# Improving the Economic and Social Well-Being of Families With Home Visitation Early in the Life Cycle

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For the past 20 years, my colleagues and I have been developing and studying a program in which nurses make prenatal and early childhood home visits. We designed our program to improve the outcomes of pregnancy, children's health and development, and parents' economic self-sufficiency in the early years of a child's life. The goal is to reduce risks for welfare dependence and crime by establishing a more favorable family environment.

The program serves low-income mothers who have had no previous live births. Many of the mothers are unmarried teenagers.

Nurse home visitors improve prenatal health, teach responsible care of children, and encourage the family's economic self-sufficiency early in a child's life. There is increasing evidence that these nurse home visitors can reduce harm to children in their early years and diminish the likelihood that the children will become involved in crime as adolescents.

The nurses visit women in their homes during pregnancy and the first 2 years of children's lives. In those visits,

- they help women reduce prenatal cigarette smoking and use of alcohol and drugs;
- they help women improve their diets and identify emerging complications of pregnancy that could compromise the health of the mother and fetus;
- they help parents provide more responsible care for their children; and
- they help parents develop a vision for their future, plan future pregnancies, complete their education, and find work.

The nurses have structured, written protocols and intensive training to guide them as they work with mothers and families who live in highly complex, challenging, and often dangerous situations.

We have examined the program in two separate, large-scale randomized trials. Randomized trials are the most scientifically credible method for determining the effectiveness of health, social service, and medical interventions.

We carried out our first study in Elmira, New York, with European American families. We conducted the second in Memphis, Tennessee, with African American families.

We have found the program can reduce some of the most persistent health and social problems facing at-risk families in our society. And we found it can more than pay for itself in reduced government expenditures.

***The program can reduce some of the most persistent problems facing at-risk families and can more than pay for itself in reduced government expenditures.***

In our Elmira, New York, study of European American families, we compared low-income families assigned to transportation and developmental screening with those who received nurse visits. We found nurse-visited families had

- 80% fewer cases of child abuse and neglect;
- 56% fewer emergency room visits where injuries were detected;
- 42% fewer subsequent pregnancies (Figure 1);
- 83% greater participation in the work force (Figure 2); and
- reduced government expenditures for AFDC, Food Stamps, Medicaid, and Child Protective Services.

**Figure 1. Subsequent pregnancies among low-income unmarried mothers, 46-month postpartum**

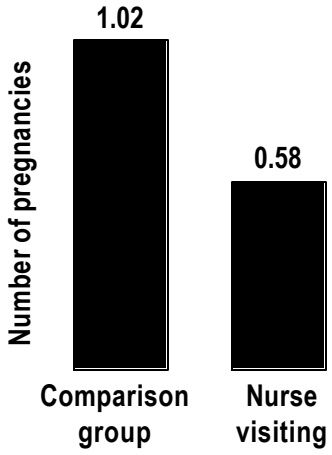
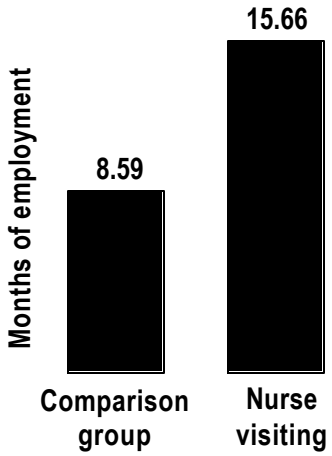



**Figure 2. Months of employment among low-income unmarried mothers, 46-month postpartum**



Compared with parents receiving other kinds of services, women who received visits from the nurses reported they got more support from their husbands or partners during pregnancy. They also reported more often that husbands or partners were with them during labor or delivery. By the time their children turned 4 years of age, these women more frequently reported that other family members helped care for the child while a parent was working. Home visitors made special efforts to get other family members, friends, and partners involved in child care and nurturing because evidence suggests that such involvement helps women plan future pregnancies, finish school, and find work.

After 15 years, a follow-up study of 400 European American families in Elmira showed the benefits of the program still were in effect. In some cases, the benefits had increased over time. For example, by the children's 15th birthday, nurse-visited low-income unmarried mothers had

- 33% fewer subsequent births (Figure 3),
- 30 months greater spacing between first and second children (Figure 4),
- 30 fewer months on AFDC (Figure 5) and 36 fewer months on Food Stamps and Medicaid, and
- over 70% fewer arrests (Figure 6).

Compared with their counterparts who had been assigned to comparison services of transportation and developmental screening, the 15-year-old children born to nurse-visited low-income unmarried mothers had

- nearly 90% fewer verified reports of child abuse and neglect (Figure 7), and
- over 50% fewer arrests (Figure 8).

There were no effects on self-reported use of alcohol, drugs, or antisocial behavior. This suggests that the program may only affect the more serious forms of antisocial behavior associated with child abuse, neglect, and poor prenatal health.

**Figure 3. Subsequent births among low-income unmarried mothers, 15-year follow-up**

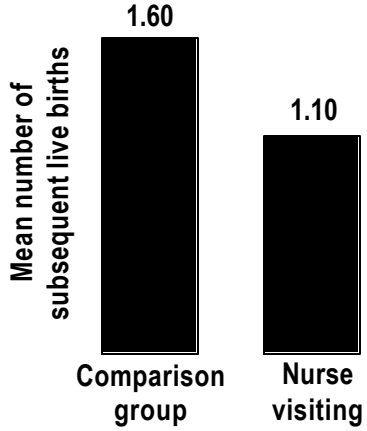


**Figure 4. Spacing between births among low-income unmarried mothers, 15-year follow-up**

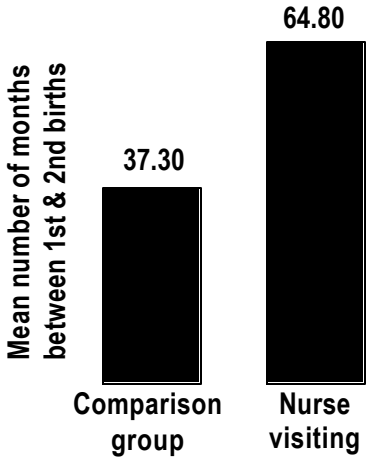



**Figure 5. Use of AFDC among low-income unmarried mothers, 15-year follow-up**

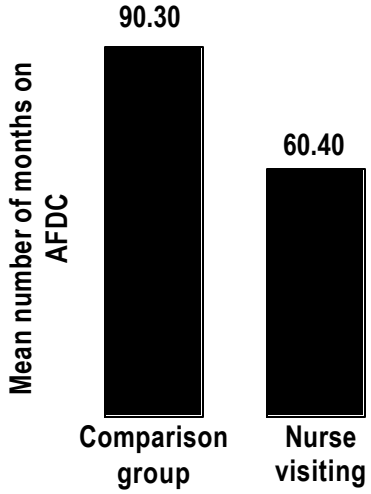



**Figure 6. Arrests among low-income unmarried mothers, 15-year follow-up**

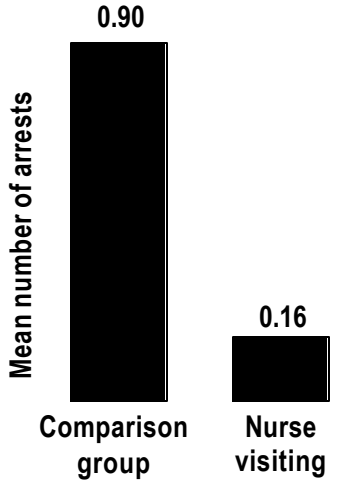


**Figure 7. Reports of child abuse or neglect by age 15 among low-income unmarried mothers**

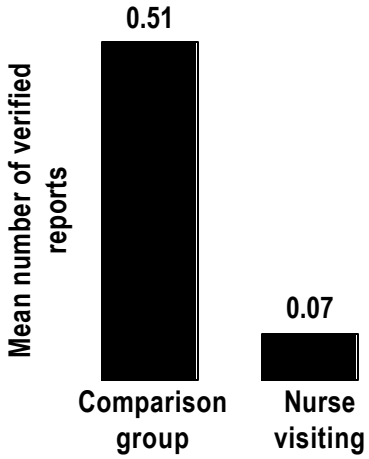
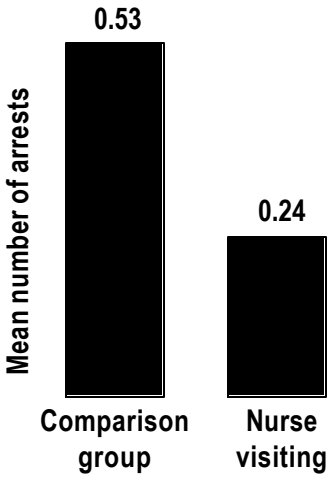



**Figure 8. Arrests among children by age 15 among low-income unmarried mothers**




These adverse conditions contribute to subtle neuro-developmental impairments in the child.

One of the hallmarks of good evidence is being able to reproduce it. The major findings from the Elmira trial are now being reproduced in Memphis.

We compared children in the Memphis nurse visitation program with children randomly assigned to other services. We found that, by their second birthday, the nurse-visited children had

- 22% fewer health-care encounters where injuries or ingestions were detected, and
- 81% fewer days of hospitalization with injuries or ingestions (injuries among nurse-visited children were substantially less serious and less likely to reflect neglectful or abusive care).

By the child's second birthday, the nurse-visited mothers had

- 30% fewer hypertensive disorders of pregnancy,
- 50% more frequent breast-feeding, and
- 30% fewer subsequent live births.

The findings from this program of research have been used to promote a variety of home-visitation programs for pregnant women and parents of young children. Unless programs share the essential elements of the program tested in these trials, they are not likely to produce the kinds of results we have achieved.

Even when communities choose to develop programs based on models with good scientific evidence, they often water down or compromise the programs as they expand them to reach more people. We have begun some work that we hope will address this problem.

We recently were invited by the U.S. Department of Justice to disseminate our program in some high-crime neighborhoods around the country. We hope to use this demonstration effort to learn more about what it will take to develop the program in new communities.

We are establishing the program in six communities nationwide. Although the final selection is not complete, we are working with sites in California, Missouri, Oklahoma, and Florida. We have alternate sites in Wisconsin and Washington.

State and local governments are securing financial support for the program out of existing sources of funds, including TANF, Medicaid, and child-abuse and crime-prevention dollars. They are making these investments in part because the evidence indicates that expenditures in these budgets will be reduced later. The cost of this program, about $6,700 per family for 2½ years of service, can be shared by a variety of government agencies. This reduces the strain on any one budget.

There are less expensive services. But they are less expensive because they are less intensive and less comprehensive. We find no evidence that less intensive services prevent child abuse or neglect, welfare dependence, or crime. In fact, our cost-benefit analysis shows a good pay-back for the money spent on nurse visitor programs.

In the Elmira study, the average cost per family of nurse visitation during pregnancy and the first 2 years of life was $3,246 for the entire sample. It was $3,133 for low-income families. After discounting, during the child's first 4 years, the government saved $1,664 for the sample as a whole and $3,133 for low-income families (Table 1). By the time the children were 4 years of age—2 years after the program ended—the net cost of the program for all families in the sample was $1,582. For low-income families, there was actually a net savings of $180.

***We find no evidence that less intensive services prevent child abuse or neglect, welfare dependence, or crime.***

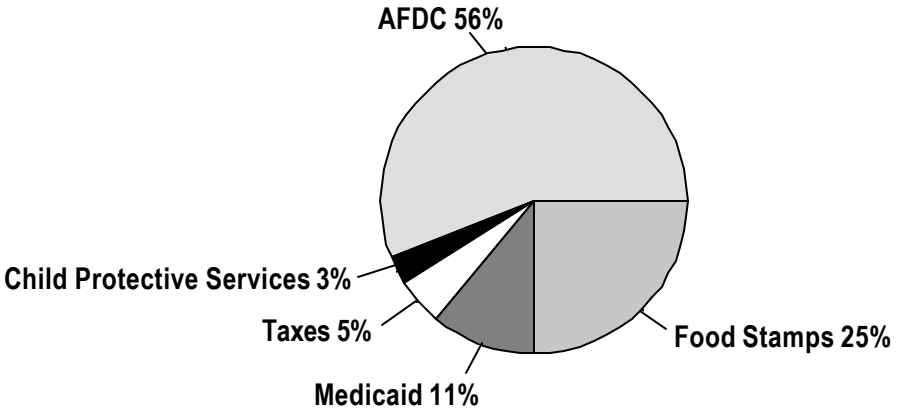
**Table 1. Net cost of nurse home-visitation program in 1980 dollars**

| | Whole sample | Low-income families |
|---|---|---|
| Program costs | $3,246 | $3,133 |
| Government savings[a] | 1,664 | 3,313 |
| Net cost | 1,582 | -180 |

[a]Discounted at 3% per year.

As shown in Figure 9, reduced costs for AFDC and Food Stamps account for most of the savings among low-income families. More than half of the savings came out of AFDC costs. Reduced use of Food Stamps accounts for more than a quarter of the savings.

**Figure 9. Source of government savings among low-income families, 0–48 months**

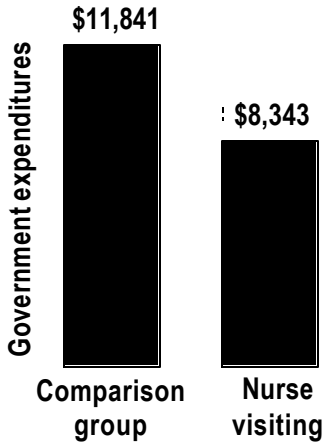



A separate analysis attributed 32% of government savings for low-income families to reductions in second and subsequent births. Fewer births, in turn, resulted in reduced expenditures of $3,498 for Medicaid, Food Stamps, AFDC, and Child Protective Services (Figure 10).

In interpreting these findings, keep in mind that these cost and benefit results are based on a sample of European Americans living in a semi-rural area. We do not know whether these results will apply to minorities in urban areas.

We don't believe that we can offer this program on a large scale quickly without compromising its effectiveness. We believe that it makes sense to begin developing a larger number of demonstration sites once we learn from our first set. We need to understand how to develop the program in a variety of new contexts. We are building in provisions for learning about our new implementation efforts so we can disseminate the program to an even larger number of sites as quickly as possible without losing program effectiveness.

**Figure 10. Government expenditures for AFDC, Food Stamps, Medicaid, and Child Protective Services (minus tax revenues), 4-year follow-up**




In general, we believe that policies and practices for children and their families ought to be based on the best scientific evidence available. There is a lot of hype these days about the promise of early preventive intervention programs that the evidence cannot support. We dare not squander public hope and confidence in our work on approaches that are not likely to work.

***Policies for children and families ought to be based on the best scientific evidence available.***

As health and social welfare policy is redesigned in the near future, I believe that it makes sense to begin with programs that have been tested, replicated, and found to work.

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*Adapted from an address to the Child and Family Policy Group of the National Governors' Association, 1997, with permission of the author.*