

MAKING A DIFFERENCE IN THE LIVES OF INFANTS AND TODDLERS AND THEIR FAMILIES: THE IMPACTS OF EARLY HEAD START

Administration for Children and Families
U.S. Department of Health and Human Services
June 2002

Early Head Start is a two-generation program designed to provide high-quality child and family development services to low-income pregnant women and families with infants and toddlers. Administered by the Administration on Children, Youth and Families (ACYF), Early Head Start began with 68 programs in 1995 and today operates in 664 communities and serves some 55,000 children. A rigorous evaluation of Early Head Start services in 17 programs selected from the first program cohorts shows the program had significant and positive impacts on a wide range of parent and child dimensions, some with implications for children's later school success. Findings from the study (*Making a Difference in the Lives of Infants and Toddlers and Their Families: The Impacts of Early Head Start*), using data gathered when children were age 3 and had completed the program, show that the program sustained and broadened the pattern of impacts reported a year ago when children were 2 (*Building Their Futures: How Early Head Start Programs are Enhancing the Lives of Infants and Toddlers in Low-Income Families*, 2001). All Early Head Start evaluation reports are available online at http://www.acf.dhhs.gov/programs/core/ongoing_research/ehs/ehs/intro.html.

The national evaluation conducted by Mathematica Policy Research, Inc., and Columbia University's Center for Children and Families at Teachers College, in collaboration with the Early Head Start Research Consortium reported that 3-year-old Early Head Start children performed significantly better on a range of measures of cognitive, language, and social-emotional development than a randomly assigned control group.¹ In addition, their parents scored significantly higher than control group parents on many aspects of the home environment and parenting behavior. Furthermore, Early Head Start programs had impacts on parents' progress toward self-sufficiency and on subsequent births. Early Head Start fathers benefited as well.

Although these overall impacts were generally modest in size, the pattern of positive findings across a wide range of key domains is promising for the program that is relatively new to the Head Start family. Additionally, differential program effectiveness across subgroups, including relatively large impacts in some subgroups of programs and families, suggests directions for continuous improvement efforts.

- Early Head Start programs produced sustained, statistically significant, positive impacts on standardized measures of children's cognitive and language development at age 3. Program children scored 91.4 on the Bayley Mental Development Index vs. 89.9 for control group children, and they scored 83.3 on the Peabody Picture Vocabulary Test, compared to 81.1 for the control group. Early Head Start children were significantly less

¹The Early Head Start impact study involved about 3,000 children and families in 17 sites; about half received Early Head Start services, while the other half were randomly assigned to a control group that did not receive Early Head Start, although they were free to avail themselves of other services in the community. The Early Head Start research and evaluation project assessed families and children when the children are 14, 24, and 36 months old. Families were also interviewed about their service use at 6, 15, and 26 months after enrollment and at the time they exited the program. The sites were selected to reflect the array of all Early Head Start programs according to geographic region; racial-ethnicity; urban-rural location; auspice; and experience in serving infants and toddlers.

likely than control-group children to score in the at-risk range of developmental functioning in these areas. By preventing children's scoring within the lowest-functioning group, Early Head Start may be reducing their risk of poor cognitive, language, and school outcomes later on.

- The programs had favorable impacts on more aspects of social-emotional development at age 3 than at age 2. As determined from videotaped observations of children during a play task, Early Head Start children at 3 engaged their parents more, were less negative toward their parents, and were more attentive to objects during play. Furthermore, Early Head Start parents rated their children as lower in aggressive behavior than control parents did.
- When children were 3, Early Head Start programs continued to have significant favorable impacts on a wide range of parenting outcomes. Early Head Start parents were observed to be more emotionally supportive, and had significantly higher scores than control parents had on a commonly used measure of the home environment. Early Head Start parents provided significantly more support for language and learning than control-group parents. They were more likely to report reading to their child every day; 56.8% of Early Head Start parents reported reading daily to their children, compared to 52.0% of control group parents.
- Early Head Start parents were observed to be less detached in interaction with their children than control group parents and were less likely than control parents to report having spanked their children in the past week (46.7% program vs. 53.8% control parents). Early Head Start parents reported a greater repertoire of discipline strategies; including more mild and fewer punitive strategies. However, according to parent reports, safety practices in the homes of Early Head Start children were no better than those of control families. The significant positive impacts on participation in education and job training activities that were reported a year ago continued through 26 months of program enrollment; some impacts on employment began emerging late in the study period. These impacts did not result in significant improvements in income during this period, however. The research also revealed that EHS program had a significant impact on the spacing of subsequent births; only 22.9% of EHS mothers had a subsequent pregnancy two years following enrollment, compared to 27.1% of mothers in the control group.
- When compared with fathers and father figures in the control group, Early Head Start fathers were less likely to report spanking their children during the previous week; 25.4% of program vs. 35.6% of control fathers reported spanking. Program fathers were observed to be less intrusive, and program children were observed to be more able to engage their fathers and to be more attentive during play with the fathers than those in the control group.

All families the program serves have poverty-level incomes; about 10% are children with disabilities. However, there is also diversity in the populations served. Despite the diversity, the impacts of the Early Head Start research programs were broad-based. The programs had significant impacts in most of the subgroups of families examined, for example, across different racial/ethnic groups, levels of parental education, types of family living arrangements and among families with first- and later-born children, although patterns of impacts varied. Impacts were particularly large for families that enrolled during pregnancy, African

American families, and those with a moderate number of demographic risk factors. The program also had positive impacts on groups that other studies have reported as difficult to serve and affect: teen parents and parents who were depressed at baseline. The program also had a notable number of positive impacts on children and families with later-born children, as well as those with first-born children more traditionally served in intervention programs, and on children and parents in Hispanic families. In the Early Head Start study positive impacts were not found among families who had extremely high numbers of demographic risk factors (with 4 or 5 of the following factors: lacked a high school education, was a single parent, was a teen parent, received public assistance, was not employed or in school).

The Importance of Implementation. The impacts on children and parents are consistent with the substantial difference the program made for families' receipt of services. Early Head Start families were, during the first 28 months after random assignment, significantly more likely than control families to receive a wide variety of services, much more likely to receive intensive services and to receive intensive services that focused on child development and parenting. Programs achieve standards of service quality by following the Head Start Performance Standards. In the implementation study phase of the evaluation (reported in *Pathways to Quality* and *Leading the Way*) programs were systematically rated according to the extent to which they implemented the performance standards in 5 critical areas and overall. Early Head Start programs that implemented the standards early (by the time of 1997 site visits) or later (by 1999) demonstrated a broader pattern of significant impacts than was true for the several programs that were not rated as fully implemented in 1999, underscoring the importance of the performance standards for producing a breadth of impacts for children and parents.

Impacts differ by Program Approach. Programs choosing different approaches to serving families achieved different patterns of success. Programs were characterized according to the options they offer families as center-based (providing all services to families through center-based child care and education, parent education, and a minimum of two home visits per year to each family); home-based (serving families through weekly home visits and at least two group socializations per month for each family); or mixed approach (providing center-based services to some families, home-based services to other families, or a mixture of center-based and home-based services, either at the same or at different times). By fall 1997, seven programs were home-based approach, four were center-based, and six were mixed-approach programs.

- Impacts among center-based programs centered on enhancing children's cognitive and social-emotional development; these programs had some favorable impacts on aspects of parenting, but few on parents' self-sufficiency.
- Home-based programs in general had some impact on children's social-emotional development and reduced parenting stress, relative to the control parents. The home-based programs that were fully implemented, however, had impacts on cognitive and language development at age 3 that have not generally been found in evaluations of home-visiting programs.
- Mixed-approach programs demonstrated the strongest pattern of impacts for the families they served. This may reflect the benefits of both home-based and center-based services, the flexibility they have to fit services to family needs, or the fact that these programs were able to keep families enrolled somewhat longer. The mixed-approach programs consistently enhanced children's language development and aspects of social-emotional development. These programs also enhanced a wide range of parenting behaviors and

participation in self-sufficiency-oriented activities. The mixed-approach programs that became fully implemented early had a particularly strong pattern of impacts.

Implications for Program Improvement. The overall results from the evaluation of the Early Head Start program are promising but also provide lessons for program improvement and further development. For example:

1. Implementing the Head Start Performance Standards early and well is important for maximizing impacts on children and families.
2. Programs should continue to consider program options carefully. All program options can have impacts on children and families; however, programs that combine the features of home-based and center-based programs have the strongest impacts. Center-based programs can benefit by placing greater emphasis on parenting, parent-child relationships and family support. Home-based programs can benefit by emphasizing child cognitive and language development together with parenting and family support.
3. Programs will need to explore new or alternative strategies for serving families who have large numbers of demographic risks.
4. Programs that enroll families during pregnancy have the greatest chance to effect change.
5. The study showed that programs can have success with families that other intervention programs have not often affected. The program can build on beginning successes with teen parents, parents showing depressive symptoms at baseline, fathers, later-born children and their parents, as well as children who are first-borns and their parents, to expand program services.
6. The findings show that the program is able to have an impact across a wide range of child and parenting outcomes that bode well for children's future school success. The effect of the program on parents' daily reading to children and other ways parents improve children's language and pre-literacy environments together with Early Head Start children's gains in cognitive, language and social-emotional development over those of the control group provide a good foundation for further building pre-literacy and other learning components within Early Head Start.

In summary, the national evaluation found that the first Early Head Start programs that were funded succeeded in providing high quality services and achieving a wide range of impacts on children and families.

* * * * *

The findings reported here are based on research conducted as part of the national Early Head Start Research and Evaluation Project funded by the Administration on Children Youth and Families (ACYF), U.S. Department of Health and Human Services under contract 105-95-1936 to Mathematica Policy Research, Princeton, NJ, and Columbia University's Center for Children and Families, Teachers College, in conjunction with the Early Head Start Research Consortium. The consortium consists of representatives from 17 programs participating in the evaluation, 15 local research teams, the evaluation contractors, and ACYF. Research institutions in the consortium (and principal researchers) include ACF (Rachel Chazan Cohen, Esther Kresh, Helen Raikes, Louisa Tarullo, and Judith Jerald); University of Arkansas (Robert Bradley, Mark Swanson and Leanne Whiteside-Mansell); University of California, Los Angeles (Carollee Howes and Claire Hamilton); Catholic University of America (Shavaun Wall);

University of Colorado Health Sciences Center (Robert Emde, Jon Korfmacher, JoAnn Robinson, Paul Spicer, and Norm Watt); Columbia University (Lisa Berlin, Jeanne Brooks-Gunn, and Alison Fuligni); Harvard University (Catherine Ayoub, Barbara Alexander Pan, and Catherine Snow); Iowa State University (Susan McBride and Carla Peterson); University of Kansas (Jane Atwater, Judith Carta; and Jean Ann Summers); Mathematica Policy Research (Kimberly Boller, Ellen Eliason Kisker, John M. Love, Diane Paulsell, Christine Ross, Peter Schochet, and Welmoet van Kammen); Medical University of South Carolina (Richard Faldowski); Michigan State University (Hiram Fitzgerald, Tom Reischl, and Rachel Schiffman); University of Missouri—Columbia (Mark Fine, Jean Ispa, and Kathy Thornburg); New York University (Mark Spellmann and Catherine Tamis LeMonda); Utah State University (Lisa Boyce and Lori Roggman); University of Washington School of Education (Eduardo Armijo and Joseph Stowitschek); and University of Washington School of Nursing (Kathryn Barnard and Susan Spieker).