Home Visits Boost Family "Wellness," But Do They Help Prevent Child Abuse?
Evaluation of Hawaii's Healthy Start Program

SUMMARY

Starting in January 1994, the Johns Hopkins University School of Medicine conducted a three-year evaluation of Hawaii’s Healthy Start Program (HSP).

HSP provides early intervention family support services to young children from birth to age 5 who are at risk for maltreatment. This evaluation sought to determine:

- How closely the HSP implementation mirrored its design.
- How effectively the program achieved its intended benefits for children and families.
- How the fidelity of program implementation influenced program impact.
- And how program benefits compared with program costs.

Key Findings

- Early identification staff determined risk status for 84 percent of target families.
- Families with higher risk scores, young mothers with limited schooling and families with infants at biologic risk were more likely to enroll in home visiting.
- Only half of those who enrolled were active at one year with an average of 22 visits.
- After two years of service provision to families, HSP was successful in linking families with pediatric medical care.
- Most families enrolled for home visits were linked with a primary care provider, but linkage rates for other community resources varied widely by type of service.
- Although HSP visits improved family wellness according to several measures, no overall positive program impact emerged after two years in terms of child maltreatment, adequacy of well-child health care, or pediatric health care use for illness or injury.
Conclusions

- The researchers conclude in The Future of Children that "home visiting programs and evaluations should monitor program implementation for faithfulness to the program model, and should employ comparison groups to determine program impact."

Funding

The Robert Wood Johnson Foundation (RWJF) provided partial funding for this study with a grant of $400,000 from January 1994 to July 1999. The National Institutes of Health has committed more than $5 million in funding for the next phase of the study.

THE PROBLEM

Hawaii's HSP is a nationally known home visiting program providing early intervention family support services to young children from birth to age 5 who are at risk for maltreatment. In 1994, it was the only mature, state-run home visiting effort in which the goal was to identify and prevent adverse health, social, and developmental outcomes in the families of all at-risk newborns.

Under the supervision of health or social services professionals, paraprofessional home visitors work with families to prevent child abuse and neglect, improve family functioning, improve child development, promote access to primary health services, maximize child health status, and promote readiness for school. From its founding in 1985, HSP had, by 1995, expanded to 14 sites statewide.

Findings from a 1990 evaluation strongly suggested that HSP successfully identified families at-risk for child abuse and neglect and averted these behaviors, although a weak design limited the value of this study. The results of this and other studies increased the interest of child health and child welfare advocates and some government officials in early intervention approaches centered on home visiting, as in the HSP model.

At the same time, a review of home visitation programs nationwide showed variation in the programs' objectives, target populations, structure, visitor qualifications and their corresponding effectiveness. Limited knowledge in general about the effectiveness of community-based, home visitation programs impeded efforts to disseminate the HSP findings.

THE PROJECT

This study sought to determine:

- How closely Hawaii's HSP program implementation mirrored program design.
- How effectively the program achieved its intended benefits for children and families.
● How the fidelity of program implementation influenced program impact.

● How program benefits compared with both direct and indirect program costs, including costs of other government programs it affected.

The study was designed to enable investigators to address issues unresolved in earlier evaluations of home visiting programs.

From November 1994 to December 1995, researchers randomly assigned 684 families identified by HSP staff as at risk for abuse or neglect of their newborn infants to either the treatment group (HSP group) or the control group, then followed them from 1995 through 1998. The pool of families from which the sample was derived provided informed consent for this screening ("early identification") at the time of hospital registration.

Families in the HSP group and the main control groups were tested annually through structured parent interviews, observation, and developmental testing of the child. Besides primary data gathered from the participating at-risk families, researchers used existing data from HSP, physician, insurance, and Hawaii's Child Protective Services records.

Early on in the study, researchers discovered so much variation in HSP program delivery from one agency to another that a full evaluation of the program's effectiveness was not possible until researchers could complete a study of the effects within each agency. Thus project staff fully addressed only the first of the four objectives—program implementation compared to program design—and partially completed the second and third. Work on the fourth objective—the cost-benefit analysis—was postponed because evaluators would not have access to the state's Medicaid claims data until 2000.

**Other Funding**

Funds from RWJF supported approximately 20 percent of this study. The balance plus additional time for data analysis came from the federal Maternal and Child Health Bureau ($836,932), the David and Lucile Packard Foundation ($667,595), the Annie E. Casey Foundation ($405,000), and the Hawaii State Health Department ($294,738).

An evaluation Advisory Committee was established to provide additional support and direction for the project. (See the Appendix.) The grantee also used some of the grant funds to pay a subcontractor—Dr. Barbara Wasik, professor and associate dean of the School of Education at the University of North Carolina, Chapel Hill—for technical assistance in the development of a measure for parent problem-solving abilities.
FINDINGS

The following findings come from the abstract of an article in *Pediatrics* (January 2000):

- "Early identification staff determined risk status for 84 percent of target families." Risk status is the risk for abuse or neglect of newborn infants assessed, with family approval, using a screen of maternal medical records and a maternal interview based on a checklist of family stress—Kempe's Family Stress Checklist. Target families were all families experiencing births at the study’s six community hospitals during the data-gathering period.

- "Families with higher risk scores, young mothers with limited schooling, and families with infants at biologic risk were more likely to enroll in home visiting." Indicators of biologic risk were birth weight, gestational age, and intermediate/intensive neonatal care.

- "Half of those who enrolled were active at 1 year with an average of 22 visits. Families where the father had multiple risk factors and where the mother was substance abusing were more likely to have 12 or more visits; mothers who were unilaterally violent toward the father were less likely." The HSP protocol for frequency of visits was based on an assessment of family need and ranged from weekly to quarterly visits.

- "Most [enrolled] families were linked with a medical home”—a primary care provider.

- "Linkage rates for other community resources varied widely by type of service."

- "Half of [enrolled] families overall, but 80 percent or more of those active at 1 year, received core home visiting services”—the writing of an individualized family service plan, an infant developmental screening, and an assessment of mother-child interaction.

- "Performance varied by program site." Performance refers to the number of visits and the percent of families who received core services. There were six program sites, each serving a geographically defined community; three community agencies administering HSP, each agency operating at two sites.

The following findings come from an article in *The Future of Children* (9(1): 66–90, 1999), based on findings from years 1 and 2 of this three-year study:

- "After two years of service provision to families, HSP was successful in linking families with pediatric medical care, improving maternal parenting efficacy, decreasing maternal parenting stress, promoting the use of nonviolent discipline [of children], and decreasing injuries [to children] resulting from partner [biologic parent and/or parent partner] violence in the home." (These findings were derived from parent interviews and in-home assessments.)
● "No overall positive program impact emerged after two years of service in terms of the adequacy of well-child health care; maternal life skills, mental health, social support, or substance use; child development; the child's home learning environment or parent-child interaction; pediatric health care use for illness or injury; or child maltreatment (according to maternal reports and child protection services reports)."

● "There were agency-specific positive program effects [that is, individual effects that were specific to one community agency carrying out HSP, and not to another] on several outcomes, including parent-child interaction, child development, maternal confidence in adult relationships, and partner violence."

● "Significant differences were found in program implementation between the three administering agencies included in the evaluation. These differences had implications for family participation and involvement levels and, possibly, for outcomes achieved."

● "The authors conclude that home visiting programs and evaluations should monitor program implementation for faithfulness to the program model, and should employ comparison groups to determine program impact."

**Limitations**

This study used Hawaii's Child Protective Services (CPS) reports of child abuse as one measure of program impact. However, as the researchers point out in their article in *The Future of Children*, CPS reports "suffer at least two important limitations as a measure of program impact: (1) because reporting is a rare event, extremely large sample sizes are needed to identify meaningful reductions in reporting rates, with smaller sample sizes lacking the power to detect small, yet meaningful, reductions; and (2) there is a strong potential for reporting bias, which can operate either to inflate or deflate estimates of abuse and neglect."

**Communications**

Because the initial findings of this study were mixed and potentially damaging to home visiting programs in operation, the Packard Foundation released evaluation results gradually, first to a select group of practitioners and researchers. Wider dissemination began at a March 1999 National Academy of Science conference (sponsored by the Academy's Institute of Medicine and National Research Council) on early intervention for families at risk, at which the principal investigator gave a presentation on this study.

These events also coincided with the 1999 publication of study results in the Spring/Summer 1999 issue of the Packard Foundation's journal *The Future of Children*, which was devoted to recent evaluations of home visiting programs. Results have since been published in Pediatrics. Investigators also have made 28 presentations of their findings to national and international meetings. See the Bibliography for more details.
LESSONS LEARNED

1. **Evaluative research is likely to be most effective when it communicates timely feedback for program development.** The Hawaii Department of Health, responding to early evaluation reports of departure from the HSP model, convened a statewide quality improvement planning group of HSP directors and supervisors. This group used evaluation findings to examine program implementation and attrition, learn from the successful practices, reassess program standards, and recommend practices to improve service quality.

2. **Even with established home visiting programs, service evaluations: (1) must measure delivery of services and (2) establish a clear "denominator" to report service delivery.** Delivery of services often has not been measured in evaluations of home visiting programs. In this study, the agencies involved, after several years’ administration, did not know that their rates of attrition varied from 38 to 64 percent, and that the administering agencies' philosophies affected the rate of attrition from a home visiting program. Another factor affecting evaluation results is the denominator used to measure program delivery. If evaluations look at services delivered to "all the families originally enrolled in the program," family attrition from the program can dilute the strength of program process that is reported. If the denominator for evaluating service delivery is "families that are active in the program over the period of the evaluation," however, the program delivery reported will look quite different.

3. **The ability to generalize conclusions based on program evaluations using a single agency is limited.** Even though home visitor training and contract stipulations were the same for all agencies, some HSP agencies were able to promote some aspects of family functioning and child development while others were not. This makes it problematic to generalize conclusions from findings on clients at one agency.

4. **While program quality is essential, linkages among programs also need evaluation.** HSP was intended to provide service directly as well as to link families with other resources. Researchers need to look at how home visiting programs relate to other resources in the community. According to the project director, more research is needed on the impact of service integration on child and family outcomes. More sophisticated measures of the linkages among these services are also needed.

AFTERWARD

Analysis of how HSP program implementation affects outcomes and a cost-benefit analysis of the HSP program continue with additional support from the federal Maternal and Child Health Bureau, the Hawaii Department of Health, and the Packard Foundation.

The National Institutes of Health has committed more than $5 million in funding for the next phase of the study, which will assess the effectiveness of early home visiting in
promoting children's mental health, development, and academic achievement by following HSP children from kindergarten through third grade.

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**APPENDIX**

**Hawaii’s Healthy Start Program Evaluation Advisory Committee**

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