



PARTNERS IN COMMUNITY OUTREACH

Statewide Access to In-Home Family Education Services

**Estimating Costs of Universal Access for
West Virginia Families**

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Introduction

Some level of In-Home Family Education Services is currently available to families in just over half of West Virginia's counties. Some families with a pregnancy or with young children residing in 30 counties have limited access to one of three research based models of service delivery. Twenty-one programs are currently operating within the 30 counties. Current programs include Parents as Teachers (PAT), Maternal Infant Health Outreach Worker (MIHOW), and Healthy Families America (HFA).

Seventeen PAT programs provide services in 23 counties. MIHOW programs serve families in 7 counties and HFA is available in 4 counties. Costs associated with providing each of the three research-based home visiting programs vary since the requirements to meet national certification standards and the intensity of services are different from one program to another. Further, there is a large variation in the cost per family served among the programs currently operating in West Virginia.

Partners in Community Outreach is interested in estimating the cost of universal access to in-home family education services in West Virginia. For purposes of this analysis, universal access is defined as making available at least one research-based model to all families who:

- 1) Would be expected to significantly benefit from the program given the socio-economic conditions being experienced by the family, and
- 2) Would be expected to participate in an in-home family education program provided such a program was available to them at no cost to the family.

In order to estimate costs of universal access, it is necessary to make some assumptions about the types of programs that might be available, the costs of providing these programs, and the numbers of families that would be expected to participate in a program.

Estimating the Cost of Universal Access

Estimating costs of universal access is essentially a four step process.

Step 1: Identify the number of families that fall within the target population who might be expected to benefit from in-home family education services.

Discussion: The number of families that would benefit from home visiting services may be considered in several different ways. Some would argue that all families with young children (prenatal to age 5 yrs.) should have access to home visiting services. Others would focus on those families determined to be "at risk" due to economic or social circumstances. Estimates used in this analysis are based on the number of families determined to be "at risk".

Step 2: Predict the number of families within the identified target population that would be expected to participate in a home visiting program at any given time assuming the program was available to them.

Discussion: For a variety of reasons families may choose not to participate in an available home visiting program. Although there has been little research to determine rates of participation and factors influencing a family's choice to participate, the limited data available indicates that only about 35% of the families referred would choose to participate in a home visiting program. Also, since all families that fall within the potential target population would not be receiving services at the same time, it is only some portion of that number of families that would be served at any given time. Again, there is no accurate data available about length of participation; however, current home visiting programs estimate families participate on average for about 2 ½ years. It is the estimated number of families that would be expected to participate at any given time that defines the necessary program capacity.

Step 3: Select the array of research-based programs that would be provided.

Discussion: Since the costs of providing each of the home-visiting models (PAT, MIHOW, and HFA) vary considerably, some basis for determining which type of program would be provided to additional families is necessary. For purposes of the analysis, we will assume that any additional programs supported will be one of the three models currently operating in West Virginia and that these program models would be expanded based on the current relative proportion of each program.

Step 4: Calculate the costs of providing additional in home family education services for the number of families expected to participate.

Discussion: Since the average cost per family of providing each of the three models in West Virginia is reasonably close the cost per family estimates of the national program offices, the national office estimate will be used to calculate costs.

Estimate of the Number of Families In Need of Home Visiting Services

The number of pregnant women and children that would be expected to benefit from an in-home family education program will be estimated using data available from the National Center for Children in Poverty related to young children under 5 years of age with at least one risk factor known to increase the chance of poor health and/or poor educational and developmental outcomes. The National Center for Children in Poverty estimates that in West Virginia 66% of the pre-natal to age 5 population experiences at least one of these risk factors.

Based on the most recent population estimates available¹, we would expect there are approximately 102,805 children birth to 5 yrs. of age in West Virginia. We can also estimate there are approximately 10,280 women who are three months or more pregnant. Using these

¹ U. S. Bureau of the Census American Communities Survey 3 yr. estimates 2009-11.

estimates of the potential target population, the number of pregnant women and young children (under age 5 yrs.) that would be expected to exhibit one or more risk factors is estimated as:

$$102,805 \text{ young children} + 10,280 \text{ pregnant women} = \underline{113,085}$$

$$66\% \text{ of } 113,085 = \underline{74,636 \text{ pregnant women and young children who are "at risk"}}$$

Information available from Partners in Community Outreach related to the number and age of children in families seen by current in-home family education programs in April of 2013 indicates that families served have an average of 1.3 children under the age of five years. Thus, a reasonable estimate of the number of at risk families with a 2nd or 3rd trimester pregnancy and/or with children under age 5 yrs. would be:

$$74,636 \text{ divided by } 1.3 = \underline{57,413 \text{ families}}$$

Estimate of Program Participation Rates

Not all of the “at risk” families within this target group would receive in-home family education services at any given time. The number of “at risk” families is based on families with a 2nd or 3rd trimester pregnancy and/or children birth to age 5 yrs. This is a 5.5 year period of time. If the average length of participation is 2 ½ years for families who choose to receive services, we would expect the estimated number of families receiving services at any given time to be 2.5 yrs. multiplied by 57,413 families divided by 5.5 yrs. = 26,097 families.

In trying to estimate an expected number of these “at risk” families that would be expected to participate in a home visiting program, we must also factor in the voluntary nature of the program. For a variety of reasons, many families choose not to participate in an in-home family education program even when such a program is available to them. Limited data available from the current home visiting programs indicates approximately 25% to 50% of those families that are offered services by Healthy Families America choose to participate and the *Right From the Start Program* (Medicaid enrolled families only) has found that 35% of families offered RFS services choose to participate. Using a 35% expected participation rate, the number of “at risk” families that might reasonably be expected to participate in an in-home family education program at any given time is 35% of 26,097 = 9,134.

Thus, the necessary program capacity to achieve universal access to in-home family education services would be 9,134 program slots.

Annual Cost

Assuming the same ratio of types of programs as currently exist, approximately 75% of these families would be served by PAT, 15% by HFA, and 10% by MIHOW. Using these figures the number of families expected to be served in order to achieve universal access for all families “at risk” with children prenatal to age 5 yrs. would be:

PAT – 6,851

HFA – 1,370

MIHOW – 913

Applying the applicable cost per family estimated by the national office serving each program (adjusted to 2013 dollars) the cost of universal access for families with at-risk children is estimated at:

PAT- 6,851 families X \$2,730/family =	\$18,703,230
HFA- 1,370 families X \$4,009/family =	\$ 5,492,330
MIHOW- 913 families X \$1,854/family =	\$ 1,692,702

Total Estimated Cost to serve at-risk families = \$25,888,262

Timeframe for Increasing Program Capacity

Recognizing that any substantial increase in program capacity would take time to develop it is suggested that additional in-home family education programs be phased in over a five year period. In order to achieve full implementation by the year 2020, additional resources would need to be secured amounting to approximately \$5 million each year during the period FY 2015 through FY 2019.

Summary and Conclusions

One of the key variables in calculating the cost of providing universal access to home visiting programs is the number of families determined to be “in need” of service at any given time. “Families in need of service” may be defined based on the estimated number of families with young children who are at risk of poor health, education, or developmental outcomes as has been done in this analysis. These “at risk” families seem to be the most logical target population for home visiting services; however, some other combination of variables describing families with young children could be used to establish the number of families that would benefit from an in-home family education program.

This analysis is based on the estimated cost to provide in home family education services to at risk families with children that fall in the age group of prenatal (pregnant women) up to the age of five years. If the age range defining “young children” was narrower (prenatal to 4 yrs. of age for example), the cost estimate would be reduced by approximately 18%.

Given the current lack of reliable data, a number of assumptions must also be made related to the number of families in West Virginia that might reasonably be expected to enroll in an in-home family education program at any given time. This estimate is based on anecdotal evidence that indicates families generally participate in a home visiting program for an average of 2.5 years and approximately 35% of the families that are offered services choose to enroll in a program.

Some basis for estimating the cost per family to deliver a research-based program must be made as well, since the cost per family varies depending on the research-based program being provided. Estimates made in this analysis assume that the three currently available programs (PAT, MIHOW, and HFA) would be expanded in the same relative proportion. Since the costs

per family served associated with each of the program models is different, the types of programs developed would obviously affect the overall cost of providing some level of universal access.

Given the methodology and necessary assumptions used in this analysis, the best estimate of the cost of universal access to in-home family education programs is that such access would likely require a total annual investment of approximately \$26 million when fully implemented. Current investments in these programs is only \$2.3 million annually. Thus, substantial additional investment would be necessary over the next five years to achieve some level of universal access by 2020.

