The Massachusetts Healthy Families Evaluation-2: Early Childhood (MHFE-2EC):

Follow-up Study of a Randomized, Controlled Trial of a Statewide Home Visiting Program for Young Parents

Final Report to Massachusetts Department of Public Health, Children's Trust of Massachusetts

Executive Summary





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Medford, Massachusetts
December 2017

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HRSA Disclaimer

This study was conducted with funding from the Massachusetts Department of Public Health (DPH), which is the state administrator of the Massachusetts Home Visiting Initiative (MHVI). This project is/was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number X10MC29474 Maternal, Infant and Early Childhood Home Visiting Grant Program with $6.8 million. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

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Commonly Used Acronyms and Abbreviations

DCF	Department of Children and Families
DESE	Department of Elementary and Secondary Education
DPH	Department of Public Health
DTA	Department of Transitional Assistance
FY	Fiscal Year
GED	General Educational Development
GIS	Geographic Information Systems
HFA	Healthy Families America
HFM	Healthy Families Massachusetts
HRSA	Health Resources and Services Administration
HVS	Home Visiting Services (Intervention Group)
ITT	Intent to Treat
MHFE-1	Massachusetts Healthy Families Evaluation – Phase 1
MHFE-2	Massachusetts Healthy Families Evaluation – Phase 2
MHFE-2EC	Massachusetts Healthy Families Evaluation – Phase 2: Early Childhood
PDS	Participant Data System
RCT	Randomized Controlled Trial
RIO	Referral and Information Only (Control Group)
T1, T2, T3, T4, T5	Time 1, Time 2, Time 3, Time 4, Time 5 (data collection points)
TC	Target Child
TIER	Tufts Interdisciplinary Evaluation Research

Executive Summary

The Massachusetts Healthy Families Evaluation Phase 2: Early Childhood (MHFE-2EC) is a longitudinal follow-up evaluation of Healthy Families Massachusetts (HFM), a statewide, universal home visiting program for adolescent mothers. The evaluation utilized the randomized controlled trial (RCT) design[i] of the Massachusetts Healthy Families Evaluation (MHFE-2), in which eligible mothers who were pregnant or parenting their firstborn child were randomly assigned to receive HFM services or to receive referrals and information only. MHFE-2 evaluated early impacts of HFM, within the first two years of program enrollment, and included detailed information about program quality and utilization and participants' experiences with the program. The findings from MHFE-2EC extend the evaluation to a period of several years beyond service delivery, as families transitioned from infancy and toddlerhood into the early childhood years, and focuses primarily on young mothers' and their firstborn children's outcomes.

Following a brief summary of study design and methods, this Executive Summary highlights major findings related to program impacts for the full sample and within particular subgroups,[ii] as well as how earlier program effects impact later outcomes indirectly. The summary concludes with a presentation of implications and opportunities for: (a) HFM specifically, (b) the home visiting field more generally, and (c) other services that intersect with home visiting programs. We close with a brief discussion of areas for future research and exploration. This document is meant primarily for a policy and program audience; readers with a greater interest in technical detail are invited to read the full report.[1]

Healthy Families Massachusetts (HFM)

HFM is a statewide, comprehensive, voluntary, newborn home visiting program for all first-time parents under the age of 21. An affiliate of Healthy Families America (HFA), HFM provides parenting support, information, and services to parents via home visits, goal-setting activities, group-based activities, secondary contacts (e.g., phone calls, voice mails, drop-in visits), and referral services. The program's stated goals are to:

- prevent child abuse and neglect by supporting positive, effective parenting;
- achieve optimal health, growth, and development in infancy and early childhood;
- promote educational attainment, job, and life skills among parents;
- prevent repeat pregnancies during the teen years; and
- promote parental health and well-being.

Although there are Healthy Families affiliates in 40 states, HFM remains the only statewide implementation of the HFA model that specifically targets adolescent parents. Since its inception in 1997, HFM has provided services to more than 35,000 young families.

The Massachusetts Healthy Families Evaluation (MHFE-2: Early Childhood)

Framed by Jacobs's Five-Tiered Approach to evaluation,[2] a developmental model that moves evaluation activities from a primary focus on descriptive and process-oriented information in the earlier tiers to an emphasis on program effects in the latter ones, MHFE-2 followed a sample of approximately 700 mothers and their children from over three waves of data collection from 2008 through 2012. Participants were recruited through the combined efforts of HFM local and state personnel and researchers at Tufts University. Eligibility requirements for participating in MHFE-2 included being a consenting female of at least 16 years of age, having not received any HFM services in the past (i.e., no transfers or reenrollments), being an English or Spanish speaker, and being cognitively able to provide informed consent. It employed a RCT design to assess program impacts,

[i] A randomized controlled trial is a study in which people are assigned, by chance, to groups receiving different treatments. One of the treatments is the control group, which receives either a placebo, no treatment, or a standard treatment. Assigning people at random creates similar groups of people that can then be compared objectively to determine the effectiveness of the treatment being tested.

[ii] Subgroups refer to groups of mothers as defined by a particular experience or characteristic at program enrollment. The subgroups examined in this evaluation were created based on mothers' report of depressive symptoms and family support at program enrollment, along with state agency data on mothers' childhood history of maltreatment.

collecting and analyzing data from two comparable samples of families: one that was offered HFM home visiting services and one that was not. Eligible women who consented to the study were randomly assigned to either the treatment group (Home Visiting Services; HVS) or the control group (Referral and Information Only; RIO). In total, 704 participants enrolled in the original study, of whom 433 (62%) were assigned to the HVS group, and 271 (38%) to the RIO group. Employing a mixed-methods[iii] approach, the evaluation sought to answer several research questions regarding program operations and participant engagement, as well as whether participation in HFM yielded positive effects in the five HFM goal areas. Data were collected via telephone surveys; in-home assessments, observations, and qualitative interview; analysis of HFM program data; and several state agencies.

The MHFE-2EC study extends the RCT design of MHFE-2 to two additional time points: a fourth wave of data collection that occurred approximately 60 months post-enrollment when firstborn children were in preschool (Time 4), and a fifth wave occurring one year later, at 72 months post-enrollment when children were in early elementary school (Time 5). For the follow-up early childhood study, 490 and 445 participants enrolled in T4 and T5, respectively, 70% and 65% of the original sample. MHFE-2EC employed the same mixed-methods approach as did MHFE-2, with the addition of an extensive child protocol that included standardized child assessments, research-based measures of child executive functioning, and a child narrative completion task.

We used an intent to treat (ITT)[iv] approach for determining program effects. Once mothers were assigned to the HVS (Healthy Families) group or the RIO (non-program, control) group, their assignment held—regardless of whether, for the HVS group, the mothers actually received home visiting services. Indeed, for the MHFE-2EC sample, approximately 13% of HVS mothers never received a home visit. ITT is a conservative approach to measuring program effects.

Methodological highlights of MHFE-2EC:

- A randomized controlled trial (RCT) longitudinal design
- Five waves of data, spanning six years, on a sample of young families in Massachusetts
- Multiple data collection methods with separate mother and child protocols, program, and state agency data
- Mixed analytic approaches: qualitative and quantitative
- Intent to treat (ITT) analytic approach to detecting program impacts

Characteristics of the MHFE-2/MHFE-2EC Sample

Figure ES1 provides a description of key demographic characteristics of participants at enrollment.

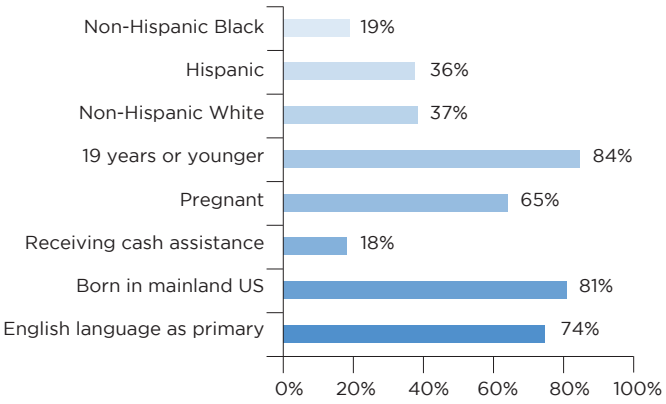

Figure ES1. Demographics of Participants at Enrollment (original cohort)

The MHFE-2EC sample comprised first-time mothers under 21 years of age at the time of birth; the average age of mothers at enrollment was 18.7, and as shown in Figure ES1, the overwhelming majority was 19 years of age or younger. Adolescent parents are simultaneously managing the difficult transitions to both adulthood and parenthood in the context of challenging life circumstances, which may demand different and additional approaches to programming.

[iii] A mixed-methods approach refers to the use of both quantitative and qualitative methodology. Traditional quantitative measures include surveys with Likert scales, while qualitative measures include ethnographic interviews and observations.

[iv] Intent to Treat (ITT) analytic approach includes all participants assigned to each treatment condition, regardless of participants' compliance or engagement with the treatment assigned to them.

A brief snapshot of these challenging circumstances, at program enrollment, includes:

- High rates of residential instability (average of two moves in past year);
- More than one half had childhood history of substantiated maltreatment;
- More than one third were clinically depressed;
- High incidence of lifetime trauma (average of three traumatic events);
- Approximately 3.5 acts of intimate partner violence in relationships (both as victim and as perpetrator).

We demonstrate in this report that many of these early factors continue to impact the lives of both mothers and their children several years beyond childbirth and enrollment in the Healthy Families Massachusetts evaluation. Based on our previous evaluation, we know that HFM leads to reductions in parenting stress and risky behaviors, and increases in educational attainment for young mothers (see Figure ES2).[1]

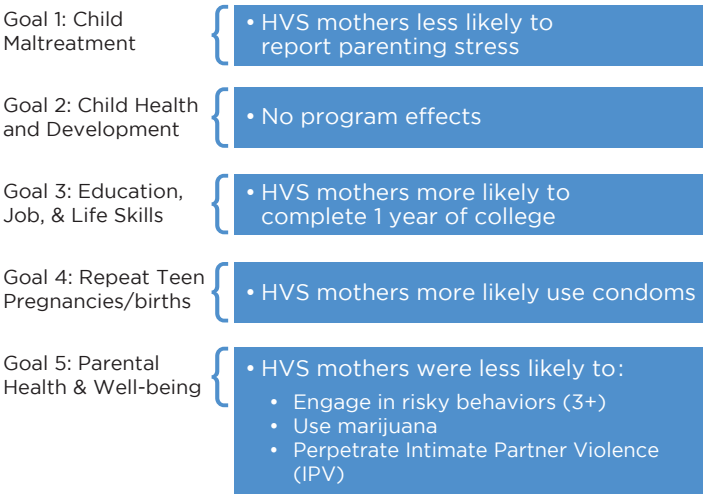

Figure ES2. Main program effects from MHFE-2 evaluation

MHFE-2EC examines whether these favorable program impacts were sustained over time for the full sample of young mothers at T4 and T5, as well as within subgroups, including young mothers who were depressed at enrollment, those who experienced childhood maltreatment, and those with high or low levels of family support. We also examine links between program dosage (i.e., number of home visits received) and T4 and T5 outcomes for the HVS program group. Finally, we examine whether and how the previous program effects on T3 parenting stress and college attendance were associated with further effects at T4 and T5.

Key Findings: Program Impacts

To assess the longer-term impacts of HFM on young mothers' and their firstborn children's outcomes, we examined a variety of measures and indicators aligned with the HFM goal areas. Here we summarize program effects for the full sample, as well as within subgroups based on maternal depression and family support at enrollment and mothers' history of childhood maltreatment. Results indicate that participation in HFM continues to play a role in families' lives, several years after program engagement, in areas relevant to: (a) young adult parents' own health and development, (b) parenting school-age children, and (c) developmental tasks in early childhood. We highlight key findings below.

Does participation in HFM yield positive effects in the program goal areas?

HFM has five stated program goals. For this evaluation, we developed an additional goal, focused on advocacy and service use, covering an area of potential program impact within the early childhood period. Below we present program main effects, seen in bold, and highlight notable subgroup findings.

Goal 1: Prevent child abuse and neglect by supporting positive, effective parenting.

No overall program effects were found for outcomes in this goal area (including rates of maltreatment, parenting stress, parental discipline, and observed mother-child synchrony) for the full sample. Two favorable program effects were demonstrated among subgroups of mothers with higher psychosocial risks. Among the subgroup of mothers who had low family support at the time of program enrollment, HVS mothers reported less parental stress than RIO mothers when their children were preschool age. The early social support that HFM provides reduced the perception of stress, and conceivably enhanced mechanisms related to coping with stress several years later. Among mothers who were depressed at program enrollment (39% of the sample), HVS mothers were less likely to use corporal punishment than were RIO mothers. Likely, the curricular guidance HFM provides around disciplinary strategies is sustained over time for mothers who were depressed at enrollment. As HVS mothers receive support or referrals around their own mental health, they may be more able to absorb and implement information directly related to parenting. Yet, for mothers with a childhood history of substantiated maltreatment (55% of sample), HVS mother-child dyads at preschool age exhibited less synchrony in their interactions than did RIO mother-child dyads, suggesting there is still work to be done to effectively work with mothers who enter the program with a history of maltreatment in their own childhoods.

Goal 2: Promote optimal health, growth, and development in infancy and early childhood.

For this early childhood period, we examined developmental predictors of school success: school readiness, vocabulary, and executive functioning skills such as working memory, cognitive flexibility, and behavioral control. **Children in the HVS group demonstrated better working memory in preschool than did children in the RIO group.** No program effects were found for child outcomes related to receptive vocabulary, school readiness, emotion regulation, or general health, for the full sample. Interestingly, HVS mothers reported engaging in fewer literacy activities with their school-age children than did RIO mothers. Further exploration of this finding indicates that this program effect was strongest among mothers with high family support at enrollment, and that HVS mothers had greater involvement and contact with school teachers, suggesting that the additional support in their lives—within their families or through their children's schools—enabled them to engage in these behaviors less frequently themselves.

Several subgroup findings merit attention. For mothers without a history of childhood maltreatment, HVS children displayed higher receptive vocabulary in preschool than did RIO children. Similarly, when mothers had high family support at program enrollment, HVS school-age children exhibited better emotion regulation than RIO school-age children.

Conversely, the program did not overcome the obstacles presented by subgroups of mothers entering the program with higher risk (e.g., history of childhood maltreatment, low family support). Among the subgroup of mothers who experienced maltreatment as children and who reported low family support at enrollment, children of HVS mothers were more emotionally dysregulated than children of RIO mothers, both as reported by their mothers, and independently. Children of young parents are at greater risk for physiological and emotional dysregulation,[3] due to multiple factors that often accompany early parenthood, such as a history of maternal childhood maltreatment or low economic resources. It may be that the HFM program plays a role in helping mothers to recognize and report this regulation more clearly; at the same time, addressing these personal and environmental challenges to positive development remains challenging.

Goal 3: Encourage educational attainment, job, and life skills among parents.

Mothers in HVS were less likely than RIO mothers to report experiencing homelessness since the birth of their child (28% vs. 41% for HVS and RIO, respectively). No program effects were found on education, employment, or perception of adequate resources for the full sample. The finding that HFM families experienced less homelessness is a significant one, given the adverse consequences of homelessness for children, including greater risk of health, emotional, behavioral, and developmental problems.[4,5,6,7,8] The prevention of early homelessness, therefore, provides a long-term protective effect for a host of child outcomes that may be observable in future years.

For the subgroup of mothers that were not clinically depressed at program enrollment, HVS mothers were more likely than RIO mothers to graduate from college (7.6% HVS vs. 0.9% RIO), and for those that did not experience childhood maltreatment, HVS mothers were more likely to complete a training program (33.6% HVS vs 18.4% RIO). For this goal area, then, the absence of psychosocial risk factors during program enrollment enabled program mothers to make greater gains than control mothers in educational attainment and economic self-sufficiency several years after program engagement.

The subgroup findings on college graduation and job training extend earlier findings that HFM mothers were more likely than RIO mothers to finish one year of college, for the entire sample. While the overall college

[v] Our evaluation purposefully examined births within two years (rapid repeat birth) as our indicator, though the HFM program goal focuses on preventing repeat teen pregnancies. At this time period, with mothers in their mid-twenties, examining spacing between births was a more relevant measure, as a short inter-pregnancy interval is seen as risk factors for any mothers, regardless of age. [11, 12]

completion rate in this sample is small (5%), initially non-depressed HVS mothers were about 7 times more likely to do so than initially non-depressed RIO mothers. Similarly, job-training completion was 28.3% for the whole sample, but non-maltreated HVS mothers were 83% more likely to have completed a job training program than non-maltreated RIO mothers. Over the life course, it has been demonstrated that early childbearing has negative consequences for long-term educational attainment and economic stability; teen mothers have been shown to complete less schooling, have less prestigious occupations and lower lifetime earnings than non-teen mothers, and are likely to receive public assistance when compared to older mothers.[9,10] **Given this context, the program effects on housing stability, educational attainment, and job training are particularly noteworthy, and suggest the real economic benefits of home visiting for young mothers.**

Goal 4: Prevent repeat pregnancies during the teen years.

No program effects were found for the full sample on outcomes in this goal area, which we measured at this time period as the rate of rapid repeat birth (within two years of first birth),[v] and number of births. Within the program group, however, HFM mothers who received more visits had fewer births within two years of their first child. This suggests that for this goal area, the level of engagement with the home visitor or program can influence a mother's decision around family planning. From a program delivery aspect it is critical to remember that HFM emphasizes supporting a mother with her choices, which at times may be at odds with this particular goal of preventing rapid repeat birth. Some mothers intentionally gave birth to a second child within this two year time frame. In this case, perhaps the home visitors' efforts would be better directed toward ensuring that mothers had the necessary resources and supports to accommodate and maintain their growing families.

Goal 5: Promote parental health and well-being.

Compared to mothers in RIO, mothers in HVS reported fewer depressive symptoms during the preschool period, and reported that they were less likely to engage in substance use (e.g., binge drinking, marijuana use, and/or cocaine use in the past month) during the kindergarten period. These findings were strongest for the subgroup of mothers who were clinically depressed at enrollment. No program effects for the full sample were found on diagnoses or treatment of physical or mental health conditions, personal mastery, or intimate partner violence (IPV), yet there were some effects for certain subgroups of mothers. A reduction in partner-perpetrated IPV was seen for the subgroup of mothers who did not have a history of childhood maltreatment as well as mothers who were clinically depressed at the time of program enrollment.

It is not surprising that the HFM program has the strongest impact in the goal area of mothers' health and well-being, as mothers are the direct recipients of all services provided. What is unexpected is the success that HFM has had with subgroup of mothers who were clinically depressed at the time of program enrollment. These findings suggest that HFM program practices aimed at supporting mothers with depression are successfully decreasing depression over time, either by direct support provided by home visitors or by referrals made for mental health services. In addition, HFM assists mothers in reducing health risk behaviors related to both physical safety and mental health.

Goal 6: Encourage advocacy and use of early childhood systems of care.

MHFE-2EC included a number of assessments examining how young mothers navigate and advocate within early childhood systems of care such as health and elementary education. **Compared to RIO mothers, HVS mothers reported going to the Emergency Room less often during the preschool period (66% HVS vs. 78% RIO).** Yet, for the subgroups of mothers with low family support initially, or who had experienced maltreatment in childhood, HVS mothers were more likely to take their children to the ER, compared to RIO mothers.

During the kindergarten period, compared to RIO mothers, HVS mothers reported that they were more likely to take action in a situation calling for self-advocacy (63% HVS vs. 50%). For the subgroup of mothers who were clinically depressed, HVS mothers were more likely than RIO mothers to take action regarding a problem related to their child's education in the kindergarten period (61.2% HVS vs. 38% RIO). Another positive program impact was found for the subgroup of mothers who had low family support at program enrollment: HVS mothers had better relationships with their teachers or child care providers in the kindergarten period than did RIO mothers.

Although this area of advocacy and positive navigation of early childhood systems of care is not a stated goal of the HFM program, HFM's influence in early childhood is evident in mothers' use of health care services as well as in self-advocacy. For mothers who are depressed at program enrollment, HFM appears to empower them to later advocate for their school-age children. For mothers with low family support, HFM may fill a void, and transform mothers' experiences and ideas about helping relationships, supporting later positive engagement with their child's teachers. These findings demonstrate the potential of HFM for providing transformative experiences for mothers who enroll with multiple risks.

Indirect HFM Program Effects

To better understand the long-term effects of HFM on mothers' outcomes, we examined whether HFM impacted mothers' adjustment in early childhood indirectly via earlier program effects on mothers' parenting distress and college attendance.[1,13] We found support for both of these models. Notably, in the parental distress model, HFM participation was indirectly associated with maternal mental health during the preschool period and maternal wellness practices during kindergarten, via reductions in parental distress at Time 3 (two years after program enrollment, when children were approximately 2 years of age). Second, in the college attendance model, HFM participation was indirectly associated with maternal economic health outcomes (i.e., less dependence on public assistance and higher employment) during the preschool period, via the greater likelihood of college attendance reported at Time 3.

These analyses demonstrate how short-term effects of HFM, observed during or shortly after enrollment, have subsequent effects in the future. Thus, for some outcomes, home visiting effects are seen early on, for others in the longer term, and for yet others, indirectly through the early effects. This "suite" of program influences—for the full sample and for important subgroups—demonstrates that home visiting affects young mothers and their children in many areas, through several "paths." Moreover, the influences of HFM extend beyond the period of program enrollment, and even into different periods of the family life cycle. This report adds to the evidence base documenting the effectiveness of HFM specifically, and home visiting broadly, as a model of prevention and intervention for young mothers with varying levels of risk. The findings highlight how the universality of the HFM program, aimed toward a specific developmental period with high risk, can successfully modulate its services to meet critical and relevant needs for both the parents and children it serves.

Key Findings: Is Program Dosage Associated with Outcomes?

Mothers who participated in Time 4 received 26 visits (median = 16) over 16.1 months, on average. There was substantial variation in program take-up, with about 14% of the program group receiving no home visits at all, and about 46% receiving 18 or more home visits, the recommended dosage. Given this variation, it is important to examine the association between the number of home visits HVS mothers received and their longer-term outcomes. Of course, these analyses are only correlational, falling outside of the RCT design, but provide useful documentation of how HFM is operating as a complement to the assessment of program effects.

An examination of the associations between dosage (i.e., the number of home visits HVS mothers received) and program outcomes at T4 (preschool age) and T5 (kindergarten age) revealed mixed results. Similar to what was reported previously, higher HFM dosage was associated with both maternal strengths and vulnerabilities.

Within the home visiting group, MHFE-2EC HVS mothers who received more home visits:

- reported less parenting distress during preschool,
- were more likely to perceive their kindergarten-age child as difficult,
- were more likely to use nonviolent discipline with their preschool-age child,
- were less likely to do literacy activities at home with their school-age child, and
- were less likely to have a repeat birth within two years of first birth.

Given both the favorable and unfavorable findings, it is likely that young mothers who engage with HFM have different profiles, including both high functioning young mothers with few obstacles who can easily fit home visits into their busy lives, as well mothers who are struggling and greatly need the home visitor's help. Similarly, mothers who leave the program early may do so because they are doing well and do not need additional services, or because their needs are so great that they cannot effectively or consistently engage in a home visiting program. These variations in maternal characteristics, coupled with the correlational nature of the analysis, complicate the interpretation of program dosage on young mothers' outcomes; nonetheless, recognition of this variability has implications for how HFM might conceptualize service delivery to maximize program effectiveness.

Implications and Opportunities

Implications of this evaluation are discussed in more detail in the final chapters of the report. Here, we very briefly summarize some observations/recommendations related to HFM program operations, and its relation to other organizations and agencies.

Recommendations for Program Practices

- **Target most relevant program goals.** Our findings demonstrate that the while HFM continues to successfully impact change in all six program areas, it is not reasonable to expect goal attainment in all goal areas for every family. It is important to understand that certain maternal and family characteristics at program enrollment play a substantial role in determining for whom the program works and in what ways; program staff can use this knowledge to best support each participant in moving toward whichever goals are most achievable for that family.
- **Restructure early visits to include guidance on referral connection and housing.** Acknowledging that there will likely be a portion of mothers who engage with the program "lightly," programs should ensure that the content of the first few visits offer appropriate referral information and guidance about making connections to the services that mothers or home visitors feel are priorities. In light of the high incidence of homelessness in the MHFE-2EC sample, specific guidance on steps to ensure housing, or options if housing falls through, is warranted.
- **Continue flexible service modalities in order to extend program duration.** HFM has already incorporated technology into its outreach practices. A logical extension would be a service modality in which phone or video calls serve as the primary means of communication, with level of service varying according to family need. For example, a family may engage with weekly home visiting enthusiastically for a certain amount of time, but change to monthly visits, then monthly or bi-weekly phone or Skype calls, with an occasional periodic in-person home visit. This type of flexibility could increase duration of time in the program in a more time- and cost-efficient manner for both clients and home visitors. It would also allow for a continued relationship with a particular home visitor if a family or home visitor changed location. These types of strategies align with the more universal or "light touch" approaches that recently have been emphasized in the home visiting field. [14]
- **Increase training/resources for staff on maltreatment and trauma.** When clients enter the program with their own histories of maltreatment during childhood, HFM program staff face particular challenges effecting positive change in parenting and self-care behaviors; this was evident in our evaluation. Ascertaining this history allows HFM to best support clients and staff working with these clients. The likelihood that at least one in two participants have experienced maltreatment is a sobering, but not insurmountable, statistic. Several evidence-based interventions demonstrate positive program impacts on parenting behaviors in vulnerable parents, many of which involve filming mothers and children, and providing for video feedback. One suggestion that may enhance goal attainment among vulnerable parents is to incorporate concentrated training opportunities in these intervention techniques for interested staff as part of a career ladder/professional development track. While it might not be possible for all staff to receive this training, providing specialized training opportunities for one or two individuals at each program site may allow for more intensive services for the families who could benefit most. This also may serve a dual purpose of investment in staff which could decrease staff turnover.
- **Use positive impacts on depressed mothers as a model for addressing risk.** The extent of HFM's positive impact on mothers who were clinically depressed at program enrollment was unexpected. Among these mothers, positive impacts were seen in 4 of 6 goal areas—in parenting behavior, college graduation rates, decreased health risk behaviors, and in maternal advocacy. Going forward, the program can look to their implementation strategies regarding depression as a model for how to address other areas of risk, such as working with mothers with a childhood history of maltreatment. In the future this evaluation will further investigate the mechanisms for these positive impacts (e.g., number of referrals made, types of support provided, program utilization profiles of participants) to help the program better understand what program efforts can be applied to mothers with other or additional challenges.

- **Consider ways to bolster HFM impact on children.** The evidence of program impacts on children's functioning, at least those aspects that we studied (e.g., executive function, emotion dysregulation, school readiness) was relatively sparse. There are several things to consider as we interpret our findings. First, it may be that the program exerts most of its influence on the mothers, particularly in areas of mental health, personal functioning, and basic needs such as housing. Expecting strong impacts on children's functioning years after the end of program services (especially for those families in which program participation was minimal) may be unrealistic. Impacts on child maltreatment, particularly neglect which characterizes the vast majority of maltreatment cases in this sample, are complex, and are complicated by a host of environmental and other external factors that are outside the purview of HFM services. Second, in the absence of 1) a specific identified child development goal (e.g., literacy) and curriculum that becomes a particular focus of the program and 2) the child as a direct recipient of program services, impacts on child functioning may be more elusive. Finally, the fact that some of the methods that we employed to assess children's development have little history of use with a sample such as this one, may also contribute to the lack of evidence of strong impacts on children's functioning.

Implications for HFM within Communities and across Sectors

While the intent of this longitudinal evaluation focused on HFM program impacts for the overall sample, what proved most illustrative of HFM's success and challenges lay in the subgroup analyses. Although a universal approach may have merit, it is clear that HFM is not a 'one size fits all' program, and that certain participant characteristics require different, extra, or concentrated efforts from HFM. Given these substantial challenges, we offer the following thoughts:

- **Ensure "in-house" expertise on parent-child interaction.** Invest in evidence-based approaches to support training on parent-child-interaction interventions for more vulnerable parents. HFM training and supervision policies already adhere to high program standards, but additional training for supervisors and some staff on new methods could empower the program as a whole to work with these families with confidence.
- **Continue to strengthen cross-agency collaborations.** The power of an effective referral, for example, for mental health, housing, or financial assistance, often depends on the relationships between individuals at various agencies, at local, state, or federal levels. While HFM endeavors to model and guide parents in effective advocacy strategies, we know that program staff spend a great deal of effort connecting clients to services and service providers that will complement HFM services. Investing in shared knowledge of agency personnel, fostering relationships between HFM and other agency staff, and promoting rapport on an upper management level will ensure that critical referrals are completed.

Conclusion

Results from this longitudinal evaluation demonstrate that the positive impact of the HFM program extends well beyond the time of program engagement for many young families. As these families transition into the new roles and relationships associated with early childhood, HFM provides the necessary support and modeling to foster positive personal and parenting trajectories. HFM is conceptualized as a prevention program; results from this report demonstrate that it also is an intervention program, particularly for mothers who come into the program with clinical depression. The evidence of positive long-term program impacts, both direct and indirect, for mothers with a range of life circumstances and risks at enrollment, highlights the wisdom of the flexibility within the HFM model.

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For more information on home visiting:

TIER:
http://ase.tufts.edu/tier/

The Children's Trust:
http://childrenstrustma.org/

Massachusetts' Department of Public Health:
http://www.mass.gov/eohhs/gov/departments/dph/programs/family-health/home-visiting/

Health Resources & Services Administration (HRSA):
https://mchb.hrsa.gov/maternal-child-health-initiatives/home-visiting-overview

Home Visiting Evidence of Effectiveness:
https://homvee.acf.hhs.gov/

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