

Excerpt: “Expectations of Outcomes” from  
*Variation in Service Delivery and Family Outcomes  
across the Texas Home Visiting Program*

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## EXECUTIVE SUMMARY

### Purpose and Introduction

The Texas Health and Human Services Commission (HHSC) contracted with the Child and Family Research Partnership (CFRP) at the LBJ School of Public Affairs at UT Austin to evaluate the implementation and outcomes of the Texas Home Visiting Program (THV). CFRP is conducting an ongoing process and implementation evaluation (PIE) study of THV and analyzing the extent to which THV is showing improvement in benchmarks established in collaboration with the federal funding agency (U.S. Department of Health and Human Services Health Resources and Services Administration; HRSA).

The overarching aim of PIE is to better understand the factors that enhance and limit the ability of home visiting program models to effectively scale-up and produce positive outcomes for families with young children. Home visiting programs have rapidly expanded across the country as an evidence-based policy choice for supporting families with young children. Selecting an evidence-based model, however, is not a guarantee of effectiveness. Implementation is a key determinant of whether or not children and families benefit from home visiting programs.<sup>1</sup> Careful monitoring of whether the programs are implemented and delivered with fidelity enables policy makers, program operators, and evaluators to clearly link practice to participant outcomes.<sup>2</sup>

The purpose of the full report is to provide a descriptive analysis of the variation in service delivery across the 24 home visiting programs that are being implemented in the original seven THV communities (THV has expanded to include two additional communities, but they have not yet been incorporated into PIE). The full report also includes an analysis of the benchmark outcomes that should be expected based on findings from the home visiting program models' randomized-control trials (RCTs). The data systems and collection are still in development, which precludes a more thorough examination of the extent to which THV is showing improvement in benchmarks. The report also serves as another opportunity to highlight persistent issues with data quality and missing data, both of which temper the extent to which conclusions drawn from this report about service delivery are valid and applicable to home visiting program implementation more broadly.

### Background and Findings

With the Maternal, Infant, and Early Childhood Home Visiting program (MIECHV) formula and developmental grants awarded in fiscal years 2010 and 2011, respectively, HHSC created the Texas Home Visiting Program (THV), which aims to ensure that Texas children ages zero to five are healthy and prepared for school by promoting a seamless delivery of health and human

services in high-need communities. With the formula funding, MIECHV provided Texas the opportunity to create local early childhood comprehensive systems (ECCS) that encompass evidence-based home visiting programs in high-need communities across the state.

Texas selected four evidence-based home visiting program models for THV based on the programs' existing national and state level infrastructures and because the four models, cumulatively, serve a broad range of target populations. The four models include Early Head Start – Home Based (EHS-HB); Home Instruction for Parents of Preschool Youngsters (HIPPPY); Nurse Family Partnership (NFP); and Parents as Teachers (PAT). THV is currently implementing 24 home visiting programs in seven communities that serve more than 2,200 families, and has supported the development of local early childhood comprehensive systems (ECCS) that support home visiting. With additional funding, THV is expanding to 34 home visiting programs in nine communities to serve an additional 2,160 pregnant women, children, and families.

### **WHO IS THV SERVING?**

Each of the four home visiting program models participating in THV have specific income and/or age eligibility requirements for families, though the stringency of these requirements varies across program. Regardless of the extent to which the program models vary in defining and targeting “at-risk” families, one of the core components of the MIECHV legislation is that states receiving MIECHV funding give priority to providing services to high-risk populations.<sup>a</sup> The MIECHV legislatively-identified priority populations include, among others, low-income families, pregnant teenagers, families with a history of child abuse or neglect, families with a history of substance abuse, and military families.

Our analyses of important demographic data of the families, guardians, and children participating in THV show that, overall, THV is successfully targeting the high-risk Texan families that were required by MIECHV. The majority of families being served by THV are low-income, with a significant proportion of families living in poverty. Most of the guardians enrolled in THV are young, Hispanic females, though the characteristics of families in THV vary by program model.

### **HOW DOES THV RECRUIT FAMILIES?**

One of the keys to successful implementation of evidence-based home visiting programs is the capacity to recruit, enroll, and retain participants in the model's target population. THV is only at approximately two-thirds service capacity across the state. This is due, in part, to the difficulty of recruiting families into the programs, which can be made more difficult by the

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<sup>a</sup> Social Security Act, Title V, Section 511(d) (4). Retrieved from [http://www.ssa.gov/OP\\_Home/ssact/title05/0511.htm](http://www.ssa.gov/OP_Home/ssact/title05/0511.htm)

program models' age and income eligibility requirements. Home visiting programs rely heavily on various referral sources to recruit participants into their programs.

Recruiting high-risk families into THV remains a challenge for most programs. The development of a coordinated matching and referral system along with a THV brand was intended to help programs with that challenge, but the pressure for individual programs to meet their capacity numbers, program eligibility requirements, and community population differences limit the extent to which a matching system can effectively help programs with recruitment challenges. Most programs rely on finding their own referrals, many of which come through word of mouth, WIC and health care providers, and the local schools.

### **WHAT DOES THV PROVIDE FAMILIES?**

One of the most common ways to assess whether or not a program was implemented with fidelity is the extent to which the program provided participants with the required amount of the program or dosage.<sup>3</sup> Closely tied to whether families receive the required dosage is whether families receive the content of their home visiting programs' curriculum. If home visitors do not conduct all of the expected visits with families (dosage), then they cannot deliver all of the services and program curricula, which will limit the extent to which families can benefit from the programs.

All of the THV programs still struggle to meet the expectations for service delivery by the program model with regard to both dosage and program content. The primary barriers to providing families with the full dosage of the program are the characteristics of the high-risk and high-need families they are serving. The same characteristics that make these families in need of and eligible for the program also make them difficult to reach and serve. The primary barrier to delivering program content is dosage – not being able to meet with families to serve them.

### **HOW LONG DO FAMILIES STAY IN THV?**

The longer families stay in a program, the greater the dosage of home visiting services that families receive, which in turn should lead to better outcomes for families and children. The families targeted by home visiting programs, however, often have many needs beyond those that can be served by home visiting programs or have barriers (e.g., housing instability, multiple jobs) that make it difficult to remain committed to and engaged in the program.

Analyses of interviews and reports from the home visiting program coordinators and home visitors show the challenges associated with keeping families engaged and retaining them in the program, but there is very little quantitative data available on retention in THV. Two-thirds of data on whether families exited a program because they completed the program or because they dropped out are missing. Improving the quality of data on retention is a critical area of improvement moving forward for both Continuous Quality Improvement (CQI) and future evaluation efforts focused on retention.

## EXPECTATIONS FOR OUTCOMES

Prior research suggests that being “evidence-based” does not ensure that these programs can be effectively translated into community practice or that they will be effective at producing the amount of change expected of them (Olds, Sadler, & Kitzman, 2007). The extent to which programs are implemented with fidelity to the model is critical to whether or not children and families benefit from home visiting programs.<sup>4</sup>

A review of the evidence analyzed by HomVEE to identify the four THV program models as “evidence-based,” suggests that the outcomes for children and families may be modest at best. THV can be expected to make the most progress in improving children’s school readiness and achievement, and reducing rates of child maltreatment. THV may make smaller improvements in family self-sufficiency and child and maternal health, but there is less evidence to suggest that THV will make strong progress toward reducing domestic violence or increasing coordination and referrals for other support. THV will undoubtedly benefit families in numerous ways, but the existing evidence base suggests that the impact THV has on families may be difficult to measure at the community level.

This chapter is provided in its entirety in the succeeding pages.

## EXPECTATIONS FOR OUTCOMES

### Background

HRSA required THV to develop benchmarks that focus on six predetermined outcome domains and to show improvement in the benchmarks by September 30, 2014. HHSC and the four program models worked together to develop 35 process and outcome measures to show improvement in the six federal benchmark areas. It is too early to examine improvement in the benchmarks because data collection is still ongoing and errors with the THV data system persist.

The Home Visiting Evidence of Effectiveness (HomVEE) launched by the U.S. Department of Health and Human Services' Administration for Children and Families identified each of the four home visiting program models selected to participate in THV as "evidence-based." The prior research suggests that being "evidence-based" does not ensure that these programs can be effectively translated into community practice or that they will be effective at producing the amount of change expected of them (Olds, Sadler, & Kitzman, 2007). Implementation is a key determinant of whether or not children and families benefit from evidence-based home visiting programs.

The purpose of this chapter is to review the evidence for the four evidence-based models in THV to illustrate what child and family outcomes might be expected from each program. Only the evidence included in the HomVEE analysis is examined. As the outcome data in the THV data system become more reliable and accurate, subsequent reports will include analyses of the progress THV is making toward improvement in the benchmark areas.

### Summary of the Evidence Base

In the review of the home visiting models' evidence of effectiveness, HomVEE evaluated studies based on two criteria: 1) the quality of the study; and 2) the primary and secondary outcomes evaluated in the study. Eligible studies for review were published between 1979 and 2012 and included either a randomized controlled trial (RCT), which have been recognized by the National Academies as providing the "highest level of confidence" in program efficacy or failure,<sup>5</sup> or a quasi-experimental design. Studies were then determined to be either of high, moderate, or low quality based on the extent to which the study design could produce unbiased estimates of model impacts. Outcomes were considered primary if data were collected through direct observation or assessment, administrative records, or if self-reported but using a standardized (normed) instrument. All other self-reported measures were classified as secondary outcomes.

The number of studies eligible for review by HomVEE and their classification as high, moderate, or low quality are presented for each THV program model in Table 1.

**Table 1. THV Program Model Evidence**

	EHS-HB <sup>6</sup>	HIPPY <sup>7</sup>	NFP <sup>8</sup>	PAT <sup>9</sup>
Number of Studies Eligible for Review <sup>a</sup> /Number of Studies Released from 1979-2012	15/119	17/51	31/135	22/60
Number of Studies Rated High	4	1	18	2
Number of Studies Rated Moderate	1	1	3	3
Number of Studies Rated Low	5	14	7	13

<sup>a</sup>The number of studies eligible for review is greater than the sum of studies rated high, moderate, and low because it also includes “additional sources” that were not reviewed because they overlapped with a study

A summary of the evidence (only studies rated high or moderate) reviewed by HomVEE linking each THV program model to the benchmark areas is presented in Table 2 and described in greater detail below. A “favorable” effect means there was at least one statistically significant impact on the outcome measure in a direction that is beneficial for children and parents. A program model that has no statistically significant impact on an outcome in one study (“no effect”), but a favorable impact on the same outcome in a different study is still labeled favorable. It should also be noted that the effect sizes of favorable effects are modest, generally ranging from -0.25 to 0.25.

**Table 2. Summary of RCT Effects for THV Program Models by Benchmark**

	EHS-HB	HIPPY	NFP	PAT
Maternal and Newborn Health	No Effect	Not Measured	Favorable	No Effect
Prevention of Child Injuries, Child Abuse, Neglect, or Maltreatment and Reduction of Emergency Department Visits	Not Measured	Not Measured	Favorable	Favorable
Improvement in School Readiness and Achievement	Favorable	Favorable	Favorable	Favorable
Reduction in Crime or Domestic Violence	Not Measured	Not Measured	Favorable	Not Measured
Improvements in Family Economic Self-Sufficiency	Favorable	Not Measured	Favorable	Favorable
Improvements in the Coordination and Referrals for Other Community Resources and Supports	Favorable	Not Measured	No Effect	Not Measured



## **MATERNAL AND NEWBORN HEALTH**

Maternal health outcomes include health care service outcomes extracted from medical records and self-reports of health using standardized and non-standardized measures. Newborn health outcomes include birth outcomes, use of health care services (both parent-reported and extracted from medical records), and parent reports about children's health

Among studies meeting the criteria for high or moderate ratings, NFP has shown favorable effects (primary and secondary outcomes) for child and maternal health, neither EHS-HB nor PAT have shown a favorable effect, and no evaluation of HIPPY has measured child or maternal health because the primary focus of HIPPY is school readiness.

## **CHILD INJURIES, CHILD ABUSE, NEGLECT OR MALTREATMENT**

Child injury, abuse, neglect or maltreatment outcome measures include evidence of substantiated child maltreatment from administrative records and counts taken from medical records of encounters with health providers for injuries or ingestions. Some studies use the Conflicts Tactics Scale-Parent Child (CTS-PC), which is a measure that assesses neglectful, psychologically aggressive, and abusive parenting behavior, as a measure of child maltreatment. The CTS-PC is not a standardized measure, so it is considered a secondary outcome.

Among studies meeting the criteria for high or moderate ratings, EHS-HB, NFP, and PAT have all shown favorable impacts in reducing child maltreatment. No evaluation of HIPPY has measured child maltreatment.

## **SCHOOL READINESS AND ACHIEVEMENT**

School readiness and achievement outcomes include direct child assessments, reviews of school records, direct observations of children's behavior, parent and teacher reports on standardized measures and non-standardized (secondary outcome) measures. All four THV programs have shown favorable effects for school readiness and achievement.

## **DOMESTIC VIOLENCE**

Most of the home visiting programs do not have reductions in family violence as an explicit goal, but do seek to reduce risky parental behaviors that may also reduce family violence. Outcome measures include the incidence of antisocial behavior based on data from state records. Secondary measures include self-report of antisocial behaviors and the Conflict Tactics Scale, which assesses intimate partner violence and maltreatment.

Only one of the THV programs (NFP) has measured reductions in family violence or crime as an outcome. NFP has shown no effect on primary outcomes, but multiple favorable effects on secondary outcomes.

## **FAMILY ECONOMIC SELF-SUFFICIENCY**

Many home visiting programs aim to promote the self-sufficiency of participating families through facilitating parents' engagement in educational and training programs, encouraging employment pursuits, and providing assistance in accessing family support services. Primary outcome measures include measures of public assistance receipt and secondary outcomes include maternal self-reports of service receipt and economic outcomes.

Among studies meeting the criteria for high or moderate ratings, PAT has shown a favorable effect for a primary outcome measuring family self-sufficiency, NFP has shown a favorable effect for both a primary and secondary outcome, and EHS-HB has shown a favorable effect for a secondary outcome. No evaluation of HIPPY has measured family economic self-sufficiency.

### **COORDINATION AND REFERRALS FOR OTHER RESOURCES AND SUPPORT**

Coordination and referrals for other resources and support is a possible outcome for all home visiting models even if it is not an explicit outcome given the high level of need most families participating in these programs. Primary outcome measures include reviews of home visitor, medical, or school records for indications that the child or family had received a referral to other services. Secondary outcomes include parent reports of referral receipt and parent reports of awareness about other services in the community.

Among studies meeting the criteria for high or moderate ratings, EHS-HB has shown favorable effects on secondary outcomes. NFP has not shown a favorable effect. No evaluation of either HIPPY or PAT has measured coordination and referrals for other resources and support.

### **SUMMARY**

Based on the evidence from studies eligible for review by HomVEE, even if the THV programs are implemented with absolute fidelity, it is likely that the outcomes for children and families may be modest at best. CFRP has the most confidence that THV can be expected to make progress toward improving children's school readiness and achievement and reductions in child maltreatment. There is some evidence to suggest that THV can make progress toward improvements in family self-sufficiency and child and maternal health, but there is less evidence to suggest that THV will make strong progress toward reducing domestic violence or increasing coordination and referrals for other support.

Furthermore, even if the programs are implemented with full fidelity to the model, it may be difficult to see change at the community level because of the size of populations being served by THV. For one, THV has served approximately 2,000 families, which is not insignificant, but may still be too small to see change at the community level. Also, as shown in Chapter 3, the populations being served by THV vary across program and also differ from the populations studied in each of the programs' randomized control trials (RCTs), which suggests that the findings from the RCTs may do little to guide expectations for outcomes in THV.

Implementation with full fidelity to the model is no easy task. Implementation is a significant challenge when taking any program to scale at the community level. The THV communities

have varied widely in their successes and challenges with implementing multiple home visiting programs while also launching an early childhood comprehensive system. These successes and challenges were highlighted in the last report CFRP submitted to HHSC and this variation in implementation will likely be associated with variation in family and child outcomes across communities.

Identifying the extent to which THV has impacted child and family outcomes will be difficult given the high levels of missing data and the data quality issues. Additionally, there is no control group with which to compare the outcomes of families of participating in THV. Relying solely on variation across communities makes it difficult to see impacts. Additionally, the benchmarks are defined and measured differently than the outcomes in the RCTs, which will limit comparisons between THV impacts and the RCT impacts.

CFRP is optimistic that THV will benefit families in numerous ways. The existing evidence base suggests that the impact THV has on families may be difficult to measure at the community level. Fidelity to the model and collecting accurate and reliable data are imperative to being able to see the impact of THV on the families it is serving.

## ENDNOTES

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<sup>1</sup> Alliance for Early Success & Child Trends (2013). The research base for a birth through age eight state policy framework. Retrieved from:

[http://earlysuccess.org/sites/default/files/website\\_files/files/B8%20Policy%20Framework%20Research.pdf](http://earlysuccess.org/sites/default/files/website_files/files/B8%20Policy%20Framework%20Research.pdf)

<sup>2</sup> Daro, Deborah, Bonnie Hart, Kimberly Boller, and M.C. Bradley. "Replicating Home Visiting Programs With Fidelity: Baseline Data and Preliminary Findings." Children's Bureau, Administration for Children and Families, U.S. Department of Health and Human Services. 2012 December. Contract No.: GS-10F-0050L/HHSP233200800065W. Available from Mathematica Policy Research, Princeton, NJ. Retrieved from: <http://supportingebhv.org/crossite>

<sup>3</sup> Daro, Deborah, Bonnie Hart, Kimberly Boller, and M.C. Bradley. "Replicating Home Visiting Programs With Fidelity: Baseline Data and Preliminary Findings." Children's Bureau, Administration for Children and Families, U.S. Department of Health and Human Services. 2012 December. Contract No.: GS-10F-0050L/HHSP233200800065W. Available from Mathematica Policy Research, Princeton, NJ. Retrieved from: <http://supportingebhv.org/crossite>

<sup>4</sup> Alliance for Early Success & Child Trends (2013). The research base for a birth through age eight state policy framework. Retrieved from:

[http://earlysuccess.org/sites/default/files/website\\_files/files/B8%20Policy%20Framework%20Research.pdf](http://earlysuccess.org/sites/default/files/website_files/files/B8%20Policy%20Framework%20Research.pdf)

<sup>5</sup> Haskins et al., 2009

<sup>6</sup> <http://homvee.acf.hhs.gov/document.aspx?sid=8&rid=1&mid=1>

<sup>7</sup> <http://homvee.acf.hhs.gov/document.aspx?sid=13&rid=1&mid=1>

<sup>8</sup> <http://homvee.acf.hhs.gov/document.aspx?sid=14&rid=1&mid=1>

<sup>9</sup> <http://homvee.acf.hhs.gov/document.aspx?sid=16&rid=1&mid=1>