

**Mayor's 0-5 Researcher & Practitioner Work Group  
Draft Recommendations**

**December 2006**

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**OUR TASK:**

We are a mix of early childhood researchers (with local, state, national and in some cases international expertise) and practitioners who have worked in Boston for more than two decades with children and families. In our work and research, we are confronted with the stark reality that half of the test score gap at twelfth grade is attributable to gaps that exist at first grade. These critical early years are when the government investment in education is actually the smallest. Our task was to review existing research and reflect on our own practice to recommend steps that would yield the greatest impact on *preventing and closing academic achievement gaps among children before school entry*.

We received from you a dual charge. Our first charge was to recommend actions you can undertake now. Our second was to lay the groundwork for your School Readiness Action Planning Team (APT) by offering some guiding principles and recommending projects and programs that deserve further discussion, research and capacity building. What follows is a summary of the recommendations.

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**RATIONALE FOR THE FOCUS ON 0-5 AS A CRUCIAL COMPONENT OF CLOSING THE ACHIEVEMENT GAP:**

Following our recommendations is a one-page summary of the scientific, economic and moral imperative for this work (Attachment A).

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**“SHIFTING THE ODDS”:**

**A MULTI-GENERATIONAL, MULTI-SYSTEM VISION FOR BOSTON**

Children, their families, their communities, and their schools each play a role in ensuring school success and life success. We believe the best way to prevent the achievement gap – to shift the odds for children at high risk – is to build a multi-generational, multi-system structure that supports children 0-5 in Boston. This system looks vertically at what children and their families need at each stage of children's development (from the prenatal stage through kindergarten entry) and looks horizontally at integrating services within each of those stages. This system is consistent with the three principles that you articulated when you announced this planning process – Prevention, Partnership and Quality. Please see Attachment B for more information on the multi-generational, multi-system vision.

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**SUMMARY OF RECOMMENDATIONS:**

*As you read this document, please note our top six recommendations:*

1. Set accreditation as Boston's early care and education quality standard
2. Promote workforce development for early care and education
3. Strengthen and expand family support and home visiting programs with a specific focus on family school readiness
4. Launch a parental depression public health campaign
5. Pilot methods to improve child development and mental health screening through pediatric and family practices
6. Increase the City's capacity for this work through re-focused budget allocations in key departments

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**PRIORITY AREAS & RECOMMENDATIONS**

*As a group we felt that there were certain initiatives that could be done right away with the leadership of the Mayor; those we have labeled “mayor-led initiatives.” For others, we felt there was a need for collaboration with larger groups of practitioners and researchers who were immersed in the local landscape; those we have labeled “collaborative initiatives.”*

**1) Early Care and Education (what we used to call childcare): *Improve quality, salary and staff support via standards, workforce development, and acknowledgment of the quality programs.***

A large body of research demonstrates that the quality of a child’s early care and education setting is crucial for his/her school readiness. Every child, regardless of setting – family child care, Head Start, center-based care and public schools – must receive a high quality educational experience.

- ***Mayor-led initiative:*** Set the standard of accreditation for all programs in Boston (NAFCC [National Association for Family Child Care] Accreditation for family child care and NAEYC [National Association for the Education of Young Children] Accreditation for centers and schools); coordinate quality standards with the State and demand HIGH standards. Accreditation is the national standard for quality and strong research demonstrates that it improves the outcomes for children; no city in the country has yet to set this high of a standard for all of its programs. *Please see Attachment C for more details.*
- ***Mayor-led & collaborative initiative:*** Focus on early care & education workforce development  
*Short term:* celebrate teachers and directors by rewarding quality programs with citywide recognition. This will not only acknowledge an undervalued workforce, but also demonstrate what quality looks like.  
*Long term:* attract, develop and retain a highly qualified workforce as Boston has done already with its teacher recruitment and principal institutes; a salary initiative should be included as part of this work.

**2) Family support and family stability: *reduce the social isolation of low-income and at-risk families and increase parenting education and support.***

Children develop in the context of their families, with research documenting that the quality and consistency of their primary relationships actually affects the wiring of the brain. What happens at home is paramount to a child’s development and school readiness, even for children in full-time early care and education. Understanding this, and respecting the culture, language(s), strengths and assets of families, including those at highest risk, is crucial to any and all interventions.

- ***Collaborative initiative:*** Convene family support programs, including parenting education and home visiting programs, to focus much more directly on closing the achievement gap, with the goal of setting evidence-based standards for programs; providing training and support for a coordinated implementation of programs modeling best practices; and incorporating early literacy, family literacy and “family school readiness” into all programs.
- ***Collaborative initiative:*** With the assistance of Boston’s birthing hospitals, community health centers, the Boston Public Health Commission and Boston’s home visiting programs, convene a group focused on home visiting & charge them with developing a home visiting program/system/approach that:

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- Defines “at-risk” and “high-risk” criteria for families and targets those families;
- Is evidence-based and effective for low-income families;
- Is literacy-focused and works for a variety of languages and cultures;
- Is part of a system that refers families to needed and requested community services; and
- Creates a comprehensive “continuum of care” system that begins with prenatal care and continues through the early years of life that is comprehensive and non-duplicative and that provides family support for the health, education and welfare of children and a closely tightened safety net around Boston’s most vulnerable families

- **Mayor-led initiative:** Welcome all newborns and their families to Boston

**3) Health and mental health of children and their parents: *Ensure that key health and mental factors that threaten children’s development are identified and treated earlier.***

The health of a child can be a large boost or barrier to his/her school readiness and later school attendance. In addition, the social-emotional needs and abilities of children, often overlooked, are as crucial for school success as cognitive development. When related problems go undiagnosed, it can lead to unnecessary, expensive and sometimes unsuccessful interventions later on. Finally, the impact on their children of depression and other mental health issues of parents, including undiagnosed and treatable ailments, is well documented. Research indicates that while about 20% of Americans will suffer a major depression at some point, 30% to 60% of low-income mothers of young children suffer from low-level depression.

Pediatric clinicians and family physicians can play a unique role in reaching families since they are accessible to all children and non-stigmatizing for families. Yet the challenges facing such settings, such as the impact of managed care on the ways providers can work with families, inadequate insurance reimbursement, lack of training in developmental concerns, and lack of time, must be addressed in any intervention.

- **Mayor-led & Collaborative initiative:** Develop a mental health awareness campaign on parental depression (building on ideas currently in development by key leaders at Children’s Hospital Boston, Harvard University and Boston University Medical Center).
- **Collaborative initiative:** Building on a review of all relevant successful programs, pilot options for working with the healthcare system (pediatricians’ offices, clinics, and family practice offices) for:
  - Earlier detection of child development concerns
  - Screening of all children and parents before birth or during the first few months of life for parental mental health concerns, such as depression, domestic violence and substance abuse
  - Referrals to community resources, programs and activities
  - Early literacy promotion
  - Food insecurity and housing referrals*Please see Attachment D for more details.*

**4) Public engagement and investing in capacity & governance: *Ensure that early childhood becomes and remains a permanent priority for the city as a whole.***

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Even with the publication of “Neurons to Neighborhoods” and related work before and after, not enough has been done to bring to the general public – including parents and others who affect children’s lives – what we now know about the science, economics and moral imperative of attention to the early years. Citywide knowledge about and buy-in to this effort is crucial for the successful long term support for the funding and governance that is necessary for this work. Capacity and governance are integral to building systems that support research-based interventions. The success and longevity of this work will also be reliant on building community capacity to identify and make needed changes in neighborhoods and organizations for children and families.

- **Mayor-led initiative:** Consider convening a body to focus on the financial capacity for this work in Boston. This body would work on recommendations to leverage and package federal, state and local dollars, as well as to attract additional foundation and corporate funding.
- **Mayor-led initiative:** Consider strategies for elevating and institutionalizing family support and early childhood education. This might mean for example a new leadership position within the city or school department.
- **Mayor-led initiative:** Focus budget dollars from BCYF, BHA, BPL, BPHC and BPS by asking each department to present how they will better serve this age group (children birth through five and their families) with quality programming. In addition, ask each department how their budget allocations will focus more on prevention and how their agencies will participate in community capacity building for school readiness. Given that almost half of Boston parents raising young children are foreign-born, the Office of New Bostonians could focus a component of its referral and advocacy work on early childhood education and family school readiness.

### 5) **Important areas not covered by this group**

It is our understanding that you have other strategic planning groups working on housing and jobs. We want to explicitly state that these areas deeply affect outcomes for children. Housing stock and housing stability are the critical economic underpinnings of the multi-system vision we have laid out. We hope that you will also consider ways of raising the income supports of families with young children given that research suggests that additional income can significantly improve children’s outcomes. These areas should be thought of as essential to your 0-5 planning.

### 6) **Other projects of interest to this group**

It was our aim to lay out a vision for the type of system and programs that are necessary for healthy early childhood development. There are some programs that are particular to Boston, and although they are not specifically referenced in our recommendations, are areas we wanted to comment on.

- In the K1 expansion, focus on quality, including: accreditation (as stated above); developmentally appropriate curriculum; teacher/student ratios; developmentally appropriate facilities; partnerships with the highest quality existing community preschool programs; and minimizing the transitions young children face during the day, while providing before- and after-school care and/or extended day and extended year programming for working families.
- There needs to be a collaborative effort (possibly through the APT) to determine the best methods to conduct collaborative early care and education business planning to ensure the on-going strength and improved quality of infant and toddler programs in the city. Children in Boston move between different settings over their early years; these organizations need to collaborate in their business

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practices in order to best support the child; therefore, the city must foster collaboration, not competition among providers.

- Launch the talk campaign currently under consideration by ReadBoston as soon as possible, in acknowledgement of the fact that the vocabulary gap is one of the ways the achievement gap begins to express itself earliest and most severely in our school-age students, and knowing that such a public campaign would raise awareness about early childhood in general. Develop the campaign with great awareness of the differing approaches that work with Boston's numerous cultures.

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**ATTACHMENTS**

**to**

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**A: RATIONALE FOR FOCUSING ON 0-5**

**B: LOGIC MODEL & VISUAL REPRESENTATION OF OUR VISION**

**C: ACCREDITATION**

**D: PILOT PROGRAM FOR WORKING WITH PEDIATRICIANS**

**E: SELECTED RESEARCH CITATIONS**



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**ATTACHMENT A – RATIONALE**

Focusing on serving young children ages birth to 0-5 and their families (even beginning in the prenatal stage) and their communities is crucial if we are to address the academic achievement gap, **for scientific, economic and ethical reasons.**

***SCIENCE:***

- The human brain develops more rapidly between birth and age 5, and particularly from birth to age 3, than during any other period of life. The key circuitry for all that will come later is formed between birth and age 3.
- **Children are born ready to learn.** What takes place between birth and school entry greatly determines whether a gap in competencies – social/emotional, physical and cognitive – will exist from the start of K-12 education.
- A new body of brain research reveals that the **biological reaction to sustained high stress levels** for young children – brought about by violence, neglect or abuse, and by a lack of basic needs and stability – impedes brain development (such as memory) and thus the ability to learn. Such “toxic stress” also affects the immune system and a child’s overall ability to manage even basic levels of stress as a child grows.
- Brain research has also documented that the **quality and stability of children’s primary relationships** (to parents and caregivers) also affects the actual architecture of the developing brain – whether it is a solid or fragile foundation for learning.

***ECONOMICS:***

- The gap is evident to kindergarten teachers upon children’s school entry; it occurs long before children start to express it on standardized tests. These gaps are not only extremely difficult to close in later years; they are **extremely costly to close.**
- Long-term studies now demonstrate **the cost savings of early interventions.** One such study followed children through age 40 and documented that providing high-quality preschool education and family support to very low-income children yielded a return of \$17 for every \$1 spent. (The savings occurred from higher tax income generated from that person later in the workforce as an adult and reduced special education, remedial education and prison costs.)

***MORAL IMPERATIVE:***

- Boston is a city that values children and celebrates year-round and life-long learning, and understands that **education is essential to developing productive and engaged citizens.**
- We must **level the playing field for children** entering school. Given what we now know about early childhood development, to NOT act would be both negligent and unwise. The work world today’s children will enter upon high school or college graduation will demand knowledge and skills for which a groundwork must be laid in early childhood and early school years.

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**ATTACHMENT B – A VISUAL REPRESENTATION OF OUR VISION FOR BOSTON**

**Nature of the Problem:** Children growing up in poverty are at much higher risk of poor academic achievement when compared to children reared under more favorable socio-economic conditions.

**Why is this particularly important in the first 5 years of life?** The bulk of the brain's basic circuitry is built during these 5 years. Environments such as poverty and stresses such as mental health and substance abuse problems and domestic and neighborhood violence disrupt the architecture of the developing brain.

**Contributing Factors:** How does poverty stack the odds against children and increase the achievement gap? Key contributing factors are:

- Poverty decreases the ability of parents to provide infants, toddlers, and young children with the resources and stimulation that are critical to healthy cognitive, social-emotional and physical development.
- Poverty increases the odds that children are exposed to poor-quality care and preschool environments.
- Poverty increases the odds of children experiencing “toxic stress” from residential instability, homelessness, mental health, substance abuse problems, and domestic and neighborhood violence.

**Proposed Solution:** To address these contributing factors, we propose a multi-generational, multi-systems model whose key ingredients will influence the quality of young children's environments and immediate relationships, provide universal family support, and target enrichment programs for particularly high-risk families. The specific interventions of our model are displayed below.

**GUIDING PRINCIPLE:**

**Multi-Generational and Multi-System Structure to Support Children 0-5 in Boston**

	INFANTS	TODDLERS	PRESCHOOLERS
<b>1. Early Care &amp; Education: Quality of Setting/ Environment</b> (GOAL: Increase quality no matter what the care setting)	<-----ACCREDITATION-----> NAFCC for Family Child Care NAEYC for Centers <----CHILD CARE / PRESCHOOL WORK FORCE DEVELOPMENT---->		
	<b>Screening for all Babies and their Families and Quality Early Health Care Welcome Baby</b>	<-----TWO GENERATIONAL APPROACH TO CENTER CARE AND PRESCHOOL----->	
<b>2. Universal Family Supports</b> (GOAL: Reduce social isolation)	<-----MENTAL HEALTH SUPPORT----->		
	<b>Home visiting</b>		
<b>3. Targeted, Intensive Support for At-Risk Families</b> (GOAL: Support families that face dire circumstances, e.g. extreme poverty, abuse, homelessness)	<-----ECONOMIC SECURITY: Housing, income support, etc.-----> <-----PREVENTION & PROTECTION FROM TOXIC STRESS: domestic violence, substance use, parent mental health problems ----->		

**ATTACHMENT C – ACCREDITATION**

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To receive the potential benefits of an early childhood educational experience, the research is clear: the setting must be high quality. The “where” a child receives services is less important than the “what” the child receives. However, the quality of settings is highly variable, and the status of caregivers in early care and education is much too low, given the importance of their work.

Research in early childhood education demonstrates several “structural” variables that are related with closing the achievement gap. They are: group size, staff to child ratios, physical facilities, materials, caregiver education and qualifications, staff turnover, and compensation. In addition to structural variables, process variables, such as caregiver or teacher-child interaction, classroom set up, curricula and staff support, are also related with the positive outcomes for children that later are demonstrated in school success. The National Association for the Education of Young Children (NAEYC), using both research and testimony from thousands of practitioners, has created an accreditation system that sets the “gold standard” for quality. This process was designed to work in all center-based and public school settings (NAFCC is the family child care equivalent). Each program setting has different challenges and accreditation assures that the child, regardless of where the parent chooses to place him/her, will achieve a high-quality educational experience.

In 2004, NAEYC reinvented its accreditation process, creating a more comprehensive approach and requiring more criteria to achieve accreditation. There are now 10 categories of standards of quality that programs must comply with in order to receive accreditation status. The categories are:

- Promoting Positive Relationships
- Implementing a Strong Curriculum
- Using Developmentally Appropriate Teaching Practices
- Instituting Ongoing Child Assessments
- Promoting Strong Nutritional and Health Practices
- Hiring Staff with a High Level of Educational Experience
- Supporting Families
- Linking with Community Resources
- Providing a Safe and Healthy Physical Environment
- Implementing Strong Administrative Oversight

### *NAEYC and the state of Massachusetts*

In 1998, the Massachusetts DOE required programs to seek accreditation as part of its funding requirements. Since then over 1,100 programs in Massachusetts are accredited, making it the number one state in accredited programs. Millions of state and private dollars have been invested in helping programs receive accreditation through accreditation facilitation projects. Accreditation facilitation usually takes place over the course of several years in which a program completes a self diagnosis and then sets a series of goals to reach success. Accreditation facilitation takes resources and time, usually costing around \$5,000 per classroom annually for 2-4 years.

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**ATTACHMENT D – PILOT PROGRAM FOR WORKING WITH PEDIATRICIANS**

Pediatric clinicians are in a unique position to offer families consistent, long-term relationships based on the care and support of their young children; they also offer a non-stigmatizing environment in which parents can ask about their worries and concerns. What you dare not ask your mother-in-law – “is my baby ‘normal’?” - you might be able to ask your pediatric clinician if given the opportunity. Pediatric well child care is universal, accessible, and offers continuity of care within a non-stigmatizing and neutral environment.

During the first five years of a child’s life, there are at least 12 well child visits paid for by insurance/Medicaid/S-CHIP. These well child visits are meant to focus on the physical and mental health and development of the child and parents, yet pediatric clinicians historically have focused only a small proportion of the average well child visit on child behavior or development and allocated no time to adult risk factors which impact child development. Lack of time, inadequate training, lack of appropriate reimbursement, and staffing shortages are often cited as obstacles to devoting more time to child behavioral and adult mental health issues. Furthermore, in this era of managed care, most well child visits have been reduced to 12-15 minutes. Yet pediatric care for young children offers a powerful vehicle to infuse mental health services into an ongoing system of care if pediatric clinicians recognize the power which they bring to their daily interactions with families.

Pediatricians have a unique professional opportunity to encourage early literacy behaviors in very young children well before they enter formal education. Early literacy development is a developmental process analogous to learning to talk; it is dependent on several factors including cognitive abilities, curiosity, brain development and exposure to literacy related experiences. However, one factor which consistently correlates with successfully learning to read is a history of being read to. Developed by the Department of Pediatrics at Boston Medical Center, Reach Out and Read ([www.readoutandread.org](http://www.readoutandread.org)) provides an efficient and evidence-based approach to increasing the amount of time which parents spend looking at books with their very young children. Starting at the six month well child visit and at every well child visit thereafter, the pediatric clinician gives the child a new, developmentally and culturally appropriate book during the visit. Using this as a teachable moment, the clinician and parent talk about what the baby is learning from the book and how that early experiential book handling builds the child’s early literacy skills. In time, children often ask the clinician for their new book and parents come to anticipate watching their child enjoy books. Parents report that they are more likely to engage in book related behaviors with their children when they have participated in Reach Out and Read.

**Action Steps:**

1. Use the pediatric practice as a vehicle for conducting developmental screening for children and mental health screening for parents using community based providers who see the family after selected pediatric visits.
2. These community-based providers then provide follow-up for families who need facilitated referrals to services for themselves and their young children.
3. Implement Reach Out and Read in all Boston pediatric and family practice well child clinics serving poor children.

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**ATTACHMENT E – SELECTED RESEARCH CITATIONS**

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