

Policy Analysis of the Massachusetts School Readiness Assessment System

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Executive Summary

The Massachusetts Department of Early Education and Care is required by statute to develop a kindergarten readiness assessment system which exists within and ideally aligns with the larger school readiness assessment system. It is further mandated that providers be surveyed and other state policies be reviewed in the establishment of the assessment system. The goals of this policy analysis are to: 1) Develop an understanding and summary of school readiness definitions in states other than Massachusetts, 2) Develop an understanding and summary of school readiness policy in Massachusetts, 3) Document district-level school readiness assessment systems in Massachusetts, and 4) Research the potential role of the pediatric community in supporting school readiness. In order to reach these goals, a literature review, twenty-four key informant interviews, one survey, and one focus group were conducted.

The results of all study instruments demonstrated a recurrent common theme. The definitions of school readiness as well as its assessment purposes, tools, benefits, and challenges reflect a consistent emphasis on the community's responsibility to meet the needs of every child, regardless of their developmental abilities. In the policy recommendations, state agencies are encouraged to reach a consensus definition of school readiness by 2012, and collaborate around early intervention services, a population-based assessment tool, and pilot of assessment by pediatricians. The state legislature and governor are asked to continue investments in early education and care, standardize the date for determining kindergarten entry age, and reimburse developmental screens by health care providers. The federal government is prompted to incentivize and support school readiness assessment and information technology through national comparisons of statewide assessment results, Medicaid reimbursement for developmental screens, and expansion of current early education and health legislation.

Introduction

School readiness has a broad definition which refers to the physical, social, emotional, and cognitive development of a child (American Academy of Pediatrics Committee on Early Childhood, Adoption, and Dependent Care and Council on School Health, 2008). It has long been an accepted priority of the formal education system in the United States, but has garnered increased attention in recent decades. President Bush played a significant role in its comeback with his 1989 statement that “by the year 2000, all children in America will start school ready to learn” (Andrews & Slate, 2001; Snow, 2006). Kindergarten classrooms became more rigorous and structured as No Child Left Behind legislation pushed high stakes testing in higher grades. Despite best efforts, a research brief put out by Child Trends in 2001 demonstrated disparities in cognitive, social, behavioral, and health outcomes as early as 9 months old and widening by 24 months of age (Halle et al., 2009). These findings reinforced by the extensive literature (National Scientific Council on the Developing Child, 2007) on learning and early brain development support the move toward earlier school readiness assessment and intervention.

Currently, in Massachusetts, children are not required to attend school until they are six years old (Massachusetts Regs. Code Tit. 603. 8.02. Massachusetts General Laws Ann. Ch. 76. 1.), and there is no standardized assessment of academic achievement until the Massachusetts Comprehensive Assessment System test in third grade (Sege, 2011). The public school system is decentralized into 392 districts that largely make independent policy decisions regarding assessment. The early care and education system is even more fragmented with home-based, center-based, Head Start, and state preschool settings. There are benefits that arise from home-grown assessment strategies and policies tailored to the needs of the local population. However, there are significant challenges to the assessment of school readiness in early childhood that may

be best approached in a systematic, standardized fashion informed by the latest research on child development. There are two greatest obstacles to assessing school readiness: difficulty defining school readiness and concerns on the intended use of readiness assessments (Garber, Timko, Bunkley, Lumpkins, & Duckens, 2007). More specifically, the purpose of assessment is often ambiguous, assessments may be inappropriately used for more than one purpose, they may assess language and math excluding physical, social, and emotional development, and, finally, states often have trouble matching an assessment tool to the purpose it is designed to achieve (Daily, Burkhauser, & Halle, 2010). In the case of Massachusetts, a statewide school readiness assessment system is proposed to replace these challenges with consensus and complement the already-existing assessment structures on the district level.

In the 2005 enabling statute of the Massachusetts Department of Early Education and Care, it is given the charge of establishing a kindergarten readiness assessment system that measures the extent to which every preschool-aged child has a fair and full opportunity to learn upon kindergarten entry (Massachusetts General Law. Part I. Title II. Chapter 15D. Section 12.). The statute further requires the survey of all providers in the commonwealth as is practicable and review of assessment systems in other states to guide the development of the assessment system. These statutory requirements directly inform the goals of this policy analysis which are to: 1) Develop an understanding and summary of school readiness definitions in states other than Massachusetts, 2) Develop an understanding and summary of school readiness policy in Massachusetts, 3) Document district-level school readiness assessment systems in Massachusetts, and 4) Research the potential role of the pediatrics community in supporting school readiness. School readiness assessment is as much an educational imperative as it is a public health problem. Differing levels of school readiness are important correlates of health

disparities (Fiscella & Kitzman, 2009). According to a recent report by the Institute of Medicine, the lack of precise definitions and standards limits systemic reduction of health disparities in children (Institute of Medicine, 2011). Therefore, the unifying goal of this work is to bring not only standardization, but the means for equality, to the early education and health care systems that serve children.

Methods

The definition of school readiness in states other than Massachusetts was examined through a literature review and policy analysis. The 2010 National Conference of State Legislatures technical report on school readiness was used to identify the twenty-five states that perform universal or near-universal kindergarten readiness assessments on a recurring basis (Stedron & Berger, 2010). Explicit definitions of school readiness were sought in the statute language of these states. This evaluation was further enhanced by three key informant interviews with representatives from Maryland, Rhode Island, and California. Individual state interviews were placed in the national context provided by six key informants from the United States Department of Defense, National Association for the Education of Young Children, and Harvard Graduate School of Education.

The history of school readiness policy in Massachusetts was also investigated through literature review and policy analysis. Key informant interviews contributed greatly to this background research while offering insight into current and potential future policy directions. There were six state-level informants representing the Department of Early Education and Care, the Department of Elementary and Secondary Education, the Massachusetts Head Start Association, and the Massachusetts Association of Community Partnerships for Children. Five public school district-level interviewees reported from the districts of Pittsfield, Brockton,

Springfield, Boston, and Worcester. Pittsfield is a rural district. The others are counted in the ten Commissioner's districts which are large urban high-needs districts identified by the Department of Elementary and Secondary Education. An additional interview was provided by an administrator of a community-based Head Start program.

Three separate instruments were used to evaluate the assessment of school readiness on the district level. First were key informant interviews of district leaders as described above. These interviews, along with all the other key informant interviews, informed the design of the district-level survey and focus group instruments. The electronic survey was made available via Survey Monkey to the 164 grantees of the Department of Elementary and Secondary Education's Full Day Kindergarten Program over a two week period. There was a 50% response rate with 82 of 164 respondents beginning the survey, but only 66 completing it. Participation in the focus group was made available to the same group of district leaders at the midpoint of the survey period. Fifty-six districts registered for the Full Day Kindergarten's webinar with likely more than one individual participating at each district. The principal investigator delivered a 20-minute presentation on the pediatrician's role in assessing school readiness followed by the one-hour focus group.

The role of the pediatric community in supporting school readiness was first explored in the literature review presented during the webinar for district leaders. This information guided the selection of questions for seven key informant interviews. Six of those interviewed are pediatricians (five general pediatricians and one developmental pediatrician) with a special interest in the promotion of school readiness and one is a community coordinator of pediatric efforts in school readiness. Two of the six pediatricians are practicing outside of Massachusetts.

Taken altogether, there were a total of 24 semi-structured interview sessions involving 30 key informants. Snowball sampling was employed beginning with Massachusetts state-level representatives. All interviews were conducted by the principal investigator and recorded with verbal consent. They were subsequently transcribed from audio to text and coded using Nvivo 9 software.

Findings

School Readiness Policies in States Other than Massachusetts

Individual state policies set forth a number of varying criteria to describe a child's readiness for school. The most widespread and consistent determinant of kindergarten eligibility is age (Saluja, Scott-Little, & Clifford, 2000). Children who reach the age of five years old by a certain date are considered ready for school. Cutoff dates vary by state or district, often ranging from June to January for a particular region. Age is related to development, but, by no means, indicative of uniform attainment of the expected competencies across a given cohort of five-year-olds. Variation in physical, social, emotional, and cognitive development is more the rule than the exception (Saluja et al., 2000). The variable aspects of school readiness have been summarized by the National Education Goals Panel to include five key dimensions: health and physical development, emotional and social competence, communication skills, approaches to learning, and cognition and general knowledge (Kagan, Moore, & Bredekamp, 1995). See Table 1 for the competencies addressed in state school readiness policies as of August 2010.

In its 2010 update, the National Conference of State Legislators summarizes state-determined universal- or near-universal practices of kindergarten readiness assessment. It reports that 25 such states assess at least some of the five school readiness dimensions defined by the National Education Goals Panel. All but three states perform universal assessments. Minnesota is

notable as the only one of the 25 states using a selected sample instead of the entire kindergarten population. With respect to the purpose of kindergarten assessments, 18 of the NCSL's 25 states seek to guide curriculum and instruction decisions, 12 states seek state-level readiness and policy impact, 4 use the information to communicate with parents, and 2 follow the readiness of schools in order to spur improvement. Once data is collected, 20 states mandate the report of assessment findings to the state. Thirteen of the 25 states publish these results in aggregate state level (4 states) or disaggregated by region (7 states) or student characteristics (5 states) (Stedron & Berger, 2010).

Other State Key Informant Interviews

Maryland

Per Child Trends, only seven states conduct statewide kindergarten readiness assessments for the purpose of aggregating data at the state level: Alaska, Connecticut, Florida, Hawaii, Maryland, Minnesota, and Vermont (Daily et al., 2010). The Maryland Model of School Readiness (*MDSE Fact Sheet: Maryland Model for School Readiness*. 2010) specifies the definition of school readiness as the stage of human development that enables a child to engage in, and benefit, from, early learning experiences. It also acknowledges the roles of the individual child's unique experiences and background in interaction with support from family, friends, and community members. Assessment results are shared with families, teachers in the next grade, and the General Assembly in a report on school readiness statewide (*MDSE Fact Sheet: Maryland Model for School Readiness*. 2010). Importantly, state level reporting has documented narrowing of the achievement gap (*Getting Ready: What the 2009-2010 School Readiness Data Mean for Maryland's Children*. 2010).

The larger message is that any successful statewide school readiness assessment system must take place in the context of a larger reform effort. For Maryland, there had been a prior commitment by the legislature to invest in early childhood. A framework of accountability was established to determine the most effective policy approach. This led to a credentialing system, a quality rating and improvement system, revamped program standards, curriculum initiatives, and the consolidation of early childhood concerns into the department of education. Among efforts toward universal prekindergarten was a move toward expansion of the prekindergarten program and full-day kindergarten. In this way, the assessment system became a means of reflecting the strengths and weaknesses of a highly coordinated system of early childhood education and care.

Rhode Island

Rhode Island is in a state of transition with respect to its school readiness assessment system. State law requires teachers to screen for reading readiness, but districts choose their own assessment tools to determine which children may need an individual reading plan. State leaders are working toward developing a multi-domain statewide school readiness assessment system that aggregates data at the state level, provides teachers with information to individualize instruction, and includes basic health status data.

An innovative application of information technology for Rhode Island would be connecting the Department of Education data base with the Department of Public Health's extensive health database known as Kids Net. Kids Net contains cross-agency information on every child born in Rhode Island including vaccine records, birth records, age of mother at birth, maternal education at birth, Medicaid status, marital status, WIC use, lead poisoning, foster care, child welfare information, medical home, and home visiting information. An important addition to this health information would be that from the Watch Me Grow pilot which trains and

supports pediatricians and child care providers to perform developmental screens. The Kids Net database could potentially accommodate and coordinate the results from a statewide kindergarten entry assessment.

California

California does not have a universal statewide school readiness assessment system, but it does have over a decade of experience using the Desired Results Developmental Profile (DRDP) that effectively captures half the population of interest. The results desired of children include personal and social competence, effective learning, physical and motor competence, safety, and health. This profile assesses school readiness in children participating in state-funded programs and Head Start after the first 90 days of instruction. Desired results for parents include support of the child's learning and development as well as achievement of their own goals (*Introduction to Desired Results*. 2011).

California is working toward developing an instrument for use at entry into kindergarten. The Los Angeles Unified School District will replace Dynamic Indicators of Basic Early Literacy Skills (DIBELS) with a pilot of the DRDP-SR (school readiness version) for assessment in the first 60 days of the school year. This new instrument will have a strong focus on English language, and social and emotional development. One lesson learned from experience with the DRDP is that data was not effectively used once it was collected. The challenge will be aligning the DRDP and DRDP-SR so that instruction and curriculum may be adjusted to maximize student outcomes. The Los Angeles Unified School District has a data system from birth to grade twelve to aid in this alignment.

Massachusetts School Readiness Policies

The 2001 Governor's Commission on School Readiness in Massachusetts outlines four factors critical to a definition of school readiness. The first factor involves the child's communication ability, physical health, emotional health, social knowledge, and cognitive skills. The second factor acknowledges the influence of people, culture, and the physical environment on the child's well-being. The third factor relates to the quality, expectations, and capacities of early childhood programs and elementary schools. The fourth and final factor describes how the greater community supports families as their children's first teachers. The commission calls for a reliable and valid screening process from birth to age five. To that end, a key recommendation is investigation of the effectiveness of current tools in measuring the varied domains of school readiness (Wieworka & Washington, 2001).

The purposes of the statewide school readiness assessment system are grounded in the need to provide feedback on the success of investments in early childhood education and care and to understand readiness gaps for different subgroups of preschoolers. Unlike program-level assessments that focus on individual children, the statewide assessment follows all children in Massachusetts to inform the development of state policy. A focus on a small number of school readiness indicators measured in an anonymous fashion also distinguishes the state perspective on assessment from that at the program level (*Massachusetts Department of Early Education and Care: The Capacity of the Early Care and Education System*. 2009).

The Department of Early Education and Care was established in 2005 to assume the functions of Child Care Services and Early learning Services previously housed in the Executive Office of Health and Human Services and the Department of Education respectively. The Department is mandated to develop a kindergarten readiness assessment system. The statewide assessment is not meant to be a stand-alone entity, but well-integrated with evidence-based

program quality and learning standards, benchmarks, curriculum guidelines, and best practices in the field. Use of the assessment for the purposes of high-stakes testing to determine promotion or student ranking is expressly prohibited. The approved purpose of assessment is age-appropriate evaluation of progress and school readiness of preschool-aged children. Upon selection of a tool meeting the stated criteria of validity and reliability, professional development and training will be made available to providers employing the statewide school readiness assessment system in the universal pre-kindergarten program (Massachusetts General Law, Part I, Title II, Chapter 15D, Section 12.).

Assessment has become an integral component of the Universal Pre-kindergarten Program (UPK) which began with 129 grants awarded by lottery in April to May of 2007. Since 2008, UPK has designated four tools for assessment (*Massachusetts Department of Early Education and Care: The Capacity of the Early Care and Education System*, 2009). Another important step toward a high-quality early education system is the adoption of the Quality Rating and Improvement System (*Massachusetts Department of Early Education and Care: The Capacity of the Early Care and Education System*, 2009) by EEC in December of 2010. Alongside QRIS assessment priorities are those of the Partnership for Assessment of Readiness for College and Careers (*Partnership for the Assessment of Readiness for College and Career*, 2010). This 26-state collaboration in which Massachusetts participates is developing a common assessment system that benefits from technology to provide educators with timely reports of student performance and tools for improvement. As of 2011, the Department of Early Education and Care is working with New York University to conduct an assessment pilot in Springfield, Massachusetts.

Key Informant Interviews of Massachusetts State, District, and Community Leaders

Definition of School Readiness

School readiness was defined in a number of ways. Most commonly, informants referred to a standard set of skills, developmental domains, or indicators. There was strong support for inclusion of appropriate social and emotional skills such as self-regulation and executive functioning in the definition. Other categories included motor, visual, language, literacy, math, science, attention, phonemic awareness, general knowledge, and self-help skills. An enthusiasm and curiosity for learning was underscored alongside physical and mental health. A second common theme in defining school readiness requires schools to be ready for children independent of children's levels of development. The holistic approach integrating the various skill sets in assessing the whole child embraces the ecologic definition by also focusing on the whole family. It was noted that school readiness begins prenatally, if not pre-conception, and exists on a spectrum of child development. Herein lies the third common theme, the trouble with the term "school readiness." The word "readiness" prompts a "yes" or "no" answer that inappropriately dichotomizes a continuous phenomenon. Both pediatricians and early childhood experts made the observation that this term is highly problematic and inconsistent with the science of child development.

Purpose of School Readiness Assessment

The most commonly stated purpose for assessing school readiness is related to the Individuals with Disabilities Education Act. This law requires screening for developmental delay or learning disabilities. Many school districts pursue assessment in order to individualize instruction and guide curriculum development. One district informant found the assessment particularly helpful when performed by preschool programs because it helped them align their programs with kindergarten expectations. The purpose of alignment also extends beyond

prekindergarten through grade school using assessments grounded in evidence-based curricula to improve student outcomes. Many teachers find the assessments useful to discuss student performance with parents. Some informants see the major purpose of assessment in aggregating data to determine if the system is meeting student needs at the state or district levels. This data is meant to inform state policies and investments in education. Still others see the purpose in following class demographics and subgroup analysis of the achievement gap.

School Readiness Assessment Tools

The ideal school readiness assessment tool must balance a number of sometimes conflicting characteristics. It should be low-cost, quick, and easy to administer. It aligns with early learning and common core standards, assessing multiple domains with ongoing observation. The tool returns results on a continuous scale avoiding the artificiality of “yes vs. no.” The scale of results has a wide range with a high enough ceiling and low enough floor to capture children on the extremes of the readiness spectrum. Importantly, some seek a tool that is relevant to the local population. For this reason, a one-size-fits-all national assessment tool may not meet the needs of every state equally well. Given the wide representation of nationalities in the population, the assessment tool should be available in different languages.

Benefits of Statewide School Readiness Assessment

The benefit most commonly repeated among stakeholder is that a statewide school readiness assessment system will put “everyone on the same page.” Because child development can be uneven and sensitive to environment, more assessments can offer different perspectives in order to arrive at a true picture of a child’s abilities. Collecting data at the state level has the benefit of reinforcing anecdotes of successful child outcomes with hard evidence. It also provides the opportunity for more comprehensive assessment of outcomes than some districts are

currently conducting. Districts would have less difficulty transitioning children who arrive from other districts with different assessment practices. A statewide assessment gives government leaders a longitudinal view with which to evaluate the impact of education policies. Given fiscal constraints, this helps the state identify areas of weakness and judiciously allocate resources.

Challenges of Statewide School Readiness Assessment

Where there are benefits, there certainly are challenges to be expected. The most commonly stated challenges predicted for the statewide school readiness assessment system are adequate training to perform assessments and interpret results, appropriate funding and support of mandates, and the additional time assessment would take away from instruction. Aligning pre-kindergarten and kindergarten assessments is expected to be challenging. Involving community programs may facilitate alignment, but presents its own logistical difficulties. Considering the list of optimal assessment tool characteristics, selection of a developmentally appropriate tool will require careful deliberation. In order for teachers to use the information, it must be returned in a timely fashion. There must be clear instructions for how the data is to be used by teachers and policymakers, or major gains may be forsaken.

Survey Results

The survey of kindergarten readiness assessment practices was completed by district leaders. Only 25% of respondents indicated that their districts have a definition of school readiness. These definitions fit into the categories of a particular level of child development, achievement of a specific skill set, reaching the district-defined age for kindergarten, and focusing on the readiness of families, schools, and communities to promote learning. Nearly three-quarters of the sample reported district use of a school readiness screen or assessment which is encouraged, but not required of Full-Day Kindergarten grantees.

When asked to choose the district's stated purpose for using a kindergarten readiness tool, respondents most often selected "identify children with developmental delays and/or learning disabilities (84.3%)," "assess levels of children's development (78.4%)," "facilitate discussions between parents and teachers (56.9%)," and "tailor curriculum and instruction to the individual child (39.2%)." Importantly, the top four developmental domains measured by district tools included motor (88.2%), literacy (82.4%), math (72.5%), and social and emotional skills (56.9%) but respondents felt the statewide tool should measure social and emotional skills (95.7%), literacy (81.2%), math (78.3%), and motor (78.3%). These priorities were reflected in respondents assigning the greatest percentage of high or very high importance to social and emotional skills (97%), literacy (74.6%), math (61.2%), and motor (53%).

Challenges in implementing a statewide kindergarten readiness assessment system were rated on a Likert scale from very small to very large. Those items with the largest percent in the "very large challenge" category included the time to conduct the assessment (39.4%) and training teachers to interpret the results and effectively modify practice (31.3%). Items with the largest percent in the "large challenge" category were uniform administration (44.8%), capacity of administrators to analyze and learn from results (37.3%), timely access to results for teachers and schools (38.5%), and training in interpretation (which had the same percentage (31.3%) in the "very large" and "large" categories).

Several benefits were also expected of the statewide school readiness assessment system with none of them highest ranking in the "very low benefit" or "low benefit" categories. Those with the highest percentage selecting "very high benefit" included evaluating individual student progress to inform classroom practices (43.8%), helping achieve ready schools equipped to meet the needs of all incoming kindergarten students (32.8%), and allocating additional state funding

to preschool and kindergarten programs due to increased awareness and data (45.3%). The “high benefit” category was most often selected for informing parents about their children’s development (35.9%), evaluating effectiveness of preschool programs (31.3%), achieving ready schools (tied with the “very high benefit” category at 32.8%), and facilitating connections to health care professionals (29.7%).

Focus Group Findings

The focus group carried on the conversation begun during the webinar on the pediatrician’s role in assessing school readiness. In general, participants felt increased communication between health care professionals and schools would be beneficial. Educators especially valued information on medical concerns relevant to school readiness, developmental problems, attention and impulsivity problems, and social and emotional issues. It was not helpful to receive prescriptions for multiple hours of services outside of the individualized education program. This reinforced the recommendation that pediatricians be better informed on the processes schools undergo to meet the learning needs of students.

In creating a dialogue between pediatricians, teachers, and schools on school readiness, there were several privacy concerns. The HIPPA (Health Insurance Portability and Accountability Act) and FERPA (Family Educational Rights and Privacy Act) laws must be respected during the process of information sharing so that parents are truly in control of the level of disclosure. Current practices of giving parents the option to sign a release of information form were considered one solution. A potential state consent form was also suggested. Information technology with the appropriate privacy protections in place was considered another method of increasing communication between doctors and teachers.

In defining school readiness, participants reiterated a common dilemma: concluding that a child is not ready to learn. All children are considered ready to learn. If the child's readiness must be assigned a threshold, districts use age five by a certain date to indicate readiness. There was general agreement that a state-specified date to assess kindergarten entry age would be helpful. In addition, participants offered Thrive in 5's definition of school readiness for Boston (*Boston's School Readiness Roadmap*): "School readiness is the state of early development that enables an individual child to engage in and benefit from kindergarten learning experiences, which is a stepping stone for sustained school success. Early development encompasses a child's capacity in language development, cognition and general knowledge, approaches to learning, social and emotional development, physical well being and motor development."

The purpose of school readiness assessment varied among districts. Many use screens or assessments to identify developmental delays and facilitate discussions with parents. There was significant disagreement on the use of spring assessments to build kindergarten classrooms according to results. Some avoid spring assessments, doing so in the fall, so the results cannot be used to track children into certain classrooms. Others were comfortable with this practice, re-evaluating placement decision at least six times during the school year.

The first benefit expected of the statewide school readiness assessment system underscored the perspective of key informants: "Everyone on the same page." This was the most commonly stated benefit. Stakeholders in the medical and education communities would have access to common definitions and expectations. Statewide assessment could better integrate pediatricians into the system of accountability. The system would facilitate the collection of data with a standardized format of results.

In reviewing challenges to a statewide kindergarten readiness assessment system, district leaders confirmed survey findings focusing on funding, staff training, and timely access to results. They also stated needs for age-appropriate, validated assessment tools available in different languages. It was noted that a single assessment cannot be expected to give a complete picture. It was also stated that performance during the assessment may not reflect classroom abilities reaffirming the importance of evaluation of children in their natural environments. Parents would require reassurance that the assessment would not be used to exclude their children from kindergarten.

The Pediatric Community and School Readiness Assessment

All key informants were asked to comment on the potential role of the pediatric community in supporting school readiness. Various stakeholders agreed that pediatricians are uniquely positioned to assess school readiness because they establish long-term relationships with families that involve frequent visits in the early years. Currently, pediatricians reach virtually every family with young children, capturing those who do not attend formal child care centers or preschools. Across the country, school districts often require a health form for registration. In Massachusetts, pediatricians are already required to perform behavioral screens of MassHealth patients ages 0-21 using an evidence-based instrument due to a prior court ruling (*Rosie D. vs. Patrick*) involving delayed detection of behavioral problems (*Litigation Overview*, 2008).

Several ideas were advanced to increase pediatric promotion of school readiness. There was agreement that developmental screens as specified by the American Academy of Pediatrics at 9-, 18-, and 24- or 30-months would be beneficial (Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, & Medical

Home Initiatives for Children With Special Needs Project Advisory Committee, 2006). There was support to reconsider extending the four-year-old well child visit by 30 or 45 minutes to focus on school readiness. This information would then require transfer to the education community. Educators would like to hear about diagnoses that affect school readiness and the level of family engagement with medical care. Data from developmental, hearing, vision, or lead screens would be helpful. In the case of children with special needs, communication from subspecialists would improve coordination of services.

Other areas for improvement relate more specifically to pediatricians. Many pediatricians do not feel properly trained to do developmental assessments. There is also decreased comfort dealing with mental health, social, and emotional problems. It must be clear to pediatricians what services are available in the community to meet these needs. A clear commitment to promoting school readiness is required from the pediatric field with respect to training and practice. The lack of reimbursement for the additional time screening requires only further reduces incentives. As is the case for educators, pediatricians face considerable time constraints in the typical 15-minute well child visit.

These challenges are not new, and the key informants have several solutions to offer. Collaborations should begin around problems like attention deficit hyperactivity disorder. Here, there is motivation on both sides to communicate about school readiness. Another communication solution is the use of a pediatrician-generated form detailing the health history that the parent can bring to school administrators. However, this introduces the risk of data entry error. Many support the development of a common assessment tool that feeds into a common data system. There is already a universal referral form created by the American Academy of Pediatrics and the U.S. Department of Education Office of Special Education Programming

(American Academy of Pediatrics Council on Children With Disabilities & Duby, 2007). Issues of confidentiality can be handled with the appropriate safeguards, technological and otherwise.

Conclusion

The pediatric and early education communities have spoken. The definitions of school readiness as well as its assessment purposes, tools, benefits, and challenges reflect a recurring emphasis on the community. There are several themes, but this theme of holding families, schools, and society at large responsible for meeting the educational needs of every child is remarkably consistent across stakeholder groups. This focus, in and of itself, underscores the primacy and urgency of establishing effective collaboration between the various early education and care settings, school system, medical community, and a number of other stakeholders. Well-placed among these stakeholders are policymakers who have the means and perspective from which to coordinate the varied interests. This is an opportunity to ground the early education and care of young children in the latest evidence and assure Massachusetts is meeting these standards through ongoing assessment. A statewide school readiness assessment system is not only a requirement set forth in the enabling statute of the Department of Early Education and Care, but a community-wide commitment to not only espousing, but regularly documenting, that every child in the commonwealth of Massachusetts has a fair and full opportunity to learn.

Policy Recommendations

The broad policy recommendations begin with the definition of school readiness. There is enough legitimate consternation around the term “school readiness” to make it ineffective in promoting consensus. The first recommendation is to replace the term “school readiness” with an alternative of neutral connotation. For the purposes of clarity, “school readiness” will continue to be used in this brief. A proposed definition for Massachusetts is as follows: School readiness is

the extent to which the mutually supportive family, school, and larger community are prepared to promote a child's learning by optimizing social, emotional, cognitive, and motor skills as well as physical and mental health.

There are several valid purposes for assessing school readiness. Because assessment tools are designed for specific uses, more than one tool may be required to achieve multiple purposes. For the needs of policymakers interested in statewide assessment, the purposes of aggregated state-level data to direct policy and identification of learning and developmental problems are priorities. Both purposes may be met with the selection of the appropriate assessment tool. Different versions of the tool will be required for assessments during the preschool years at which point community-based child care providers and pediatricians are important allies. Finally, maintenance of alignment across stakeholders and grades may be obtained with continued investment into information technology.

Specific policy recommendations address the leaders of particular government entities. The Massachusetts Department of Early Education and Care (EEC) in partnership with the Department of Elementary and Secondary Education can work toward a consensus definition of school readiness by 2012. A short time frame is recommended given the extensive amount of review this topic has already received. The emphasis that EEC has placed on assuring program quality correlates well with the proposed definition's emphasis on ready schools. From this point of consensus, ongoing, transparent communication with district providers greatly informs the continued slow and steady scale up of the Massachusetts school readiness assessment system.

EEC may also partner with the Department of Public Health (DPH) to streamline the connection between EEC's assessment policies and DPH's management of early intervention services. In addition, there is the opportunity for collaboration in the Early Development

Inventory (Janus & Offord, 2007). This is an internationally-experienced population-based school readiness assessment tool which geocodes results to specific localities to guide the appropriate allocation of resources. This is an important strategy to consider in current times of state budget shortfalls and historically unequal state funding among districts. In addition, the DPH can consider regulatory changes in collaboration with EEC to promote assessment by pediatricians.

The Massachusetts governor and legislature are instrumental in first continuing to invest in early education and care. It is also recommended that they strongly consider setting a statewide date for the assessment of age for kindergarten entry. Many participants of the focus group were in favor of this change. Finally, state programs that appropriately reimburse health care provider behavioral and developmental screens are essential to promote assessment in the health care sector.

As more states adopt statewide school readiness assessment systems, the federal government has an important role to play in comparing results across states and promoting collaboration for improvement. The federal government is also empowered to provide incentives and supports for school readiness assessment and information technology through the already-existing infrastructure of the Early Learning Challenge Fund, Elementary and Secondary Education Act, and Affordable Care Act. In particular, Medicaid reimbursement of developmental screens at nine, eighteen, and twenty-four or thirty months as advised by the American Academy of Pediatrics (Council on Children With Disabilities et al., 2006) would go a long way to support the assessment of school readiness. Similar Medicaid reimbursement for an extended school readiness four-year-old well child check would formalize integrated efforts between the health and education sectors around assessment and provide the platform for

teaching doctors in training about school readiness. This is the level of investment and collaboration that is truly required to meet the early learning needs of the country's youngest children.

Table 1. School Readiness Competencies by State

State	School Readiness Competencies
Alaska	<ul style="list-style-type: none"> • Physical Well-Being, Health, and Motor Development • Social and Emotional Development • Approaches to Learning • Cognition and General Knowledge • Communication, Language, and Literacy
Arizona	<ul style="list-style-type: none"> • Reading skills
Arkansas	<ul style="list-style-type: none"> • General Knowledge • Oral Communication • Written Language • Math Concepts • Work Habits • Attentive Behavior
Colorado	<ul style="list-style-type: none"> • Reading readiness
Connecticut	<ul style="list-style-type: none"> • Language skills • Literacy skills • Numeracy skills • Physical/Motor skills • Creative/Aesthetic skills • Personal/Social skills
Florida	<ul style="list-style-type: none"> • Physical health • Approaches to learning • Social and emotional development • Language and communication • Emergent literacy • Mathematical and scientific thinking • Motor development • Social studies and the arts
Georgia	<ul style="list-style-type: none"> • English Language Arts • Math • Science • Social Studies • Personal/Social Development • Approaches to Learning
Hawaii	<ul style="list-style-type: none"> • Approaches to Learning • Academic Literacy and Math • School Behaviors and Skills • Social-Emotional Behaviors • Physical Well-being • Transition from home/preschool to kindergarten • Communication with families

	<ul style="list-style-type: none"> • Parent Involvement • School Improvement in Early Education • Kindergarten Classroom Practices
Idaho	<ul style="list-style-type: none"> • Reading readiness • Phonological awareness
Iowa	<ul style="list-style-type: none"> • Reading skills
Kansas	<ul style="list-style-type: none"> • Reading skills • Math skills
Louisiana	<ul style="list-style-type: none"> • Multi-domain instruments • Hearing screen • Vision screen
Maryland	<ul style="list-style-type: none"> • Personal and social development • Language and literacy • Mathematical thinking • Scientific thinking • Social studies • The arts • Physical development
Minnesota	<ul style="list-style-type: none"> • Social and emotional development • Approaches to learning • Language and literacy development • Creativity and the arts • Cognition and general knowledge • Physical well being • Motor development
New Mexico	<ul style="list-style-type: none"> • Reading skills
North Carolina	<ul style="list-style-type: none"> • Reading skills • Math skills
North Dakota	<ul style="list-style-type: none"> • Multiple instruments
Ohio	<ul style="list-style-type: none"> • Reading skills
Oklahoma	<ul style="list-style-type: none"> • Reading skills • Vision screen
Pennsylvania	<ul style="list-style-type: none"> • None
Tennessee	<ul style="list-style-type: none"> • Multiple instruments
Texas	<ul style="list-style-type: none"> • Reading skills
Utah	<ul style="list-style-type: none"> • None
Vermont	<ul style="list-style-type: none"> • Social and emotional development • Communication • Physical health • Cognitive development • Knowledge • Approaches to learning • School's transition practices • Connection to families of young children and the community

Virginia	<ul style="list-style-type: none"> • Reading skills • Physical well-being and motor development • Personal and social development • Approaches to learning • Language development • Cognition and general knowledge
Washington	<ul style="list-style-type: none"> • Physical well-being, health, and motor development • Social and emotional development • Cognition and general knowledge • Language, communication, and literacy • Ready schools • Ready communities
West Virginia	<ul style="list-style-type: none"> • None
Wyoming	<ul style="list-style-type: none"> • Representation • Language • Writing • Reading • Geometry/Algebra • Number/Operations • Scientific thinking • Self-regulation • Social problem-solving

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