Healthy Families America: Using Research to Enhance Practice

Deborah A. Daro
Kathryn A. Harding

Abstract

The Healthy Families America (HFA) initiative seeks to expand the availability of high-quality, intensive home visitation services and to create communitywide commitments to these services and others that promote a supportive atmosphere for all new parents. This article briefly describes HFA's theoretical framework, its history, and its current status. The HFA Research Network, a partnership among researchers who are engaged in evaluating HFA programs around the country, is also highlighted. Preliminary findings of the research partners suggest that HFA programs may have the most success at improving parent-child interactions, with more limited or mixed success in the areas of health care status and utilization, the prevention of child abuse and neglect, and improved maternal life course outcomes. HFA programs so far have not demonstrated significant improvements in children's development or maternal social support.

The authors report variability in both outcomes and attrition rates across subgroups of families in these studies, but there are no consistent patterns to identify who is most likely to stay enrolled in an HFA program or who is most likely to benefit from that enrollment. The authors conclude that these and several other areas require additional research. They further recommend that researchers and practitioners move beyond a singular focus on individualized interventions and work to create a communitywide and national context in which support for all new parents is the norm.

Deborah A. Daro, Ph.D., is a Research Fellow at the Chapin Hall Center for Chicago at the University of Chicago.

Kathryn A. Harding, M.A., is acting director of the National Center on Child Abuse Prevention Research, a program of Prevent Child Abuse America, in Chicago, IL.

The Hawaii Family Stress Center is one of the founding organizations for Hawaii's Healthy Start home visiting program, the evaluation of which is reported in the article by Duggan and colleagues in this journal issue.

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Child abuse is not a new phenomenon. Since the first parent-child dyad, adult caregivers have struggled with the demands presented by their children.[1,2] In response, parents have drawn on their experiences with their own parents and extended family members, the support and advice of friends, and assistance from local services and related resources. During the past 30 years, prevention advocates from the family support, early childhood, and child abuse prevention movements have designed and implemented hundreds of interventions to resolve parents' lack of knowledge and skills, to create extended networks of formal support, and to alter normative and societal standards for child rearing and educa-

tion. Together, they have created a plethora of programs that many believe have significantly improved conditions for children.[3,4,5]

Not all families, however, have access to these programs, and so not all children are being helped.[6,7] Indeed, Healthy Families America (HFA), an initiative developed by the National Committee to Prevent Child Abuse (since renamed Prevent Child Abuse America) in 1992, grew out of the recognition that not enough services were available to all in need, that many of these efforts unfortunately changed their focus and intent in response to shifts in funding sources and staff interests, and that few communities had the full breadth and depth of services needed to achieve notable change in those families at highest risk.

In response, HFA planners designed an intensive home visitation program in partnership with colleagues at the Hawaii Family Stress Center[8] and others engaged in designing comparable family support and early childhood interventions. From the outset, HFA's home visitation program was viewed as one component in a three-part strategy to achieve significant and lasting change in the rates of child maltreatment and other negative outcomes for children. Equally important were efforts to create (1) a program context in which all families would be better able to access the assistance they needed, and (2) a research context in which services would be refined on the basis of empirical evidence.

This article begins by briefly reviewing HFA's theory of change, its overall goals and objectives, and the structure of its intensive home visitation component. The article then reviews the design and status of the 35 evaluations currently under way or being planned at HFA programs across the country, highlighting the specific role the HFA Research Network has played in facilitating the development and cross-referencing of these efforts. This summary is followed by a more in-depth presentation of specific outcome findings emerging from 17 of these evaluations. The article concludes by discussing the findings' program and policy implications.

Healthy Families America: A New Context for Prevention

Henry Kempe and others who brought the child abuse issue to the public's attention in the early 1960s identified a broad range of causal factors associated with child maltreatment and advocated an equally broad range of interventions. With causes ranging from psychological disorders to economic deprivation to chaotic lifestyles, researchers proposed responses ranging from individual counseling to family resource centers to crisis nurseries. Researchers encouraged community service planners to adopt a broad continuum of services to prevent child abuse, each of

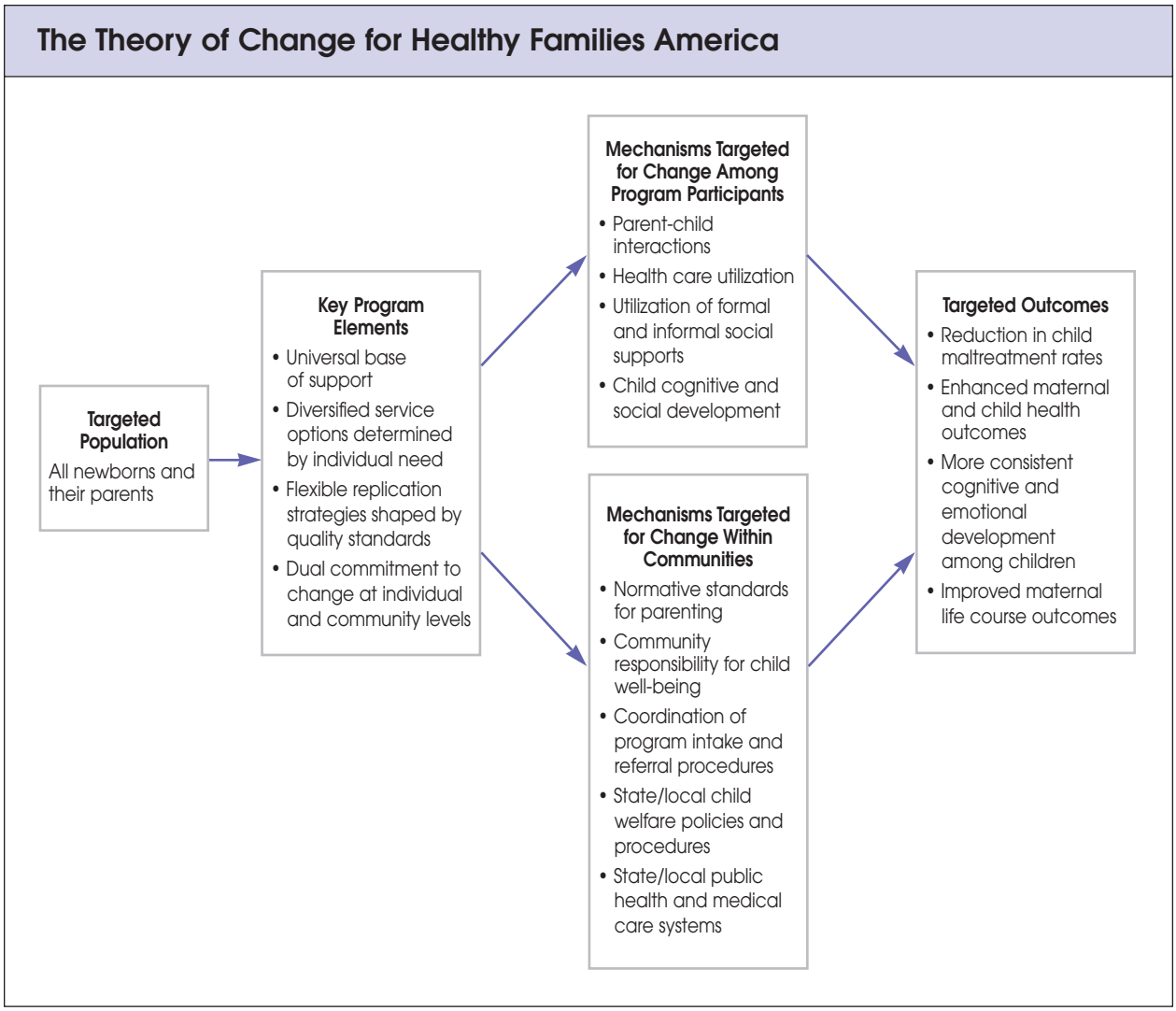
which was viewed as equally efficacious and equally necessary.[3,9,10]

While promoting this continuum of prevention services was understandable, even logical, it missed an important aspect underlying the theories of maltreatment: Child maltreatment arises from both the individual contributions of many causal factors and the combined impacts of these factors on parents' ability to care for their children. For example, considering all participants in a drug rehabilitation program as needing a single remedy (such as the ability to break their dependency) is not the same as recognizing that some of these participants will also need to overcome histories of maltreatment, domestic violence, poor educational achievement, or poverty. Similarly, enhancing parental capacity requires prevention providers to understand how a diverse array of chronic and acute circumstances might influence parents' perception of their children, their role as parents, and their willingness to change. A prevention imagery that merely suggested a diverse array of service options without offering explicit strategies for how to integrate these efforts across disciplines and intentions proved disappointing to many prevention advocates.[6,11]

In response to this disappointment, the HFA initiative shifted the prevention paradigm from the horizontal to the vertical. This new paradigm assumes that not all prevention efforts are equal in importance or impact, and that prevention efforts are best planned and delivered in a more orderly way, beginning with a strong foundation of support for every mother and child, available when the child is born or when the woman is pregnant. Subsequent prevention services such as parent support groups, early childhood education programs, parenting education options, or family counseling services are then integrated into this universal base of support as necessary in response to emerging needs presented by the growing child or the evolving parent-child relationship.

A key component of this universal foundation is developing strategies that alter both individual parent-child relationships and community systems of support.[7,11,12] HFA's theory of change, as described in Figure 1, therefore seeks to expand the availability of high-quality, intensive home visitation services and to create communitywide commitments to these services and others that promote a supportive atmosphere for all new parents. To alter individual parenting behaviors, HFA efforts must produce stronger relationships and a sense of mutual reciprocity among families in a given community. Families must come to view HFA not merely as a source of assistance for themselves but also as an opportunity to offer help and guidance to other new parents in their communities. Further, to provide adequate assistance to all new parents, HFA efforts must move beyond direct efforts to help families and begin to serve as a catalyst for reshaping existing child welfare and health care efforts and improving coordina-

Figure 1



tion among other prevention and family support initiatives. To improve individual parental capacity and provide a more supportive environment for parents, the HFA approach suggests that effective prevention initiatives require universal availability, varied levels of support, flexible replication procedures, and greater integration across multiple service systems and economic sectors. The organizing principle for prevention is not the avoidance of a particular set of social dilemmas (for example, child abuse, substance abuse, juvenile crime, and so on) but rather the establishment of familial and community conditions conducive to optimal child development.

HFA Home Visitation

Despite the initiative's strong commitment to system reform, most local and national HFA activity during the past six years has sought primarily to design and develop intensive home visitation programs. Drawing upon the experiences of many in the early childhood and family support fields, HFA planners have developed an initiative that embraces the following principles: direct services to both parents and children, multiple target outcomes, and sufficient intensity and duration to assist those families at greatest risk.[3,11,13,14]

A unique feature of the HFA program development strategy is its commitment to a set of principles rather than to a single, monolithic approach. These principles or critical elements, summarized in Box 1, cover three key areas of program development: (1) participant identification and engagement, (2) program content and structure, and (3) program staffing and supervision. Distilled from extensive literature reviews, these criti-

Box 1

Critical Elements of Healthy Families America's Intensive Home Visitation Program

Service Initiation

- Prevention services need to be initiated prenatally or at the time a baby is born.
- To ensure the efficient allocation of resources, programs need to implement a standardized process of assessing the needs of all new parents in their target communities.
- Services need to be offered on a voluntary basis and use positive, persistent outreach efforts to build family trust in accepting services.

Service Content

- Services for those families facing the greatest challenges need to be intensive (at least once a week), with well-defined criteria for increasing or decreasing the service intensity.
- Services must be made available for an extended period (three to five years) to achieve lasting behavioral change.
- Services should be culturally competent such that the staff understands, acknowledges, and respects cultural differences among participants; materials used should reflect the cultural, linguistic, racial, and ethnic diversity of the population served.
- Services should be comprehensive, focusing on supporting the parents as well as supporting parent-child interaction and child development.
- At a minimum, each family should be linked to a medical provider to ensure timely immunizations and well-child care. Depending upon the families' needs, they may also be linked to additional services such as school readiness programs; child care; job training programs; financial, food, and housing assistance programs; family support centers; substance-abuse treatment programs; and domestic violence shelters.
- Staff should have limited caseloads to ensure that home visitors have an adequate amount of time to spend with each family to meet its varying needs and to plan for future activities.

Service Provider Selection and Training

- Service providers will be selected on the basis of their ability to demonstrate a combination of the requisite personal characteristics (for example, compassion, ability to establish a trusting relationship, and empathy) and knowledge base as represented by specific academic degrees or employment portfolios.
- All service providers must receive intensive, didactic training specific to their roles within the HFA service structure as defined by the critical elements and related standards of best practice.
- Program staff should receive ongoing, effective supervision so that they are able to assist families in realizing their service objectives and protect themselves from stress-related burnout.

cal elements reflect the themes that emerge repeatedly from research and practice as contributing to positive participant outcomes.[15] In addition to reviewing the literature, HFA planners drew upon general theories of parent-child interaction, human development, and child maltreatment to suggest ways in which programs could alter participant attitudes, behaviors, and skills.[16–18]

Healthy Families America

Collectively, HFA state and local efforts have realized remarkable progress. In 1997, an estimated 18,000 families were enrolled in intensive home visitation services offered by more than 270 HFA programs in 38 states and the District of Columbia. Overall, 30,000 new parents were assessed and provided with information about various educational, health, and support services.

Although programs differ, they share the same principles, and to some extent the same or similar services. The typical HFA home visitation program includes a systematic assessment of all new or first-time parents in a given community at the time their babies are born or prenatally. Families at greater risk of parenting difficulties are encouraged to participate in intensive home visiting, beginning with weekly visits. The frequency is reduced as families meet specific goals. Depending upon each family's needs, services may continue until the child is five years of age. (See Appendix A in this journal issue for a further description of the HFA program.)

Data from a recent HFA site survey found that about one-third of the families offered intensive home visitation services were enrolled prenatally. Thirty-nine percent of the home visitors had some college or associate's degrees, 35% were college graduates, and 9% had postgraduate training. Less than 1% lacked high school diplomas. The most common areas of specialization among the home visitors were child development (25%), social work (20%), education (11%), and nursing (10%).[19]

The HFA Research Network: A New Context for Research

Historically, very little systematic exchange of information has occurred between researchers conducting highly structured randomized trials of interventions and those using more modest quasi-experimental designs to study field-generated programs. In 1994, the organization then known as National Committee to Prevent Child Abuse (NCPCA)—now known as Prevent Child Abuse America (PCA America)—launched a network to bring together these two groups of researchers. NCPCA established a research network of those evaluating the effectiveness of HFA pilot sites and other comparable home visitation initiatives.[20] Initially, the HFA Research Network sought to produce (1) a common database for describing HFA programs and participants, (2) encouragement of secondary analyses of existing evaluative data regarding home visitation, (3) more efficient methods to identify and engage families in appropriate services, (4) identification of the most efficient and reliable methods for measuring participant change, and (5) identification of the critical unanswered research questions inherent in documenting and enhancing program outcomes.

The Network itself has been called an experiment in how to build a knowledge base,[21] and has been viewed as a subject worthy of empirical study. By bringing together those conducting the most sophisticated program evaluations and those conducting quasi-experimental efforts in action settings, the Network has developed decision-making processes, debating styles, language, and methods of product development that offer useful guidance to others embarking on similar research collaborations. For example, Network activities have played a central role in the identification and use of more common data elements to describe HFA recipients and services. These elements are reflected in the computerized Program Information Management System developed for tracking HFA program development and participant characteristics. The

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Network's activities have also been viewed by HFA national funders and prevention advocates as contributing to the ongoing debate about how scientific evidence can be utilized in shaping program structure and policy.

At present, close to 50 researchers evaluating programs in 25 states are active members of the HFA Research Network. Employed in a variety of settings, including state agencies, universities, and private evaluation firms, these individuals have backgrounds that span the fields of child maltreatment, public health, early childhood programs, and family support. Their educational backgrounds include social work, psychology, public health, child development, and early childhood education. This diversity has both enriched the discussions and planning of the HFA Research Network and protected against the adoption of any single theoretical orientation in framing research and evaluation strategies.

Specific Evaluation Designs

Table 1 summarizes key design features and results of 17 HFA program evaluations across the country, with preliminary or final results. Eighteen additional HFA evaluations are being implemented or are in progress, for a total of 35 studies in the HFA Research Network. Network members have employed randomized (8) or comparison (11) evaluation designs in more than half of these efforts, while the remaining studies (16) employ single-group pretest-posttest designs. Table 1 summarizes the 2 randomized trials, 3 comparison group studies, and 12 pre-post evaluations that have produced preliminary or final results. The more recently implemented studies (not shown in Table 1) include large-scale evaluations using quasi-experimental or experimental designs in California, Florida, Hawaii, Massachusetts, Michigan, Minnesota, New York, Ohio, and Oklahoma.

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While some HFA evaluation efforts focus exclusively on assessing the impacts of services on program participants, several also include explicit process components and environmental or community impact assessments. Funding levels for these efforts range from a $5,000 annual evaluation fee paid for a small pilot program in Vermont to almost $4 million for a five-year randomized trial of the HFA site in San Diego (an ongoing evaluation, not listed in Table 1). Two-thirds of the current evaluation efforts have received at least partial funding from federal, state, or local agencies. State agencies include departments of health, departments of social services, general funds, and Children's Trust Funds. One-third of the studies are fully funded by local or national private foundations. Collectively, these efforts represent an estimated $15 million investment in research efforts throughout the HFA system.

HFA program evaluators have identified outcome measures that are consistent with the model's overall objectives and the parenting mechanisms it targets for change: reported rates of child abuse and neglect; maternal and child health (for example, establishment of a medical home, immunization rates, well-baby visits, maternal health status, and so on); parent-child interactions and parental capacity to care for children; identification and use of informal and formal social supports; and maternal life course choices (for example, welfare utilization, educational attainment, employment, subsequent pregnancies, and so on). Evaluators are combining the information from standardized assessment tools, staff assessments, and participant feedback to assess the effectiveness of intensive home visitation efforts.

Most HFA programs and evaluations have been in existence for less than three years, and therefore have not produced definitive findings regarding initial or long-term program impacts. Some of the efforts' most rigorous evaluation designs are still in the planning stages or are only beginning to produce outcome findings. In addition, each of the evaluations, like most efforts at assessing social service interventions, struggles with issues of funding, sample retention, measurement limitations, and theoretical shortcomings.[22–24] The current pool of evaluative findings therefore offers guidance but not definitive proof of effectiveness to those

Table 1

Selected Evaluations of Healthy Families America (HFA) Programs from the HFA Research Network[a]

One Group, Pre-Post Design

State, Evaluators, and Duration	Number of Sites, Current Sample Size	Funding	Key Outcome Measures	Key Findings
Alaska Caldera 1/97–ongoing	Six sites HV: 339	State	Child Health • Reported abuse and neglect Child Development • Ages and Stages Questionnaire Parenting Knowledge/Attitudes • Parenting Stress Index • Parent interview Home Environment • Home Observation for Measurement of the Environment (HOME) Inventory Maternal Life Course • Welfare utilization	Child Health (findings at latest follow-up for families served for at least 90 days (n=220, estimated mean of 314 days served, unless otherwise noted)): • 94% had an identified medical home • 82% of mothers received postpartum care on schedule • Child abuse and neglect: 6% had substantiated reports during three-year study period (n=362 children with data ever enrolled, estimated mean of 244 days served) Maternal Life Course: Of families with the following issues at enrollment (n as specified):[b] • 38% no longer using substances (13 of 34) • 42% no longer using alcohol (16 of 38) • 68% reported improved coping and mental health (54 of 79) • 46% reported reduced social isolation (47 of 102) • 43% obtained support for domestic violence (35 of 81) • 21% obtained employment (35 of 170) • 30% completed GED or high school (20 of 67) • 16% graduated from public assistance (19 of 116)
Connecticut Black and Steir 10/95–12/97	Five sites HV: 386	State and private	Child Health • Reported abuse and neglect • Program records of maltreatment Child Development • Bayley Scales of Infant Development II (Bayley II) Parent-Child Interaction • Nursing Child Assessment Satellite Training (NCAST) Program Feeding and Teaching Scales Parenting Knowledge/Attitudes • Child Abuse Potential Inventory (CAP) Home Environment • HOME Inventory Maternal Life Course • Welfare utilization	Child Health (over two-year period, n as specified): • 96% of target children were up to date on immunizations (n=241 active families with data), compared to 79% of children on welfare with data statewide[b] • 92% of emergency room (ER) visits appropriate (n=386 families, total of 183 visits in 2 years) • Child abuse and neglect: 6% substantiated maltreatment (n=329 families, 21 neglect, 1 physical abuse) Parenting Knowledge/Attitudes (from enrollment to one year, n=42 with data): • CAP rigidity scores decreased, Time1=24.6, Time2=20.5; p<0.05 Home Environment improved (from 3 months to 9 to 12 months, n=24 with data): • HOME total score: Time1=27.83, Time2=33.25; p<.001 • HOME Responsivity: Time1=6.54, Time2=8.04; p<.05 • HOME Learning Materials: Time1=5.13, Time2=7.33; p<.001 • HOME Involvement: Time1=2.67, Time2=4.21; p<.001 Maternal Life Course (from enrollment to one year, n=59): • Employment: Time1=10%, Time2=40%; p<.001 • High school completion: Time1=36%, Time2=48%; p<.05

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Table 1 (continued)

Selected Evaluations of Healthy Families America (HFA) Programs from the HFA Research Network[a]				
One Group, Pre-Post Design				
State, Evaluators, and Duration	**Number of Sites, Current Sample Size**	**Funding**	**Key Outcome Measures**	**Key Findings**
Connecticut *(continued)* Black and Steir 10/95–12/97			Social Support • Maternal Social Support Index (MSSI)	• Cash assistance, Special Supplemental Food Program for Women, Infants, and Children (WIC), food stamps, Medicaid enrollment: not statistically significant (ns) Social Support: no change (from enrollment to one year, n=27): • Maternal support: Time1=23.5, Time2=22.4; ns
Florida Nelson, Gordon, et al. 4/93–ongoing	Three sites HV: 801	County	Child Health • Reported abuse and neglect Child Development • Ages and Stages Questionnaire • Denver Developmental Screening Test II (Denver II) Parent-Child Interaction • Temperament/trait indicators Home Environment • HOME Inventory Maternal Life Course • Welfare utilization Parental Functioning • Attachment/rejection checklist • Family needs survey Client Satisfaction • Family satisfaction survey	Child Health (n=801): • 97% received the recommended immunizations by age two • 94% had medical homes • Child abuse and neglect: 1.3% substantiated reports annually during the past four years of study (1993–97), compared with countywide rate of 5.6% in 1995 Child Development: • 98% of children on target developmentally Maternal Life Course: • 24% decreased their dependency on welfare • 59% moved to better housing • 18% showed increased father involvement • 7% repeat pregnancy rate (within 24 months of target child's birth) Client Satisfaction/Involvement: • Families reported high satisfaction with services (n=195 families active in 9/96 who had received at least 6 months of service), x=1.18 on 1–5 scale
Florida Carnahan 1/95–ongoing	One site HV: 250	United Way	Child Development • Denver II • Hawaii Early Learning Profile Parent-Child Interaction • NCAST Feeding and Teaching Scales Home Environment • HOME Inventory Parental Functioning • Family needs scale • Family strengths checklist Social Support • Family support scale	Child Health (n=48): • Percentage fully immunized: 100% of two-year-olds; 70% of 16- to 23-month-olds • Percentage current with well-baby checkups: 100% of two-year-olds; 70% of 16- to 23-month-olds • Child abuse and neglect (n=155 families served 6 to 24 months): 3.2% of children had substantiated reports during the second project year Parent-Child Interaction (n=31 parent-infant dyads assessed): • NCAST Feeding score: At 2 months=54, at 10 months=59; p<.001 • NCAST Teaching score: At 6 months=48, at 15 months=52; p<.05 Maternal Life Course (n=197): • 89% of participants (92% of teen mothers) had no repeat pregnancies within 24 months of target children's birth

Table 1 (continued)

Selected Evaluations of Healthy Families America (HFA) Programs from the HFA Research Network[a]				
One Group, Pre-Post Design				
State, Evaluators, and Duration	**Number of Sites, Current Sample Size**	**Funding**	**Key Outcome Measures**	**Key Findings**
Iowa Cowen 10/92–ongoing	Six sites HV: 505	State and private	Child Development • Denver II • Parent-child interaction • Neonatal perception inventory Parenting Knowledge/Attitudes • Adult-Adolescent Parenting Inventory • Parenting Stress Index Home Environment • HOME Inventory Parental Functioning • Family Apgar Questionnaire • Resource Scale for Teenage Mothers—Revised	Child Health: • 78% fully immunized for age (n=303 with data in 1996) • Child abuse and neglect: 11.6% of children had substantiated reports (n=649 children served during three-year period) Child Development (n=360 children assessed at least once, 3 to 36 months old): • 17% suspected delays; of those with delays who were later retested (n=47), 43% moved to normal range[b] Parenting Knowledge/Attitudes (n=65 parents assessed at both time points): • Parent distress subscale decreased from enrollment to 18 months, Time1=30.6, Time2=28.3; p=.004 Home Environment (n=17 families assessed at both time points): • HOME scores increased from 4 to 12 months, Time1=28.5, Time2=33.9; p=.007 Parental Functioning (n=20 parents assessed at both time points): • Life stress decreased from enrollment to 18 months, Time1=12.3, Time2=6.6; p=.055
Minnesota Chase and Palmer 5/93–ongoing	One site HV: 148	Local and state	Child Health • Reported abuse and neglect Parenting Knowledge/Attitudes • Adult-Adolescent Parenting Inventory Home Environment • HOME Inventory Parental Functioning • Checklist of risks Social Support • Family support and esteem Client Satisfaction • Family feedback	Child Health: • 89% fully immunized for age • 5% of children injured requiring medical attention (compared with 22% of preschool-age children nationally[c]) • Child abuse and neglect (n=282 families ever enrolled in HFA): 6% with substantiated reports while enrolled in HFA during the 4.6-year study period; an additional 6% with substantiated reports after leaving program Child Development: • 88% within normal limits, 4% special needs, and 8% undiagnosed or unknown

Table 1 (continued)

Selected Evaluations of Healthy Families America (HFA) Programs from the HFA Research Network[a]

One Group, Pre-Post Design

State, Evaluators, and Duration	Number of Sites, Current Sample Size	Funding	Key Outcome Measures	Key Findings
Multistate (Nevada, Oklahoma, and Wisconsin) Harding and Daro 5/96–3/98	Three sites HV: 74	Private	Child Health • Child medical needs Parenting Knowledge/Attitudes • CAP Maternal Life Course • Family information form Parental Functioning • Strengths and risks form Social Support • MSSI	Parenting Knowledge/Attitudes improved: • CAP scores at enrollment=174, at one year=138; p=.001 (n=68) Maternal Life Course (from birth to one year): • 8% received GED or high school diploma • 60% made progress toward high school completion • Maternal employment increased from 37% to 46%, p=.044 • Repeat pregnancy rate was 10% for mothers served at least one year (n=74) Social Support did not change: • Maternal support: no change from enrollment to one year (x1=24, x2=23; ns) (n=48)
New Jersey Dundon, Dellanno, and Woodson 1/95–ongoing	19 sites HV: 554	State and private	Child Health • Reports of abuse and neglect Child Development • Denver Prescreen Parenting Knowledge/Attitudes • Adult-Adolescent Parenting Inventory Home Environment • HF-NJ Home Scale Maternal Life Course • Baseline data survey and update • Welfare utilization Social Support • Support functions scale	Child Health: • 94.8% immunization rate (n=482 children 6 months or older) • Child abuse and neglect: 2.3% families reported to child protective services (CPS), 1.8% substantiated over one-year study period (n=554, mean age of child=7 months) Additional results will be available June 1999
Oregon Katzev and Pratt 9/94–ongoing	14 sites HV: 2,051	State	Child Development • Ages and Stages Questionnaire Parenting Knowledge/Attitudes • Parent survey Home Environment • HOME Inventory Maternal Life Course • Family update Parental Functioning • Family Stress Checklist—Revised	Child Health (at mean age of 21 months, standard deviation=12.1): • 98% had an identified medical home • 92% received regular well-child checkups • 96% of two-year-olds fully immunized (compared with statewide rate of 67% in 1996) • Child abuse and neglect: 2.9% substantiated reports of maltreatment compared with 2.0% among families assessed but not served; program staff made 43% of reports on served families

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Table 1 (continued)

Selected Evaluations of Healthy Families America (HFA) Programs from the HFA Research Network[a]				
One Group, Pre-Post Design				
State, Evaluators, and Duration	**Number of Sites, Current Sample Size**	**Funding**	**Key Outcome Measures**	**Key Findings**
Oregon *(continued)* Katzev and Pratt 9/94–ongoing				Child Development (mean age of 21 months): • 93% normal; 7% with developmental delays receiving early intervention services Home Environment: • At one year: 62% above 75th percentile on the HOME scale • At two years: 77% of families regularly read to their child Maternal Life Course: • 94% received early and comprehensive prenatal care for second pregnancy versus 61% for first pregnancy
Tennessee Kriener-Althen and Myers 5/94–6/97	Eight sites HV: 1,688	State and federal	Parenting Knowledge/Attitudes • CAP Client Satisfaction • Participant closure survey • Participant satisfaction survey	Child Health (n=126 children with completed two-year follow-up): • 96.8% fully immunized at two years (compared with 84.4% of two-year-olds statewide) • 90.5% were up to date on well-child screenings at two years Child Development: • 85.7% were up to date on developmental screenings at two years Parenting Knowledge/Attitudes: • 80% learned new parenting skills • 54% learned new child discipline techniques • 76% learned new ways to play with their children Maternal Life Course (n=1,033 mothers with complete data): • 7.4% repeat pregnancy rate within one year of previous birth • 39% of mothers had late or no prenatal care for first pregnancy, but 75% received early (first trimester) prenatal care for subsequent pregnancies Client Satisfaction: • 78.6% said they would want their friends to be in the program
Virginia Barrett 7/96–3/99	One site HV: 145	State, local, and private	Child Health • Child health data • Reported abuse and neglect Child Development • Ages and Stages Questionnaire Home Environment • HOME Inventory Client Satisfaction • Family satisfaction survey	Child Health (n=85 children who received at least 8 home visits): • 100% of children continued with a health care provider over time • 88% received all recommended immunizations for age (x=15 months old) • Child abuse and neglect: 100% of children did not have substantiated reports in 21-month period

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Table 1 (continued)

Selected Evaluations of Healthy Families America (HFA) Programs from the HFA Research Network[a]				
One Group, Pre-Post Design				
State, Evaluators, and Duration	**Number of Sites, Current Sample Size**	**Funding**	**Key Outcome Measures**	**Key Findings**
Virginia *(continued)* Barrett 7/96–3/99				Child Development: • 5% of children four months or older (n=80) showed possible developmental delays; in-depth screening confirmed delay for one child (1%) Maternal Life Course (n=49 mothers enrolled at least 300 days postdelivery): • 88% did not have a second child within 24 months of first birth • One of six second births was to a teen mother Client Satisfaction (n=36 families surveyed): • 97% of parents said the program improved their parenting
Virginia Barrett 10/93–3/97	One site HV: 167 families enrolled for at least two months (169 children)	Federal, state, and local	Child Health • Child health data • Reported abuse and neglect Child Development • Revised Gesell and Armatruda Developmental Neurological Examination Parenting Knowledge/Attitudes • CAP Client Satisfaction • Family satisfaction survey	Child Health: • Of prenatal enrollees (n=114 enrolled at least two months), 82% received recommended prenatal care • 8% of prenatally enrolled who remained in program until delivery (n=105) had low birth weight babies (under 2,500 grams) • 91% of 169 children with data were fully immunized for age (x=17 months) • 98% had primary care provider at two months, and 93% continued with provider • Child abuse and neglect: 2% with substantiated reports (all neglect) in 42-month period (n=167 families that received two months or more of service and consented to allow access to CPS records; average duration of service=19 months) Child Development: • 84% of children four months or older (n=137) were screened for delays • 10 children (9%) with confirmed developmental delays; all but one received appropriate services (one mother refused referral) Maternal Life Course (n=114 mothers enrolled at least 300 days postdelivery): • Subsequent births within 24 months of first birth: 13% (8 of 15 to teen mothers) Client Satisfaction (n=73 families surveyed): • 80% of families very satisfied with program; 16% satisfied • 95% said program was very helpful in raising their children

Table 1 (continued)

Selected Evaluations of Healthy Families America (HFA) Programs from the HFA Research Network[a]

Two Groups, Nonrandomized Design[d]

State, Evaluators, and Duration	Number of Sites, Current Sample Size	Funding	Key Outcome Measures	Key Findings
Arizona Holtzapple 1/95–1/98	14 sites HV: 2,000 C: 150	State	Child Health • Child health data • Reported abuse and neglect Child Development • Ages and Stages Questionnaire Parental Functioning • CAP Parent-Child Interaction • FACES Home Environment • HOME Inventory Maternal Life Course • Welfare utilization	Child Health: • E: Higher than communitywide rates of immunization at 9 of 14 sites[b] • Child abuse and neglect: Of 590 families with (1) more than one child, (2) no preenrollment child abuse or neglect reports, and (3) at least six months of service (average duration=463 days for active families, 344 days for terminated families): substantiated reports: E=3.3%, C=8.5%; p<.05 Home Environment (n=179 families with data, E families only): • HOME scores: at 6 months=34, at 18 months=37; p<.05 Maternal Life Course (E (n=2,000), C (n=150); over 29 months): • Public assistance: E=46%, C=54%; p<.05 • Mean number of days AFDC received: E=771, C=892; p<.05 • Mean number of days food stamps received: E=910, C=1,110; p<.05 • Mean number of days medical assistance received: E=240, C=313; p<.05
Arizona LeCroy and Ashford 1992–96	Three sites HV: 291 C: 152	State	Parenting Knowledge/Attitudes • Parenting Stress Index Home Environment • HOME Inventory Parental Functioning • Parental self-efficacy Social Support • Interpersonal support evaluation list	Child Health: • Immunizations: 99% of E children with complete birth immunizations; 97% complete at 15 months • Child abuse and neglect: Substantiated reports during four-year period for families enrolled 1993–95 that received at least 180 days of service (n=291) compared with high-risk families outside of service area (n=152): E=4.5%, C=8.5%; p<.10 Parenting Knowledge/Attitudes increased (E families only): • From enrollment (186.6) to 6 months (176.3); p<.01 (n=196 families) Home Environment improved (E families only): • From 4 months (34.6) to 12 months (37.7); p<.01 (n=111) Parental Functioning: self-efficacy improved (E families only): • From enrollment (21.6) to 6 months (19.2); p<.01 (n=196) Social Support improved initially (E families only): • From enrollment (12.9) to 6 months (12.4); p<.01 (n=196)

Table 1 (continued)

Selected Evaluations of Healthy Families America (HFA) Programs from the HFA Research Network[a]				
Two Groups, Nonrandomized Design[d]				
State, Evaluators, and Duration	**Number of Sites, Current Sample Size**	**Funding**	**Key Outcome Measures**	**Key Findings**
Wisconsin Keim 10/95–6/98	One site HV: 36 C: 23	Private and local	Child Health • Child medical needs Child Development • Ages and Stages Questionnaire Parent-Child Interaction • Home Screening Questionnaire (HSQ) Maternal Responsiveness Subscale Parenting Knowledge/Attitudes • CAP Home Environment • HSQ Social Support • MSSI	Child Health (at one year): • Preventive health care (well-child care, immunizations): E=8.0, C=7.3; p=.009 • ER use: E=3.3 visits, C=2.9; p=.18 • Duration of breast-feeding: E=6.53 months, C=3.62 months; p=.053 Child Development (E children routinely assessed at one year, C children not assessed): • Suspected developmental delays identified in 34% of E children versus 4% of C children (one child); p=.006; suggests benefits of routine developmental screening Parent-Child Interaction (at one year): • Maternal Responsiveness: E=5.3, C=4.4; p=.001 Parenting Knowledge/Attitudes (at one year): • CAP score: E=110.3, C=116.7; p=.80 Parental Functioning (at one year): • Number of community resources used: E=5.6, C=3.7; p=.01 Social Support (at one year) • Total score: E=25.8, C=25.1; ns; friend subscale: E=3.4, C=2.7; p=.01
Randomized Trials				
Hawaii McCurdy and Daro 3/93–9/95	Two sites HV: 157 C: 167	Federal and private	Child Health • Child health data Child Development • Bayley II Parent-Child Interaction • NCAST Feeding and Teaching Scales Parenting Knowledge/Attitudes • CAP • Michigan Screening Profile of Parenting Home Environment • HOME Inventory Social Support • MSSI	Child Health (one-year outcomes): • Immunization rates: E=93%, C=93%; ns • At least one ER visit in past six months: E=41%, C=30%; ns • Child abuse and neglect: Substantiated cases E=3.3% (all imminent harm), C=6.8% (including 31% neglect); p<.10 Child Development (cognitive): • E=88.7, C=88.1; ns Parent-Child Interaction: • HOME—maternal involvement (at six months): E=3.2, C=2.9; p<.05 • NCAST: maternal sensitivity to child's cues (at six months): E=12.6, C=12.2; p=.08 • NCAST: child's responsiveness to maternal cues (at one year): E=7.8, C=7.0; p<.05 Parenting Knowledge/Attitudes (from enrollment to 12 months): • Reduction in CAP score, mean change: E=-34, C=-10; p<.05 Social Support (at 12 months): • MSSI score: E=23.0, C=22.8; ns

Table 1 (continued)

Selected Evaluations of Healthy Families America (HFA) Programs from the HFA Research Network[a]

Randomized Trials

State, Evaluators, and Duration	Number of Sites, Current Sample Size	Funding	Key Outcome Measures	Key Findings
Virginia Galano and Huntington 9/92–7/97	Two sites HV: 422 C: 197	State and local	Child Health • Child health data • Reported abuse and neglect Child Development • Battelle Developmental Inventory Parent-Child Interaction • NCAST Feeding and Teaching Scales Parenting Knowledge/Attitudes • CAP Home Environment • HOME Inventory Maternal Life Course • Welfare utilization Parental Functioning • NCAST Community Life Skills Scales • NCAST Difficult Life Circumstances Scales Social Support • MSSI	Child Health (E=422, C=197): • Full-term births: E=95.7%, C=92.2%; ns • Birth complications: E=0.2, C=0.48; p<.05 • Average birth weight: E=3,181 grams, C=3,282 grams; p<.05 • Pregnancy risk scores: E=0.2, C=0.8; p<.01 • Fully immunized for age: E=92% (compared with 60% to 74% statewide) • Child abuse and neglect: Substantiated reports: E=4.1%, C=3.0%; ns Child Development (E=117, C=76) • Battelle age scores at one year: E=1.1, C=1.2; ns • Battelle age scores at two years: E=0.9, C=0.9; group difference ns, pre-post difference ns, group X time interaction ns Parent-Child Interaction: (E=117, C=44 families with NCAST Feeding z-score at one month compared with NCAST Teaching z-score at two years): • One-month z-scores: E=-1.1, C=0.27; two-year z-scores: E=0.03, C=-0.15; group differences ns, pre-post differences ns, group X time interaction: p<.001 Home Environment (E=120, C=46): • Baseline (one month) HOME score: E=26.6, C=28.0; ns • Two-year HOME score: E=34.6, C=32.7; group difference p<.05, pre-post difference p<.001, group X time interaction p<.001 Maternal Life Course (E=142) • Teen repeat births: E=10%, community rate=35.8%; 29.8% statewide Maternal Social Support (E=69, C=28): • Initial: E=21.0, C=22.1; one year: E=20.1, C=21.0; ns

[a] This table reports the results of 17 studies of HFA programs for which results are currently available, and, for the most part, for which results have been tested using traditional means of statistical analysis. Other completed, ongoing, or planned studies in the HFA Research Network include four single-group, pre-post studies; eight comparison group, nonrandomized studies; and six randomized trials (including the evaluation of Hawaii's Healthy Start Program by Duggan and colleagues in this journal issue). A complete list of all the researchers in the HFA Research Network is available upon request from Prevent Child Abuse America, 200 South Michigan Avenue, 17th Floor, Chicago, IL 60604.

[b] No significance test conducted.

[c] *Morbidity and Mortality Weekly Report* (February 18, 1994) 43,6.

[d] For a few studies, data are reported only for the group that received home visiting services. This essentially makes these studies, as currently reported, comparable to those studies employing only a one-group, pre-post design.

seeking to create child maltreatment prevention programs. These early evaluations provide some initial indications regarding the positive impacts among program participants; the program and participant factors that may influence these outcome patterns; issues relating to the engagement and retention of program participants; and other issues and concerns that have an impact upon the ability to effectively deliver HFA services.

Key Outcome Findings

Although several communities have implemented strong, intensive home visitation programs, none of the efforts covered by these early evaluations has been taken to scale (that is, none has provided access to support services for more than 20% of the communities' newborns and their parents). Nor have they fully incorporated the type of community change recommended in HFA's overall theory of change. HFA efforts are not well integrated into existing child welfare response systems, nor have they become an integral component of public health care systems. Further, HFA assessments are usually merely a mechanism for identifying families in need of intensive home visitation services, not a strategy for referring a broad range of families to diversified levels of support. While in some cases participant changes have been compared with the performance of those randomly assigned to no-treatment control groups, in most cases comparisons can be made only with populations matched to the treatment groups on key demographic markers or with the performance within the population's general community. As such, the current pool of evaluative findings provides only partial evidence of the initiative's overall impact and the utility of developing programs that embrace HFA's 12 critical elements. Within this context, however, these initial findings suggest that continued program development along the lines of the HFA model offers significant hope for reducing child maltreatment rates and enhancing parental capacity.

Initial findings suggest that continued program development along the lines of the HFA model offers significant hope for reducing child maltreatment rates and enhancing parent capacity.

Child Abuse and Neglect

Thirteen of the evaluations with data regarding child abuse and neglect rates report rates of subsequent maltreatment of less than 6% among program participants. Although the national average for maltreatment reports is 4.7% for all children under the age of 18,[25] studies suggest that the risk of harm is two to three times higher among children living in families comparable to those enrolled in HFA services (those with low incomes, single mothers, and so forth),[26] so a 6% rate is quite encouraging. Further, one of the two evaluations in Arizona comparing the performance of HFA recipients with that of families that qualified for but were not offered the intervention found statistically significant differences on this measure ($p<.05$). In both cases, almost twice as many families in the comparison group as in either treatment group were reported for abuse or neglect during a two-year observation period.

In contrast, none of the three randomized trials that examined this phenomenon (the Hawaii and Virginia studies in Table 1 and the Hawaii study reported in the article by Duggan and colleagues in this journal issue) reported a significant difference between the number of treatment and control group families involved in confirmed reports. However, the randomized trial conducted by McCurdy and Daro on the Hawaii Healthy Start Program reported a significant difference in the total number of reports made during the two-year observation period for participants in both groups. In this study, a total of six reports, all of which involved "imminent harm," were filed for the treatment group, while 13 reports, the majority of which involved actual abuse or neglect, were filed for the families in the control group. (These data are not reported in Table 1.)

These patterns underscore three issues that may make it unwise to use child abuse reports as the sole indicator of program success: (1) the limited sample size in many of the HFA evaluations (often fewer than 150) and the low base rate of child abuse reports make it unlikely that a statistically significant

difference will be observed between treatment and control or comparison groups; (2) infants, because of their limited contact with those outside their immediate families, are less likely than older children to be identified and reported as maltreatment victims;[26] and (3) as child welfare systems are asked to respond to a greater number of reports with stable or decreasing resources, services are limited to those cases that represent the most egregious parenting.[27,28] (For an additional discussion of the difficulty of assessing child abuse and neglect rates, see the articles by Duggan and colleagues and by Olds and colleagues in this journal issue.)

On the positive side, home visitation, by definition, increases the odds that a parent will be observed mistreating his or her child and that a child will be observed as being at risk of harm because of parental action or inaction. Indeed, the majority of reports documented by the HFA evaluations monitoring this outcome noted that the most frequent source of reports on families in the treatment groups was their home visitors. Within this context, the findings from the NCPCA study of Hawaii's Healthy Start Program, for example, are particularly encouraging because they suggest that parents are being referred to the system at an earlier point in time, before actual abuse occurs or before a child is harmed. As noted by other prevention and child welfare researchers, this pattern suggests a more efficient use of the existing reporting system.[29,30]

Health Care Status and Service Utilization

Preliminary evaluation findings suggest that the vast majority of program participants are securing the necessary health care for themselves and their babies. At least 90% of the children enrolled in HFA services are up-to-date on their immunizations and are keeping appointments for well-baby checkups. Most participants (94% or more) have identified an appropriate and stable source for their medical care.

A pretest-posttest assessment of HFA participants in Connecticut found that only 8% of the 183 emergency room visits made by the 386 families during their first year of enrollment in the program were judged by staff as "inappropriate."

Health outcomes appear to be particularly strong among participants enrolled during the prenatal period. In the Virginia program, participants in the treatment group who were enrolled prenatally experienced fewer birth complications, delivered a greater number of full-term babies, and had fewer low birth weight babies than those in the comparison group who were enrolled prenatally. These outcomes may be partially explained by the fact that women enrolled in HFA services prenatally received most of their prenatal health care visits. Three of the evaluations in the network that monitored participant performance for this indicator reported that between 80% and 92% of the participants who enrolled prenatally received all of their scheduled visits.

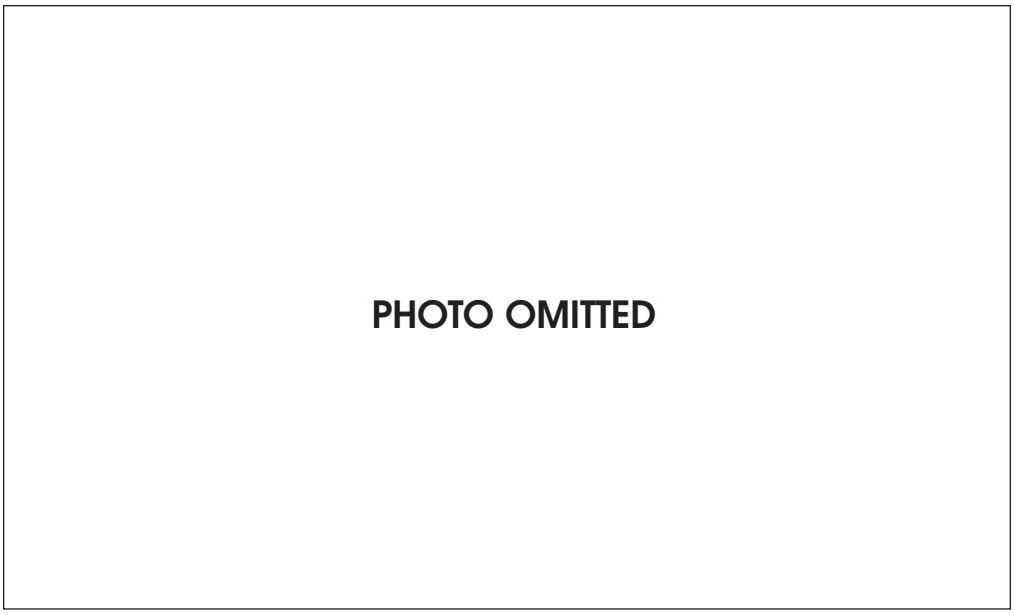
Child Development

Less than 10% of the children enrolled in any of the evaluations demonstrated significant developmental delays or physical difficulties during their first or second years. Studies that monitored this outcome (for example, those in Florida, Minnesota, and Virginia) reported that all or most of the children with suspected or confirmed developmental delays at birth received additional screening and, if necessary, referrals to appropriate therapeutic services. Randomized studies that investigated child development found no significant differences between treatment and control group children in terms of their cognitive development, suggesting that home visitation efforts may not have a unique impact on children's developmental trajectories. While not explicitly addressed in this body of research, it is possible that children presenting cognitive or other developmental delays at the time of birth are being referred to therapeutic services independent of any other services offered to their parents.

Home visitation efforts may not have a unique impact on children's developmental trajectories.

Parent-Child Interaction

The most robust findings from this pool of studies are found in the areas of parent-child



interaction and parental capacity. Data from both the Home Observation for Measurement of the Environment (HOME) Inventory and Nursing Child Assessment Satellite Training (NCAST) found program participants outperforming control or comparison group participants in a number of studies (for example, in Hawaii Healthy Start, Virginia, and Arizona). In addition, those engaged in HFA services showed a significant decrease in their overall potential for maltreatment, as measured by the Child Abuse Potential Inventory or the Adult-Adolescent Parenting Inventory, and parental stress, as measured by the Parenting Stress Index. While the magnitude of these decreases was not always substantial or statistically significant, data from both the standardized measures and qualitative interviews with participants suggested that the provision of home visitation services on a regular basis provided families with greater knowledge about alternative forms of discipline, greater sensitivity to their children's cues, greater comfort in understanding their children's development, and less overall distress and rigidity.

Further, the strong and consistent findings in this domain reflect the emphasis HFA home visitors place on improving parent-child interactions and parenting skills. Several of the qualitative studies conducted by HFA program evaluators reported that program participants were most likely to describe the home visitation services as a parent support program. Participants repeatedly reported spending time during the home visits exploring issues of child development, infant care, and, as their babies grew, appropriate child behavior management.

Maternal Life Course

A substantial percentage of participants who exhibited difficulties in such areas as education, employment, welfare dependency, and domestic violence at the time they enrolled in HFA services saw improvements over time. Pretest-posttest assessments in the Alaska, Arizona, Connecticut, Florida, and Virginia programs found improvements in these and similar areas. For example, comparisons of welfare utilization rates in Arizona for HFA program participants and a comparison group composed of those who qualified for but were not provided services reported that HFA participants spent 121 fewer days on Aid to Families with Dependent Children (AFDC), 200 fewer days on food stamps, and 73 fewer days on Medicaid, resulting in significant savings to the state. Of the 801 families enrolled in services in Florida, more than half moved to better housing, 189 decreased their dependency on welfare, and 146 showed greater involvement on the part of the father. In contrast, the Connecticut evaluation did not find notable declines in the use of public assistance programs among HFA program recipients during the initial service year. While the use of cash assistance by this group declined from 59% to 55%, the use of the Special Supplemental Food Program for Women, Infants, and Children

(WIC) increased from 77% to 85%, and enrollment in Medicaid and food stamps remained unchanged.

Social Support

None of the completed evaluations has found significant differences in the use of social supports between treatment and comparison groups. Indeed, a more common finding has been a decrease in the level of social support reported by program participants during the post-intake observation periods. Although scores on standardized measures of social support did not produce significant findings, several of the studies reported that program participants found that their home visitors provided a valued and needed source of support. This support may have been particularly critical for those who experienced a decline in involvement by family members after the initial postbirth period.

Subgroup Analyses: Do Some Families Benefit More?

Few consistencies emerged across the evaluations with respect to the salient participant or program characteristics that supported positive outcomes. While several studies have observed better outcomes with teenage participants, others have found older mothers more likely to secure well-baby visits and other supportive services. No consistent differences have been observed with respect to the point of engagement (prenatally versus at birth) or between women having their first children and women having subsequent births. While those currently assessing HFA efforts are not finding a strong relationship between service intensity and positive outcomes, the quality of staff and their ability to respond to at-risk families in an appropriate and culturally sensitive manner appears to correlate with more positive outcomes. Anecdotal evidence from HFA evaluations in Florida, Hawaii, and Wisconsin suggests that participants have more positive impressions of workers who provide immediate and concrete options for a family's presenting problem in a nonjudgmental manner. Participants repeatedly refer to their sense of "connection" to a given worker and the belief that their home visitors can be counted upon to offer consistent support.

Similarly, no distinguishing community characteristics were found to have a consistent or uniform impact on outcomes. While some participants who enrolled in HFA programs in communities with established family support centers, which combine medical and social service options within a single structure, benefitted from this arrangement, others did not find that this type of service integration facilitated service access or produced more positive outcomes.

Attrition and Participant Involvement

Although none of the HFA evaluations reported initial refusal rates of greater than 5% to 10%, somewhere between 20% and 30% of those families that accepted the offers of service failed to successfully engage in the programs. The meaning of "successful engagement" varied across programs. In the majority of cases, however, this percentage referred to participants who, despite repeated attempts by home visitors, never were available for even a single home visit or received only sporadic visits over a six-month period. These attrition rates are comparable to other early intervention programs that have targeted similar populations and, therefore, may not indicate a unique performance difficulty.[31–34] They do, however, raise serious questions about the ability of voluntary efforts to provide sufficient coverage of the at-risk population such that a measurable change in the aggregate indicators of distress is achieved. Factors cited as affecting attrition rates include:

Somewhere between 20% and 30% of those families that accepted the offers of service failed to successfully engage in their programs.

- maternal age (for example, several sites noted that their teenage participants were more likely to drop out of services, while others found young participants easier to engage);
- high mobility in some communities;
- the refusal of the mother's partner or another adult in the home to allow the home visitor regular access; and

■ the stability and tenure of the sponsoring agency (for example, those agencies with a more visible presence in the community may be more successful in engaging and retaining participants).

In contrast, retention rates appeared to be higher among those programs that conducted their initial assessments in person while the mother was in the hospital, or prenatally in a medical clinic. Several Network programs also reported that offering participants specific incentives to enroll (for example, gifts for themselves or their newborns) netted higher retention rates. A number of the evaluations found that retention was higher among Hispanic and African-American participants than among white participants, although this finding was far from universal. For example, HFA evaluators in Florida reported higher initial refusal rates among programs serving low-income white communities than among those targeting minority communities.

Summary

HFA's intensive home visitation efforts are achieving notable changes among participant families, particularly in the areas of parent-child interaction and parental capacity. Most families receiving these services appear to be better able to care for their children; to access and effectively use health care services; to resolve many of the personal and familial problems common among low-income, single-parent families; and to avoid the most intrusive intervention into their parenting, namely being reported for child abuse or neglect.

Although the demonstrated benefits of HFA do not yet include enhanced child development or social supports, such changes may only be measurable with larger samples or a longer observation period.

Although the demonstrated benefits of HFA home visitation efforts do not yet include enhanced child development or social supports, such changes may be measurable only with larger samples or a longer observation period than is captured by current HFA research efforts. At a minimum, however, the types of changes observed in some evaluations with respect to maternal life choices, such as greater educational achievement, reduced welfare dependency, and delayed second pregnancies, will translate into improved quality of life in the long term for program participants and their children.

Many of these findings have emerged from quasi-experimental rather than randomized trial research. While randomized trials provide a unique contribution to the program and policy process, a variety of evaluation designs are needed to fully capture HFA impacts, particularly given the initiative's commitment to program flexibility and community ownership. The consistency of some findings across the various HFA studies, despite different methodologies, participant populations, and community settings, offers policy and program planners equally valuable insights into how best to support new parents. Further, the HFA Research Network offers a critical forum for ensuring that these emerging findings are debated and, if consistent and meaningful, are integrated into HFA program and policy development.

Implications for Future HFA Development

Expanded research at HFA sites, coupled with other comprehensive assessments involving intensive home visitation models, will have a significant impact on the future structure of home visitation programs, particularly as HFA state leaders seek to implement the initiative's vision of universal support for all parents. The Network's activities offer a rich data source for both refining the HFA model and improving the overall quality and utility of the evaluation process. A central challenge facing Network members and others engaged in prevention planning is maximizing the utility of this rapidly expanding body of research without overstating trends that may be only preliminary.

The overall HFA initiative provides a natural experiment to explore a wide range of programmatic and policy issues and to refine the HFA model. HFA programs are not sterile, university-based experiments but real programs located in real communities.

Consequently, HFA program evaluations are well suited to examine questions such as how to form cooperative and collaborative strategies with bureaucratic structures to establish and sustain effective home visitation efforts. Further, the size of the overall HFA initiative allows for cross-site comparisons and experimentation concerning such issues as community context and programmatic structure. For example, the development of joint research proposals involving multiple HFA sites as well as the state and community-wide evaluations under way in Florida, Massachusetts, North Carolina, and Ohio offer opportunities to examine the relative impacts of home visitation programs delivered in different communities (for example, rural versus urban), with different populations (for example, teens versus older moms), and with different programmatic components (for example, nurses versus paraprofessionals).

The preliminary findings from these efforts, as well as ongoing discussion among HFA Research Network members, suggest several pressing questions for continued research:

- *Questions regarding the context for establishing programs:* What are the relative merits of utilizing private versus public collaborating agencies? Of different funding sources and their related legislative and administrative mandates? Of variations in how HFA pilot sites are initiated (that is, whether the original idea comes through administrative initiative or legislative action)?

- *Questions regarding staffing:* What is the ideal content and length of initial and ongoing training? What are useful strategies to prevent staff turnover and burnout? How should a cultural match between staff and participants be defined and achieved? How can programs achieve and maintain staff compliance with program guidelines?

- *Questions regarding family/participant identification:* How relevant are current screening criteria for all families? What is the relationship between each screening category and final outcomes (that is, do families with certain risk profiles do better in the program than others?)? Between outcomes and prenatal screening versus screening at birth? What are the most common demographic and functioning profiles of participant families?

- *Questions regarding the home visitors:* Should the visitors play the role of teacher or friend? What personal characteristics are associated with successful staff performance? Does compliance with HFA standards produce more positive outcomes for program participants and staff development? What curricula or curriculum elements are essential for effective staff training and supervision?

- *Questions regarding program dropouts:* Which families are least likely to engage fully? What is the relationship between participant dropout rates and key program variables such as the nature or timing of the intake or screening process, the way the program is presented, the home visitor's characteristics and tenure, or the content of the visits?

HFA research efforts may well continue to find differential performance across domains such as child health, development, or child abuse, and in the degree to which participant characteristics and service delivery elements affect participant progress. The challenge facing all those assessing HFA and comparable programs, therefore, is determining how best to use these diverse findings to provide effective directives for HFA planners at the local, state, and national levels. While some aspects of this differential success story reflect real limitations in the service model, other aspects may be resolved through changes in the model. For example, NCPCA's evaluation of Hawaii's Healthy Start Program suggests that home visitation efforts, as currently designed, may not offer the most promising model for addressing issues of social support and child development. If increasing social support is to remain a primary goal of home visitation efforts, the model may need to be refined in ways that enhance parents' interpersonal skills and communicative abilities and

While some aspects of this differential success story reflect real limitations in the service model, other aspects may be resolved through changes in the model.

increase their attendance at parent groups. Both of these goals may be difficult to achieve. Though social support has been identified as a potential inhibitor of maltreating behavior,[35] methods to integrate individuals into supportive relationships and networks have not been fully developed. Work on social support needs to identify and explicate these methods to achieve gains in this domain.

Similarly, the absence of significant impacts in the area of child development noted in several evaluations of home visitation programs may partially reflect the short-term nature of most of these evaluations. Historically, home visiting aimed at preventing child abuse has achieved few discernible effects on measures of child cognitive development and behavior.[29,36] The promotion of child development may require intensive, one-to-one services,[37] suggesting that family-focused HFA programs might be well served by coordinating their efforts with explicit early childhood enrichment programs such as Early Head Start. Indeed, this type of service integration is explicitly endorsed within the HFA overall approach.

Prevention advocates need to think at a systems level—to understand that it is as critical to build relationships among providers in a given community as it is to build relationships between individual parents and their children.

Conclusion

No system of universal support for new parents, regardless of scope or quality, will solve all of society's ills. Some children still will experience injury or limited social and cognitive development because their parents are unable or unwilling to care for them. Some parents still will fail to secure needed services for their children because local service options remain inaccessible or nonexistent. Some communities still will be too violent to allow children to play outside their homes because prevention efforts have failed to challenge an economic system that locks so many in a continuing cycle of poverty and dependency. In a sense, the more that is learned about planning and implementing prevention services, the more it becomes clear how little is known about the appropriate scope for these efforts and their ultimate impacts. In this sea of uncertainty, however, the HFA experience has identified several concepts worth incorporating into any large-scale prevention initiative.

First, the new imagery—one that casts prevention services in a vertical rather than a horizontal framework—is the correct imagery for future planning. When a social dilemma is multifaceted and rooted in a diverse array of personal, familial, and societal causes, prevention advocates are wise to begin with a strong foundation that offers a certain degree of universal assistance. Once the specific degree of need is established for each individual or family, more specialized or intensive services can be integrated into this essential foundation.

Second, although quality issues are paramount, prevention efforts need to remain flexible, both in establishing new innovations and in replicating the most promising approaches. No single program or delivery system will be correct for all participants or all communities. Those interested in preventing child abuse and supporting new parents need to draw from the empirical findings and clinical experiences generated by thoughtful program evaluators and practitioners and use this knowledge to craft workable programs for their communities and target populations. This type of careful and rational planning is necessary if prevention efforts are to be responsive to the uniqueness of a given community and to generate the type of ownership and investment necessary to sustain efforts for the long term.

Third, prevention advocates need to think at a systems level—to understand that it is as critical to build relationships among providers in a given community as it is to build relationships between individual parents and their children. Such integration efforts need to engage a variety of disciplines and professionals, as well as the public at large. Unless such an effort is undertaken, HFA and other large-scale prevention efforts will fail to create the familial and social conditions necessary for the consistent and positive nurturing of children.

Finally, it is important to realize that no single research project will provide a comprehensive answer to all questions. The best policies and programs emerge from the collective lessons of a wide body of research, encompassing diverse theoretical models and methodologies. Research reviews such as those conducted by the National Academy of Sciences, interdisciplinary conferences, and the formation of research networks in which individual researchers pool their knowledge are all strategies to pursue.

Although they will never have the final word on the existence or breadth of new parent support programs, those assessing HFA performance and other early intervention efforts have a responsibility to see that their input is felt throughout the decision-making process. Within the rational current of program development, evaluators offer program managers and those establishing state and federal policies a unique set of skills. Properly constructed and implemented policy and program evaluations can go a long way toward clarifying objectives, determining impacts, and defining the paradigms of broadly defined family support and child enhancement efforts. While many of the questions surrounding the ultimate expansion of early intervention reflect deeply held values of family privacy, child protection, and parental rights, evaluative results can be used to ensure that those programs that are funded reflect the most current and reliable findings regarding program efficacy.

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