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# **Key Trends in Prevention**

**Report for the National Quality Improvement Center on Early  
Childhood (QIC-EC)**

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# Introduction

An important component of planning for the National Quality Improvement Center on Early Childhood (QIC-EC) involves an assessment of current literature on prevention and implementation trends in child abuse and neglect. Over the past 20 years, a broad body of research has emerged which highlights the first 3 years of life as a particularly important intervention period for influencing a child's trajectory and the nature of the parent-child relationship.<sup>1</sup> The key policy message from this body of research is that learning begins at birth and that maximizing a child's developmental potential requires more comprehensive methods to reach newborns and their parents. Individuals may debate how best to reach young children; few dispute the fact that such outreach is essential for insuring a child's healthy development and for reducing the risk for child abuse.

By initiating a review of this research and its related innovations, the QIC-EC will be in a stronger position to both understand the gains in knowledge this work represents as well as identify a generative set of operating hypotheses or testable strategies to guide its future investments. With this objective in mind, this review focused on identifying characteristics of program models that have been shown to successfully reduce the incidence and recurrence of child abuse and neglect and other negative outcomes for young children, as well as highlight the contextual factors that have facilitated or limited the ability of promising interventions to be implemented, replicated, and scaled up.

Reflecting this dual emphasis, we segmented the relevant literature and related material into two groups that were simultaneously reviewed. The first group of material included peer-reviewed articles, meta-analyses, and evaluations that assessed the structure and content of various primary and secondary prevention programs that targeted young children and their families.<sup>2</sup> To augment this information, we

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<sup>1</sup> Shonkoff, J. & Phillips, D. (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development*. National Academy Press, Washington D.C.

<sup>2</sup> To construct our inventory of literature for programmatic components, we searched seven academic databases [Academic Search Premier, ERIC, Child Development & Adolescent Studies, Social Work Abstracts, Elsevier Science Direct, PsychINFO, and Sage Complete] using the following of descriptors: child abuse, neglect, prevent\*, early, intervention\*, program\*. Our search yielded 152 results which were then reviewed to determine their relevance to our stated objectives.

also documented key characteristics of successful/promising prevention programs as indicated by web-based clearinghouses and relevant literature.<sup>3</sup> The results were clustered under a set of specific program dimensions including: programmatic intent or focus; timing; frequency; duration; personnel; target population; promising practices; and supportive systematic and organizational reforms. The second group of material included current literature related specifically to the capacity of programs to successfully replicate their efforts across communities and to sustain their impacts over time. Again, the findings from this review were clustered into a set of subtopics including: participant engagement and retention; workforce development; organizational culture; information and performance monitoring; dissemination and replication of innovation; and systemic change.<sup>4</sup>

The scope of our review was limited to early interventions for children aged 0-5, including those targeted to parents with infants and/or very young children, early education programs, and home visitation programs; secondary prevention (selective population prevention) models were primarily considered. To be considered “successful” for the purpose of this review, programs had to satisfy the following criteria:

- Programs had to reflect relevant theory that draws on a descriptive etiologic framework.
- Programs had to be evidence-based, demonstrating significant results in the core domains of interest (e.g., promoting optimal child development, increasing protective factors, reducing risk and preventing child maltreatment).
- Where applicable, programs had to be rated as “promising” or “proven” by at least one independent review system.

The purpose of this introduction is to summarize our core findings and to identify unanswered questions or knowledge gaps suggested by the review. A complete summary of the key patterns and issues that emerged from the review as well as the relevant citations are presented in subsequent sections. Before presenting these findings, we revisit a point made in our initial outline of the review, namely the challenges ecological theory presents to those attempting to craft and implement effective prevention programs and policies.

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<sup>3</sup> To construct our inventory of programs, we focused on relevant “proven” and “promising” programs featured in the Promising Practices Network (topics: child abuse and neglect, family support) and The California Evidence-Based Clearinghouse for Child Welfare (topic: prevention/secondary).

<sup>4</sup> To construct our inventory of literature for implementation, we searched the same seven academic databases using the following descriptors: implementation, program quality, systemic barriers to practice, engagement and retention, going to scale, system of care and workforce development. We also utilized articles from the Harvard Business Review.

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## The ecological framework

Since Henry Kempe's early work in the late 1960s, the dominant theoretical framework for understanding the casual pathways to maltreatment has been ecological theory. Rather than assuming that a single cause triggers abuse or neglect, ecological theory recognizes that most maltreatment stems from a complex web of factors within a person's personality, family history and community context.<sup>5</sup> In addition to articulating a nested set of domains governing human behaviors, ecological theory identifies a set of risk factors as well as protective factors. The theory underscores the importance of crafting prevention strategies that seek to reduce the interpersonal and environmental challenges families face and to build a network of protective or supportive factors that can help families cope with risks that are not easily eliminated or modified.

Although the theory has strong heuristic capabilities and is useful in outlining the array of factors that contribute to abusive and neglect behavior, it has demonstrated more limited utility as a policy and practice framework for several reasons:

- Although many prevention programs recognize the complex pathways that lead to maltreatment, the more successful efforts are generally those that have clear objectives and a well stated logic model. Interventions that attempt to directly impact too many variables in multiple domains often suffer from mission drift. This notion of focusing on a limited, clearly stated set of outcomes is, in some ways, counter to the multi-factorial structure embedded in ecological theories.
- Responsibility for health, education, economic well-being, housing, and child protection are distributed across myriad federal and state agencies, each of which define core outcomes and standards of best practice within their own disciplines and sphere of influence. Developing, managing and sustaining programs that cut across these defined areas in the manner suggested by an ecological framework is, at best, challenging.
- Measuring outcomes and success is easier at the participant level than at a population level. As such, the prevention response has been more focused on creating a series of interventions that target a distinct population rather than efforts to alter community context or normative values in the manner suggested by the ecological framework

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<sup>5</sup> Belsky, J. (1980). Child maltreatment: An ecological integration. *American Psychologist*. 35: 320-335;

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press, Cambridge; Garbarino, J. (1977). The human ecology of child maltreatment: A conceptual model for research. *Journal of Marriage and the Family*. 39: 721-735; Cicchetti, D., & Rizley, R. (1981). Developmental perspectives on the etiology, intergenerational transmission, and sequelae of child maltreatment. In: Rizley, R. and Cicchetti, D. (eds.), *New Directions for Child Development: Developmental Perspectives in Child Maltreatment*. Jossey-Bass, San Francisco, pp. 32-59.

In short, we have a theoretical framework that many in the field embrace at direct odds with the programmatic initiatives and public policy that currently constitutes the child abuse prevention field. Although there have been notable gains in both the field's awareness and understanding of maltreatment, the current prevention system has failed to achieve a deep reach into the at-risk population and has not created the contextual and normative change necessary to maximize the safety and healthy development of the nation's children. These limitations have been particularly acute among prevention strategies targeting very young children, children living in poverty, and children living with caretakers struggling with substance abuse or mental health issues.

As outlined below, our review found that much has been learned in how best to structure prevention programs in ways that enhance their potential for successful impacts and replication. Although many barriers exist in replicating programs with quality and extending the availability of services to those families facing the most difficult circumstances, prevention planners are becoming increasingly astute in grounding their efforts in strong theories and rigorous empirical evidence. In addition, greater attention is being paid to how individual programs link together into effective systems of early intervention and how education, health care, and other relevant economic and social sectors can more effectively support and nurture this emerging effort.

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## Program development lessons

At its core, our review of successful trends in the prevention of child abuse and neglect programming underscores the importance of a clearly defined theory of change as the basis for any intervention. Although the individual programs we examined vary greatly in their intents and methods, all follow a clear logic model: definition of the problem, examination of etiology and context, identification of measurable goals, and construction of an intervention with a cohesive structure. We found that in most cases, the pivotal element for success was not the effective execution of individual program components but rather the conceptual framework on which the program rests. Importantly, our review notes that program developers should identify both a time horizon for the intervention and the level of sustainability the program seeks to achieve at the onset of the program planning process.

We discovered that the best child maltreatment prevention programs rely on both individual-level and family-level theories to inform their efforts.<sup>6</sup> Although many programs attempt to address individuals and families disparately (e.g. parent education courses, school-based child empowerment modules), the most successful interventions recognize the salience of a dyadic perspective and seek to impact the bi-directional interaction between individuals and their families. Indeed, our review indicates that successful

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<sup>6</sup> Portwood, S. G. (2006). What we know - and don't know - about preventing child maltreatment. *Journal of Aggression, Maltreatment & Trauma*, 12(3-4), 55-80.



programs approach prevention with the view that both children and parents (as individual actors) and the family (as a cohesive unit) should be served by interventions.

Our review also indicates the effectiveness of a multi-tiered program structure. Although many interventions engage all participants at the same level of intensity, many proven/promising prevention programs stagger services so that those most in need receive an intensive level of service, while those with less need receive a decelerated level of service. This requires construction of reliable needs-assessment standards and protocols, and also a commitment to an even-handed review of individual participants' needs. Questions regarding the quality of parent-child interactions and potential abusive or neglectful behavior are sensitive and need to be raised in a manner designed to elicit information without generating a defensive attitude on the part of those being assessed. Ultimately, a staggered program design can contribute to greater program efficacy, efficiency, and cost-effectiveness,<sup>7</sup> and it is consistent with the public health model of “minimal sufficiency”.<sup>8</sup>

An undercurrent in much of this literature concerns the preferred staffing arrangements of programs. Although research has been conducted on the comparative advantages of paraprofessionals versus trained nurses as service delivery agents for prevention programs, an overarching consensus has yet to be reached. Our research indicates that while professional support seems generally indicative of significant intervention effects,<sup>9</sup> we should not overlook the importance of alternative staffing arrangements that draw on the potential benefits of both groups of providers. For example, paraprofessionals may be better able to establish strong, trusting relationships with at-risk families,<sup>10</sup> whereas professionals are, at times, better able to engage with and persuade families to enroll in formal services or to alter their behaviors due to fact that families may afford them a sense of “natural legitimacy” based on the provider’s professional role (e.g., a nurse, mental health professional, educator, etc).<sup>11</sup> Regardless of a provider’s educational background or credentials, all providers are most effective when they are provided initial and ongoing targeted training. Where possible, professional staff should be trained to a post-secondary level and assigned duties that require a high standard of care; paraprofessional staff should receive high quality,

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<sup>7</sup> Sanders, M. R., Markie-Dadds, C., & Turner, K. M. T. (2003). Theoretical, scientific and clinical foundations of the Triple P-Positive parenting program: A population approach to the promotion of parenting competence, The Parenting and Family Support Centre, The University of Queensland.

<sup>8</sup> Prinz, R. J., Sanders, M. R., Shapiro, C. J., Whitaker, D. J., & Lutzker, J. R. (2009). Population-based prevention of child maltreatment: The U.S. Triple P System population trial. *Prevention Science*, 10(1), 1-12.

<sup>9</sup> Guterman, N. B. (1997). Early prevention of physical child abuse and neglect: Existing evidence and future directions. *Child Maltreatment*, 2(1), 12-34.

<sup>10</sup> Portwood 2006.

<sup>11</sup> Olds, D. L., Robinson, J., O'Brien, R., Luckey, D. W., Pettitt, L. M., Henderson, C. R., et al. (2002). Home visiting by paraprofessionals and by nurses: A randomized, controlled trial. *Pediatrics*, 110(3), 486-496.

intensive training that is specific to the service delivery protocols of individual programs. In addition, consistency in delivering the intervention as intended requires staff to be provided ongoing reflective supervision in which participant-provider interactions are observed on a regular basis.

As a final point, it is important that program developers supplement and link prevention programs to the existing local network of social support services. By conceptualizing their programs as new components within a preexisting system, program developers can enhance both the potential impacts of their own efforts as well as increase the probability these impacts will be sustained over time as other service providers within the local service network reinforce a comparable set of concepts and behaviors. Equally important is identifying populations that are not being adequately served by existing interventions. Programs that adopt a more systematic view of how families can be assisted are in a better position to identify and create opportunities for these underserved groups. Our review indicates that many proven/promising programs are targeting their efforts to families that are not receiving support through other outlets, as these populations are most in need for support services.

Other important program development lessons:

- **Supplemental services can enhance program efficacy:** Many of the most successful programs offered a variety of service components, including child development (e.g., home visits, quality child care), family development (e.g., comprehensive health and mental health services, parenting education, nutrition education, health care and referrals, family support), and community building. These supplemental services can increase program impacts, especially for those families facing myriad stressors.<sup>12</sup>
- **We need to understand the dynamics of skill development:** The most successful parental education programs emphasize techniques for *skills-generalization* (i.e., how to take a set of learned skills and apply it to different circumstances) as well as *skills-maintenance* (i.e., how to retain and develop learned skills) to ensure a transfer of learning across different contexts. Skill acquisition and retention is an essential component of any prevention program, and it is important that program developers understand the dynamics of skill development as they formulate theories of change. This should include ideas of self-regulation, self-efficacy, self-sufficiency, self-management, and problem solving – all of which help parents retain the skills they develop.
- **Program curriculum should reinforce instruction and engage parents and children:** Programs that reinforce content (through either an interactive component between children and parents during the instructional lesson or through a homework component) are particularly effective in fostering healthy contact and communication between parent and child. Interventions should engage both

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<sup>12</sup> MacMillan, H. L., Wathen, C. N., Barlow, J., Fergusson, D. M., Leventhal, J. M., & Taussig, H. N. (2009). Interventions to prevent child maltreatment and associated impairment. *The Lancet*, 373 (9659), 250-266.

parents and children to “practice” what they learn through innovative curriculum components (including multimedia exercises) and at-home discussion. The physical participation of children in this process is an important component of behavior skills training.<sup>13</sup>

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## Implementation and replication lessons

Developing high quality prevention programs is an important and critical step in building an effective prevention response. Equally important, however, is implementing these programs in a manner that enhances their ability to engage and retain a high proportion of their intended target populations and to sustain their efforts over time. With respect to participant engagement, the voluntary nature of prevention programs place an added burden on providers and researchers to carefully examine the process potential participants follow in determining if they will seek out, enroll and remain in these programs. Our review of the literature on engagement and retention in voluntary prevention programs identified a number of strategies important for maximizing robust participant engagement. Effective engagement requires workers to demonstrate cultural awareness, respect and understanding towards the participant.

Characteristics of the worker–participant relationship should also include collaborative goal setting and acknowledgement by the participant that they are aware and responsible for their situation.<sup>14</sup> Outside of relationship factors, program factors also influence participant engagement. Home visitor characteristics, staff turnover, program structure, program stability, length of the intervention program, program location and a match between program offerings and client need all affect engagement and retention rates.<sup>15</sup> A clients’ previous experience in services, maternal age and level of community mobility are remaining factors that influence program completion. In order to maximize engagement, a program must consider these factors and incorporate them into their program design.

In addition to giving careful thought to the participant engagement question, successful implementation also requires attention to the ways in which service providers and the organization delivering an intervention are introduced to a given model. When new practice reforms are introduced at an agency, staff need to be given sufficient time to work with the model and build confidence in their ability to delivery the intervention with fidelity. Similarly, management of an organization adding a new service

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<sup>13</sup> MacMillan et al 2009.

<sup>14</sup> Altman, J. C. (2008). A study of engagement in neighborhood-based child welfare services. *Research on Social Work Practice, 18*(6), 555-564.

<sup>15</sup> Girvin, H., DePanfilis, D., & Daining, C. (2007). Predicting program completion among families enrolled in a child neglect preventive intervention. *Research on Social Work Practice, 17*(6), 674-685,

Daro, D., & McCurdy, K. (2001). Parent involvement in family support programs: An integrated theory. *Family Relations, 50*(2), 113-121.,

component needs to consider how best to orient their staff to the new component and its relationship to other programs operated by the agency. The organization must also be ready to implement the model immediately following staff training and plan and budget for staff turnover.<sup>16</sup> High rates of staff turnover present serious challenges for prevention programs both on the service side and from an administration standpoint. One strategy for combating staff turnover cited in the literature was organizational mentoring. While this can be difficult to implement for a number of reasons, if done well it will produce many positive benefits including increased quality of work and enhanced motivation and learning.<sup>17</sup> It is important, especially in the public sector, to place a higher level of priority on developing the workforce and creating strategic plans for training and development. This will improve the ability of organizations to sustain robust services.

Developing a learning organization is another way to build organizational capacity. A learning organization is one in which staff feel supported, valued and trusted. When the culture in an organization is one that allows open reflection and collaboration, where workers truly feel their input and opinions are valued, productivity will increase.<sup>18</sup> Thus, it is essential when developing a learning organization to ensure that the process is open and credible. It is important for all involved to believe that decisions for which they are providing input have not already been made. This collaboration creates a shared vision between managers and workers and often results in new ways of visualizing a problem and workers' increased dedication and commitment to the projects and goals of the organization. When building a learning organization, key characteristics include: an open and inclusive management culture, strong leadership, resource stability and transparent access to data.<sup>19</sup> Learning organizations produce successful results because they go beyond solving the problems they face; they also reflect critically on their own behavior, learn from failure and past history, learn from the experiences and best practices of others and understand how to transfer new knowledge efficiently throughout the organization. The transfer of knowledge and new ideas is critical in enabling the leader to move the organization forward. Lastly, definitive policies and practices are important in a learning organization because they further emphasize the open and transparent culture.

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<sup>16</sup> Elliot, D., & Mihalic, S. (2004). Issues in disseminating and replicating effective prevention programs. *Prevention Science*, 5(1), 47-53.

<sup>17</sup> Hale, M. (1996). Learning Organizations and Mentoring: Two Ways to Link Learning and Workforce Development. *Public Productivity & Management Review*, 19(4), 422-433.

<sup>18</sup> Hicks, D., Larson, C., Nelson, C., Olds, D. & Johnston, E. Collaboration in community health initiatives: The relationship between process quality and attrition in the Colorado Nurse-Family Partnership. *Unpublished Draft Manuscript*.

<sup>19</sup> Daro, D. (2007). Best Practices in Prevention: The Importance of "Learning Organizations". *Presentation at the San Diego Conference for Child Maltreatment*.

There is a growing body of research on how to enhance and strengthen the replication and expansion of promising innovations. For any organization thinking about bringing their program model to scale, it is important to first clarify what they are trying to bring to scale. There are three different ways of “going to scale” identified in the literature: expansion, which increases the scope of operation; replication, which involves getting others to import the model; and collaboration, which is forming partnerships to divide the responsibility of going to scale.<sup>20</sup> Before initiating any of these types of scaling up, it is recommended that an organization, after clarifying what is being brought to scale, test and refine the model, conduct a needs assessment and allot enough time for the site to develop readiness and capacity. Site readiness is essential to implementation success and most replication failures can be linked to inadequate site preparation or readiness.<sup>21</sup> Additionally, a third party assessment of the implementation often provides other critical elements to the process of scaling up and helps accurately determine the impact made.<sup>22</sup> The main lesson the literature conveys is that for effective replication, it is essential for a site to develop a clear plan and allow enough time for readiness and not rush to implementation.

Taking a program to scale often raises questions about the sustainability of the program or initiative. Common sustainability challenges for home visiting programs include: securing funding that supports services and system functions without compromising quality or the program model’s design; demonstrating efficacy of the model and ensuring replication with quality; and maintaining the program characteristics that made the home visiting program successful in the past.<sup>23</sup> In some cases the program model needs to be adapted to fit a specific population. Ensuring that the adaptation does not compromise the fidelity of the model is important to sustainability. When planning strategic implementation of an initiative, it is important to incorporate institutionalization of the program, building community ownership from the start, and securing long-term sustainable funding opportunities.<sup>24</sup> Insufficient funding is a common threat to the sustainability of a program or initiative, and successful implementation requires financing of start-up activities, direct services for the client, and infrastructure development.

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<sup>20</sup> Cooley, L., & Kohl, R. (2005). Scaling up—from vision to large-scale change: A management framework for practitioners: *Management Systems International*.

<sup>21</sup> Elliot and Mihalic 2004.

<sup>22</sup> Cooley & Kohl 2005.

<sup>23</sup> Elliot and Mihalic 2004.

<sup>24</sup> Chavis, D. M., & Trent, T. R. (2009). Scope, scale, and sustainability: What it takes to create. Lasting community change. *The Foundation Review*, 1(1), 96-114.

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## Knowledge gaps and learning opportunities

Achieving stronger impacts with young children and their families will require continued efforts at developing and testing a broad array of prevention programs and systemic reforms. Today, as in the past, no one program or one approach offers any guarantee of success. Although compelling evidence exists to support early intervention efforts, beginning at a time a woman become pregnant or gives birth, the absolute “best way” to provide this support is not self-evident. Our review, as well as reviews by others, underscores the point that the most salient protective factors or risk factors to target to avoid negative outcome for children will vary across populations as well as communities. Finding the correct leverage point or pathway for change for a specific family requires careful assessment, followed by an offer of assistance commensurate with a family’s level of need. Our review did not identify a single program model or service delivery system that worked for all families under all conditions. As noted above, we did identify a set of core best practices and quality standards that improve the odds for achieving outcomes. How to package these standards within the context of a given intervention, however, remains a challenge. For example, some of the questions that remain unaddressed with respect to structuring and targeting prevention services include:

- **Determining relative risk for maltreatment:** Many of the most promising prevention programs target services to families perceived as facing an enhanced risk for child maltreatment. The most common factors used to identify populations at risk include young maternal age, poverty, single parent status and severe personal challenges such as domestic violence, substance abuse, and mental health issues. Although such factors are often associated with elevated stress and reduced capacity to meet the needs of the developing child, no one of these factors are consistently predictive of poor parenting or poor child outcomes. In addition, families that present none of these risk factors may find themselves in need of preventive services as the result of a family health emergency, job loss or other economic uncertainties. Indeed there is some antidotal evidence that suggests a recent increase in the potential risk for maltreatment among middle income households.<sup>25</sup> In short, our ability to accurately identify those who will benefit from preventive services is limited and fraught with the dual problems of over-identification and under-identification. Building on a public health model of integrated services, some prevention strategies have addressed this dilemma by embedding targeted, intensive services within a universal system of assessment and support. The ultimate goal of such a system is to normalize the process of seeking out and accepting offers of support while enhancing the ability to effectively identify and support those families facing the greatest challenges. Although potentially promising for changing normative attitudes toward help seeking and improving enrollment rates, the strategy has not been rigorously assessed from either a cost or outcome perspective.

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<sup>25</sup> For example, the United Way’s “211” parent help line is reporting a substantial increase in the proportion of calls they are receiving from suburban communities.

- **Determining how best to intervene with diverse ethnic and cultural groups:** Much has been written about the importance of designing parenting and early intervention programs that are respectful of the participant's culture. For the most part, program planners have responded to this concern by delivering services in a participant's primary language, matching participants and providers on the basis of race and ethnicity, and incorporating traditional child rearing practices into a program's curriculum. Far less emphasis has been placed on testing the differential effects of evidence based prevention programs on specific racial or cultural groups or the specific ways in which the concept of prevention is viewed by various groups and supported by their existing systems of informal support.
- **Identifying ways to use technology to expand provider-participant contact and service access:** The majority of the prevention programs we examined involve face-to-face contact between a provider and program participant. Indeed, the strength and quality of the participant-provider relationship is often viewed as one of the most, if not the most, important determinant of proximate and distal outcomes. Personal contact is certainly a key feature of successful programs, particularly with families who are extremely isolated and disconnected from formal and informal supports. Although not a replacement for personal contact, the judicious use of technology can augment the capacity of a direct service provider to offer assistance to families on their caseload. For example, we did identify one example in which home visitors used cell phones to maintain regular communication with parents between intervention visits.<sup>26</sup> We also identified a number of examples in which programs used video taping to facilitate providing feedback to parents on the quality of their interactions with their children<sup>27</sup> or used the internet to link families with an array of resources in the community.<sup>28</sup> Expanding the use of these technologies and documenting their relative costs and benefits for both providers and program participants seems an area worth exploring.

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<sup>26</sup> Bigelow, K., Carta, J. & Lefever, J. (2008). Using cellular phone technology to enhance a parenting intervention for families at risk for neglect. *Child Maltreatment*, 13:4 (November), 362-367.

<sup>27</sup> Examples of models using this technique Promoting First Relationships program developed by colleagues of Kathryn Barnard at the University of Washington to assist very high risk families with young children and Circle of Security program which integrates over fifty years of attachment research into a video-based intervention to strengthen parents' ability to observe and improve their care giving capacity ([www.circleofsecurity.org](http://www.circleofsecurity.org)).

<sup>28</sup> For example, Positive Parenting DuPage is a multi-faceted, county-wide collaboration comprised of dozens of organizations that work with families during the first three years of a child's life. By uniting organizations across the county with similar goals, the program coordinates educational materials, strengthens linkages and access to support for all new families. This comprehensive system includes components targeting all parents and involves the marshalling of existing resources, expanding resources and adding new resources to meet gaps in services. A central feature of this effort is a web site that maintains a "virtual" calendar of all activities supported by the partner agencies. Similarly, One Tough Job is a campaign funded by the Massachusetts Children's Trust Fund to provide parents with the expert information, tips and support they need and deserve to be the best parent they can be. Its parenting web site, [www.onetoughjob.com](http://www.onetoughjob.com), is available in Spanish and English and has been awarded a 2007 National Parenting Publications Award (NAPPA) in the Honors category by United Parenting Publications.

- **Achieving a balance between enhancing formal services and strengthening informal supports:** It has long been recognized that families draw on a combination of formal services (e.g., health care, education, public welfare, neighborhood associations and primary supports) and informal support (e.g., assistance from family members, friends and neighbors) in caring for their children. As prevention planners begin to focus on altering community context as well as individual behavior, the dual importance of these two approaches is gaining increased attention.<sup>29</sup> Some of these strategies seek to expand public services and resources available in a community by instituting new services, streamlining service delivery processes, or fostering greater collaboration among local service providers. Other strategies focus on altering the social norms that govern personal interactions among neighbors, parent-child relationships, and personal and collective responsibility for child protection. In each case, the goal is to build communities with a rich array of formal and informal resources and a normative cultural context that is capable of fostering positive child and youth development. Although many agree on the need to balance the expansion of high quality, evidence based programs while encouraging individuals to accept personal responsibility for supporting each other in caring for children, how to do this is not clear. Placing too much emphasis on creating an environment of mutual reciprocity may not create the array of formal interventions some families may want and need. In contrast, focusing only on formal services may ignore the inherent limitations to public resources and the importance of creating a culture in which seeking assistance in meeting one's parenting responsibilities is normative.

Identifying and testing a range of innovations that address all of these concerns and alternatives is important. Equally challenging, however, is how these efforts are weaved together into effective prevention systems at local, state and national levels. Just as the appropriate service focus will vary across families, the appropriate collaborative partnerships and institutional alignments will differ across communities. In some cases, public health services will provide the most fruitful foundation for crafting effective outreach to new parents. In other communities, the education system or faith community will offer the most promising approach. And once innovations are established, they will require new partnerships, systemic reforms or continuous refinement if they are to remain viable and relevant to each subsequent cohort of new parents and their children.

In short, protecting young children from abuse and neglect is a complex task and one that most certainly involves changing parental behaviors, creating safer and more supportive communities, and improving the quality and reliability of public institutions. Although several prevention programs targeted toward individual families have had positive effects on the families they serve, these effects often fade over time in part because local communities and public institutions fail to reinforce the parenting practices and

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<sup>29</sup> For a full discussion of this issue see Daro, D. and Dodge, K. (in press). Creating community responsibility for child protection: Possibilities and challenges. *The Future of Children*.



choices these programs promote. They also may fade because too much emphasis has been placed on the structure and content of the intervention and too little emphasis has been placed creating a mechanism within families as well as organizations to effectively discern their needs and efficiently utilize those resources that are made available to them.

Those engaged in child abuse prevention efforts need to be more effective in how they describe their intent with respect to what they plan to provide families as well as what types of changes and investments by families they hope they realize. Any innovation, regardless of its target population and institutional auspice, needs to be guided by strong theoretical models that link program strategies to specific outcomes and to be subjected to evaluation methods appropriate for their complexity and reach. In some cases, these research methods will employ randomization procedures and follow traditional scientific methods of inquiry. Equally important, however, is enhancing our understanding about how services are delivered. Better, more robust, implementation studies are needed to document the most efficient ways to replicate programs and take them to scale. In truth, some issues will only surface after programs have been taken “to scale” and moved beyond venues where researchers control all of the critical variables. Program managers and practitioners need to be adaptable problem solvers and researchers need to engage with them in this learning process. In this respect, evaluation designs need to provide service to practice as well as scientific communities

Achieving appropriate investments in child abuse prevention programs targeting young children will require the QIC-EC to develop a research and policy agenda that recognizes the importance of strengthening the link between learning and practice. It is not enough for scholars and program evaluators, on the one hand, to learn how maltreatment develops and what interventions are effective and for practitioners, on the other, to implement innovative interventions in their work with families. Instead, initiatives must be implemented and assessed in a manner that maximizes both the ability of researchers to determine the effort’s efficacy and the ability of program managers and policy makers to draw on these data to shape their practice and policy decisions.

In light of this consideration, the QIC-EC leadership may want to consider the following parameters in defining their RFPs:

- require all applicants to articulate a clearly defined theory of change, including measureable proximate and distal outcomes;
- require all applicants to demonstrate a set of qualifications and organizational characteristics that demonstrate a “readiness” to adopt a specific innovation the sustain the effort over time;
- require all applicants to articulate the specific way in which their innovation or strategy will strengthen a parent’s ability for self-reflection in discerning appropriate options for themselves and their children; and

- require applicants to demonstrate how their proposed innovation will complement and be supported by other local service provider and normative community standards.

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# Programmatic components

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## Programmatic intent or focus

### Literature

- By recognizing that child abuse and neglect are risk factors for juvenile delinquency, the Safe Kids/Safe Streets program successfully implements system reform via collaboration between community partners to reduce child abuse and neglect and improve response capacity across individuals and organizations [Gragg et al 2005]
- The majority of child abuse and neglect interventions employ secondary and tertiary approaches, despite that only primary interventions are specifically geared to prevent abuse and neglect before they occur [Portwood 2006]
- Although relied on less frequently to inform prevention efforts, macro-level theories (such as the frustration-aggression hypothesis) provide practitioners with a motivation to encourage systemic change (e.g. increasing resources and supports for parents) [Portwood 2006]
- The vast majority of interventions rely on individual- and family-oriented theories to inform prevention strategies (e.g. family therapy, parent education, home visitation, support groups) [Portwood 2006]
- Support for parent education prevention models derives largely from the belief that “lack of knowledge about child development and inadequate parenting skills are fundamental causes of child maltreatment” [Portwood 2006]

### Programs

- Although programmatic motivations varied across the interventions we examined, programs generally sought to:

- Investigate whether intensive early education program can have long-term, lasting effects on children's success
- Provide services to disadvantaged families not receiving support through other programs (e.g. Head Start)
- Utilize a community-based prevention method that targets outreach to families most at risk for child abuse
- Focus on improving on improving health-related outcomes, including:
  - health behaviors during pregnancy
  - competent parenting (thus improving health outcomes)
  - linkages with other health and social service organizations
  - healthy relationships within families
- Utilize the professional capacities of existing staff to deliver services that reinforce and develop competent parenting

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## **Timing**

### **Literature**

- Further investigation is needed on the existence of a window of interventive opportunity – this may be accomplished by staggering initiation points for services [Guterman 1997]
- The most effective maternal sensitivity interventions did not always start before birth or early in life (before six months) (208) [Bakermans-Kranenburg et al 2003]

### **Programs**

- Programs varied widely in their timing, with some starting during pregnancy, some during infancy, some during pre-school and primary school, and others at any time during childhood
- Many programs seek to offer a comprehensive model that can accommodate families with children of any age by varying the type/intensity of interventions

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## Frequency

### Literature

- Long-term interventions are more effective when coupled with moderately frequent visits (i.e. biweekly or weekly) [Guterman 1997]
- Highly intensive maternal sensitivity interventions with numerous sessions yielded small or negative effect sizes [Bakermans-Kranenburg et al 2003]

### Programs

- Nearly all of the programs reviewed included weekly intervention components, depending on level of risk/need of individual families
- Some programs were constructed so that frequency varied along an intervention continuum, such that more needy families received services more frequently (e.g. more than once each week), while others received services less frequently (e.g. twice per month)

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## Duration

### Literature

- Contrasting ideas about duration underscore the need to clearly delineate a “time horizon by which success in child maltreatment prevention is defined” and frame duration questions around this construct [Guterman 1997]
- Both long-term and short-term durations seem promising, relative to the “time horizon” used to measure impact [Guterman 1997]
- Comprehensive programs with multilevel intervention, such as the Triple P-Positive Parenting Program, vary duration by client need and have been associated with positive outcomes [Sanders et al 2003]; these programs are both consistent with a public health model of service provision and successful at providing a “minimally sufficient level of support” [Prinz et al 2009, Sanders et al 2003]
- By offering differential levels of support to different types of clients (e.g. by varying the intensity and duration of services) and providing a “minimally sufficient” level of support, programs can achieve optimal cost-effectiveness [Sanders et al 2003]

## Programs

- Programs varied widely in their duration, with some lasting only a few weeks and others spanning up to a year or beyond
- The more intensive, targeted interventions tend to have a longer duration (e.g. Head Start)

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## Personnel

### Literature

- Paraprofessional support is most useful when employed intensively over long-term interventions [Guterman 1997]
- Professional support seems generally indicative of significant intervention effects [Guterman 1997]
- Multidisciplinary teams with “elaborate personnel arrangements” do not necessarily offer a relative clinical advantage [Guterman 1997]
- Some evaluations revealed home visitation models with service delivery by paraprofessionals to be less successful than models with trained professionals (e.g. nurses, as seen in programs like the Nurse-Family Partnership and Early Start) [MacMillan 2009]; others, such as the NFP trials, did find some positive effects for paraprofessionals, especially when longer-term effects were examined [Olds et al 2002, 2004]
- One possible explanation for the small effect sizes produced by paraprofessionals may be their lack of “natural legitimacy”; whereas nurses may have “engagement and persuasive power” with pregnant women and parents of young children, paraprofessionals may lack this skill and/or authority [Olds et al 2002]
- Although interventions that utilize paraprofessional support may be less able to accurately assess family health and development issues, they may be better able to establish strong, trusting personal relationships with at-risk families [Portwood 2006]
- Parent education programs suffer from high levels of participant attrition and staff turnover [Portwood 2006]

### Programs

- Many of the most effective programs required that personnel be experienced professionals (including teachers, nurses), and some further required graduate-level training

- Most programs are supplemented by certification/accreditation training for providers (required by program developers before the intervention can be used at a new site) that includes on-going support
- Home visitation programs seem to be less consistent with personnel qualifications than parent education or school-based programs (i.e. some home visitations hire paraprofessionals while others hire professional nurses)

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## Target population

### Literature

- By screening participants and targeting services to only those in the highest-risk categories, interventions may screen out those who are most responsive to treatment [Guterman 1997]
- Interventions that offer services based on universalistic intake and based on specific demographic risk factors (such as teen low socioeconomic status or single/teen parenthood) may yield the greatest effect and make best use of resources over psychosocial screening [Guterman 1997]

### Programs

- Because we elected to examine secondary prevention, most programs targeted their delivery to “at-risk” clients (defined differentially by program)
- Referrals to programs often came from local hospitals, clinics, and social service providers

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## Promising practices

### Literature

- The most successful interventions “employed some form of parenting guidance or education to enhance the parent-infant interaction” [Guterman 1997]
- The most successful interventions “explicitly sought to link families with formal and/or informal supports” [Guterman 1997]
- Taken as an aggregate (meta-analysis), early prevention programs have a significant overall positive effect on reducing child abuse and neglect for at-risk families with young children under three [Geeraert et al 2004]
- Taken as an aggregate (meta-analysis), prevention programs have a net positive effect on affecting the underlying factors associated with child abuse and neglect – these include “child functioning,

interaction between parent and child, family functioning, and context characteristics” [Geeraert et al 2004]

- Targeted interventions with a narrow focus consistently improved outcomes (maternal sensitivity and infant attachment insecurity) [Bakermans-Kranenburg et al 2003]
- The most effective maternal sensitivity interventions retained their impact “regardless of the presence or absence of multiple problems in the family” [Bakermans-Kranenburg et al 2003]
- On the whole, home visitation programs have not been shown to reduce physical abuse or neglect when assessed with randomized clinical trials (exceptions include the Nurse-Family Partnership and Early Start program) [MacMillan 2009]
- The Nurse-Family Partnership program, which provides home visiting services by qualified nurses to low-income, first-time mothers, has been shown to significantly reduce physical abuse and neglect [MacMillan 2009]
- The Early Start program, which provides home visiting services to “families facing stress and difficulties”, significantly reduced hospital reports of physical abuse and injuries [MacMillan 2009]
- Home visiting programs have been identified as the strongest preventative effort, as well as the most promising type of intervention [Portwood 2006]
- Intensive nurse home visitation interventions have been shown to have positive effects on parenting attitudes and behaviors and on reported child abuse and neglect [Portwood 2006]
- The two most widely-used and promising prevention models (Olds model and Healthy Families Model) both include the following components in their interventions: frequent home visiting, “the provision of care within the context of a therapeutic and supportive relationship”, a set curriculum, effective parenting modeling, and linkages to community support services [Portwood 2006]
- Although most school-based child empowerment models of prevention have not been evaluated, successful components of these models are anecdotally believed to allow children to physically participate in behavior skills training [Portwood 2006]
- Among lessons learned, comprehensive community-wide collaborations can benefit from the following recommendations:
  - Schedule a long planning period (9-12 months), a long demonstration period (8-10 years), a transition-out period with stepped-down funding (1-2 years), and detailed project timelines/workplans
  - Emphasize balance among program elements and investments



- Provide technical assistance during all phases of the project (planning, implementation, and transition-out)
- Emphasize clear communication in order to form a “learning community”
- Evaluate programs locally by focusing on “results-based accountability”

[Gragg et al 2005]

## **Programs**

- Many of the most successful programs offered a variety of service components, including child development (via home visits, quality child care), family development (comprehensive health and mental health services, parenting education, nutrition education, health care and referrals, family support), and community building
- While the best programs appear to have the flexibility to tailor services to meet individual families’ needs, it is difficult to evaluate programs that offer differential levels of service
- A key element of success for many programs was the ability to link families directly to service providers within the community
- Some successful programs included interactive components, such as videotapes that encourage group discussion, problem-solving, and idea-sharing, as well as role playing for children to allow them to “try out” lessons learned
- Supplemental, less conventional support components should also be considered to enhance program efficacy (e.g. providing additional goods and services, like health check-ups/referrals, free/reduced school lunches, social support networking)
- Programs for parents that are most successful include lessons that teach techniques of skills-generalization and skills-maintenance (ensures a transfer of learning across different contexts) as well as lessons that emphasize self-regulation, self-efficacy, self-sufficiency, self-management, and problem-solving (to help parents retain the skills developed in the program)
- Small class sizes are common among the most successful/promising prevention programs
- Some successful/promising programs reinforced lessons through a homework component (encouraging parents and children to “practice” what was learned via role-playing and discussion)
- Common components of successful programs focus on:
  - Improving parents’ self-esteem, communication skills, level of engagement, decision-making skills, and stress management skills

- Strengthening parents' awareness of community-based support mechanisms
- Encouraging parents to develop age-appropriate expectations for their children
- Teaching parents to utilize nurturing, non-violent strategies/techniques when they establish family discipline
- Increasing parents' awareness of self and others in developing positive patterns of communication and establishing healthy, caring relationships
- Our review of successful/promising programs has indicated that the following should be taken into consideration as we think about prevention models:
  - It is difficult to ascertain whether results from programs implemented in communities with strong linkages to social service agencies are replicable in other settings
  - Need to distinguish which programmatic components are driving overall effectiveness so that we know which should be consistently delivered
  - Need to untangle the effect of using professionals versus paraprofessionals in interventions (especially home visitation)
  - Evaluations of home visiting showed that nurses tended to focus more on personal health and parenting than did paraprofessionals (this is more consistent with the goals of the program)
  - Need to consider how to balance the focus of nurses versus paraprofessionals with a sense of cost-effectiveness
  - Role playing practice for children can greatly enhance the success of a program
  - Possible weakness of school-based programs: outcome measures did not examine actual decrease in child abuse or neglect, but rather children's own attitudes and behavior in ways that could lead to a reduction in abuse and neglect

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## **Supportive systematic and organizational reforms**

### **Literature**

- The prevention of child abuse and neglect may be positively impacted by collaborative efforts among advocates and community partners, including:
  - Increasing organizational capacity to respond to reported child abuse and neglect
  - Increasing personal/professional capacity to respond to reported

- Expanding and bolstering services for children and families
- Enhancing greater interagency communication, cooperation, and collaboration
- Increasing cultural sensitivity and competence
- Increasing capacity to collect and utilize data
- Increasing prevention education and public awareness
- Supporting changes in legislation, state policy, and resource distribution

[Gragg et al 2005]

- Factors that may positively impact outcomes include:
  - Creating an adaptable program design
  - Adapting a flexible timeframe
  - Securing strong commitment to goals
  - Confirming the availability of technical assistance and support
  - Emphasizing the notion of a “learning community”
  - Selecting a credible lead agency
  - Recruiting skilled project leadership and staff and sustained commitment from key partners

[Gragg et al 2005]

- Examples of community-based prevention programs for child abuse and neglect are rare; future work should target interventions to help families escape poverty and step-up components that enhance social support networks that connect families to the resources they need [Portwood 2006]
- Systematic and social reform should include the provision of high quality child care which can both directly and indirectly reduce child abuse and neglect [Portwood 2006]

## **Programs**

- Programs may readily address cost effectiveness by ensuring that interventions are tailored to individual families’ needs and risk levels (e.g. upon the completion of an intervention level, each family should receive a detailed assessment to determine if further intervention is necessary)

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# Implementation

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## Participant engagement and retention

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- Examples of program attributes that contribute to parent enrollment and retention decisions include:
  - Staff fluctuation
  - Location of services
  - Program auspices
  - Staff training requirements
  - Average staff caseload
  - Stability of program funding

[McCurdy & Daro 2001]

- “Researchers report that substance abuse, depression and domestic violence may challenge parents’ abilities to complete services that target parenting (Guterman, 2001; Navaie-Waliser et al 2000)”. However, contradicting evidence proves that these ‘difficult’ clients facing problems with substance abuse and depression do not necessarily drop out of preventive interventions (Daro et. al, 2003; Duggan et al, 1999) (682). Girvin et al (2007) developed a study which attempted to build a predictive model of completion, which provided tentative support for the notion that clients with complex and difficult problems can complete preventative services.
- Studies indicate it is difficult to predict which clients will leave programs before completion [Daro et al., 2003]
- Daro and Harding (1999) report that factors linked to attrition include: maternal age, high mobility in some communities, refusal of partner or another adult in home to allow regular visitor access and the stability and tenure of the sponsoring agency. (675)

- Elements of effective engagement include collaborative goal setting, good communication, maintaining a positive hopeful outlook and acknowledgement by parents that they are aware and responsible for the situation they are in. [Altman et al 2007]
- It is important for workers to demonstrate cultural awareness, respect and understanding to maintain levels of engagement. [Altman et al 2007]
- “Findings exist that engagement may be related to clients’ past and current experience in services, their personal networks or their readiness to change (Daro et al., 2003)” (563)
- Other research and studies confirm that the match between the services provided and the clients needs and the alliance between the social worker and the family members matter significantly in retention rates.
- “Other studies indicate premature exit of a program is linked to clients feeling that services offered are not what they need (Epperson, Bushway & Warman, 1983; Weiss, 1993). [Girvin et al 2007]
- Enrollment and retention rates are also influenced by home visitor characteristics, program structure and length of the intervention program (easier to complete services for a shorter program). [Girvin et al 2007]
- We know very little about how individual characteristics determine what services parents seek, whether specific program structures and policies attract providers with common attributes, whether some programs flourish in particular communities or whether some level of neighborhood functioning needs to be in place before a parenting program can attract and maintain its target audience. (118) [McCurdy & Daro 2001]
- Engagement studies in the future will need to capture more information surrounding why participants seek help, the perceptions of the help they are getting, strategies workers are using to form relationships with them and the ‘help seeking values’ of their community. [McCurdy & Daro 2001]
- Programs should make more of a concerted effort to create an employment environment that conveys to direct service staff a sense of their value by regularly offering staff development opportunities, creating forums in which direct service staff can offer their input into program direction and offering regular opportunities to discuss difficult cases with supervisors and colleagues. (119) [McCurdy & Daro 2001]

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## **Workforce development**

- Serious challenges in implementation of a model with staff include a lack of time working with the model (building confidence), and high rate of staff turnover. [Elliot and Mihalic 2004]

- Agency managers and staff need to be skilled in effectively using information and notions of “best practice” to guide their specific service implementation. [Daro 2007]
- It is important to have a leader who is committed to excellence and continuous program improvement somewhere in the organizational structure. [Daro 2007]
- “Frequent turnover of administrative staff makes it harder to apply one policy systematically because administrators often feel compelled to set themselves apart from their predecessors by terminating programs associated with the former regime” (Slavin & Maddin, 1995, p.81) [McDermott 2000]
- With regard to staff training, recommendations that emerged from the Blueprint study were to:
  - Be firm regarding the formal eligibility requirements for program staff
  - Hire all staff before scheduling training
  - Conduct a general orientation of the program with staff before training
  - Encourage administrators to attend training
  - Plan and budget for staff turnover
  - Be ready to implement the program immediately after training (49)[Elliot and Mihalic 2004]
- Collaboration has the greatest potential where various organizations have different and complimentary skills or resources, have shared or overlapping objectives and have a high level of mutual trust. (13) [Hicks et al]
- Developing learning organizations and organizational mentoring can be used to develop the workforce and build capacity in public organizations [Hale 1996]
- Organizational mentoring can be challenging to implement but if done well will produce positive benefits including: increased quality of work, enhanced motivation and learning and inculcating norms, values and opportunities in organizations. [Hale 1996]
- Two barriers to workforce development are: the low level of priority given to developing the workforce and creating strategic plans for training and development and second, the nature of the work makes it difficult to measure the return on investment of human capital development in the public sector (“process over results orientation”). [Hale 1996]

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## Organizational culture

- Two mistakes in a company's effort to become a learning organization are: 1) defining learning too narrowly as 'problem solving' and neglecting to reflect critically on their own behavior or learn from failure, and 2) focusing too much on creating incentives to make people feel motivated and committed. Learning is not simply connected with how people feel, it is also a reflection of how people think. [Argyris 1991]
- Learning organizations are skilled at five main activities:
  1. Systematic problem solving
  2. Experimentation with new approaches
  3. Learning from their own experience and past history
  4. Learning from the experiences and best practices of others
  5. Transferring knowledge quickly and efficiently throughout the organization[Garvin 1993]
- Senge defines learning organizations as organizations in which: norms are determined by personal values, the meaning of one's work comes from relationships with professional colleagues, not one's manager and the focus is on problem finding and problem solving. [Hale 1996]
- For an organization to teach its members how to reason effectively, managers must examine critically and change their own theories-in-use. They must also learn to connect the problem to concrete examples. [Argyris 1991]
- To become a learning organization, an organizations must "begin to use systems thinkers and develop collaborative learning capabilities 'among different, equally knowledgeable people'". [Hale 1996]
- Open reflection produces greater productivity and awareness that improves performance. [Argyris 1991]
- Definitive policies and practices form the building blocks of learning organizations. [Garvin 1993]
- Successful ongoing programs dedicated to experimentation also require an incentive system that favors risk taking. Employees need to see that the benefits of experimentation outweigh the costs. [Garvin 1993]
- Chrislip and Larson (1994) identify two features common to highly successful collaborative initiatives: 1) Strong process leadership and 2) An open and credible process. [Hicks et al]

- Learning will only occur in receptive environments. Managers must be open to criticism and can not be defensive. [Garvin 1993]
- An open and credible process means that stakeholders perceive the process to be fair and authentic, and that decisions have not already been made in advance. [Hicks et al]
- If people do not perceive they are being treated fairly, they will not engage in collaboration, and are less likely to commit to the groups' projects and goals. If they do feel valued, respected and cared for, their will see their individual identity in terms of the group membership and contribute to the collaboration. [Hicks et al]
- Reports and personnel rotation programs are the most popular medium of transferring knowledge; personnel rotation programs are one of the most powerful methods of transferring knowledge. [Garvin 1993]
- Four characteristics that are critical to building a learning organization are: strong leadership, open and inclusive management culture, resource stability and transparent and accessible performance data. [Daro 2007]
- Successful organizations need a mechanism to spread new ideas. Without this, no leader will be able to move any concept forward. [Daro 2007]
- Chrislip and Larson (1994) argue that the aim of collaboration “is to create a shared vision and joint strategies to address concerns that go beyond the purview of any particular party” (p5). [Hicks et al]
- Collaboration is more than simply coordinating; it is a communicative activity that results in new ways of seeing and understanding social problems
- Strong process leadership brings everyone to the table for discussion, making sure that all parties feel competent, trusted and valued throughout the process. (Chrislip and Larson 1994 p.53) [Hicks et al]

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## **Information and performance monitoring**

- Organizations need to establish a framework for tracking performance in order for leaders to measure the results and impact of change. [Daro 2007]
- As organizations pursued their systems change objectives, they discovered that “even when they identified better ways of doing business and spending money the service-delivering entities that might be willing to entertain the better behavior that is requisite to ‘real’ system change often lacked adequate local infrastructure to do so” (2) [Brown 2005]
- Intermediary organizations were introduced as a solution, to provide infrastructure and give money in a way that ensures the building of organizational capacity. [Brown 2005]



- Analysis of the Riverside and Portland Welfare to Work programs suggested that program design and site characteristics were factors contributing to success; contextual features played a large role which makes replication complicated and the chance of obtaining identical effects unlikely if contextual features are different. [Greenberg et al, 2005]
  - Looking single-mindedly at whether a program worked or not does not address how it worked, or what factors affect the generalizability.
  - Four changes in the approach to evidence in health care would help accelerate the improvement of systems of care and practice:
    - Embrace a wider range of scientific methodologies
    - Reconsider thresholds for action on evidence
    - Rethink views about trust and bias (vigorously attacking bias can have unanticipated perverse affects)
    - Be careful about mood, affect and civility in evaluations
- [Berwick 2008]
- The Harlem Children’s Zone Asthma Initiative (HCZAI) demonstrates that community-based interventions that target elements of the built environment such as poor housing conditions may have great potential. [Spielman 2006]

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## **Dissemination and replication of innovation**

### **Implementation**

- Few programs identified as model programs have been successfully implemented on a wide scale.
  - A commitment to developing site capacity and allotting enough time for developing site readiness must become routine for successful implementation of initiatives.
  - Elements of successful implementation include:
    - Conduct a needs analysis
    - Identify champions
- [George 2008]

- “Partial implementation of several different reforms produces many winners of small-scale competitions, thus spreading the benefits much wider than declaring one winner of a large-scale contest for influence and prestige”. [McDermott 2000]
- By implementing many small scale reforms, schools are able to gain some of the benefits of the reform without paying all of the associated costs. [McDermott 2000]
- Critical elements in site readiness related to successful implementation are:
  - a well connected and respected local champion
  - strong administrative support
  - formal organizational commitments and organizational staffing stability
  - up front commitment of resources
  - program credibility within the community potential for program routinization[Elliot and Mihalic 2004]
- Important factors in implementation of evidence-based practices are: funding, work climate, shared-decision making, coordination with other agencies, formulation of tasks, leadership, program champions, administrative support, staff skill proficiency, training and technical assistance. (8) [Elliot and Mihalic 2004]
- “The available research demonstrates that fidelity is related to effectiveness and any bargaining away of fidelity will most likely decrease program effectiveness” (Battistich *et al.*, 1996; Blakely *et al.*, 1987; CSAP 2001; Fuchs & Fuchs, 1989; Gottfredson, 2001; Gray *et al.*, 2000; Kam *et al.*, 2003) (51) [Elliott and Mihalic 2004]

### **Going to scale**

- Communications campaigns can amplify impact without organizational expansion, achieving a different manner of going to scale. [Kramer 2005]
- The Blueprints program is an example of a program that has evolved into a large scale prevention initiative, identifying model programs and providing technical support to aid in implementation. [Elliot and Mihalic 2004]
- The claim of a programs effectiveness based on experimental trials cannot be logically sustained in the face of substantive adaptations. (51) [Elliott and Mihalic 2004]
- Successful scaling up begins with good planning; it is important to clarify what you are scaling up first. [Cooley & Kohl 2005]

- Before scaling up a model or a project, sufficient testing, clarifying, refining and simplifying of the model should take place. Third-party assessments often provide elements essential to the scaling up process, including credible verification of impact. [Cooley & Kohl 2005]
- The three types and methods of scaling up are expansion, replication and collaboration. Expansion increases the scope of operation, replication involves getting others to implement the model and collaboration falls in the middle, creating formal partnerships and networks and dividing responsibility for going to scale. [Cooley & Kohl 2005]
- The easiest pilot efforts to scale up are those that involve a clear and replicable technology and that self-generate financial resources needed for expansion. [Cooley & Kohl 2005]
- Organizational factors are most responsible for pilot-scale success, but the broader social and political context in which the projects are located also substantially impacts the scaling-up process. (21) [Cooley & Kohl 2005]
- “Because change often represents a significant break from tradition and requires shifts in attitudes and actions, it is important that there be ‘legitimizers’ or ‘champions’ who enjoy widespread credibility”. (29) [Cooley & Kohl 2005]
- Transfer of formal and informal knowledge is one of the most neglected aspect of scaling up. [Cooley & Kohl 2005]
- The Scaling Up Management Framework (SUM) has 3 steps and 10 tasks, as follows:
  - Step 1: Develop a Scaling-up Plan
    - Task 1: Create a Vision
    - Task 2: Assess Scalability
    - Task 3: Fill Information Gaps
    - Task 4: Prepare a Scaling-up Plan
  - Step 2: Establish the Pre-conditions for Scaling Up
    - Task 5: Legitimize Change
    - Task 6: Build a Constituency
    - Task 7: Realign and Mobilize Resources
  - Step 3: Implement the Scaling Up Process
    - Task 8: Modify Organizational Structures

- Task 9: Coordinate Action
- Task 10: Track Performance and Maintain Momentum

[Cooley & Kohl 2005]

- Success factors related directly to designing an initiative that will feasibly scale up include:
  - Clear articulation and measurement of desired community change results – assess the threshold, have specific statistical benchmarks
  - Creating the capacity for scale – understand what scale means and what it takes to get there
  - Use of data to drive the initiative and influence policy change

### **Barriers to effective replication and sustainability**

- Lack of clarity or agreement on what to sustain and a misalignment between how programs are structured and funded in the beginning vs. the long term present barriers to sustainability. [Trent and Chavis 2009]
- Barriers to change in the urban school district sector include the difficulty of building trust or civic capacity, political conflict; there is as much pressure to improve certain enclaves of the district as to improve the district as a whole. [McDermott 2000]
- Implementation staff cited lack of time working with the model as the major barrier to feeling more confident in implementing it. (49) [Elliott and Mihalic 2004]
- Most replication failures can be traced to limited site capacity, inadequate site preparation or readiness. [Elliot and Mihalic 2004]

### **Sustainability and routinization**

- Common sustainability challenges for home visiting programs include: securing funding that supports services and system functions without compromising quality or the program model's design, demonstrating the efficacy of the home visiting model, ensuring that the program model can be replicated with quality and maintaining the program characteristics that made the home visiting program successful in the past. [Elliot and Mihalic 2004]
- Success factors in a comprehensive community initiative's ability to achieve sustainable community level outcomes include:
  - A single entity acting as the broker and keeper of the vision
  - Clear, well defined roles and responsibilities

- Alignment between goals, strategies, institutional interests, resources and geography
- Meaningful community engagement
- Competent leadership and the right staff capacity
- Strategic connections between the community and the public sector

Related to this, three key elements that are key for sustainability are: **Institutionalization** (building community ownership of the initiative from the start), **Financing** (building long-term sustainable funding) and **Capacity** (building and sustain the capacity of institutions rather than programs)

[Trent and Chavis 2009]

- Program sustainability is important in four basic ways:

1. Sustainability maintains program effects over a long period of time
2. Because programs often attempt to change behavior, they must endure over a long period of time for changes to occur
3. There is often a lag between the start of programs and the time at which their effects may be felt
4. When programs are not sustainable, “organizations and actors lose what they have invested” and resist future investment

[Pluye et al 2004]

- There are four basic characteristics of organizational routinization:

1. Memory: “organizational memory” may be understood as “shared interpretations of past experiences that are brought to bear on present activities”; organizational memory requires stable resources, and consists of three major components: social networks, paper-based manuals, and computerized memory
2. Adaptation: routines are often adapted to fit with current context
3. Values: routines in organizations reflect collective values and beliefs
4. Rules: routines conform to governing rules in organizations, and these rules “account for ‘the way things are done around here’”

[Pluye 2004]

- Further, a study of organization routines indicates four degrees of program sustainability: “the absence of any activity derived from programs, the presence of unofficial activities, the presence of remaining official activities, and the presence of routinized activities” [Pluye 2004]
- Three general measures guide our understanding of program sustainability:
  1. Individual-level outcomes
  2. Organizational-level implementation of activities
  3. Community-level capacity[Scheirer 2005]
- Sustainability is influenced by “a coherent set of factors primarily related to its organizational context and the people behind it, both within and outside the implementing agency”; programs that achieved sustainability often had an organizational ‘champion’, a person who is strategically placed within an organization, to advocate for the program [Scheirer 2005]
- Many programs lack a cohesive definition of “sustainability”, which makes it difficult to assess whether or not a program will be sustainable; one way to address this is to construct a logic model that can define which specific program activity components are essential to achieving a given outcome; then, the successful maintenance of these components will constitute a “good operational definition of program-level sustainability” [Scheirer 2005]

## Resources

- For most prevention programs, “resources” include financial resources, human resources and partners. Resource stability and diversity determine how much flexibility in implementation a program/organization will have. [Daro]
- Successful implementation of evidence-based programs requires financing of three critical components:
  - Start-up activities to explore the need, feasibility and installation of program or practice
  - Direct service provided to consumers
  - The infrastructure needed to successfully implement and sustain the quality of the evidence-based program

[George 2008]

## **Innovation**

- Studies that focus on innovation within the health care industry have demonstrated that innovation in one part of an organization can be difficult to replicate in other parts – this is generalizable to other disciplines [Berwick 2003]
- There are three primary “clusters of influence” that correlate with the speed at which an innovation is disseminated (each is discussed at length below):
  - How people perceive the innovation
  - Characteristics of the people who adopt (or do not adopt) the innovation
  - Other factors that may affect context, such as communication, incentives, leadership, and management

[Berwick 2003]

## **Perception of an innovation [Berwick 2003]**

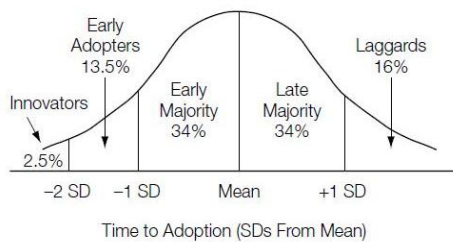
- According to research on innovation in health care, how people perceive the innovation “predict[s] between 49% and 87% of the variance in the rate of spread”
- Five key perceptions (or properties) influence whether an innovation will be adopted:
  1. Perceived benefit: if people think an innovation will positively impact them, they may be more willing to adopt it
  2. Compatibility: the proposed innovation needs to be consistent with potential adopters’ values and beliefs, as well as with what people believe they need
  3. Complexity: simpler, easy-to-understand innovations spread quicker than complex innovations
  4. Trialability: it is important that implementers are able to try smaller-scale, pilot projects before implementing a universal innovation
  5. Observability: if potential implementers are able to watch others try the innovation first, they may be more receptive to implementing the change themselves

## **Characteristics of adopters (or non-adopters) [Berwick 2003]**

- The “historic” classification model (derives from a 1943 study of Iowa farmers’ adoption of hybrid seed corn) sorts adopters into five categories, distributed normally by time to adoption (see figure below, reprinted from paper):
  1. Innovators

2. Early adopters
3. Early majority
4. Late majority
5. Laggards

**Figure 1. Classification of Adopters<sup>30</sup>**



#### Other contextual factors [Berwick 2003]

- The type of environment – i.e. whether an organization is receptive to new ideas or if it “regard[s] those who propose change as troublemakers” – can have an important impact on the rate of dissemination
- Another important facet of perception concerns spread vs. reinvention:
  - As we think about scaling-up an intervention, it is important to think of dissemination as a “reinvention” of new ideas rather than the “spreading” of pre-existing ideas
  - It is important to remember that adaptation (which often involves the simplification of an original model), is “nearly a universal property of successful dissemination”; even if a change to the model is not what original developers (or disseminators) had envisioned, we must recognize that adaptation is both a natural part of dissemination and an integral part of innovation
  - Indeed, just as “no two problems are the same” we must remember that “neither are any 2 solutions”
- There are seven “rules” for disseminating innovations (derived from descriptive observations in the health care field):
  1. Find sound innovations: a “formal, deliberate, organized system of search for innovations” allow organizations to identify practicable innovations

<sup>30</sup> Reprinted from Berwick 2003



2. Find and support innovators: individuals who look outside the current local context to solve problems should be supported
  3. Invest in early adopters: investing in the ideas of within-organization innovators can decrease resistance to the spread of innovation
  4. Make an early adopter activity observable:
  5. Trust and enable reinvention: adaption is key to successful innovation
  6. Create slack for change: innovation is not an immediate outcome; investment in time, energy, and money will facilitate change
  7. Lead by example: “leaders who want to spread change must change themselves first”
- Understanding the full context of a theory-driven intervention is essential to ascertaining its replicability [Campbell et al 2007]

### **Lessons from health promotion**

- The Ottawa Charter for Health Promotion characterizes the term *health promotion* as a process through which people increase their control over and improve their health [WHO 1986]
- Health promotion is supported by three prerequisites: advocacy for health, equity in health, and mediation of “differing interests in society for the pursuit of health” [WHO 1986]
- The Ottawa Charter outlines six action areas for health promotion, many of which are transferrable to other disciplines (such as child abuse/neglect):
  1. Building healthy policy: places health on the agenda of policymakers at all levels
  2. Creating supportive environments: recognizes that health cannot be separated from other goals, and that the “inextricable links between people and their environment constitute the basis for a socio-ecological approach to health”
  3. Strengthening community actions: health promotion is feasible when communities are empowered to set their own priorities, make their own decisions, and plan and implement strategies to achieve better health
  4. Developing personal skills: effective health promotion fosters personal and social development by providing education about health and life skills
  5. Reorienting health services: the responsibility of effective health promotion is shared among “individuals, community groups, health professionals, health service institutions, and

governments”; the health sector must embrace health promotion as a goal and “support the needs of individuals and communities for a healthier life”

6. Moving into the future: health is created within the settings of individuals’ everyday life; “caring, holism and ecology are essential issues in developing strategies for health promotion”

[WHO 1986]

- An analysis of complex interventions in health care demonstrated that “for an intervention to have a credible chance of improving health or health care, there must be a clear description of the problem and a clear understanding of how the intervention is likely to work” [Campbell et al 2007]
- A comprehensive view of health promotion should emphasize both individual-level efforts (development of personal-level knowledge and skills to improve individual health outcomes) and organizational-level efforts, including the development of health promotion skills in settings such as schools, workplaces, and hospitals, “which aim to enable and support healthy behaviour”; as a consequence, assessment of health promotion must move beyond measuring individual behaviors and outcomes [Speller et al 1997]
- Given that we need to move beyond evaluation of individual-level data in assessing the effectiveness of health promotion programs, models of process evaluation (a study of the process by which an intervention is implemented; process evaluations typically aim to answer questions like: “Was the intervention applied in the manner intended?”, “Did other factors come into play that may have affected the result?”, “What did the participants think about the process”?) may hold more promise for understanding whether multi-level health promotion initiatives succeed once they are implemented
- A review of health promotion literature suggests that routinization, which commonly refers to sustainability in organizations, “is the primary or fundamental process in the sustainability of health promotion programs” [Pluye et al 2004]

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## Systemic change

- Principles for evaluation are:
  - Clarify the evaluation’s audiences and intended uses for evaluation findings
  - Base evaluation decisions on the initiative’s focus
  - Use theories of change to facilitate systems initiative evaluations
  - Identify an appropriate level of methodological rigor

- Factor investment levels for both systems initiatives and their evaluations into evaluation decisions
- Establish the necessary timeframe for results
- Measure and value interim outcomes
- Hold some systems initiatives accountable for demonstrating beneficiary impacts (but not all)
- Be clear about the initiative's role in addressing inequity and reducing disparities
- Account for and examine all externalities
- Make continuous feedback and learning a priority

[Coffman 2007]

- Well articulated and persuasive early benchmarks of progress are important for two reasons: they provide useful discipline for broad and ill-defined initiatives and outcomes buy time and political support while waiting for the systems change to take effect. [Walker & Kubisch 2008]
- A systems change initiative might focus on one or more of five areas: context, components, connections, infrastructure or scale. These five areas can act as a framework that can help define and construct the theory of change and design the systems change evaluation. [Coffman 2007]
- In thinking about systems change evaluation, it is important to ask questions regarding infrastructure development. These questions should cover the following categories: planning capacity, operational capacity, workforce capacity, fiscal capacity, communication capacity, collaborative capacity, community and political support and evaluation capacity. [Hargraves 2009]
- Systems change efforts are more likely to succeed when they “permeate multiple levels and niches with a system, creating compatible changes or conditions across system components”. [Hargraves 2009]
- The two factors that describe the variation in dynamics of social systems are the degree of agreement and the degree of certainty. The interaction between certainty and agreement create three dynamics within a social system: organized, unorganized and self-organizing. [Parsons et al, 2007]
- There are six goals sites needed to work on to achieve "system transformation". These include access to care, choice and control, quality management, technology, financing, and coordination. Under each of these, there are six steps to improvement. [Abt Associates 2008]
- Initiatives attempting to scale up a system usually require a high level of funding. This funding can come from both public and private investments, but if the goal is to scale up the system statewide it is beneficial to have significant public investment. [Coffman 2007]

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