



United Way
of Greater Portland

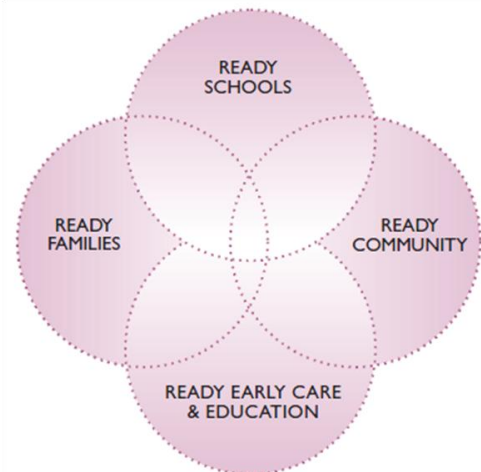
EDUCATION: EARLY CHILDHOOD *UWGP Investment Priorities*

Background. United Way of Greater Portland (UWGP) works to achieve community-wide change that improves the Education, Income and Health of Greater Portland residents. This is the first of two informational reports that UWGP will prepare in the area of Education to build issue knowledge for United Way Community Impact volunteers and community members. These reports will be used to identify where UWGP should invest its resources to ensure children and youth receive the support they need to enter school with strong foundations, graduate from high school and achieve their potential.

UWGP's Education work is broken into two areas: School Readiness (generally ages 0-5) and Academic Achievement (generally ages 6-18). This report focuses on School Readiness. A subsequent report to be issued in 2011 will focus on Academic Achievement.

In 2004, Maine participated in a multi-state initiative that developed a formula defining school readiness: *Ready Family + Ready Communities + Ready Early Care and Education + Ready Schools = Ready Child*. All areas require equal attention. The influence of external factors must also be considered.

UWGP's work in this area is to ensure that **children enter school developmentally on track and ready to achieve their potential**. To achieve this goal, UWGP will invest in programs, lead and support impact partnerships, and play other roles such as volunteer development and advocacy.



UWGP staff and volunteers have invested considerable thought and time over the last year to determine where UWGP resources are best invested to achieve this goal. This report reflects a large portion of the information they have used to inform their work.¹ In addition, community leaders have reviewed this report on multiple occasions.

Using this information, UWGP Community Impact volunteers identified four target areas UWGP will give priority to when focusing its investments and resources in promoting school readiness. These are:

- Early intervention
- Parent engagement²
- High quality, inclusive early care and education
- Highly qualified teachers and caregivers

¹ Additional information used in this process is located on UWGP's web site (www.liveunitedportland.org), including a data snapshot of Cumberland County; programs, services and partners working on these issues; and other contextual information.

² For the purposes of this report, parent refers to the child's guardian or primary caregiver.

Within these areas, UWGP will focus resources on populations that experience disparities with regard to school readiness, such as those related to income, race, ethnicity and geography.

Other areas that impact a child's school readiness were considered by our Community Impact Volunteers and are outlined in this report. All of these issues are important and are often related to work UWGP is doing and supporting in the areas of Income and Health. For example, in our Income area Creating Assets, Savings and Hope (CA\$H) program and UWGP's investments in basic needs programming promote financial stability, and in our Health area *Let's Go!* promotes healthy eating and physical activity for children ages 0-5.

Community Partnerships. The strategies to succeed in early childhood are complex and involve a diverse group of stakeholders – parents, formal and informal caregivers, medical professionals, businesses, the public sector, funders, the community, and others. Many local, state and national organizations are involved in aspects of early childhood work. To achieve its goals, United Way of Greater Portland will partner with the many individuals and organizations already doing important work helping children start strong.

Thank You. We would like to thank those who devoted their talent and time to help develop this report.

Volunteers. The following community members pushed us, prodded us and invested long hours improving our community. Their involvement transformed our work and this report would look far different without their involvement, perspective and tireless interest. We cannot thank them enough.

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THE EDUCATION CONTINUUM: The Link Between School Readiness and High School Graduation

Research shows that helping children get the start they need can transform not just lives, but entire communities. The great challenges of later years – substance abuse, violence, crime, failure to complete high school – are more effectively addressed and often avoided through prevention, by working with families and their children in their formative years.

The Problem.

Nearly 500 members of Greater Portland's³ Class of 2007 did not graduate with their classmates (18%). Cumberland County's public high school completion rate continued its decline in 2007 (84.7% compared to 90.4% in 2003).⁴

One out of four Greater Portland fourth-graders (635) did not meet or partially met MEA reading standards in 2008-2009.⁵

Two out of three Maine children are read to every day.⁶ However, 635 Greater Portland fourth-graders (24%) did not meet or partially met MEA reading standards in 2008-2009.⁷

According to Maine Department of Education, only 46 percent of all children statewide are entering kindergarten "school ready." Specific data is not available about the number of children who are not prepared for kindergarten and in what areas they are lacking. An unofficial assessment of local school readiness in 2008 identified that more than 20 percent of children were not academically prepared for kindergarten based on knowledge of letters, numbers and print concepts.

The average low-income child has heard 30 million fewer words than his or her higher income peers by age 4. In one study, the vocabulary gap at age 3 predicted language scores in third grade.⁸

The high price of not graduating.

Few question the importance and value of a high school diploma. High school graduation is the single most powerful predictor of whether a young person coming from generations of poverty will break the cycle. High school graduates earn 74 percent more than those who do not have a high school diploma.⁹

The ability of students to think, learn, and communicate affects their likelihood of becoming productive adults and active citizens. Mathematics and reading achievement test scores are important measures of students' skills in these subject areas and indicators of overall achievement in school. Emotional and social development are inextricably linked to cognitive development. We cannot have one without the other.

School failure is costly to our country: four in 10 welfare recipients in 2002 lacked a high school diploma or its equivalent¹⁰, half of the prison population lacks a high school degree¹¹, and dropouts typically earn less than high school graduates even after controlling for differences in academic achievement.¹²

³ United Way of Greater Portland's service area includes all of Cumberland County except Brunswick and Harpswell.

⁴ <http://datacenter.kidscount.org/data/bystate/stateprofile.aspx?state=ME&loc=3286>

⁵ <http://www.maine.gov/education/mea/edmea.htm>

⁶ National Child Health Survey (2007)

⁷ Maine Educational Assessment, March 2008 Tests, <http://www.maine.gov/education/mea/0708meascores/StaSuNA.pdf>

⁸ *Meaningful Differences in the Everyday Experience of Young American Children*, Betty Hart and Todd Risley Baltimore:Brookes Publishing Co, 1995

⁹ Brady, H., Hout, M., and Stiles, J. Return on Investment: Educational Choices and Demographic Change in California's Future. Berkeley: University of California, 2005.

In today's workforce, only 40% of adults who dropped out of high school are employed, compared to 60% of adults who completed high school and 80% for those with a bachelor's degree.¹³

According to Bureau of Labor Statistics, the 30 fastest-growing occupations include 19 jobs that require at least a bachelor's degree. "When you look at the reverse, nearly all of the 30 fastest-declining occupations require only minimal on-the-job-training. This points to a troubling future for dropouts as the reality sets in that at least some post-secondary education will be a necessity for many of the available jobs."¹⁴

Research shows that strong foundations are vital to success in high school.

Students' academic achievement by 8th grade has a greater impact on college and career readiness than high school academic work. Research shows that students' readiness for college and career can be boosted with focus on middle school activity.¹⁵

Success in literacy during the primary grades is even more indicative of later literacy achievement. 74% of children who perform poorly in reading in third grade continue to do so into high school, further underlining the importance of preparing children to enter school ready to succeed.¹⁶

Early language skills, vocabulary, and listening to books being read and discussed are predictive of later reading skills. Alphabet knowledge and the understanding of the alphabetic principle—that letters represent sounds—are key skills in helping children begin to read.¹⁷

Children who enter first grade with the emergent reading skills of three- or young four-year olds have to make up one year of normal growth and one year of catch-up growth in each of the first, second, and third grades to catch up by third grade.¹⁸

The emotional health, social skills, and cognitive linguistic capacities that emerge in the early years are all important prerequisites for success in school and later in the workplace and general community. Early grade literacy forms the foundation of later school success. This includes the development of vocabulary, background knowledge (what a child knows about the world around him/her), phonological awareness (that language is made up of sounds), knowing the alphabet and print-related skills a child develops during the first five years of life. These skills begin developing in early infancy and early childhood through participation with adults in meaningful activities involving talking and print.

"By age 5, it is possible to predict, with depressing accuracy, who will complete high school and college and who won't."

- David Brooks,
"The Biggest Issue,"
New York Times,

¹⁰ Zedlewski, S. (2002). Work and barriers to work among welfare recipients in 2002. No. 3 in series, —Snapshots of America's Families III. Washington DC: Urban Institute. Downloaded from <http://www.urban.org/publications/310836.html>, on August 23, 2007. See [Partnership for America's Economic Success, Developmental and Economic Effects of Parenting Programs for Expectant Parents and Parents of Preschool-age Children](#), 2/2009, p8.

¹¹ ETS (1995). *Dreams deferred: High school dropouts in the United States*. Princeton, NJ: Education Testing Service. See [Partnership for America's Economic Success, Developmental and Economic Effects of Parenting Programs for Expectant Parents and Parents of Preschool-age Children](#), 2/2009, p8.

¹² McDill, E.L., Natriello, G., and Pallas, A.M. (1986). A population at risk: Potential consequences of tougher school standards for school dropouts. *American Journal of Education*, 94, 135-181. See [Partnership for America's Economic Success, Developmental and Economic Effects of Parenting Programs for Expectant Parents and Parents of Preschool-age Children](#), 2/2009, p8.

¹³ Alliance for Excellent Education, 2003, FactSheet: Impact of Education on Personal Income and Employment

¹⁴ UWA Mobilization Plan Blueprint for Increasing High School Graduation Rates, 2009, p11

¹⁵ Improving Education for the Common Good, UWA Education Action Plan, 2009, p19

¹⁶ Fletcher, J.M., & Lyon, G.R. (1998) Reading: A research-based approach. In W.M. Evers (Ed.) *What's gone wrong in America's classrooms* (pp.49-90). Stanford, CA: Hoover Institution Press

¹⁷ *Developing Early Literacy.-A Report of the National Early Literacy Panel*

¹⁸ Delivering on the Promise, Richard Allington, pp164-165.

Children who start school behind stay behind. If 100 children have trouble reading in 1st grade, only 12 will overcome those problems by 4th grade. Children who are not skilled readers by the end of 3rd grade are more likely to drop out of high school.¹⁹

According to Science of Early Childhood Development, from Harvard University's Center on the Developing Child, "the basic principles of neuroscience and the process of human skill formation indicate that early intervention for the most vulnerable children will generate the greatest payback. ... Stated simply, the largest returns will be realized from effective services for the neediest children and families well before they enter school."²⁰

Just as the strength of the foundation determines the stability of the home, all future learning, behavior and health is based on the quality of one's early experiences. For better or for worse, it is our earliest experiences when our brains are being wired that set the stage for the lives we will live.

¹⁹United Way of the Greater Lehigh Valley, July 2008-June 2011 Investment Plan: Children Healthy and Ready for School, Revised June 2008

²⁰Science of Early Childhood Development, Center on Developing Child, p12

1. Early Childhood Priority Areas

You cannot focus on developing just one part of the child without paying equal attention to the other capacities. Cognitive, emotional and social capacities are tightly connected throughout a child's lifetime. The brain is interactive and uses some functions to enrich others. Language acquisition, for example, relies on hearing and the ability to differentiate sounds as well as the ability to pay attention and engage in social interaction.

As noted above, in 2004, Maine participated in a multi-state initiative that developed a formula defining school readiness: Ready Family + Ready Communities + Ready Early Care and Education + Ready Schools = Ready Child. All areas require equal attention. The influence of external factors must also be considered.

After much research and discussion, UWGP Community Impact volunteers have identified four target areas UWGP will give priority to when focusing on children's healthy growth and development its investments and resources in promoting school readiness:

- 1.1 Early intervention
- 1.2 Parent engagement
- 1.3 High quality, inclusive early care and education
- 1.4 Highly qualified teachers and caregivers

This section of the report highlights these four areas.

1.1. School Readiness and Early Intervention:

- *Maine has a high average proportion of people with disabilities. Nearly one out of five people age 5 and older have a disability, versus 15.1 percent nationally.*²¹
- *Less than 50 percent of children with a developmental disability or behavioral issue are identified before starting school.*²²
- *Portland Public Schools data identified literacy as the biggest area of concern for children entering kindergarten in 2008.*
- *42 percent of the 95 children age 3-5 in the five People's Regional Opportunity Program (PROP) Head Start classrooms participating in the Early Reading First grant in 2008 had development delays according to Oldham Innovative Research (46 percent of which were speech and language delays).*
- *Maine has success at identifying preschoolers with disabilities and has mid-range performance at identifying toddlers with disabilities. The Subcommittee to Study Early Childhood Special Education*

The Importance of Target Populations. Within these four preliminary target areas, UWGP will emphasize certain target populations in an effort to address disparities with regard to school readiness, for example those related to:

Income -

- *In 2009, Maine students who were eligible for free/reduced lunch had an average 4th grade reading achievement score that was 20 points lower than that of students who were not eligible for free/reduced lunch, according to the National Center for Education Statistics, Institute of Education Sciences.*
- *Low-income parents, on average, speak to and talk with their children much less than higher-income parents.*

Race -

- *In 2009, black students in Maine had an average 4th grade reading achievement score that was 27 points lower than that of white students, according to the National Center for Education Statistics. While this number is not statistically significant because of the sample size, it suggests the importance of this issue.*

English Language Learners (ELLs) -

- *ELL children begin preschool programs with lower levels of pre-reading skills than English-speaking children, according to Oldham Innovative Research. In addition to knowledge about print concepts (how books work), children from refugee families often have limited exposure to writing tools in the home. (English Language Learners in the State of Maine: Early Education Policy That Can Make A Difference, Maine Policy Review, Summer/Fall 2009, pp90-91)*

²¹Maine's 2008-2009 State Health Plan, Page 100

²²Maine Home Visiting Program Annual Summary of Findings, 2007, p7

found that Maine does not do well at identifying infants, where identification of disabilities and related risk factors has consistently fallen well short of targets and national numbers.²³

- Primary care physicians do not routinely perform standardized mental health screening for children age 5 and under.

Early experiences literally shape how the brain gets built; a strong foundation in the early years increases the probability of positive outcomes. A weak foundation increases the odds of later difficulties.

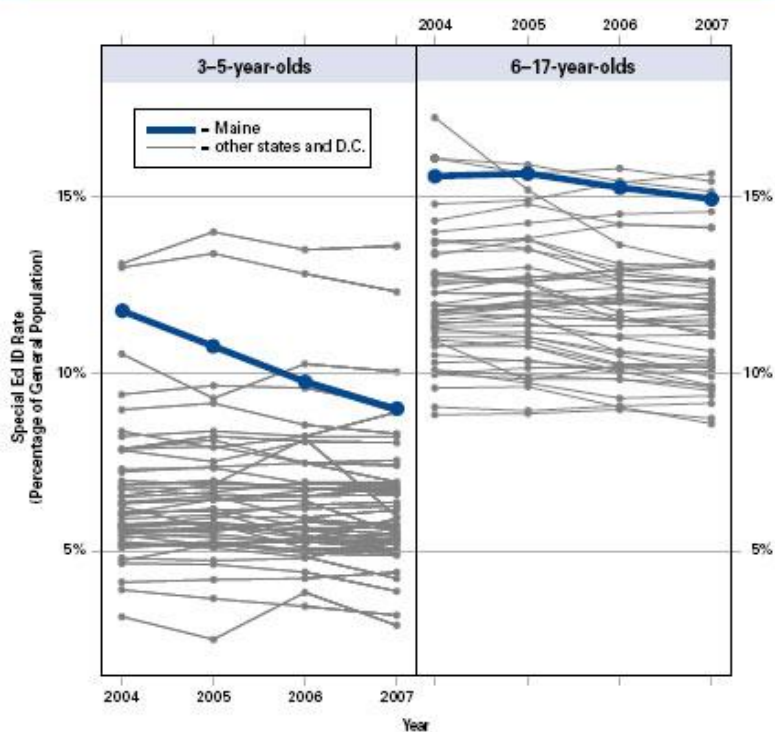
Early health screening and identification of developmental delays and behavioral issues can lead to timely interventions that best support a child's development and decrease parental stress. However, signs of delay are overlooked, unrecognized and untreated causing children to fall behind. Trying to change behavior or build new skills on a foundation of brain circuits that were not wired properly when they were first formed requires more work and is less effective.

An infant and toddler's healthy development is dependent on adequate vision and hearing. Timely intervention for cognitive, emotional, or social difficulties can also have a positive effect on a child's attitudes toward school and learning. Children who receive early treatment for developmental delays are more likely to graduate from high school and avoid teen pregnancy.²⁴

About half the children served by Child Development Services (CDS) are eligible for MaineCare, either based on low family income or on their disability.²⁵

The figure to the right shows Maine's special education rate for preschoolers (three- to five-year-olds) and older children (six- to 17-year-olds) from 2004 through 2007. Maine's identification rate is high in both categories (the heavy blue lines for Maine are above most of the gray lines representing other states). Maine's identification has fallen in both categories; however, it has fallen dramatically for children age three through five years old.²⁶

FIGURE 1: IDEA Part B: State-by-State Trends in Special Education Identification Rates for Preschoolers and School-age Children



Source: All data are from www.ideadata.org

²³ Interdepartmental Coordination for Maine's Young Children with Disabilities, Alan Cobo-Lewis, Maine Policy Review, Volume 18, Number 1; Summer/Fall 2009

²⁴ Glascoe, F. P., Shapiro, H. L. (2004, May 27). Introduction to Developmental and Behavioral Screening. *developmental behavioral pediatrics online*. <http://www.dbpediatrics.org/articles/detail.cfm?id=5>

²⁵ Interdepartmental Coordination for Maine's Young Children with Disabilities, Alan Cobo-Lewis, Maine Policy Review, Volume 18, Number 1; Summer/Fall 2009

²⁶ Interdepartmental Coordination for Maine's Young Children with Disabilities, Alan Cobo-Lewis, Maine Policy Review, Volume 18, Number 1; Summer/Fall 2009

Changes in eligibility requirements have resulted in fewer children being identified with speech and language concerns. These changes were intended to align Maine more closely with minimum Federal IDEA requirements.

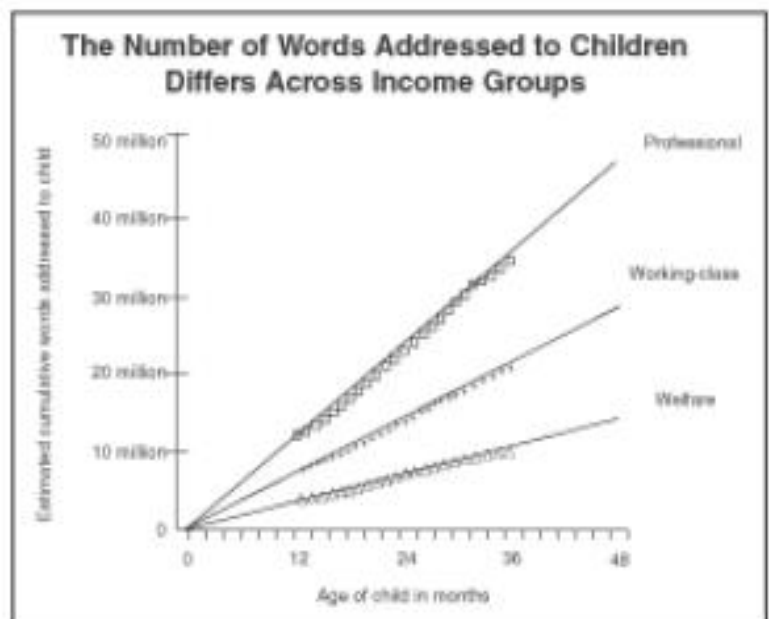
In Maine, only about half of children diagnosed with autism or on the autism spectrum are diagnosed before kindergarten even though there is evidence that autism can be diagnosed by as young as 18 months of age. Thus, children in Maine who have autism are not being diagnosed early enough to receive the full benefit of early intervention.²⁷

1.2. School Readiness and Parent* Engagement:

- *Parents want and need information in order to support their child's appropriate development.*
- *Maine does not have a coordinated, integrated system for distributing information and supporting parents in their understanding of child health and development.*
- *Parents in Cumberland County can receive at least seven different sets of child development information depending on the program and service they access.*
- *While many parents seek guidance from their health care provider about their child's development, studies sponsored by the American Academy of Pediatrics show that 65% of pediatricians feel inadequately trained in assessing children's developmental status.²⁸*

Parents are a child's first and most important teachers. Children's interactive relationships with the important adults in their lives are key to realizing their potential. Particularly in the early years, the role of the parent or guardian is integral to a child's success. A parent's ability to provide a healthy environment for their child, understand their child's developmental milestones, and identify quality care when they are not present can significantly impact their child's readiness for school. Responsive relationships with consistent primary caregivers help build positive attachments that support healthy social-emotional development.

Scientists now know that the interactive influences of genes and experience shape the developing brain. The active ingredient is the "serve and return" relationships with their parents and other caregivers in their family or community. Like the process of serve and return in games such as tennis and volleyball, young children naturally reach out for interaction through babbling and facial expressions. If adults do not respond by getting in sync and doing the same kind of vocalizing and gesturing back at them, the child's learning process is incomplete. This has negative implications for later learning.



Parental education and income can

²⁷ Interdepartmental Coordination for Maine's Young Children with Disabilities, Alan Cobo-Lewis, Maine Policy Review, Volume 18, Number 1; Summer/Fall 2009

²⁸ Using Developmental Screening to Improve Children's Health, Centers for Disease Control and Prevention, <http://www.cdc.gov/ncbddd/child/improve.htm>

* For the purposes of this report, parent refers to the child's guardian or primary caregiver.

significantly affect early vocabulary. By age three, children of parents accessing economic assistance have a vocabulary of about 500 words; those of working-class parents, 700 words; and those of college-educated parents have 1,200 words.²⁹ These early differences in language use serve as markers of the discrepancy between children's performance and outcomes as they progress through school.³⁰

According to a 2000 national survey of American adults that focused on child development issues, parents seek parenting information from their spouse, their mother and their child's doctor. Parenting magazines, news reports, child care providers and religious leaders are generally not frequently relied upon for parenting advice. Further, while parents express very high levels of satisfaction with the "attention and quality of information" they receive from pediatricians, they wish more time during the check-up was spent discussing child development.³¹

1.3. School Readiness and High Quality, Inclusive Early Care and Education:

- *To many Maine families, early care and education expenses are the second most significant monthly family expense following the mortgage or rent.*³²
- *Quality care costs even more to provide due to lower staff ratios and higher teacher credentials.*
- *Subsidies that help families pay for child care costs play a key role in making early care and education affordable for many low-income families. However, funding is available for only 38 percent of children who are eligible for child care subsidy.*³³
- *Maine has capacity to serve only 29.5% of the children estimated as income eligible for Head Start.*³⁴
- *Only 115 of 473 (24%) family and center-based child care programs in Cumberland County were enrolled in Quality for ME in December 2009. Of these, 70 (61%) are at Step 1, the lowest level on the quality scale.*
- *A large percentage of children in Cumberland County are being cared for in settings that are legally unregulated and not participating in any quality measures.*³⁵

The importance of high standards in early care and education. Children learn best in loving, nurturing relationships and through meaningful, everyday experiences. These essential connections hard-wire the brain and build the foundation for future learning, especially in the early years. Whether children are at home, with relatives, friends, or in a child care setting, the quality of early experiences is key to later school success.³⁶

Children who have high-quality early care and education experiences are nearly 30 percent more likely to graduate from high school and about 40 percent less likely to repeat a grade.³⁷ Quality early care also enhances a child's level of socialization and long-term earnings.³⁸

²⁹ Investing in America's Children: The Business Case, Partnership For America's Economic Success, 2009

³⁰ http://www.rand.org/pubs/research_briefs/RB9144/index1.html

³¹ What Grown-Ups Understand About Child Development: A National Benchmark Survey, DYG Inc., bit.ly/bv2bPJ, p140,147 (electronic)

³² Early Childhood Division, Office of Child and Family Services; Early Care and Education in Maine, 2007 and Beyond (Maine Child Care Advisory Council

³³ Early Childhood Division, Office of Child and Family Services; Early Care and Education in Maine, 2007 and Beyond (Maine Child Care Advisory Council, Page 8

³⁴ Maine Kids Count, 2010 cited in 2010 Maine Head Start Outcomes Report, Maine Children's Alliance

³⁵ The Early Childhood Workforce, Julie DellaMattera, Maine Policy Review, Summer/Fall 2009, p108, http://mcspolicycenter.umaine.edu/?q=V18N1_DellaMattera

³⁶ Improving Education for the Common Good, United Way's Education Action Plan, 2009, p17

³⁷ The Early Childhood Workforce, Julie DellaMattera, Maine Policy Review, Summer/Fall 2009, p108, http://mcspolicycenter.umaine.edu/?q=V18N1_DellaMattera

³⁸ Maine Child Care Market Rate and Workforce Study 2002, Mills Consulting Group via Maine's Recommendations For Core Indicators Of School Readiness, 2004

Making high quality early care and education available to three- and four-year olds from low-income families can alter the relationship between growing up in a low-income family and underperforming in school.³⁹ According to the Partnership for America's Economic Success, pre-kindergarten (especially for disadvantaged children) reduces placement in special education, grade retention and juvenile crime, and improves high school graduation and earnings.⁴⁰

Head Start provides early care and education, health, nutrition, mental health, social and family support to low income families with children prenatally to five years old.

Weekly rates at not-for-profit child care centers in Cumberland County in November 2009 ranged as follows:

- \$180-\$298 for infants (6 weeks - 12 months);
- \$160-\$252 for toddlers (13 months - 2½ years);
- \$125-\$239 for preschool (2½ - 5 years).⁴¹

A Maine college student can attend the University of Maine at Orono full time for one full year in 2010 for \$9,626 (tuitions and fees) but care for an infant in a non-profit center in Cumberland County averages \$11,856.⁴²

Access to reliable, consistent child care is essential for many parents in their efforts to provide economic support for their families. Frequent changes in child care arrangements cause stress to the child and can create difficulty in the establishment of trusting relationships.⁴³ The foundation for assuring healthy brain development is directly related to quality, consistent relationships with parents and other caregivers.

Programs promoting quality. Two voluntary state programs focus on caregivers and the quality of care provided to young children.

Care for ME targets family, friend and neighbor caregivers. It is a voluntary listing of those

Child care providers. In Maine, children ages birth to 12 years old are cared for by two general categories of providers:

Family, Friend and Neighbor Caregivers. This includes grandparents, neighbors, nannies, etc. who care for up to two children, not counting their own children or relatives. They are not licensed. They provide care to a significant portion of children from low-income families. While the total number of legal, unregulated child care providers is unknown, we do know that 196 informal caregivers in Cumberland County received payment via ASPIRE/TANF in March 2010, representing 414 children (28 infants, 84 toddlers, 93 preschoolers and 209 school-age children).

Licensed Child Care Providers. Providers caring for three or more unrelated children must be licensed by the state. They include three different licensing classifications:

- *Child care centers (182 in Cumberland County as of November 2009).*
- *Family child care programs (290 in Cumberland County).* Family child care programs (up to 12 children in a home setting) are the most frequently used form of child care in Maine, especially for infants. Unlike center-based care, home-based providers often negotiate their fees with parents who have low incomes.
- *Nursery schools (38 in Cumberland County).*

These licensed child care provider classifications are distinguished by factors such as location (residence vs. center-based) and the number of children in care.

According to Child Care Connections, there were 11,978 licensed, full-time child care slots for children ages 6 weeks to 12 years in Cumberland County in November 2009. (These slots are often broken into multiple part-time slots.) We cannot reliably assess the number of slots dedicated to children birth to kindergarten age.

NOTE: According to 2006-2008 American Community Survey 3-Year Estimates, there are 15,350 children under the age of 5 in Cumberland County and 51,861 children age 5-19. Figures are unavailable for the number of children age 5-12.

³⁹ Better Child Care Could Boost Children's Math and Reading Scores Through Elementary School, Maggie Severns, The Early Ed Watch Blog, New American Foundation, September 25, 2009, <http://bit.ly/aWHCFE>

⁴⁰ Investing in America's Children: The Business Case, Partnership For America's Economic Success, 2009

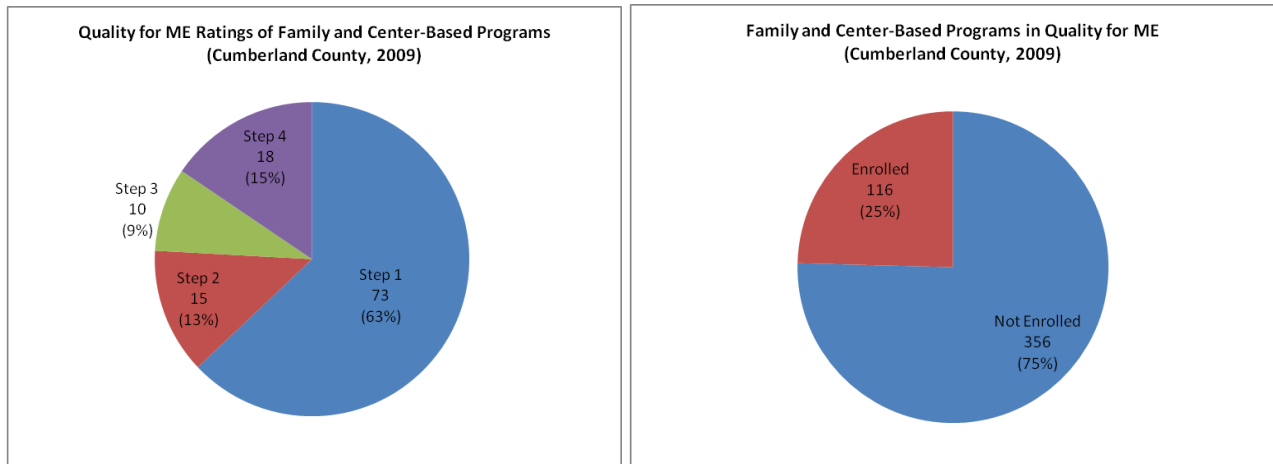
⁴¹ Child Care Connections data

⁴² Child Care Connections Chart (infant care average \$228/week x 52 = \$11,856)

⁴³ Maine Children's Growth Council Report: School Readiness, 2010, p11

caregivers who have passed a background check (criminal history, child protective history, and OUI). As of June 15, 2009, there were 49 caregivers in this registry in Cumberland County (the total number of family, friend and neighbor caregivers in Cumberland County is unknown).

Quality for ME is a voluntary program for licensed child care providers that rates their quality on a 4-step scale, with Step 4 being the highest quality rating. Only 116 of 472 (25%) family and center-based child care programs in Cumberland County were enrolled in Quality for ME in December 2009. Of the 116 enrolled programs, 73 (63%) are at Step 1. A larger percent of center-based programs are registered in Quality for ME than family child care programs. Center-based programs also have a larger percentage of programs at Steps 2-4.⁴⁴



The state has a series of incentives to participate in Care for ME and Quality for ME:

- Family, friend and neighbor caregivers must be registered in Care for ME in order to receive state payment through TANF or child care vouchers.
- Providers in Quality for ME receive an increased state reimbursement rate, graduated to the step they are on.
- Parents receive a double state child care tax credit for payments to a quality child care provider (Quality for ME Step 4 or national accreditation).

Accreditation by a national organization is another way to assess quality early care and education. As of March 2010, in Cumberland County there were 19 child care centers accredited by the National Association for the Education of Young Children⁴⁵ (down from 22 in 2006 due to program closures). As of December 2009, there were five family child care programs accredited by the National Association for Family Child Care (down from 12 in 2006 due to retirement or no longer providing care).⁴⁶

1.4. School Readiness and Highly Qualified Teachers and Caregivers:

- *In Cumberland County, more than one-third of the 1,051 teachers enrolled in the Maine Roads to Quality's Registry have no more than a high school diploma or GED. (To be enrolled, participants must work in a center of any size or own a family child care home.)*
- *While 97 percent of Care for ME caregivers had a high school diploma, only 12 percent had an associate's degree and 10.4 percent had a bachelor's degree.*⁴⁷

⁴⁴ Of the 183 licensed child care centers in Cumberland County, 77 (42%) were enrolled in the Quality for ME on December 11, 2009. Of the 290 licensed family child care providers, 38 (13%) were enrolled in Quality for ME.

⁴⁵ <http://www.naeyc.org/accreditation/search>

⁴⁶ <http://www.nafcc.org/include/parents.asp>

⁴⁷ Supporting Family, Friend and Neighbor Child Care: A Strategic Plan for Maine, September 2008 pp. 15-16

- *Smaller child care centers often do not have the resources or schedule flexibility to allow staff to participate in available trainings and/or educational opportunities.*

Highly trained and knowledgeable teachers are those that have solid understanding of the importance of forming positive connections with the young children in their care. They know that each and every interaction is creating an impression on the child's developing sense of self and understanding of the world. Qualified teachers also are keenly aware of the typical and atypical development patterns of each age group that they work with and around.

The important influence of positive relationships in shaping the architecture of the developing brain highlights that society would benefit from better trained personnel in all early childhood settings. For this reason it is important to strive to reduce staff turnover rates by increasing the benefits and value associated with working in the early childhood profession. High turnover, high stress and low staff moral, accompanied by minor monetary rewards, undermine the relationships that young children could potentially form with the adults who provide much of their daily care and guidance.⁴⁸

Young children exposed to high-quality, inclusive settings with educated and knowledgeable staff exhibit better language and mathematics skills, better cognitive and social skills, better relationships with classmates, and fewer behavioral problems.⁴⁹

The early childhood workforce is poorly paid and receives few benefits, and is also under-educated. According to Maine's Department of Labor, early childhood educator salaries ranked 596 out of 647 detailed occupations in 2008. (While this number changes each year, it remains very low from year to year.) Manicurists and animal trainers are paid more.

Maine, like most states, has educational requirements for early care and education professionals that vary widely. In early care and education programs – where young children can spend up to 50 hours per week – state licensing requirements require a minimum of a high school diploma to work with children in the classroom or to be a family child care provider. Family child care program caregivers often have relatively low levels of education and it is difficult for them to utilize resources such as trainings because of the programs' size and the fact that they are residence-based.

In family, friend and neighbor care programs (which are legally unlicensed), caregivers often have no formal training or education about child development.

Of the 881 center-based teachers enrolled in the Maine Roads to Quality Registry, 35 percent have a high school degree or less.⁵⁰

Of the 170 family child care providers enrolled in the Maine Roads to Quality Registry, 39 percent have a high school degree or less.⁵¹

⁴⁸ Science of Early Childhood Development, Center on Developing Child, p7

⁴⁹ The Early Childhood Workforce; Julie DellaMattera; Maine Policy Review, Volume 18, Number 1; Summer/Fall 2009
http://mcspolicycenter.umaine.edu/?q=V18N1_DellaMattera

⁵⁰ Maine Roads To Quality, May 24, 2010 data

⁵¹ Maine Roads To Quality, May 24, 2010 data

2. Other Areas Impacting School Readiness in Early Childhood (Ages 0-5)

This section details other areas that impact a child's readiness for school that our Community Impact Volunteers considered when making their prioritizations. Some of these issues will be addressed by focusing resources on specific target populations (e.g., based on family income or ethnicity), and UWGP and its partners are impacting other areas through related work (e.g., *Let's Go!* and issues of child healthy eating and physical activity).

2.1. School Readiness and Income:

- *In Maine, in 2009 students who were eligible for free or reduced lunch had an average fourth grade reading achievement score that was 20 points lower than that of students who were not eligible for free or reduced lunch, according to the National Center for Education Statistics, Institute of Education Sciences.*
- *Eleven of the 15 elementary schools in Greater Portland with the highest percentage of fourth-graders who did not meet or partially met Maine Educational Assessment (MEA) reading standards in 2008-2009 had the highest percentage of children eligible for free or reduced lunch.*
- *Over the past five years, a more significant number of Maine children under age six were living at or below the poverty line compared to their peers in other New England states.⁵²*
- *Three-quarters of the substantiated incidents of child abuse and neglect for children under age five in Cumberland County involved children ages birth to three years old. The total number of children birth to five substantiated for abuse and neglect statewide during this time was 1,669.⁵³*

Parental education and income can affect early vocabulary. By age 3, children of parents on welfare have a vocabulary foundation for the future of about 500 words; of working-class parents, 700 words; of college-educated parents, 1,200 words.⁵⁴ These early differences expand as children progress through school.⁵⁵

Poverty has been shown to be particularly detrimental in early childhood in terms of children's subsequent educational and other life course outcomes.⁵⁶ Poverty during early childhood correlates more strongly with dropping out of high school than poverty in later childhood.⁵⁷

Poverty causes a wide variety of risks for the development of young children. Compared to more affluent children, poor children have worse nutrition and more physical health problems on average, as well as lower average scores on measures of cognitive development (such as verbal ability, reading readiness, and problem solving).⁵⁸

Poverty or family financial insecurity when children are very young can have lifelong effects, ranging from poor health, emotional and behavioral problems, and school difficulties, to lowered educational levels, lower earnings, and even to higher rates of crime later in life.⁵⁹

While poverty is the strongest predictor of child abuse and neglect, it does not mean that most poor parents abuse or neglect their children.⁶⁰ Children who live in families with incomes of less than

⁵² Child and Adolescent Health Measurement Initiative. (2007). National Survey of Children's Health, Data Resource Center for Child and Adolescent Health website. Retrieved 07/19/2010 from www.nschdata.org

⁵³ Maine Children's Alliance with data from the Department of Health and Human Services, Office of Child and Family Services, Division of Child Welfare Services, 2006, p10

⁵⁴ Investing in America's Children: The Business Case, Partnership For America's Economic Success, 2009

⁵⁵ Children At Risk: Consequences for School Readiness and Beyond, RAND Corporation research Brief, 2005, <http://bit.ly/bx4O0e>

⁵⁶ http://www.rand.org/pubs/research_briefs/RB9144/index1.html

⁵⁷ Early Childhood Health, Maine Policy Review, Dora Anne Mills, Summer/Fall 2009, p47

⁵⁸ School Readiness: Helping Communities Get Children Ready for School and Schools Ready for Children; Child Trends, October 2001, p4

⁵⁹ Wagmiller, Robert, Mary Clare Lennon, Li Kuang, Philip Alberti and J. Lawrence Aber. 2006. "Dynamics of Family Economic Disadvantage and Children's Life Chances." *American Sociological Review* 71(5): 847-866.

\$15,000 are 22 times more likely to be abused or neglected than children who live in families with incomes of \$30,000 or more.⁶¹ An estimated 13,251 households make less than \$15,000 in Cumberland County.⁶²

2.2. School Readiness and Health:

- *Ten percent of Cumberland County live births did not have prenatal care beginning in the first trimester (compared to 12.6 percent for Maine). Seven percent of babies born in Cumberland County in 2006 were low birth weight.*⁶³
- *In Maine, 20 percent of women with income less than \$24,999 reported they had late (after first trimester) or no prenatal care, according to the Center for Disease Control's Pregnancy Risk Assessment Monitoring System (PRAMS).*⁶⁴ *Data is not available at the county level.*
- *Nearly 24 percent of PRAMS responders under age 20 in 2006 reported that the baby they had prior to their new baby was born more than three weeks before the due date (78 of the 6,977 responders were under age 20).*
- *In Maine about half of all children between the ages of one and five years of age have never been to a dentist.*⁶⁵

Chronic stressful conditions such as extreme poverty, abuse or severe maternal depression—what scientists now call “toxic stress”—can disrupt the architecture of the developing brain. This can lead to lifelong difficulties in learning, memory and self-regulation. Children who are exposed to serious levels of early stress develop an exaggerated stress response that, over time, weakens their defense system against chronic diseases such as heart disease, diabetes and clinical depression.⁶⁶

Babies born to mothers who do not get prenatal care are three times more likely to have a low birth weight.⁶⁷ Low birth weight babies are more likely to have learning difficulties as well as physical and developmental problems.⁶⁸

National data show that a lack of access to adequate prenatal care is associated with poverty, lack of health insurance, transportation difficulties, and lack of family support.⁶⁹ Although Maine's infant mortality and low birth weight rates are low compared to other states, there has been minimal improvement during the past decade in the low birth weight rate. Information gathered through the Maine PRAMS project allows the generation of data for use in policy-making and planning in the maternal and child health care arena. Data is currently only available at the state level.

Although there is a scarcity of oral health measurements among young children, one survey in 2004 showed that one in seven Maine kindergarteners had untreated tooth decay.⁷⁰ Poor oral health in early childhood is found much more commonly among families living in poverty, and its impact is seen throughout an individual's lifetime.⁷¹

⁶⁰ The Intersection of Abuse and Neglect and Poverty, Rutledge Q. Hutson, Spotlight on Poverty and Opportunity, May 26, 2010

⁶¹ Early Head Start and Teen Parent Families: Partnerships for Success, Center for Law and Social Policy, <http://bit.ly/aEaEG2>, p5

⁶² U.S. Census Data

⁶³ 2008 Kids Count, Maine Children's Alliance

⁶⁴ DHHS Centers for Disease Control and Prevention, Pregnancy Risk Assessment Monitoring System (PRAMS): CPONDER, Indicator of Late (After First Trimester or No Entry Into Prenatal Care, Prenatal Care, Maine, 2007, <http://bit.ly/9YTRQg>

⁶⁵ Early Childhood Health, Maine Policy Review, Dora Anne Mills, Summer/Fall 2009, p52

⁶⁶ The Relation Between Adverse Childhood Experiences and Adult Health: Turning Gold into Lead, Vincent Felitti, The Permanente Journal/Winter 2002/ Volume 6 No. 1.

⁶⁷ National Women's Health Information Center, What Is Prenatal Care, <http://womenshealth.gov/faq/prenatal-care.cfm#a>

⁶⁸ United Way of the Greater Lehigh Valley, July 2008-June 2011 Investment Plan: Children Healthy and Ready for School

⁶⁹ Early Childhood Health, Maine Policy Review, Dora Anne Mills, Summer/Fall 2009, p47

⁷⁰ Governor's Economic Summit on Early Childhood, 2007

⁷¹ Early Childhood Health, Maine Policy Review, Dora Anne Mills, Summer/Fall 2009, p52

2.3. School Readiness and Nutrition/Hunger:

- The Maine Center for Disease Control and Prevention reports that over one-third of Maine kindergarten students are overweight or obese.
- More than 40 percent of Maine kids under the age of 12 show some evidence of living with food insecurity and hunger. In Maine, 19,375 children are hungry. An additional 64,087 children are at risk of hunger. In Cumberland County, 27.5 percent of children are in the Free and Reduced Lunch Program (as compared to 39 percent statewide).
- 778 Maine women (16.5%) age 24 or younger reported that they ate less than they felt they should because there was not enough money to buy food during the 12 months before their child was born, according to the Center for Disease Control's Pregnancy Risk Assessment Monitoring System (PRAMS, 2006). Data is not currently available at the county level.

The Child Welfare League of America described a vision for the United States in which every child is healthy and safe and develops to full capacity. Their vision included five universal needs of all children:

- Children need the basics of proper nutrition.
- Children need economic security.
- Children need adequate clothing and shelter.
- Children need appropriate education.
- Children need primary, preventive physical and mental health services.⁷²

Select Maternal and Child Health Risk Factors by Education and Income

EDUCATIONAL ATTAINMENT	Low Birthweight* (<2500g)	Premature birth* (<37 wk gestation)	Never breastfed most recent child**	Received prenatal care later than wanted**	Unintended pregnancy
Less than High school	9.5%	11.4%	41.9%	29.2%	51.8%
High school graduate	6.5%	9.7%	28.1%	18.3%	44.5%
Greater than High school	5.7%	9.5%	13.3%	7.7%	29.6%
INCOME					
\$14,999 or less	n/a***	n/a***	27.5%	23.1%	58.5%
\$15,000-\$24,999	n/a***	n/a***	27.2%	19.1%	41.6%
\$25,000-\$49,999	n/a***	n/a***	23.8%	9.8%	33.7%
\$50,000 or more	n/a***	n/a***	12.6%	6.8%	20.7%

*Source: United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, Natality public-use data 2003-2004, on CDC WONDER Online Database, September 2007. Accessed at <http://wonder.cdc.gov/natality-v2004.html> on Nov 6, 2007 1:49:33 PM
 **Source: Maine Pregnancy Risk Assessment Monitoring System (PRAMS), 2005
 ***data on income are not available for these indicators

Hungry children ages birth to three years of age cannot learn as much, as fast, or as well because chronic undernutrition harms their cognitive development during a critical period of rapid brain growth, actually changing the fundamental neurological architecture of the brain and central nervous system.⁷³

Research from Children's HealthWatch and others shows that children in marginally food-secure households are at greater risk for health problems, development delay, and impaired school performance than children in food-secure households.⁷⁴

Children who are chronically hungry are more likely to be in special education, to repeat a grade, to get into fights and to have lower test scores. It can cost up to four times as much to educate a child who does not have enough to eat compared to one who does.⁷⁵

2.4. School Readiness and Parent Educational Attainment:

- In Cumberland County, mothers with less than a high school education were more likely to have children with low birth weight, premature births and unintended pregnancies. They were also more likely to receive prenatal care later than they wanted.⁷⁶

⁷²School Readiness, Pamela C. High and the Committee on Early Childhood, Adoption, and Dependent Care and Council on School Health, Pediatrics 2008;121:e1008-e1015, Page 3 (<http://pediatrics.aappublications.org/cgi/reprint/121/4/e1008>), Page 3

⁷³Child Food Insecurity: The Economic Impact on our Nation; John Cook, Karen Jeng

⁷⁴Even Very Low Levels of Food Insecurity Found to Harm Children's Health, Children's HealthWatch, www.childrenshealthwatch.org

⁷⁵Investing in America's Children: The Business Case, Partnership For America's Economic Success, 2009 (<http://bit.ly/bHN9UX>)

⁷⁶Maine DHHS District Health Profile: Cumberland District (December 2007)

Young children's cognitive/literacy school readiness skills are higher among those with more educated mothers.⁷⁷ Infants born to less-educated mothers are more likely to have low birth weights. Less-educated women are more likely to have fewer resources to negotiate the health care system and pay for health care; reside in more stressful environments; smoke while pregnant; and have less access to knowledge regarding healthy behaviors and practices.⁷⁸

According to a 2000 national survey of American adults that focused on child development issues, a four-year college degree is the single largest differentiator between those who know more about child development versus those who know less.⁷⁹

In Maine, 45 percent of Head Start parents have a high school diploma or GED and 14 percent have some or no high school educational experience.⁸⁰

2.5. School Readiness and Teen Parents:

- *An estimated 597 Cumberland County teens became pregnant in 2004.⁸¹ While pregnancy rates in Maine are much lower than the national average, Maine's rates are still much higher than other developed countries.⁸² Maine's teen pregnancy rates are highest among females 18-19 years. Hispanic teens have higher pregnancy rates than Non-Hispanic teens. Teen pregnancy and birth rates in Maine have declined since the early 1990s; however, the proportion of unintended births still remains high among teens and young adults.*

Children of teen parents are more likely to have low birth weight, perform poorly on cognitive and behavioral tests, have developmental delays, be reported as abused or neglected, and be placed in foster care. These risk factors may interrupt healthy physical, social, emotional, and cognitive development and lead to problems that place children at risk for academic failure.⁸³

Teen pregnancy places both the young mother and her child at risk for a variety of medical, social, and economic problems. Teen parents typically complete less education, earn less money, and are more likely to be single parents.

⁷⁷ <http://www.childtrendsdatbank.org/indicators/7EarlySchoolReadiness.cfm>

⁷⁸ <http://www.measureofamerica.org/forecaster/>

⁷⁹ What Grown-Ups Understand About Child Development: A National Benchmark Survey, DYG Inc., bit.ly/bv2bPJ, p16 (electronic)

⁸⁰ 2010 Maine Head Start Outcomes Report, Maine Children's Alliance

⁸¹ 274,712 = Cumberland County estimated (2005-2007), <http://bit.ly/3z8AV8>; 6.8% are age 15-19 so represents 18,680 teens; Cumberland County pregnancy rates is 31.9 per 1,000 in 2004 so $31.9 \times 18.7 = 596.53$

⁸² 2006 Report on Maine Teen and Young Adult Sexual Health, Maine Department of Health and Human Services, Maine Center for Disease Control and Prevention; Page 3 – 2004 data

⁸³ Early Head Start and Teen Parent Families: Partnerships for Success, Center for Law and Social Policy, p3 (http://www.clasp.org/admin/site/publications_archive/files/0210.pdf)