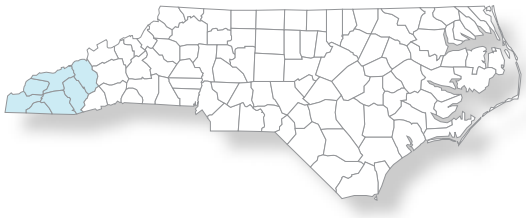
Coordination among Physicians and Schools. In part because GCH was originally a clinic within the Guilford County Health Department, the practice has a collaborative relationship with school nurses and has devised many ways of communicating with the schools. Collaborative meetings are held once a month with the care managers in the practice, a physician, school nurses, child care nurses and

Child Service Coordination nurses (nurses from the Guilford County Health Department who work with very young children who have special medical and/or developmental needs), clinic staff from the Guilford County Mental Health Department and others to discuss lines of communication, new initiatives and relevant issues. School nurses and Child Service Coordination nurses are invited into the practice and sometimes come to appointments with children and their parents. Action plans for children with asthma or who need special medication are created and sent to school nurses, child care nurses and teachers. The practice and the schools fax forms back and forth, or the schools contact the physicians directly about specific children. At times, a pediatrician at the practice will phone a school nurse with a special request—for example, to check a given child's blood pressure at school and report the readings back to the doctor.

Planning and Prevention. Dr. Earls views the KHA as a preventive tool; if a school can see that GCH has concerns about a child, or that a child needs more intervention, it may help determine the appropriate educational plan for that child. She hopes that, eventually, pediatricians across the state will be able to work in concert with local schools to create coordinated, individualized care plans for children with chronic conditions. Thinking systemically, she advocates use of the data from the KHAs by schools and communities to determine what sort of longer-term planning is needed for populations of children with chronic and/or complex health conditions. As the childhood obesity epidemic grows, for example, schools may need to train staff on how to manage the needs of increasing numbers of young students for physical activity, nutritional strategies or diabetes care. The KHA is a way to help promote the idea that everyone involved in a child's health and educational well-being—parents, doctors and schools—should be in close communication.



Spotlight on Westernmost N.C.: A Whole Child Approach



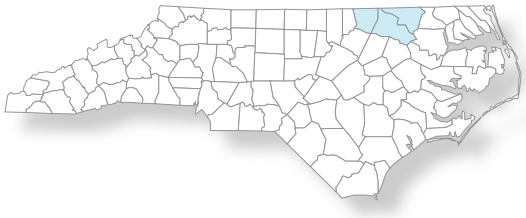
The Region "A" Partnership for Children, which serves the seven westernmost counties in the state and the Qualla Boundary of the Eastern Band of the Cherokee Nation, received funding from the N.C. Office of Rural Health from 2003 to 2006 to implement the ABCD model. The project focused on providing pediatric and family practice offices with a standardized developmental screening tool and offered them technical assistance. Emma Miller, the project's consultant at the Partnership, took it further, working beyond the screenings to broadly improve developmental and preventive services for young children and their families.

Educating Providers and Parents. The project educated physicians and staff about resources available for further learning about child development and parent education materials they could share about developmental milestones and ways to support healthy development in young children. Miller ensured that a validated developmental screening was used systematically at well-child visits and that a referral, service coordination and feedback system was in place and functioning. In addition, she offered providers screening tools for issues such as children's social-emotional health, family conflict, depression (including postpartum) and substance abuse. The project promoted local and state family support resources and provided information about early and family literacy as well as children's books to be distributed during well-child visits. The principles of family-centered care were shared with providers and families in the context of a medical home. Materials were offered in English and Spanish when available. The program also aimed to increase the capacity of parents, providers, local communities and systems by building relationships, providing quality improvement resources to doctors, collaborating with local and state agencies to refine the state's health care system and mentoring other ABCD projects.

Providing a Medical Home. Motivating Miller's work was her concern about the "silo" effect—if doctors are not connected to the communities and the schools, and are screening children but not referring them to specialists for further assessment and treatment, then patients are not

getting the attention they need. Focus groups with families reveal that they have similar concerns. Parents want what is known as a medical home: a team made up of parents, their doctors and their school to plan collaboratively and monitor their children's health care.

Spotlight on Northeastern N.C.: Using the KHA Data in Schools



Several school systems in northeast North Carolina are translating data from the Kindergarten Health Assessments into action. When the forms are returned to the schools, they are routed to the school health nurses, who use them to ensure that plans are in place to give children the best possible in-school health care.

Weldon City School nurses meet face-to-face with each parent who comes to Pre-K and kindergarten registration, to stress the importance of completing the KHA form and to make sure the schools are aware of children's health issues. When KHA forms are returned, nurses scan them for medication usage and pre-existing conditions or chronic illnesses. If the form shows a chronic illness—most often asthma, diabetes or sickle cell anemia—the nurses phone the parents to ensure the right equipment (insulin pump, for example) and medications are at school, in case of an emergency.

Roanoke Rapids City School nurses find various ways to get the KHA forms into parents' hands. In March of each year, they meet with parents who have 4-year-olds in the local Pre-K programs, give them copies of the form and make sure they understand that it is a requirement for kindergarten entry. The nurses also supply forms at kindergarten registration in the spring and on the first day of school, if necessary.

Having only a few pediatricians in the area has helped Roanoke Rapids Schools develop positive working relationships with the children's doctors. The school nurses keep the pediatricians' offices up-to-date on the schools' policies, forms and requirements; and when information is missing from the KHAs or when school nurses have questions about the data, they contact the pediatricians' offices for more detail. Some nurses return the forms to parents if they have not been completely filled out by the doctors, or they may complete parts of the forms themselves—vision and hearing screenings, for example.

Nurses list the health and developmental concerns of each child to make teachers aware of them, both to prepare for emergencies and to adjust classroom practices as needed. They also create emergency action plans for those children who need them.

Nurses in ***Northampton County Schools*** check each form for vision and hearing test results and for any medical problems. If a negative vision result shows up, the school re-screens the child (since negative results sometimes indicate simply that the child was not ready developmentally for the test) and refers him or her to an optometrist, if necessary. Some staff have recently been trained in conducting hearing screenings, which they do when the KHA shows that the test has not been completed. Individualized health care plans and/or emergency action plans are developed for children with chronic illnesses and other medical problems and provided to their teachers. Finally, nurses contact parents to ensure that any necessary medications and medical equipment are brought to school.

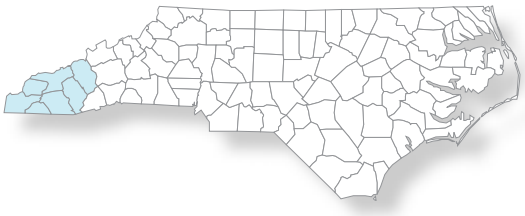
Warren County Schools distribute the KHA forms to parents at kindergarten registration in the spring, and pediatricians' offices, school secretaries and school nurses also have supplies of them. Nurses talk with parents about allergy and asthma emergency plans at registration when possible, so the school is prepared when the children enter school in the fall. For children who don't have a KHA on file the first day of school, teachers help by sending one home with instructions for the parents.

Warren County nurses ensure that there is a health care plan on file for each child with a known condition. Children with negative results on hearing and vision screenings are retested by school nurses and referred to specialists, if necessary. The nurses work with parents to ensure they follow up on referrals. They also review with parents any medications that are needed at school and keep that information on file. Teachers are informed when children's doctors note concerns in the developmental categories. If necessary, a team including the teacher, the principal, a school nurse, a representative from the school's Exceptional Children (EC) program, and sometimes a social worker is formed to determine, in concert with the child and family, whether an EC referral is needed.

LESSONS LEARNED: READY SCHOOLS

In 2003, two local Smart Start partnerships received five-year SPARK grants as part of a nationwide project. **Westernmost North Carolina** includes Cherokee, Clay, Graham, Haywood, Jackson, Macon and Swain counties and the Qualla Boundary of the Eastern Band of the Cherokee Nation. **Down East**, in the northeast part of the state, includes Nash and Edgecombe counties. Collaborations of parents, advocates and school staff work on improving connections between early education and the K-12 school system in order to ease children's transition from preschool to kindergarten.

Spotlight on Westernmost N.C.: Getting Schools Ready for Children



Ready Schools work began in the western part of the state long before receipt of the SPARK grant in 2003. In 1992, Jeanette Hedrick, Ph.D., now the superintendent of Cherokee County Schools, saw a need in Cherokee County for more and better child care and Pre-K and tighter connections among preschools and elementary schools. She helped start Pre-K classes in four of the poorest elementary schools in the county. By the second year of the program, kindergarten teachers were singing its praises—they no longer had to spend weeks transitioning children into schools, since many of them had already been exposed to the school setting. By 2003, all elementary schools in the county had five-star Pre-K programs, with teachers trained in best practices.

Pre-K Plus. The programs included home visits by teachers, encouraged parents to read nightly with their children and provided ongoing training to Pre-K and kindergarten teachers. There was a specific focus on activities to help ease the transition to kindergarten, including encouraging families to go to kindergarten registration and visit the school before classes began, setting up staggered entry into kindergarten, having open houses and meet-the-teacher nights, providing in-school health and developmental screenings and sending letters between parents and the schools.

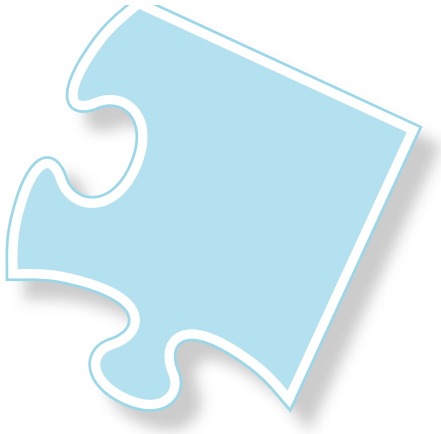
Smooth Transitions to Kindergarten. Haywood County was another early leader in Ready Schools work. In the early

1990s, the school system opened several preschools in the county with Title I funds and based their practices on up-to-date research about how very young children learn. The educators quickly realized that practices that worked well in preschool, such as home visits by teachers, would likely apply in kindergarten, too. Since that time, the county has worked consistently to help parents and children make effective transitions to kindergarten and to find success in school, through a variety of innovative strategies.

Haywood County has facilitated connections among preschools and public schools by conducting workshops for Pre-K and kindergarten teachers, making opportunities for kindergarten teachers to talk with preschool parents about school entry, bringing groups of preschool children on field trips to the local elementary

The Cherokee County Pre-K program saw results: one elementary school showed a 50 percent drop in referrals to special education for those children who had participated in the program. Between 1992 and 2007, the school saw a decrease in K-2 failure rates from 10 percent to two percent, and in Exceptional Children (EC) referrals from 20 percent to 12 percent.

Cherokee County at-large saw a dramatic improvement in test scores in both reading and math when the children who had participated in the program began reaching the third grade. From 1997 to 2003, the county's third grade reading scores went from 74 percent to 91 percent. Math scores improved from 78 percent to 95 percent.[xiii]



school and obtaining detailed information about every 4-year-old enrolled in preschool to pass on to the child's prospective kindergarten teacher. In order to acquaint parents and children with the elementary schools, kindergarten registration is well-publicized and takes place in the spring before the children start school in the fall, teachers make home visits to families to meet the children before school starts and kindergarten entry is staggered to allow teachers more one-on-one time with their new students. When school starts, every child is screened with a national early screening tool to help teachers plan to meet their students' needs, teachers hold orientation meetings for parents, kindergarten teachers meet regularly to share ideas and parents and teachers are surveyed to find out how their transitions went.

Community Conversations about Ready Schools. In 2003, the Region "A" Partnership for Children (the local Smart Start partnership) began working on building a community conversation and action around improving children's transition to kindergarten, knowing that Ready Schools exist in Ready Communities. They encouraged discussion among family members, the public schools, and the Pre-K, mental health, health, and special needs communities about transition to kindergarten, family support services, improving curricula and other key topics. Once communities began talking among themselves about these issues, the move to Ready Schools work was an obvious next step. The Partnership collaborated with Cherokee County Schools on their Ready Schools work and encouraged the other counties in the region to become involved as well. The Early Learning is for Everyone (ELFE) Asset Development Worksheet was created to spark discussions on Ready Schools, with indicators such as philosophy, transition, physical environment and curriculum.[xiv]

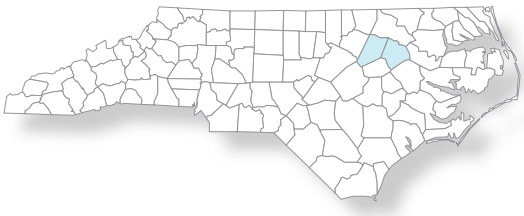
The Ready Schools initiative in westernmost North Carolina now involves Ready Schools teams who meet annually with school improvement teams. Some staff in the school districts and at the Partnership are focused on Ready Schools work. The Partnership offers training symposia for early educators and child care providers, Cherokee County encourages their teachers to serve on the Partnership board and attend regional meetings and the region is pushing to hire more elementary school principals who have early childhood education experience. All elementary schools in the region are being encouraged to use the national High/Scope Ready School Assessment tool to determine the readiness of their school.[xv] Other Ready Schools activities in the region include providing principals and teachers with ongoing technical support, providing educational materials for classrooms and keeping them updated, and aiming to maintain teacher-child ratios of 1:18 or less in elementary classrooms.

Proven Success. Evaluation of the region's Ready Schools activities has demonstrated their success. Children participating in the SPARK Pre-K program and transition activities, all of whom were at risk of poor educational outcomes, performed on par with or better than all other children in the region on assessments early in the kindergarten year. Increasingly, parents have reported feeling better supported in their children's transition to kindergarten from 2003 to the present, and more and more parents each year say that their child care assisted them in the transition to kindergarten, showing the growing connections in the region among preschools and elementary schools.

Perhaps the strongest endorsement of the region's Ready Schools work is the finding that, regardless of socioeconomic status, the more that parents participate in activities aimed at helping ease the transition to school, the higher their children's achievement in kindergarten.

> "We used to talk about getting children ready for school, but our big challenge now is getting schools ready for children—the changing and diverse population of children that are entering our schools today. We can't apply practices from 50 years ago; it's just different now."
>
> – Dr. Jeanette Hedrick, Superintendent, Cherokee County Public Schools

Spotlight Down East: Innovation, Collaboration and Connection



Collaborating to build ready elementary schools is not new in Edgecombe and Nash counties. Since 1994, the Down East Partnership for Children (DEPC—the local Smart Start partnership) has been collaborating with both Edgecombe County and Nash-Rocky Mount public schools to strengthen parent/school connections and create smooth transitions to school. This work has resulted in home/school liaisons working in each elementary school, a system-wide *Parents as Teachers* program and stronger links among individual schools and the family resource centers and child care programs in their feeder districts.

Ready Schools Innovation Award. In 2003, DEPC received the SPARK grant, which expanded the collaboration with the schools to include specific strategies to build Ready Schools. As a result, a Ready Schools Innovation Award (RSIA) grant process was begun in 2005. The RSIA process encourages elementary schools to move toward becoming model Ready Schools by strengthening home/community/school connections and building the schools' capacity to serve all children regardless of need or level of readiness.

Round One RSIA grants were designed to build relationships with individual schools, create interest in the Ready Schools work and establish the grant process. In addition to submitting a grant proposal, participating schools were encouraged, but not mandated, to complete the ELFE self-assessment, involve the community in their planning and demonstrate how their proposal was linked to their school improvement plan. The grants were primarily awarded for specific, one-time strategies for a school, grade level or individual classroom, Pre-K through third grade. RSIA grants were awarded to 25 individuals in 13 schools in two school systems.

Round Two grants focused on community collaboration, home/school communications and transition to kindergarten strategies. Round Two emphasized building Ready Schools, not enhancing individual classrooms or grade levels. Requirements were more focused, and the selection of recipients was based on demonstrating community collaboration; impact on children, families, teachers and school culture; creativity; potential for long-lasting change and strengthened relationships; and completion of a Ready Schools inventory. Each recipient was also required to use the ELFE self-assessment tool. Nine schools received RSIA grants. Funding proposals included a bilingual literacy workshop, development of a parent resource center and a lending library, and literacy training for teachers and for child care providers.

Round Three RSIA grants were focused on building *model* Ready Schools. Applicants were required to bring together a community/school team to evaluate their ability to be a Ready School using the High/Scope Ready School Assessment tool. After the assessment process, the team developed strategies to address areas identified as needing improvement. Each school submitted a one-year work plan and budget to DEPC for funding. Four schools received funding and implemented their work plans during the 2007-08 school year. Work plans focused on strengthening schools' connections to early care and education programs and across grade levels and on improving cultural and linguistic connections with children and families.

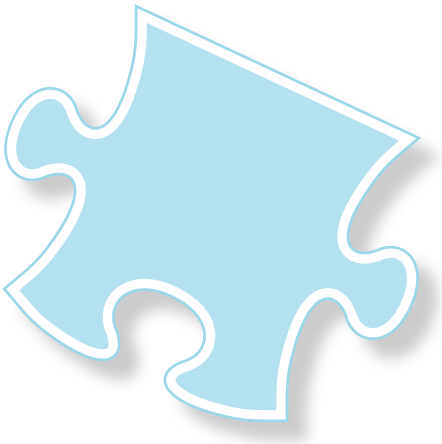
> "We need to be teaching in ways that are developmentally appropriate for young children. Even if the children are ready for schools, they have to be entering schools that are ready for them."
>
> – Henrietta Zalkind, Executive Director, Down East Partnership for Children

Round Four grants repeated and enhanced the Round Three process. With the addition of a DEPC Ready Schools Coordinator, each school received training and follow-up coaching on how to use the High/Scope assessment tool, evaluate the results and develop Ready School strategies. The seven schools participating in Round Four completed their self-assessments and work plans in the spring of 2008. The effectiveness of the RSIA process and work plans will be evaluated by follow-up site visits and re-assessments with the High/Scope tool.

Collaborating with Families and Communities. Down East Partnership is also working to build school/community relationships and strengthen parents' capacity to be involved in their children's education. In a 2007 survey of families with children in kindergarten, parents indicated a need for increased home/school communication and more guidance about how to be actively involved in their children's education. To address these and other needs, DEPC is partnering with the N.C. Department of Public Instruction (DPI) to provide a series of six parent workshops on effective parent/teacher communication, helping with homework, self-esteem and student achievement, managing behavior/self-discipline, language development, and education policy and advocacy. To encourage local communities and schools to take ownership of these workshops, DEPC is working with DPI to offer train-the-trainer sessions so community members can offer the workshops in local elementary schools on a regular basis.

Preventing Dropout. Ready Schools that can successfully launch all children as learners by the end of third grade can positively impact the dropout rate. The Ready School work of one elementary school in Edgecombe County will be strengthened through a dropout prevention grant awarded by the N.C. state legislature. The grant, one of 60 in the state and the only one awarded at the elementary level, focuses on teaching boys of color, who are most at-risk for dropping out of school. As a participant in the RSIA process, the school identified through their High/Scope assessment the need to build teacher capacity for teaching diverse learners. As a result of the grant, done in conjunction with the FPG Child Development Center, the teachers at Stocks Elementary School will receive training on how to help these children have a successful school experience. The work will be evaluated using student performance and teacher behavior as baseline data.

Building Connections. Other DEPC strategies also strengthen the Ready Schools work in the region. Efforts are made to foster links among schools and private child care programs including child care staff attending teacher training with Pre-K staff and More at Four teachers from school settings working with More at Four teachers from private child care centers. Efforts are also made to connect families and schools through home visits, support services, workshops and training, and preschool playgroups offered on-site at elementary schools. Finally, some of the region's kindergarten teachers are also receiving training through DPI's "Power of K" Teacher Leader Program, which aims to train teachers to better serve the kindergarteners of today and serve as resources for other kindergarten teachers.



RECOMMENDATIONS

The science of early brain development supports and encourages the school readiness work that has been undertaken in North Carolina thus far. More needs to be done. In all areas of school readiness, the most important policy recommendation that can be offered is to provide children, families and communities with programs and practices that are evidence-based and modeled on researched best practices. North Carolina should spend its resources wisely—on programs that build on the science of brain development and have been proven successful at improving children's educational, health and life outcomes.

Action for Children recommends the following actions in North Carolina:

Ready Children:

- Use the KHA to talk about and plan for the needs of each child as he or she enters school, emphasizing all developmental domains;
- Collect, compile and analyze KHA data statewide annually to guide resource decisions;
- Identify provider and parent barriers to completion of the KHA form and conduct a statewide social marketing campaign on the value of the KHA to encourage parents and pediatricians to fill them out more completely and schools to incorporate the data into their practices (a 2007 report by the University of North Carolina at Chapel Hill's School of Public Health found that the percentage of KHA forms missing information in at least one section of the form has not changed since the late 1990s);[xvi] and
- Foster better communication and linkages among child care providers, school personnel, families and health care providers to ensure that children with special health or development needs are identified and successfully referred to specialists, and that they have appropriate health plans at school.

Ready Schools:

- Ensure appropriate and effective instructional practices in the primary grades, with early intervention when needed, to ensure children are on grade level by third grade;
- Expand use of the High/Scope Ready School Assessment tool to all elementary schools across the state;
- Develop an agreed-upon set of Ready Schools data indicators that can be tracked year-to-year to help assess how prepared schools are to successfully work with young children and their parents;
- Evaluate current Ready Schools activities being modeled in various counties and expand implementation of successful programs to more schools and communities; and
- Train education professionals at all levels in teaching culturally diverse populations and English language learners.

Ready Families and Communities:

- Provide economic supports to reduce stress in low-income families and communities.

Health Recommendations:

- Ensure that every child in North Carolina has health insurance coverage;
- Conduct a public awareness campaign on the availability of Medicaid and Health Choice health insurance for children and the need for early preventive care and immunization;
- Fund effective programs to reduce the percentage of teen mothers who have repeat births in their teen years;
- Increase the number of very young children with a medical home;
- Ensure adequate pre- and post-natal care for pregnant women, incorporating domestic violence, substance abuse and mental health services; and
- Expand the research-based nurse in-home visiting program for new mothers to cover the whole state.

Early Care and Education Recommendations:

- Define early care and education as a continuum of services that supports all children from birth to age 8 in all learning environments, including home, school and childcare;
- Support and encourage families in their roles as children's first teachers by providing evidence-based parent education programs on child development;
- Raise the per capita spending for early care up to the level of K-12 education per capita spending;
- Give priority placement in four- and five-star centers to DSS-involved children, children with developmental delays and children who have experienced trauma;
- Eliminate the child care subsidy waiting list by providing subsidies to all eligible families; and
- Increase funding for the T.E.A.C.H. program and provide training and technical assistance to help early education professionals meet the needs of an increasingly diverse population.

DATA SOURCES

Ready Children: KHA Data

- N.C. State Center for Health Statistics, Kindergarten Health Assessments (KHA) Pilot Project.

Ready Children: Statewide Data

- Tooth Decay—Special data request to the N.C. Department of Health and Human Services (DHHS), Oral Health Section, Division of Public Health (DPH) and the Division of Medical Assistance, August 2007.
- Body Mass Index (BMI)—North Carolina Nutrition and Physical Activity Surveillance System (NC-NPASS).

Ready Families and Communities: Health

- Kindergarteners with Immunizations—Special data request to N.C. DHHS, DPH, Division of Women and Children's Health, Immunization Branch, self-reported by schools.
- Immunizations for Children Aged 19 to 35 months — Estimate of vaccination coverage based on a sample of children aged 19 to 35 months from the National Immunization Survey, CDC.
- Birth Weight Data—N.C. DHHS, State Center for Health Statistics. N.C. Live Birth Data Query System, available online at: http://www.schs.state.nc.us/SCHS/births/matchar2006.html.
- Blood Lead Data—Special data request to the N.C. Childhood Lead Poisoning Prevention Program, Department of Environment and Natural Resources.
- Health Insurance—N.C. State Center for Health Statistics, Child Health Assessment and Monitoring Program (CHAMP), available online at: http://www.schs.state.nc.us/SCHS/champ/index.html. CHAMP respondents are drawn from a random telephone survey of N.C. residents over the age of 18 with children living in the household.
- Source of Primary Care—N.C. State Center for Health Statistics, CHAMP.
- Preventive Care—N.C. State Center for Health Statistics, CHAMP.
- Medicaid-Enrolled Preventive Care—N.C. DHHS, N.C. Division of Medical Assistance, "Health Check Participation Data," available online at: http://www.dhhs.state.nc.us/dma/healthcheck.htm.
- Medical Home—Child and Adolescent Health Measurement Initiative, 2003 National Survey of Children's Health, Data Resource Center for Child and Adolescent Health, available online at: http://www.nschdata.org.

Ready Families and Communities: Early Care and Education

- All child care data are from a special data request to N.C. DHHS, Division of Child Development.
- Read to Daily—Child and Adolescent Health Measurement Initiative, 2003 National Survey of Children's Health, Data Resource Center for Child and Adolescent Health, available online at: http://www.nschdata.org.

Ready Families and Communities: Risk Factors

- Teen Birth Rate, Percent of Repeat Teen Births and Maternal Education—Special data request to the N.C. Department of Heath and Human Services, Division of Public Health, based upon data from the N.C. State Center for Health Statistics.
- Adequacy of prenatal care is determined by the Kotelchuck Index. More information is available online at: http://health.utah.gov/opha/IBIShelp/kotelchuck.html.
- All other data from N.C. State Center for Health Statistics, Pregnancy Risk Assessment Monitoring System (PRAMS), available online at: http://www.schs.state.nc.us/schs/data/prams.cfm.

Ready Families and Communities: Child Maltreatment

- Child Maltreatment—Special data request to N.C. DHHS, Division of Social Services.
- Insulting Child, Child Left Alone—N.C. State Center for Health Statistics, CHAMP.

Young Child Demographics in North Carolina:

- Birth Rate—Centers for Disease Control and Prevention (CDC), Vital Statistics.
- Children's economic status— American Community Survey (ACS), 2001 and 2006.
- Number of children and number by race—National Center for Health Statistics, "Bridged-race Vintage 2006 postcensal population estimates for July 1, 2000 - July 1, 2006, by year, county, single-year of age, bridged-race, Hispanic origin, and sex," accessed online at: http://www.cdc.gov/nchs/about/major/dvs/popbridge/datadoc.htm, in January 2008.

Economic Insecurity: Poverty is Growing in North Carolina

- Free and Reduced Lunch Data—Special data request to N.C. Department of Public Instruction, Financial & Business Services, January 2008.
- Poverty Data—U.S. Census Bureau, 2000 Census.

ENDNOTES

Unless otherwise noted, information about school readiness comes from *Getting Ready: Findings from the National School Readiness Indicators Initiative*, prepared by Rhode Island Kids Count, February 2005. Available online at: http://www.gettingready.org/matriarch/d.asp?PageID=303&PageName2=pdfhold&p=&PageName=Getting+Ready+%2D+Full+Report%2Epdf.

[i] Center on the Developing Child at Harvard University and the National Scientific Council on the Developing Child (2007), *The Science of Early Childhood Development: Closing the Gap Between What We Know and What We Do*. Available online at: http://www.developingchild.net/pubs/persp/pdf/Science_Early_Childhood_Development.pdf.

[ii] State Early Childhood Policy Technical Assistance Network (2005), *Seven Things Legislators and Other Policymakers Need to Know about School Readiness*. Available online at: http://www.finebynine.org/pdf/7%20Things.pdf.

[iii] Ready for School Goal Team, *School Readiness in North Carolina: Strategies for Designing, Measuring and Promoting Success for All Children* (2000). Available online at: http://www.fpg.unc.edu/ffSchoolReadiness/SRFullReport.pdf.

[iv] CFED *2007-2008 Assets and Opportunities Scorecard*. Available online at: http://www.cfed.org/institute/rg/10_rg_fundedprek.pdf.

[v] National Task Force on Early Childhood Education for Hispanics (2007), *Para Nuestros Niños: Expanding and Improving Early Education for Hispanics*. Available online at: http://www.fcd-us.org/usr_doc/PNNExecReport.pdf.

[vi] National Center for Education Statistics (2006), *The Condition of Education 2006*. Available online at: http://nces.ed.gov/pubs2006/2006071.pdf.

[vii] Reardon and Galindo (2006), "Patterns of Hispanic students' math and English literacy test scores," Report to the National Task Force on Early Childhood Education for Hispanics.

[viii] More information about the survey and the Nuestros Niños project is available online at: http://www.fpg.unc.edu/ffnuestros/.

[ix] More information about New Voices/Nuevas Voces is available online at: http://www.fpg.unc.edu/ffnv.

[x] Rhode Island KIDS COUNT (2005), *Getting Ready: Findings from the National School Readiness Indicators Initiative*. Available online at: http://www.gettingready.org/matriarch/d.asp?PageID=303&PageName2=pdfhold&p=&PageName=Getting+Ready+%2D+Full+Report%2Epdf.

[xi] More information about the ABCD initiative is available online at: http://www.nashp.org/_catdisp_page.cfm?LID=2A78988D-5310-11D6-BCF000A0CC558925.

[xii] *The Guilford School Readiness Report Card* is available online at: http://www.guilfordeducationalliance.org/documents/SchoolReadinessReportCard_5-30-07final.pdf.

[xiii] All test score data from Cherokee County Public Schools.

[xiv] More information about the ELFE worksheet is available online at: http://www.ncreadyschools.org/documents/3ELFEAssessmentTool.doc

[xv] More information about the High/Scope Ready School Assessment tool is available online at: http://www.highscope.org/Content.asp?ContentId=118.

[xvi] Lee, Rajagopal and Wacker, "Nursing the Kindergarten Health Assessment Back to Health" (2007) found that of a sample of forms analyzed in the 1999-2000 and 2005-2006 school years, at least 80 percent were missing information in at least one section; in 2007-2008, that number was 86 percent.

2007-2008 BOARD OF DIRECTORS

Action for Children North Carolina

Polly Hathaway, Chair
CapitalCare Collaborative

Laura Gerald, M.D., Vice Chair
Community Care of North Carolina

Rebecca Johnson, Secretary
Educator and Civic Leader

Stafford L. Thompson, Jr., Treasurer
North Carolina Mutual Life Insurance Company

Bill Jamieson, Immediate Past Chair
Micah Institute

Ruth Amerson
Another Choice for Black Children

Margaret Bourdeaux Arbuckle, Ph.D.
Guilford Education Alliance

Michael Brader-Araje
SunPocket Management, LLC

Dina C. Castro, Ph.D.
FPG Child Development Institute

David C. Coulter
WakeMed Health and Hospitals

J. Keith Crisco
Asheboro Elastics Corporation

Albert R. Eckel
Corning, Inc.

Jean R. Irvin
Forsyth Futures

Kenneth Lewis
Womble, Carlyle, Sandridge and Rice

Peter Morris, M.D., M.P.H.
Wake County Human Services

C. Steve Parrott
EMBARQ

Gregory Richardson
North Carolina Commission of Indian Affairs

Penelope Orr Spry
Children's Law Center of Central N.C.

David T. Tayloe, Jr., M.D.
Goldsboro Pediatrics, PA

EX OFFICIO MEMBER
Barbara Bradley
President and CEO
Action for Children North Carolina

ACKNOWLEDGEMENTS

Action for Children North Carolina extends our gratitude to the early childhood and school readiness experts in North Carolina who contributed to the data collection and interpretation within this report and its accuracy.

Margaret Arbuckle, Ph.D., Executive Director, Guilford Education Alliance

Sandy Caldwell, Elementary Supervisor, Haywood County Schools

Dina Castro, Ph.D., FPG Child Development Institute, the University of North Carolina at Chapel Hill

Carolyn Cobb, Consultant and former Director of the N.C. More at Four Program and Office of School Readiness

Gerry Cobb, Director of Smart Start's National Technical Assistance Center

Marian Earls, M.D., Medical Director of Guilford Child Health, Inc. and President, N.C. Pediatric Society

Jeanette Hedrick, Ph.D., Superintendent of Cherokee County Schools

Jessica Jones, Evaluation Coordinator, Down East Partnership for Children

Kathleen Jones-Vessey, N.C. State Center for Health Statistics

Kelly Maxwell, Ph.D., FPG Child Development Institute, the University of North Carolina at Chapel Hill

Emma Miller, Consultant, N.C. Office of Rural Health ABCD grant, Region "A" Partnership for Children

Deborah C. Nelson, Ph.D., Early Childhood Comprehensive System Grant Program, N.C. Division of Public Health

Marylin Newkirk, PreK-5 Director, Edgecombe County Public Schools

Ann Nichols, School Nurse Consultant,
and school nurses Lucy Austin, Wanda Brown, Barbara Harris, Katherine Hilliard and Jeanie Watson

John Pruette, Executive Director, N.C. Office of School Readiness

Joy Sotolongo, Program Evaluation Specialist, N.C. Partnership for Children

Bruce Yelton, Ph.D., COO, Praxis Research

Henrietta Zalkind, Executive Director, Down East Partnership for Children

The N.C. Partnership for Children, the N.C. Division of Child Development, the N.C. Division of Public Health,
the Children's Health Branch of the N.C. Department of Environment and Natural Resources,
the N.C. Department of Public Instruction and the N.C. Division of Social Services.

Action for Children would like to thank Nathan Clendenin, photographer, for donating his time and services.

Action for Children gratefully acknowledges EMBARQ, Bank of America, EMC Corporation, Duke Energy, Wachovia, Weyerhaeuser Company Foundation and the Annie E. Casey Foundation for their financial support of *Putting the Pieces in Place: A North Carolina School Readiness Report.* We thank them for their support but acknowledge that the findings and conclusions presented in this report are those of the authors alone and do not necessarily reflect the opinions of these organizations.

FUNDERS

Action for Children North Carolina

Telephone: (919) 834-6623

www.ncchild.org