

# Intensive Home Visiting Programs: Implications for California Counties

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## Abstract

The passage of Proposition 10 by the California voters has created enormous opportunities to improve the lives of children zero to five years of age and to promote their development into happy and productive adults. Much attention is being focused on programs offering home visiting services to families. From a public health perspective, improving the health of the community involves a spectrum of interventions designed to address both environmental and individual behavior changes issues. Home visiting as a strategy for service delivery needs to fit into the larger social, political, and cultural context of community resources and service programs.

To understand how home visiting programs can fit into a broader framework of services for families, children, and youth, this paper examines three models of intensive home visiting that have been implemented in the United State to date, reviews the outcomes from the data collected by those programs, and makes several recommendations for the strategic implementation of intensive home visiting programs in local counties in California. In general, the data from the programs that have included extensive and rigorous evaluation components do

not support the effectiveness of home visiting as an isolated, individual intervention strategy. Although the evaluation results are generally discouraging, some overall themes emerge, particularly the need for clear program goals, well-trained and supervised staff, and a specified target population. Many of the benefits of home visiting programs may be difficult to quantify and measure, and may not be evident in evaluations of programs in isolation. Home visiting programs are generally most successful when they exist in an environment with a broad array of other services and community initiatives.

We offer six recommendations for implementing intensive home visiting programs in local counties in California, including linking home visiting to an array of effective services and community programs, specifying clear program goals, identifying population groups, and designing and conducting a rigorous evaluation component. With careful planning, strategic implementation, and coordinated oversight by groups working in concert with agencies and local communities, home visiting programs can make a valuable contribution to maternal and child health and the public health environment. ■

## Introduction

Research demonstrates that planning and implementing effective home visiting programs is not a simple task. It requires careful consideration and fine-tuning with respect to the community to be served, and the goals to be obtained. Deanna Gomby, et al 1993<sup>1</sup>

The passage of Proposition 10 by the California voters has created enormous opportunities to improve the lives of children zero to five years of age and to promote their development into happy and productive adults. Local commissions in every county in California are analyzing community needs, identifying community resources, and moving to fund new programs to benefit young children at highest risk. One of the strategies promoted statewide by Proposition 10 Commissions is expanded intensive home visiting programs to pregnant women or families with young children. As we begin to invest time, energy and dollars into these home visiting programs, it is important to identify and analyze the contributions home visiting programs can make toward improving

the health and well being of families, children, and the community.

For the past decade, health and social services programs throughout the United States have focused attention on programs offering home visiting services to families. Much of the original interest in home visiting programs for pregnant women and families was initiated by the work of David Olds and colleagues, who have published several papers on their home visiting model over the last 15 years (and references therein).<sup>2,3,4</sup> A proliferation of academic articles and other publications has described home visiting as a strategy for service delivery that is being employed in many different types of settings, with a range of

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intensity and duration, utilizing professional and paraprofessional staffs, and designed to address a broad range of goals. Two entire volumes of The Future of Children, the first in 1993<sup>5</sup> and the most recent in 1999,<sup>6</sup> have been devoted to descriptions of home visiting programs across the nation, including evaluations of the major models of service. These two volumes are essential reading for anyone contemplating developing or funding home visiting programs in their community.

From a public health perspective, improving the health of the community involves a spectrum of interventions designed to address both environmental and individual behavior change issues.<sup>7</sup> Home visiting

as a “strategy for service delivery”,<sup>8</sup> needs to fit into the larger social, political, and cultural context of community resources and service delivery currently in place in any local setting. Improving health and other outcomes for families under stress requires much more than one service delivery strategy. We need to encourage a community-oriented, public health approach to thinking about home visiting. To understand how home visiting programs can fit into a broader framework of services for families, children, and youth, we must examine the various models of intensive home visiting that have been implemented already in the United States. ■

### **Evaluations of Home Visiting Programs**

Many different models of home visiting programs have been implemented and evaluated during the past few years, with a variety of population groups, outcome goals, and curricula. The types of staff implementing the home visits have varied as well. Programs have used nurses for home visitors, other professionals including social workers or specialists in early childhood development, or paraprofessionals recruited from the community. Rigorous and extensive evaluations of many of the major home visiting programs were collected and published in 1999 in The Future of Children.<sup>6</sup> Deanna Gomby, writing an overview of the research findings reported in that volume, noted that:

*These findings are sobering. In most of the studies described, programs struggled to enroll, engage, and retain families. When program benefits were demonstrated, they usually accrued only to a subset of the families originally enrolled in the programs, they rarely occurred for all of a program's goals, and the benefits were often quite modest in magnitude.*

In addition to these generally discouraging results, some overall themes emerge. Clear program goals are essential, and home visitors need to be well trained in the program model and adequately supervised. Interventions may be successful with some populations, but not with others. Retention of families is a problem in most programs. Home visiting programs are generally most successful when they exist in an environment with a broad array of other services.

We consider these issues more specifically within the context of a brief overview of three representative home visiting programs that have been extensively evaluated. These programs encompass the main models of intensive home visiting, and can provide insight for our own planning in California.

### **Comprehensive Child Development Program (CCDP)**

The Comprehensive Child Development Program (CCDP) is the most extensive home visiting project for high-risk families to incorporate a rigorous evaluation design.<sup>9</sup> CCDP was a \$240 million five-year demonstration project funded by the US Department of Health and Human Services. The project enrolled 4,410 families at 24 project sites in 22 states. The sites, selected by competitive bidding, received grants in 1989 and 1990, and the families were followed for five years.<sup>10</sup>

All of the CCDP sites utilized paraprofessionals from the community as home visitors, who were responsible for delivering case management and education services. Home visiting paraprofessionals received extensive in-service training, caseloads were usually fewer than 20 families, and visits were to occur approximately twice a month. Home visitors reviewed each of their cases weekly with professional supervisors, and received additional specialized assistance from multi-disciplinary staff. Professional staff members also met with families. The cost of the program averaged

\$10,849 per family per year in 1994 dollars. Families were divided randomly into an intervention group and a control group. The intervention group received intensive home visiting, while the control group received no project services. Both groups were surveyed at least twice, at the beginning and at the end of the five year project. More than 100 outcome measures were identified for study.<sup>10</sup>

The results of this project are quite discouraging. Detailed evaluation and analysis demonstrated that “CCDP did not produce any important positive results on participating families when compared with control group families for either parents or children”.<sup>9</sup> These results were generally consistent across each of the 21 evaluation sites. The extensive evaluation included multiple outcome variables for mothers, children, and siblings, but essentially all were unchanged between intervention and control groups. Only one of the 21 evaluation sites (Brattleboro, Vermont) had modest positive results in any of the variables.

This study demonstrates the importance of including control groups in evaluating services to high-risk families. In fact, there were major improvements in the lives of families receiving home visiting services. There were decreases over time in the percentage of families receiving welfare and food stamps, and a decrease in the number of mothers who were depressed. There were improvements in the children’s vocabulary and achievement scores. However, all of these gains were seen in the control group as well as in the group receiving home visiting services. These improvements reflect the fact that high-risk families under stress often get better and become more functional, independent of some specific service. Without a control group, such improvement can be attributed falsely to an intervention, which in fact may have little or no benefit.

### **Nurse Home Visitation Program**

The Nurse Home Visitation Program was initiated by David Olds and colleagues in 1977 in Elmira, a semi-rural, mostly white area in the Appalachian Mountains of New York State. An intensive nurse-based home visiting program described in numerous journal articles over the years,<sup>3</sup> this project is the one best known to local public health departments.<sup>11</sup> Olds and colleagues enrolled 400 women, pregnant with their first babies, into either a structured nurse visiting program, or an appropriate control group. Eighty-nine percent of the women were white and 85% were unmarried, adolescent, or poor.

Early results indicated that women who received nurse visits smoked fewer cigarettes, developed

fewer kidney infections, and reported better diets than those in the control groups.<sup>12</sup> After 15 years of follow-up, the women receiving home visiting services had 46% fewer state-verified reported cases of child abuse and neglect. However, at four years and 15 years of follow-up “there were no overall differences between nurse-visited and control group children for mental development”.<sup>3</sup> Likewise, “no differences were reported for the full sample for measures of maternal life course such as subsequent pregnancies or subsequent births, the number of months between first and second births, receipt of welfare, or months of employment”.<sup>3</sup>

However, among the 40% of the enrolled women who were both unmarried and of low socioeconomic status (SES), the results are more significant.<sup>13</sup> Compared to their counterparts in the control group, after 15 years of follow-up poor unmarried women who received nurse visits had fewer pregnancies and births (1.1 versus 1.6 births in the control group), a longer time between birth of the first and second child (65 versus 37 months), fewer months on welfare, fewer problems from substance abuse, and fewer arrests. This group also had nearly 80% fewer state-verified reports of child abuse. Likewise, the 15-year old children of this group had fewer problems with drugs and alcohol. There were, however, only 38 families in this treatment subgroup.<sup>13</sup>

Olds suggest that the use of nurses as home visitors was key to the successes of the program, including a decrease in child abuse and longer spacing of pregnancies. In particular, nurses have “increased credibility and persuasive power”, especially on clinical issues such as contraceptive practices. In fact, the beneficial effects on the mother of nurse visiting were largely a result of effective family planning. “It appears that the reduced rate of pregnancies positioned mothers to eventually find work, become economically self-sufficient and avoid substance abuse and criminal behavior.”<sup>3</sup>

Olds is attempting to reproduce these results with a different population in an urban setting in Memphis, Tennessee.<sup>3</sup> In contrast to the Elmira group, the Memphis sample of 1,139 women is 92% African American, 98% unmarried, 85% below poverty, and 65% eighteen years old or younger. After two years, there were no observed program effects on major perinatal outcomes such as birth weight, preterm delivery, or Apgar scores. There were no differences in child health and development between children visited by nurses and comparison groups, including immunization status, mental development, or reported behavioral problems. Pregnant women in the nurse-visiting program had fewer yeast infections and a

significant reduction in pregnancy-induced hypertension; children in the nurse-visiting group were hospitalized for fewer days with injuries and ingestions. There was some impact on what Olds calls “dysfunctional caregiving”. Nurse-visited women “held fewer beliefs about childrearing that are associated with child abuse and neglect” and their homes “were rated as more conducive to children’s development”.<sup>3</sup>

Again, as in Elmira, the most significant outcome was the reduction in the number of second births at 24 months. This reduction may result in persistent improved maternal outcomes over time. A three-year follow-up of the Memphis trial shows a continued decrease in the number of second pregnancies among the nurse-visited group (1.15 vs. 1.34 for the controls), and longer intervals between the birth of the first and second child (30.25 months vs. 26.60 months),<sup>14</sup> although these differences are less than in the Elmira study.

### **Hawaii’s Healthy Start Program (HSP)<sup>15</sup>**

Hawaii’s Healthy Start Program (HSP) was designed to prevent child abuse and neglect, and to promote child health through the use of paraprofessional home visitors to families with newborn babies. The program was initiated in 1975 by the Hawaii Family Stress Center, and focused on delivering services to high-risk families.

In 1984, HSP initiated a pilot program to follow 234 families for up to three years who were identified as being at high-risk for abuse and neglect through the review of medical records at the hospitals where the mothers delivered. Home visitors were trained paraprofessionals from the community. They operated with structured programs and regular supervision from professionals with formal training in early childhood education, social work, or nursing. As there was no control group, the evaluation involved a pre-test/post-test with a Family Stress Checklist. Families over time were found to have significant decreases in their scores, which was taken as evidence of decreased family risk of child abuse and neglect. There were no verified reports of physical child abuse among the families, and only eight reports of neglect or imminent harm. That is much smaller than the rates reported for control families in other studies, including the Elmira cohort. The results on the Family Stress Checklist, and in particular the unexpectedly low rates of child abuse among the pilot families, were taken as strong evidence of the effectiveness of the programs, despite the lack of a control group.

Based on the promising results of the pilot, the state legislature expanded the program, and since 1995 an annual budget of \$6 million has sustained

HSP home visiting programs to high-risk families across the state. In 1993, the National Committee to Prevent Child Abuse established Healthy Families America (HFA), modeled after HSP. There are now more than 270 HFA sites nationwide, loosely based on Hawaii’s Healthy Start Program.

In 1994, the Hawaii Department of Health initiated a three-year study of HSP to evaluate the effectiveness of the expanded program. That study was implemented by independent investigators and included a control group. Six hundred and eighty-four families were divided into an HSP intervention group and control groups. Data has been analyzed from the first two years of follow-up.

The results indicate that participation and retention of families in the HSP is a major problem. Fifty-one percent of all enrolled families dropped out over the first year, and few families were visited weekly as prescribed in the HSP model. A questionnaire completed by the mothers generally documented that an effective, trusting relationship was established with the home visitor. However, 28% of the non-visited control mothers also reported having a home visitor, and rated their visitor about as highly as did the HSP mothers, a result puzzling to the investigators. There were no differences between the HSP and control groups in child outcomes including well child care, immunizations, confirmed reports of child abuse or reported child neglect, home learning environment, or mother-child interaction. Likewise, there were no differences in maternal life course, including work and school attendance. Mothers in the HSP program had a lower rate of partner violence resulting in injury, and there was a modest increase in reported use of non-violent discipline strategies among HSP mothers.

This study again points to the importance of a control group. The original HSP pilot study in 1984 had no controls. The child abuse results of the pilot were compared to published rates from other studies, including the Elmira studies. However, the rate of confirmed reports of child abuse and neglect among this 1994 Hawaii control group population was between 2% to 3%, much lower than the rates reported in studies from other parts of the country, including Elmira. If the 1984 HSP pilot program child abuse results are compared against this 1994 Hawaii control group, the pilot program results actually show no significant improvement. The HSP pilot launched the HSP expansion and the Healthy Family America programs. However, in light of these 1994 control group results, the original HSP pilot study provides no evidence that HSP has any impact on child abuse.

## Conclusions

The research summarized above, as well as other less rigorous studies, indicate that home visiting, as an independent strategy, is unlikely to demonstrate a major impact on the health or well-being of mothers, young children, or families. Home visiting programs, by themselves, have not been shown to produce substantial improvements in child abuse, child development, child health, or maternal well being, except perhaps in specific, small sub-populations. The major positive benefits of home visiting described in the literature, occurring in a sub-group of the Elmira cohort, appear to be primarily the result of effective family planning interventions.

As California gears up to implement Proposition 10 programs, enthusiastic advocates of home visiting are presenting business plans and program guides promoting major reductions in child abuse, substantial improvement in child health and development outcomes, reductions in substance abuse and teen pregnancies, and huge dollar savings in community costs. Unfortunately, careful reading of the literature shows that none of those goals are likely to be achieved by home visiting alone.

Nonetheless, many of us believe that home

visiting, in collaboration with other programs, can contribute to improved lives for families and children. Many of the benefits from home visiting and other programs are difficult to quantify and study, and may not be evident from short-term evaluations. Effective family planning interventions, for example, can have far-reaching implications. Improved self-esteem and

confidence among mothers enrolled in Black Infant Health programs around the state may have profound impacts on community health.

Improved family health will not be the result of one intervention, or even of an array of services. A community goal of improved health for high-risk families requires a spectrum of community environmental change to promote

that outcome. That environment would support family-friendly policies around day care and housing, for example. It would provide adequate support and services for families in distress, and promote a community cohesiveness in which families could flourish. Well-planned and implemented home visiting programs, working in concert with agencies and local communities, can make important contributions to that environment. ■

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## Recommendations for County Home Visiting Programs

Based on this review of the published experience of home visiting in the country, we make the following recommendations for implementation of intensive home visiting programs in local counties in California. These recommendations are very similar to the “Six Key Elements of Effective Home Visiting” distributed to some local Proposition 10 Commissions,<sup>16</sup> and are consistent with a public health approach to community health improvement.

### 1. Home visiting programs must be linked to an array of effective services and community programs.

Home visiting programs in isolation are not effective in achieving improvements in child or family outcomes. They must be linked to a diverse array of quality services for the family, and to community efforts to improve health. Effective home visiting programs generally have modest and specific program goals. To achieve broad child and family health improvements, home visiting

programs must work in collaboration with other health, social services, family services, and community-based health efforts.

### 2. Goals of the home visiting program should be clearly specified.

Based on the literature review of home visiting outcomes, those goals, to be realistic, should be limited. It is important to specify the actual child, family, or community outcomes desired from the home visiting intervention, in order to design an effective program.

### **3. Program activities and curriculum should be carefully developed to meet the program goals, and a target population should be specified.**

Effective home visiting programs have specific programs, activities, and curriculum for the visiting sessions directed at achieving the objectives of the program. A target population should be identified that is consistent with the goals of the visiting program, and with the curriculum and interventions to be employed. The literature clearly demonstrates that even when home visiting programs have an impact, they do not have the same effectiveness for all populations. In addition, since intensive home visiting is an expensive intervention of, at best, modest effectiveness, it is appropriate to direct home visiting services to high-risk populations. Programs designed to impact broad groups of families or influence a wide range of child and family outcomes are unlikely to be effective.

### **4. Appropriate professionals should be involved in planning and directing home visiting programs.**

Those professionals can include individuals with formal training in social work, early childhood education, maternal and child health, or related fields. Community health nurses must be

involved in the planning and direction of any visiting program for pregnant women or families with newborns, or any program targeted toward influencing maternal or child health outcomes.

### **5. Home visiting staff need to be extensively trained and adequately supervised.**

Home visitors, whether nurses, other professionals, or paraprofessionals, must be well trained in the goals and methodologies of the program in order to be effective. Likewise, all home visitors need to be adequately supervised. Supervision requires a defined caseload for home visitors and appropriate supervisor to staff ratio. Supervisors should meet regularly with home visiting staff, consult on all the cases in the caseload, and provide quality assurance for home visitors' activities.

### **6. All home visiting programs should include an evaluation component.**

Although a control group is essential for rigorous evaluation, it is not practical to have a blind, control group evaluation for all home visiting programs in local counties. Nonetheless, some evaluation of all local home visiting programs should be mandatory. Program evaluation should be implemented through a partnership with the program agency and an outside group assisting in the evaluation.

**Home visiting as a strategy can and will make significant contributions to the health and well being of children and families in California, now and in the future. Research demonstrates, however, that planning and implementing effective home visiting programs is not a simple task, nor will one strategy ever be a panacea for the problems facing families and children.**

**We urge a strategic, critical, and comprehensive approach to the utilization of Proposition 10 funds. By integrating home visiting into a spectrum of strategies, we can promote an environment in which California's children can thrive. ■**

## References

- <sup>1</sup> Gomby, D.S., Larson, C.S., Lewit, E.M., Behrman, R.E., "Home Visiting: Analysis and recommendations," in The Future of Children, Home Visiting, Vol. 3, No. 3, Winter 1993, pgs. 6-22.
- <sup>2</sup> Olds, D.L., Henderson, C.R., Chamberlin, R., and Tatelbaum, R., "Preventing Child Abuse and Neglect: A randomized trial of nurse home visitation," Pediatrics, 1996;78:65-78.
- <sup>3</sup> Olds, D.L., Henderson, C.R., et al. Prenatal and Infancy Home Visitation by Nurses: Recent findings, The Future of Children, 1999;9,1:44-65.
- <sup>4</sup> Eckenrode, J., Granzel, B., Henderson, C.R., Smith, E., Olds, D.L. Powers, J., Cole, R., Kitzman, H., Sidora, K., "Preventing Child Abuse with a Program of Nurse Home Visitations: The limiting effects of domestic violence", Journal of the American Medical Association, 2000;284:1385-1391.
- <sup>5</sup> The Future of Children, Vol. 3, No. 3, Winter 1993, David and Lucile Packard Foundation.
- <sup>6</sup> The Future of Children, Vol. 9, No. 1, Spring/Summer 1999.
- <sup>7</sup> Contra Costa Health Services, "The New Spectrum of Prevention," [www.ccprevention.org](http://www.ccprevention.org), 2000.
- <sup>8</sup> Powell, D.R., "Inside Home Visiting Programs," The Future of Children, Home Visiting, Vol. 3, No. 3, Winter 1993, pgs. 23-38.
- <sup>9</sup> St. Pierre, R.G., Layzer, J. I., "Using Home Visits for Multiple Purposes: The comprehensive child development program," The Future of Children, 1999;9,1:152-156.
- <sup>10</sup> St. Pierre, R.G., Layzer, J.I., Goodson, B.D., Bernstein, L.S., "National Impact Evaluation of the Comprehensive Child Development Program: Final Report," Cambridge, M.A.: ABT Associates, June 1997.
- <sup>11</sup> Olds, D.L., Henderson, C.R., Jr., Tatelbaum, R., Chamberlin, R., "Improving the Life Course Development of Socially Disadvantaged Mothers: A randomized trial of nurse home visitation," American Journal of Public Health, 1988;78:1436-1445.
- <sup>12</sup> Olds, D.L. and Kitzman, H., "Review of Research on Home Visiting for Pregnant Women and Parents of Young Children. The Future of Children, Winter 1993;3,3:53-92.
- <sup>13</sup> Olds, D.L., Eckenrode, J., Henderson, C.R., et al. "Long Term Effects of Home Visitation on Maternal Life Course and Child Abuse and Neglect," Journal of the American Medical Association, 1997;278:637-643.
- <sup>14</sup> Kitzman, H., Olds, D.L., Sidora, K., Henderson, C.R., Jr., Hanks, C., Cole, R., Luckey, D.W., Bondy, J., Cole, K., Glazner, J., "Enduring Effects of Nurse Home Visitation on Maternal Life Course: A 3-year follow-up of a randomized trial," Journal of the American Medical Association, 2000;283:1983-1989.
- <sup>15</sup> Nuggan, A.K., McFarlane, E.C. Windham, A.M., et al, "Evaluation of Hawaii's Healthy Start Program," The Future of Children, 1999;9:1:66-90.
- <sup>16</sup> Home Visiting, Reaching Babies and Families "Where They Live," highlights from the report on the best available information from 20 years of research and practice on home visiting, [www.zerotothree.org](http://www.zerotothree.org), 1999.



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