EARLY CHILDHOOD YEARS

Introduction
Preventive health care in pregnancy and during the early childhood years leads to better health outcomes at birth and throughout life, as does the mother’s education level. High-quality child care and preschool experiences help ensure that children enter school ready to learn. Being vigilant as a community about keeping our children safe, well-fed, and in adequate housing environments is critical to their thriving into adulthood. A large body of economic research shows that investing in early childhood has a high yield of return to the individual, the community, and society as a whole.

Key Findings
- There has been a sharp increase in the number of low-income families applying for and receiving child care subsidies in the past three years. The good news is that Arlington County has worked to improve the quality of care in licensing the child care centers and homes that serve subsidized children.
- Over one-quarter of APS students are either overweight or obese even before they start kindergarten. An additional 15% of children are “nearly overweight.” This means that 41% of our kindergartners are already at high risk for developing asthma, joint problems, and early onset diabetes, along with higher risk for heart attack and stroke earlier in life.
- More children entering APS kindergarten have had some kind of preschool or day care experience (up from 80% in 2006 to 89% in 2013). APS has significantly increased capacity for economically disadvantaged preschoolers. However, a significant number (11%) of Arlington children still enter APS with no previous prekindergarten experiences.
- The percentage of kindergartners meeting early literacy benchmarks ranges from 81% to 100% across all schools. Among disadvantaged kindergartners, those who have attended either APS or community preK programs have significantly higher early literacy skills than their peers who have had no preK experience.
- Increasing rents, coupled with significant declines in available affordable housing, are issues for many Arlington families. The area median income on which affordability is determined has risen at a rate that surpasses wage increases for lower wage jobs, thus widening the gap between the so-called “affordable” rents and actual affordability. In addition, many families struggle for access to adequate food.

More Data Needed
- To inform the supports we put in place for the early childhood years, a critically important stage of life, we need better insight into the less-than-optimal experiences of our community’s more vulnerable children under age five. More data are needed on access to health insurance, health and dental care, housing, and nutrition. We also need better data on individual indicators that reflect a healthy start to life during pregnancy and at birth.

INDICATORS
- Good Start in Life
- On-Time Immunizations
- Entering Kindergarten Overweight
- Subsidized Child Care
- Prekindergarten Experiences
- Early Literacy Skills
- Food and Housing Support
**GOOD START IN LIFE**

**Definition**
The first indicator is the percentage of births to Arlington mothers in which the birth certificate indicates that the baby weighed 2,500 grams (about 5.5 pounds) or less at birth. All births to mothers residing in Arlington are included, not just the births that take place in the county.
The second indicator is the percentage of Arlington mothers who had less than a high school education at the birth of their child (based on information in the birth certificate).

**Significance**
Low birth-weight babies face higher risks of health and developmental problems, and are significantly more likely to die during the first year of life than normal-weight newborns. Children born to mothers with less than a high school education are more likely to be low birth-weight and to have poorer health and academic outcomes than those with more educated mothers.

**Findings**
Data for Arlington mothers show that the percentage of babies born with a low birth weight has ranged between 6 and 7% since 2001. The percentage of mothers with less than a high school education has dropped significantly — from about 14% in 2003 to just over 5% in 2012.

**Source**
Kids Count Data Center (through Voices for Virginia’s Children), available at: http://datacenter.kidscount.org/data/
tables/5252-low-birthweight-babies.

**References**
policy-makers-maternal-infant-and-child-health-in-the-united-
states-2012.pdf.
gov/pmc/articles/PMC1694366/pdf/amjph00540-0017.pdf.
mother’s-education-and-children’s-outcomes.
ON-TIME IMMUNIZATIONS

Definition
This indicator is the percentage of Arlington children who received selected immunizations by the age of two years, assessed upon entering public school. Over time, the recommended number of vaccinations a child should receive by age two has increased.

The 4:3:3:1:1:4 series (reported in the chart above) includes four doses of DPT (diphtheria, tetanus, and pertussis), three polio, one MMR (measles, mumps, and rubella), three doses of vaccines for Hib and hepatitis B (Hep B), one varicella (chicken pox) and four PCV (pneumococcal conjugate vaccine to prevent a form of meningitis). A child without documentation of having received a shot is considered the same as a child who never received it.1

Significance
Immunizations are among the most basic and important safeguards for the individual and collective health of our children and community. They protect against diseases that killed or disabled many children in past decades. Because of generally high rates of immunization, cases of these diseases have declined precipitously.

As a result, communities find it challenging to maintain a high level of concern for immunizations.

However, the diseases remain a threat, and periodic outbreaks occur. One ongoing example of this is pertussis ("whooping cough"), which has returned in numbers not seen since 1955 (more than 48,000 cases in the United States in 2012). Nearly 5,000 of these cases were in infants younger than age one year, when the disease is most often fatal.2 Pertussis also affects adults: in 2012, more than 10,000 cases were reported in the adult population. Adults can be both victims and carriers of the disease; thus, adult immunization is also important.

Findings
Average immunization rates range from a low of 83% in 2008-09 to a high of 97% in 2011-12. This is a notable achievement, given that the current recommended series has more components than it did previously.

However, disparities among schools remain an ongoing challenge, with the results in 2013-14 ranging between 83 and 100%. This variation likely reflects important differences across Arlington regarding access to health care, understanding of the complex process, income, and other factors.

Any "holes" in immunization protection, for whatever reason, potentially affect the Arlington community. Small decreases in coverage can have substantial effects. Close monitoring of this indicator and support for activities that keep it high are of critical importance.

Source
Public Health Division, Department of Human Services, Arlington County. CASA Survey/Kindergarten Retrospective.

References
1 The recommended childhood immunization schedule can be found at: www.cdc.gov/vaccines/recs/schedules/child-schedule.htm.
**Definition**

Body Mass Index (BMI) provides an estimate of body fat. It is calculated by dividing an individual’s weight by his/her height squared. The result is compared to standardized values that, for children, are age- and gender-specific. Children are considered obese if their BMI is greater than or equal to the 95th percentile. They are considered overweight if their BMI is greater than or equal to the 85th percentile. The height and weight data are from the school physical required for all children entering kindergarten in APS. Records from 1,960 students (92% of the 2013-14 class) were available.

**Significance**

Healthy eating and adequate exercise are associated with improved school performance, as well as reductions in anxiety and depression. Obesity is strongly associated with increased rates of asthma, sleep apnea, and joint problems in children. It is the most important factor in the rapid increase seen in early onset diabetes and pre-adult elevations in cholesterol and blood pressure — all of which vastly increase the risk for heart attack and stroke earlier in life.

Children who start school already obese are likely to remain so throughout life. Children who are overweight are more than four times as likely as normal-weight children to become obese by adolescence, and the risk is nearly as high for children who are “nearly overweight” (above the 70th percentile).

**Findings**

26% of APS students are either obese (13%) or overweight (13%) even before they start kindergarten. An additional 15% are “nearly overweight” (above the 70th percentile). This means that 41% of our kindergartners are already at high risk.

Gender differences are not considered statistically significant in this group.

8 schools have an overweight/obesity rate of 36% or greater.

**Source**

Arlington Department of Human Services, Public Health Division, School Health Bureau.

**References**


SUBSIDIZED CHILD CARE

**Definition**
This indicator is the number of children whose family qualifies for and receives financial assistance from Arlington County for child care.

**Significance**
In Virginia, an estimated 66% of children under age six years spend all or part of their day in the care of adults other than their parents.\(^1\) Brain development research confirms that the care children receive in their early years has a tremendous influence on their intellectual, emotional, and social development. Home day care settings are typically less expensive than centers, but may be unlicensed and may not have the capacity to deliver a comprehensive program that meets the full range of physical, emotional, and cognitive needs of the child.

Quality out-of-home child care is important but often expensive, particularly in urban areas. The average cost of care in a center for an infant in Northern Virginia was over $16,000 per year in 2013,\(^2\) far above the state average of $10,000.\(^3\)

To help offset these high costs, Arlington County receives federal and state funds to subsidize child care for low-income families. In fiscal year 2014, families working and earning less than 185 percent of the federal poverty level ($36,132 for a family of three) were eligible.

**Findings**
The number of children whose family received a subsidy declined between 2000 and 2008, from 947 to 375. The number receiving subsidized child care then rose sharply in 2009, and increased again in 2012 and 2013 to about the same level seen in 2000. In fall 2014, there were 63 families on the waiting list.

Subsidies can be used only for child care providers meeting Arlington County licensing requirements. In FY14 Arlington County began working with providers serving families who receive the subsidy to enhance the quality of their services. The focus has been on helping providers build an environment that is safe and stimulating, creates social and emotional development opportunities, and fosters parent engagement. About one-third of children receiving subsidies are cared for by licensed home day care providers; two-thirds are in licensed centers.

**Source**
Child Care Office, Department of Human Services, Arlington County.

**Note**
Data for 2011 are not available.

**References**
\(^2\) Child care rates from Fairfax County Government website.
\(^3\) Child Care Aware of America. *Parents and the High Cost of Child Care*, 2013.
PREKINDERGARTEN EXPERIENCES

Definition
This indicator is the number of APS kindergarten students who attended any type of preschool or day care program prior to kindergarten. Prekindergarten experiences include APS preschool programs, community preschools, child day care, Head Start, and home day care.

Significance
Children with access to high quality early learning experiences are more likely to acquire the skills they need to enter kindergarten ready to succeed. Arlington children with preK experience score higher on a test of pre-literacy skills than those without this experience.1 Children in poverty are least likely to have quality preK experiences and most seriously at risk for school failure.2

Findings
The number of APS kindergarten students who attended any form of preK has increased from 1,296 (80%) in 2006 to 1,880 (89%) in 2013. A little more than one-half of all students entering kindergarten in 2012-13 attended a private preschool or day care center or home, and just over one-third attended an APS preschool program.3

Since 2006, APS has significantly increased the capacity of its preK programs, targeting students who come from families of lesser financial means as part of its strategy for eliminating achievement gaps among student groups. In 2006, APS served 236 economically disadvantaged preK students; that number increased to 516 in 2012-13. Nonetheless, a significant number (11% in 2013) of Arlington children still enter kindergarten with no previous preK experience.4

Source
Arlington Public Schools, Office of Early Childhood and Office of Planning and Evaluation. APS maintains this information for kindergarten students who attended an APS preK program. The data for other students are captured by kindergarten teachers during conferences with parents.

References
3, 4 Arlington Public Schools Office of Planning and Evaluation, as reported in APS student office of records collection for the VA Department of Education.
EARLY LITERACY SKILLS

Definition
This indicator is the percentage of students entering kindergarten who meet the expected benchmarks on the fall Phonological Awareness and Literacy Screening (PALS) test. The fall PALS score provides kindergarten teachers with a measure of a child’s knowledge of several important literacy fundamentals that are predictive of future reading success.¹

Significance
Successful experiences with listening, speaking, reading, and writing are critical to a child becoming fully literate. Given opportunities to interact with responsive adults and peers in language and print-rich environments, young children make connections with the world around them by developing listening and speaking skills, letter knowledge and print awareness, comprehension, vocabulary, and writing skills.²

Findings
The percentage of all entering kindergarten students meeting the expected PALS benchmark increased steadily from 79% in fall 2002 to 96% in fall 2012, when the proportion of kindergarten students meeting the benchmark ranged from 81 to 100% across all schools. Since 2006, the percentage of economically disadvantaged kindergarten students meeting the fall PALS benchmark has also increased significantly, whether they attended APS, non-APS, or no preK programs. This may be a result of the state Smart Beginnings initiative, as well as local efforts by DHS, Head Start, and APS to share literacy expectations and strategies for kindergartners with parents throughout the community. Low-income kindergartners who attended APS preK programs have the highest rates of early literacy skills, followed by those who attended preK programs in the community.

The rate is significantly lower for economically disadvantaged students with no preK experience, pointing to the need for more quality, affordable preK experiences for low-income children.

Source
Arlington Public Schools, Office of Planning and Evaluation.

References
CASES OF CHILD ABUSE AND NEGLECT

Definition
Child Protective Services (CPS) takes the following steps in handling referrals for suspected cases of abuse or neglect:

- If the allegation meets the criteria to take action (alleged victim is under 18, alleged abuser is in a caretaking role, allegation meets the definition of abuse or neglect as defined by the law, etc.), it is a validated case of potential abuse or neglect.
- All validated cases are addressed. More serious cases lead to investigations, less serious ones to family assessments. (Alleged sexual abuse, serious physical abuse and a child fatality always lead to an investigation.) In both cases, CPS staff gather facts about the allegation and determine the need for services for the child or family.
- Founded cases of abuse or neglect are those in which an investigation confirms that abuse or neglect has taken place. Studies suggest that this number underestimates the actual level of child abuse because many cases are never reported.

Significance
The effects of child abuse and neglect cascade throughout life, with costly consequences for individuals, families, and society. These effects are seen in physical and mental health, and in education, work, and social relationships.¹ The trauma to children includes physical injuries, chronic low self-esteem, problems forming relationships, developmental delays, learning disorders, aggressive behavior, depression, and other mental health problems.² Communities in which victims live must cope with the harmful effects of abuse on academic achievement, drug use, teen pregnancy, delinquency (especially in its more serious forms), and adult criminality.³ Because of the serious consequences of child abuse, the list of individuals who are mandated to report suspected child abuse and neglect to CPS expanded in 2013 and now includes school employees, police, medical providers, child care providers, sports coaches, animal welfare officers, or anyone who comes in contact with a family in his/her professional capacity in the community.

Findings
The number of suspected cases of child abuse or neglect referred to CPS each year has remained at a relatively constant rate for the last 10 years. Given the 2013 expansion of the individuals who are considered mandated reporters, it will be interesting to see whether future data reflect any changes in the referrals. The number of validated cases has declined substantially overall since 2003, with marked year-to-year increases and decreases. In 2013, nearly one-half of the investigations (about 44 cases) resulted in a finding of abuse or neglect.

Source
Child Protective Services, Department of Human Services, Arlington County.

References
FOOD AND HOUSING SUPPORT

Significance

Having adequate, affordable housing reduces homelessness, family stress, overcrowded and unhealthy living environments, and disruption in children’s education.1 Having access to adequate food reduces the risk for poor nutrition and behavioral and academic problems, as well as chronic diseases such as obesity.2

Definitions and Findings

Affordable Housing. The federal guidelines recommend that people pay no more than one-third of their monthly income for rent and utilities. In Arlington, that would amount to $1,612 per month for a family of four but, in fact, a two-bedroom apartment in Arlington averaged $2,213 per month in 2012.3 Arlington residents are eligible for affordable housing programs if they earn not more than 60% of the Area Median Income (AMI) or, for certain programs, 80% of the AMI.

In 2000, approximately 19,700 rental units were “affordable” at market rates to low-income households at or below 60% of AMI. In 2013, there were just over 3,400 such units. Arlington residents are eligible for affordable housing programs if they earn not more than 60% of the Area Median Income (AMI) or, for certain programs, 80% of the AMI.

Arlington County also has several programs that assist low-income renters financially, including the federally funded Housing Choice Voucher Program and the locally funded Housing Grant Program, which targets working families with minor children, people with disabilities, or residents age 65 or older. Approximately 3,000 additional “market-rate affordable” units for moderate-income households (between 60% and 80% AMI) have become available since 2000, many of which were likely to have originally been units for the lower-income group.

Food Insecurity. In 2014, approximately 2,000 families received food from the Arlington Food Assistance Center (AFAC) on a weekly basis. This number is used as a proxy for the number of Arlington residents who are “food insecure,” or have limited or uncertain access to food, reduced food intake, or had disrupted eating patterns within the past year. Approximately 30% of these clients are under 18 years of age; 30% are retired and on fixed incomes and another 30% are the “working poor.” The number of Arlington residents who are food insecure has been growing. The decrease in 2013 is due to AFAC standardizing its check-in and referral tracking systems, resulting in a significant drop in “double-dipping.”

Sources

Arlington County Affordable Housing Study, Interim Data Report, September 2013. Arlington Food Assistance Center.

References

4 Arlington County Affordable Housing Study. Interim Data Report, September 2013.