

School Readiness of Arizona's Children

Each year, thousands of Arizona kindergarteners arrive for their first day of school. To most observers, they are all relatively the same – between 5 and 6 years old, holding their parents' hands, faces alight with curiosity and new backpacks in tow. Their teachers, however, will tell a different story. Almost from the first day, the differences become evident: some know their letters and numbers; they can easily handle their pencil, crayons, and art supplies; they are able to follow the structure of the school day; they share toys and supplies; and, they get along well with their school mates. For many children, the opposite is true: they are academically lost, socially awkward and unsure what to do in a classroom setting. From the start, they are already behind.

Same community; same school; same age of the children. The big difference? One group of children had access to high quality educational experiences before starting kindergarten; the others did not.

Believe it or not, this scene – or ones like it – repeats itself all too often in classrooms throughout Arizona, and throughout the nation. Research has demonstrated that the majority of a child's brain (between 80 and 95 percent, depending on the study) develops before children enter kindergarten. And, the quality of a child's early experiences in that critical time between birth and age 5 shapes their success in school and in life.

In 2006, Arizona voters created First Things First to expand the early education, health and family support programs that have demonstrated success in helping

children be healthier and more prepared for school. This commitment has never been more important. In addition to the rigorous curriculum children face in kindergarten, they risk being held back if they are not reading well enough by the end of third grade (see page 4.)

In order to help children arrive at school prepared to succeed, First Things First has allocated more than half a billion dollars since 2009 to fund education and health programs for young kids throughout Arizona. Those programs are improving the quality of child care; helping more children access early learning programs; improving the skills of teachers working with infants, toddlers and preschoolers; ensuring that more kids have preventive oral health care and access to early developmental screening; and, supporting parents in their role as their child's first teachers.

But, fulfilling our commitment to young children means more than simply funding programs and services. It means having a shared vision about what being prepared for kindergarten actually means and then a collective commitment to work across sectors to realize this vision.

The Arizona Early Childhood Task Force, composed of 35 leaders from an array of disciplines, convened in 2010 to weigh in on these issues. They were supported with national technical assistance from Karen Ponder, former CEO of the North Carolina Partnership for Children. From this work came a strategic framework for building an early childhood development and health system that offers Arizona children the strong start

they deserve. (See *Creating the Model Early Childhood System*, azftf.gov) The outcome we all want is that children and families are better off as a result of this system.

For the following eight months, the First Things First Advisory Committees for Early Learning, Health and Family Support and Literacy, convened to review and recommend school readiness indicators designed to provide a snapshot of progress toward positive outcomes for young children. A subset of these indicators provides a composite measure for young children as they prepare to enter kindergarten, and were approved by the First Things First Board in August 2011 as its School Readiness Indicators (see figure below). These indicators provide us the opportunity to achieve measureable and real long-term results for children.

The data for these indicators have not been collected systematically in Arizona before. First Things First and its early childhood system partners will work over the next year to develop benchmarks for these indicators and systems for tracking them over time. Future editions of *Building Bright Futures* will offer a statewide and county-by-county view of how Arizona's children are faring on these measures of school readiness.

In the mean time, the information and data presented here will help the reader gain insight into the challenges faced by Arizona's children in these areas and some of the work that is being done to better measure and impact these benchmarks.¹

¹ Data for the indicators discussed in this section are not generally available at the level of county and many are not available even for the state as a whole. Some data come from national surveys which are not conducted each year, so the most recent data available are presented. Overall, they illustrate areas of opportunities for developing systematic measurement systems within the state.

SCHOOL READINESS INDICATORS

The ten indicators, designed to monitor progress in Early Learning, Health and Family Support, are:

1. (Number/percentage) of children demonstrating school readiness at kindergarten entry in the developmental domains of social-emotional, language and literacy, cognitive, motor, and physical
2. (Number/percentage) of children enrolled in an early care and education program with a Quality First rating of 3-5 stars
3. (Number/percentage) of children with special needs enrolled in an inclusive early care and education program with a Quality First rating of 3-5 stars
4. (Number/percentage) of families that spend no more than 10% of the regional median family income on quality care and education with a Quality First rating of 3-5 stars
5. Percentage of children with newly identified developmental delays during the kindergarten year
6. Number of children entering kindergarten exiting preschool special education to regular education
7. (Number/percentage) of children ages 2-5 at a healthy weight (Body Mass Index – BMI)
8. (Number/percentage) of children receiving timely well child visits
9. (Number/percentage) of children age 5 with untreated tooth decay
10. Percentage of families who report they are competent and confident about their ability to support their child's safety, health and well-being

Age-appropriate Competencies:

Preliminary Data on Indicator #1

Currently, Arizona school districts use a variety of methods to assess literacy in kindergarten, but no common comprehensive kindergarten assessment has been adopted by the Arizona Department of Education. In the past year, conversations in the early childhood community have intensified and the need to have better assessment tools and data has become paramount. Efforts are already underway to build a common, cohesive system for helping teachers and parents understand young children's progress in the developmental domains of school. In July 2011, the Arizona Department of Education convened a working group with representatives from Head Start and the State Advisory Council (First Things First), to begin defining kindergarten readiness and determining appropriate ways to understand the status of children's learning and development as they transition to kindergarten. A taskforce with representatives across the state was convened in November 2011, and will work over the next several months to carry out this work.



State education and philanthropic leaders have committed to working together to identify and implement a common Kindergarten Entry Assessment (KEA) across Arizona with the following goals:

1. Coordinate and align with assessment efforts underway in grades 3-12 and with state approved formative early childhood assessments.
2. Measure all developmental domains of school readiness.
3. Serve as a tool for kindergarten teachers and parents to understand children's learning, inform instruction, and facilitate collaboration between teachers and parents to support children's learning.
4. Provide a cross-sectional benchmark of Arizona children's learning and development at kindergarten entry that can serve as an indicator of the effectiveness of early childhood system goals and First Things First.
5. Provide a baseline of children's learning and development for monitoring progress.

Mechanisms will be established to facilitate parents' full and transparent access to their children's results. Professional development for teachers will ensure all kindergarten teachers not only implement the assessment validly, but capably interpret results for parents, and partner with parents to collaboratively help young children succeed in school.

A statewide assessment will provide kindergarten teachers the information they need for individualized instruction; will provide system stakeholders information about the effectiveness of preschool programs; and, link existing 3rd–12th grade assessments to K–3 effectiveness.

Quality First and Enrollment in Early Care and Education:

Preliminary Data on Indicators #2-4

National studies show that children exposed to high-quality early childhood education are 40 percent less likely to need special education or be held back a grade. In addition, they have better language, math and social skills; have better relationships with classmates; have better cognitive and sensory skills and experience less anxiety; and, score higher on school-readiness tests.²

In June 2011, 711 child care homes and centers (16% of licensed and certified early child care programs) were enrolled in Quality First, Arizona's quality improvement and rating system. These centers serve about 36,000 Arizona children, which is about 30 percent of the children in licensed and certified care, and about seven percent of children from birth to 5 years old. By June 2012, it is estimated that more than 900 child care centers and homes will be improving the early education services they provide through Quality First participation.

Quality First is unique in that it focuses first on helping programs understand the components of quality, assess the quality of their services, and make necessary improvements. The second focus is the rating of a program's quality based on a 5 Star system of standards. The Star Rating assists parents in choosing early education programs for their young children. Ratings of providers enrolled in Quality First



will be available via a public website beginning July 1, 2012. Ratings will be posted in an ongoing manner according to a program's annual assessment cycle.

Initial quality assessments of participating centers and homes indicate that the majority of providers (more than 90%) enrolled in Quality First are Rising Stars or Progressing Stars, meaning that they have demonstrated a commitment to improving the quality of their physical environment and instructional activities for young children beyond regulatory standards.

About half of the providers currently participating in Quality First have received a progress assessment, a measurement of improvements after receiving at least a year of coaching, financial incentives and improvement supports. Based on preliminary analysis of completed assessments, about 93% of providers improved or maintained their assessment scores. This is an important and statistically significant improvement for young children in Arizona.

While it is important to focus on improving the quality of early education in Arizona, it is equally important to ensure that more children have access to early learning programs. For many Arizona families, cost is a major factor limiting their child's access to an early education. In 2010, according to the DES Market Rate Survey, the median cost of a full day of child care in Arizona was \$38.75 for infants (under 1 year

2 Reynolds, A.J., Temple, J.A., Robertson, D.L., & Mann, E.A. Age 21 Cost-Benefit Analysis of the Title I Chicago Child-Parent Center Program. Institute for Research on Poverty, Discussion Paper no. 1245-02, 2001; The Children of the Cost, Quality, and Outcomes Study Go To School. NICHD, June 1999, p. 2 and Karoly, Lynn, et al, Investing in Our Children: What We Know and Don't Know About the Costs and Benefits of Early Childhood Interventions. RAND, 1998, xv.

old), \$34.80 for toddlers (ages 1 to 2), and \$30.00 for preschoolers (ages 3 to 5).

The American Community Survey estimates that the median family income in Arizona in 2009 was \$69,164 for married-couple households with at least one child (ages 0 to 17). It is important to note that because income generally increases with the age of the children, the \$69,164 figure is likely an overestimate of the median income of parents of young children. Assuming 250 work days in a year, care for a preschool child at the median rate (\$30) would cost \$7,500 per year. This is almost 11 percent of the median income for a two-parent family. For single women with one or more children (ages 0 to 17), the estimated median income in 2009 in the state was \$25,349. A mother at this income level would spend about 30 percent of her income on care for a preschooler and 38 percent on care for an infant.

There are a number of federal and state programs available to help Arizona families access early education programs for their young kids, including Early Head Start, Head Start and child care subsidy. First Things First has supplemented those efforts by funding scholarships to help children access care in Quality First sites and to help schools and other early education programs expand services for preschoolers. In 2011 alone, FTF helped more than 6,100 infants, toddlers and preschoolers access early education programs. In addition, First Things First is working with its state agency and K-12 partners to help families afford early education programs at the sites offering higher quality learning opportunities.

As indicated earlier, all children need access to early learning opportunities. For children with special needs, it is imperative that they be able to access those opportunities in settings that are prepared to meet their needs, in classrooms that include them in

learning activities and with caregivers that can help them be successful. Approximately 12 percent of the sites currently enrolled in Quality First have self-reported that they serve children with special needs. Through their Quality First participation, those sites have access to coaching to help them better identify and assess children with special needs, and to help teachers and other staff build a greater understanding of how to best serve the children in an inclusive and sensitive manner.

Detecting Developmental Delays:

Preliminary Data on Indicators #5 and 6

Children experience developmental delays for a variety of reasons, including genetics, their mother's access to prenatal education and care, and circumstances of their birth. The sooner developmental delays are diagnosed and treated, the more prepared a child will be once they enter school.

There were 89,932 kindergartners enrolled in public education during the 2010-2011 school year. Of this total number of kindergartners, 8,976 (10%) were identified as having a developmental delay; 4,067 (45%) of the 8,976 identified kindergartners were newly identified during kindergarten. Thus 4.5% of all kindergartners were identified as having a developmental delay that was not identified until their kindergarten year, or that did not present as a delay until they entered kindergarten.

Additionally, in the preceding year (2009-2010 school year), 14,807 preschool children (ages 3-5) were identified with a developmental delay and 5,429 (37%) exited special education services prior to entering kindergarten.

Increases or decreases in the number of children newly identified as having a delay or disability in kindergarten must be interpreted with caution. Improved efforts to identify children with developmental delays prior to entering kindergarten should lower the number of children newly identified with delays once they enter school and decrease the number of children needing special education services in kindergarten. However, increased efforts by the K-12 system to ensure all school-age children are adequately screened and evaluated for potential developmental delays once they enter kindergarten may offset any decreases related to better quality assessment and services in the 0-5 years. This indicator must be interpreted in light of data trends from both the early childhood and K-12 systems.

The emphasis must be on identifying children with developmental delays as early as possible and ensuring that they get the services and support they need to be successful in kindergarten and beyond.

Healthy Weight:

Preliminary Data on Indicator #7

Maintaining a healthy weight is important for school readiness. Underweight children may feel weak or tired and have trouble focusing and concentrating. Overweight and obese children are at risk for developing medical problems that can affect their present and future health and quality of life.

A child is obese if his or her Body Mass Index (BMI)³ is at or above the 95th percentile, according to the 2000 Centers for Disease Control growth charts. A child whose BMI falls between the 85th and 95th percentiles is overweight. A child whose BMI is below the 5th percentile is considered underweight.

³ Body Mass Index (BMI) is an indicator of body fatness widely used in both children and adults. BMI is defined as weight in kilograms divided by the square of height in meters (or weight in pounds divided by the square of height in inches times 703).

According to data from the CDC's Pediatric Nutrition Surveillance System (PedNSS)⁴ for 2010, 14.2 percent of low-income young children in Arizona (ages 2 to 4) are classified as obese. An additional 15.7 percent are overweight. These rates are similar to the national rates of 14.4 percent obese and 16.1 percent overweight.

The Navajo Nation and the Inter Tribal Council of Arizona⁵ (ITCA) report their data separately to the PedNSS. ITCA is a membership organization comprised of several tribes in Arizona. Obesity and overweight are much more prevalent among children in these communities. For the Navajo Nation, 18.7 percent are obese and 20.2 are overweight. For the ITCA, 24.5 percent are obese and 20.5 percent are overweight.

Low-income young children in Arizona have lower rates of being underweight than do children nationally (the national rate is 4.5%). Statewide, 2.7 percent of children are reported as underweight, with even lower rates for the Navajo Nation (1.3%) and ITCA (1.5%).

Well-child and dental visits:

Preliminary Data on Indicators # 8 and 9

For young children, especially those under the age of 3, the recommended guidelines indicate they should have 16 vaccination visits and well-child screenings during those first three years. About 6 percent of young children (ages 0 to 5) in Arizona did not have at least one well-child check-up or exam during the year prior to the survey. This rate is somewhat higher than the national average of 4 percent.

⁴ Most of the children in the PedNSS database are participants in the WIC program
⁵ ITCA member tribes are: Ak-Chin Indian Community, Cocopah Tribe, Colorado River Indian Tribes, Fort McDowell Yavapai Nation, Fort Mojave Tribe, Gila River Indian Community, Havasupai Tribe, Hopi Tribe, Hualapai Tribe, Kaibab-Paiute Tribe, Pascua Yaqui Tribe, Pueblo of Zuni, Quechan Tribe, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, San Juan Southern Paiute, Tohono O'odham Nation, Tonto Apache Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation, Yavapai-Prescott Indian Tribe.
<http://www.itcaonline.com/tribes.html> (accessed 11.8.11).

This may be linked to the high number of children in Arizona (9 percent) who lack health insurance.

The Arizona Health Survey (2010) found medical-care disparities between young children (ages 0 to 5) who were or were not covered by health insurance. Among children with health insurance coverage, almost all had a regular source of care (97%) and had received an annual check-up (96%). Among the children without coverage, only 79 percent had a regular source of care and only 86 percent had received an annual check-up.

Dental care is just as important as medical care, and can greatly impact school success. Poor oral health in children has been linked with failure to thrive, impaired speech development, and absence from and inability to concentrate in school. All of these factors can impact a child's performance in school.

The American Dental Association recommends that a dentist examine a child within six months after the first tooth comes in and no later than the first birthday. A dental visit at an early age is a "well baby checkup" for the teeth, and regular check-ups should continue through school age and into adulthood.

The Arizona Department of Health Services Office of Oral Health reports that 50 percent of Arizona children from birth to four have never visited a dentist.⁶ Of those parents who reported that their child had not seen a dentist, 46 percent said this was because the child did not need to, 34 percent because the dentist would not see a young child, and 12 percent because they could not afford it.

The 2009 Arizona Oral Health Survey of Preschool Children found that 16 percent of two year olds, and over half (52%) of four year olds, already had evidence of

⁶ Office of Oral Health, Arizona Department of Health Services, Arizona Oral Health Survey of Preschool Children 2009. Retrieved from http://azdhs.gov/cfhs/ooh/pdf/ArizonaPreschoolChildrensOralHealthStatus_Feb11.pdf

tooth decay (treated or untreated).⁷ Thirty percent of children between two and four years old were found to have untreated tooth decay, compared to 16 percent nationally. The 2007 National Survey of Children's Health also showed Arizona children to have greater incidence of tooth decay or cavities, compared to the nation. Almost 25 percent of Arizona children (ages 1 to 17) had decay or cavities identified in the six months prior to the survey, compared to only 19 percent nationally.

The Arizona Health Survey (2010) found a dental-care disparity between children with and without insurance. Only 44 percent of the young children (ages 2 to 5) without insurance had received a routine dental visit in the past year, compared to 57 percent of those with insurance. (Note: Some children with health insurance might not have had dental coverage.)

Many First Things First regional councils have prioritized oral health. In fact, through First Things First funding in fiscal year 2011, more than 12,000 dental screenings were completed on children 5 years old and younger; more than 11,400 fluoride varnishes were applied, and more than 8,000 children were referred to a dentist for follow-up.

Parents:

Preliminary Data on Indicator #10

Parents are their child's first and most important teachers. While data indicate that Arizona parents know as much as or more than parents nationwide about their child's learning, they also demonstrate that many parents need additional information and support.

According to the First Things First Family and

⁷ Office of Oral Health, Arizona Department of Health Services, Arizona Oral Health Survey of Preschool Children 2009. Retrieved from http://azdhs.gov/cfhs/ooh/pdf/ArizonaPreschoolChildrensOralHealthStatus_Feb11.pdf

Community Survey of 2008⁸, overall, Arizona parents understand that early childhood development is important, with more than 75% of parents acknowledging that they can significantly impact children's brain development at or before birth. While Arizona's parents understand the importance of early brain development, not all are sure what they can do to best support their child's optimal development.

The survey results show:

- 20% of Arizona parents are not aware that their child's first year impacts later school performance.
- 27% are not aware that children sense and react to parent emotions starting from birth.
- 21% of parents are not aware that play is crucial for children under 10 months of age.
- 47% of parents believe that a child's language benefits equally from watching TV versus talking to a real person.

More detailed analysis of the data reveals that there is significantly less awareness of the importance of the early years among parents with lower incomes or educational attainment. Whatever their circumstance, however, all parents can benefit from additional information and support.

First Things First partners with parents and families to offer a variety of resources – tailored to the level of support the family wants or needs. Those supports include:

- **Arizona Parent Kits** – offered to the parents of every newborn in Arizona before they leave the hospital, each kit includes critical information

about healthy parenting practices and how to support their baby's development and early learning. More than 58,000 kits were distributed in fiscal year 2011.

- **Birth to 5 Helpline** – available for all families with young children looking for the latest child development information from experts in the field. Staffed by early childhood development specialists, registered nurses, disabilities specialists, early literacy specialists, and mental health counselors, the Helpline provides a toll-free number and/or an online form for all Arizona families with young children, and parents-to-be, to call or write with questions or concerns about their infants, toddlers and preschoolers. More than 2,300 calls were answered by Helpline staff in fiscal year 2011.
- **Community-Based Literacy and Parent Education** – strengthens families with young children by providing voluntary classes in community-based settings on a wide range of topics, including parenting skills, child development, early literacy and nutrition. In fiscal year 2011, 58,493 caregivers attended 6,380 community-based early childhood settings statewide.
- **Home Visitation** – free, voluntary, in-home support that is tailored to meet the specific needs of the family. All services stress the importance of health and safety, parent/child interactions and promotion of early literacy by offering parents fun reading and other language activities to do with their children at various stages of development. More than 7,700 families received home visitation services during fiscal year 2011.

⁸ Family and Community Report: A Baseline Report on Families and Coordination. <http://www.azftf.gov/whoweare/board/pages/reportsandpubs.aspx>.