OPRE Report #2017-60a

Assessing the Research on Home Visiting Program Models Implemented in Tribal Communities

Part 1: Evidence of Effectiveness

Updated August 2017

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Contract Number:
GS-10F-0050L/
HHSP23320150115G
Mathematica Reference Number:
50096.02.152.059.000

Submitted to:
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Assessing the Research on Home Visiting Program Models Implemented in Tribal Communities

Part 1: Evidence of Effectiveness

Original Report Published: February 2011

Updated August 2011, November 2012, September 2013, September 2014, and August 2017

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OVERVIEW OF HOMVEE TRIBAL REVIEW

Introduction

A portion of the federal funds that support home visiting for mothers and young children are designated specifically for supporting home visiting in tribal communities. Therefore, policymakers and program administrators need to know what research has learned about home visiting in these communities. This series of reports describes an effort to compile and summarize the findings of that research.

The Home Visiting Evidence of Effectiveness (HomVEE) project is a systematic review of home visiting research (detailed information and results are available at https://homvee.acf.hhs.gov). To assess the evidence of effectiveness of culturally relevant models that have been implemented in tribal communities, HomVEE conducted a systematic review focusing specifically on studies relevant to tribal communities.

The evidence base on home visiting in tribal communities is fairly small. The HomVEE tribal review has identified 49 effectiveness studies of home visiting program models either used in tribal communities or that included a sizable share (10 percent or more) of American Indian and Alaska Native (AIAN) families. Forty-one percent of these used a sufficiently rigorous study design to provide unbiased estimates of program impacts. (The more rigorous the design, the more likely it is that a study's impacts were caused by the program model itself, rather than by other factors.) Only six of them specifically examined the effect of a program model with tribal populations (meaning the studies included samples made up entirely of AIAN participants or reported findings by tribal community affiliation).

Primary research questions

- What research is available on home visiting in tribal communities, and what does it say about how home visiting is implemented in tribal communities and how it affects them?
- What lessons about program development, implementation, and adaptation in tribal communities can be drawn from this body of research?
- What next steps does this research suggest for program developers and researchers working on home visiting in tribal communities?

Purpose

The legislation authorizing the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program (Social Security Act, Title V, § 511 (42 U.S.C. § 711)) sets aside 3 percent of the total appropriation (authorized in § 511(j)) for grants to federally recognized tribes (or a consortia of tribes), tribal organizations, or urban Indian organizations. The legislation requires the tribal grants, to the greatest extent practicable, to be consistent with the requirements of the MIECHV Program grants to states and territories (authorized in § 511(c)). The Tribal MIECHV Program aims to support the development of AIAN children and families through the implementation of high quality, culturally relevant home visiting programs using models that have demonstrated evidence of effectiveness.

The Office of Planning, Research and Evaluation at the Administration for Children and Families, U.S. Department of Health and Human Services (HHS) contracts with Mathematica Policy Research

to conduct the HomVEE project. HomVEE conducted its initial systematic review focusing specifically on studies relevant to tribal communities in fall 2010. As the research literature on home visiting program models studied with tribal populations grows, HomVEE updates the review.

Key findings and highlights

The effectiveness studies and implementation research included in the HomVEE tribal review offer important lessons about program development, adaptation, and implementation that could be useful to the Tribal MIECHV Program awardees or other tribal organizations interested in implementing home visiting program models. Such lessons include the following:

- Collaborate with tribal communities from the onset, beginning in the pre-implementation phases and continuing throughout service delivery;
- Recruit culturally sensitive staff;
- Use data to inform quality improvement;
- Remain flexible; and
- Align program with participant needs.

Based on issues identified in the studies reviewed, HomVEE offers the following considerations to support the development and replication of home visiting programs for tribal communities:

- Model developers should provide detailed information about model specifications and minimum requirements, and create fidelity standards for core model elements;
- Researchers should examine the challenges of implementation and whether and how they can be met; and
- Programs should provide detailed information about how they adapt national home visiting models, including how they engage with home visiting model developers to design, implement, and evaluate adaptations.

To help overcome the obstacles to conducting research in tribal communities identified in the studies reviewed, HomVEE suggests that evaluators consider doing the following:

- Use a utilization-focused participatory evaluation approach;
- Evaluate promising program models using rigorous research methods;
- Use more focused, culturally relevant, valid, and reliable measures; and
- Apply lessons from the general HomVEE review, such as adjusting for multiple comparisons to reduce the risk of identifying statistically significant findings by chance.

Methods

The HomVEE tribal review involved the following steps:

1. Conducting a broad literature search on home visiting program models either used in tribal communities or that include a sizable share (10 percent or more) of AIAN families;

2. Screening the studies for relevance;
3. Rating the effectiveness studies as high, moderate, or low based on their ability to produce unbiased estimates of a program model's effects;
4. Examining the impacts in high- and moderate-rated studies on AIAN populations and identifying program models that meet the HHS criteria for "an evidence-based early childhood home visiting service delivery model" in AIAN populations; and
5. Gathering information about home visiting program model implementation, such as target outcomes and staff training and qualifications, from all studies eligible for the review of home visiting in tribal populations.

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I. INTRODUCTION

The legislation authorizing the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program (Social Security Act, Title V, § 511 (42 U.S.C. § 711)) sets aside 3 percent of the total appropriation (authorized in Section 511(j)) for grants to federally recognized tribes (or a consortia of tribes), tribal organizations, or urban Indian organizations. The legislation requires that the tribal grants, to the greatest extent practicable, be consistent with the requirements of the MIECHV Program grants to states and territories (authorized in Section 511(c)).

The overall goals of the MIECHV Program grants to states and territories are to strengthen and improve maternal and child health programs, improve service coordination for at-risk communities, and identify and provide comprehensive home visiting services to families who reside in at-risk communities. The MIECHV Program awards grants to implement evidence-based program models that promote outcomes such as improvements in maternal and prenatal health, infant health, and child health and development; reduced child maltreatment; improved parenting practices related to child development outcomes; improved school readiness; improved family socioeconomic status; improved coordination of referrals to community resources and supports; and reduced incidence of injuries, crime, and domestic violence. The Tribal MIECHV Program mirrors the state program to the maximum extent practicable, with the goal of supporting the development of American Indian and Alaska Native (AIAN) children and families through a coordinated, high quality, evidence-based home visiting strategy.[1] The Tribal MIECHV Program is designed to support the implementation of high quality, culturally relevant home visiting programs using models that have demonstrated evidence of effectiveness.

The Office of Planning, Research and Evaluation at the Administration for Children and Families (ACF), U.S. Department of Health and Human Services (HHS) contracts with Mathematica Policy Research to conduct the Home Visiting Evidence of Effectiveness (HomVEE) project, a systematic review of home visiting research. HomVEE reviews the literature and assesses the evidence of effectiveness of home visiting program models that serve families with pregnant women and children from birth to kindergarten entry. The HomVEE review provides states and other stakeholders information about which home visiting program models have shown evidence of effectiveness as required by the legislation. It also presents detailed information about the samples of families who participated in the research, the outcomes measured in each study, and the implementation guidelines for each program model. A summary of the findings is available in the *Home Visiting Evidence of Effectiveness Review: Executive Summary*; available at https://homvee.acf.hhs.gov/Publications/9/HomVEE-Summary/55, and detailed findings are available at http://homvee.acf.hhs.gov/.

A. HomVEE tribal review

To assess the evidence of effectiveness of culturally relevant models that have been implemented in tribal communities, HomVEE conducted a systematic review in fall 2010 focusing specifically on studies relevant to tribal communities.[2] Our search for relevant studies included consideration of research and evaluation conducted in indigenous communities outside of the United States. Although

[1] As of this update, the report also includes research conducted with Native Hawaiians.

[2] For the purposes of the HomVEE tribal review, we included studies in which at least 10 percent of sample members were AIAN participants. Our definition of AIAN included participants who identified as Native Hawaiians or Other Pacific Islanders, or who identified as members of indigenous groups in other countries.

there is tremendous variation between Native and indigenous communities within the United States and across the globe, they share similarities such as traditional culture, historical trauma from colonization, and health disparities. Lessons learned from the implementation and evaluation of culturally relevant home visiting in indigenous settings outside the United States can provide useful information to AIAN communities as they make decisions about home visiting and its evaluation in their own communities.

This report represents the fifth update to the original review. As of this update, the HomVEE systematic review identified 49 effectiveness studies of home visiting programs with tribal populations (see Box 1).

Box 1. Overview of studies identified in HomVEE tribal review

The HomVEE tribal review identified a total of 49 effectiveness studies related to tribal populations. Among those, almost half (20) were determined to have sufficiently rigorous designs to contribute to the evidence base.

Of the 20 high- or moderate-rated studies:

- 5 studies had AIAN participants as the full sample.
- Of the studies in which the tribal participants were 10 percent or more of the sample, only 1 study reported findings specifically for the tribal subgroup.

Out of 16 models that have effectiveness research on AIAN populations, 1 model, Family Spirit®, meets HHS criteria for an "evidence-based early childhood home visiting service delivery model" for AIAN populations. In addition, for this report, 18 implementation studies were examined as were 9 outcomes studies that did not test the effectiveness of an intervention.

Given the lack of models that have evidence of effectiveness with tribal populations, HomVEE, in partnership with ACF, sought to identify lessons learned from the existing literature. To make the most of the available information, HomVEE extracted descriptive information from each relevant study about the participant outcomes that were evaluated to gain a better understanding of the targeted domains that have and have not been studied. HomVEE gathered descriptive information about home visiting program models that have been implemented with Native populations. With the understanding that additional research is needed on these models, Indian tribes (or a consortia of tribes), tribal organizations, or urban Indian organizations, including the Tribal MIECHV Program awardees, may find this information useful in determining whether these existing home visiting models would be a good fit for their communities and whether implementing the models in their communities would be feasible. Finally, HomVEE summarized lessons learned across studies on three topics: (1) the adaptation of existing models and the development of new models culturally relevant to AIAN families and children, (2) the implementation challenges programs faced and the programs' strategies for overcoming them, and (3) the challenges evaluators faced conducting studies of the program models.

This report describes the findings from the review of home visiting programs implemented in tribal communities or evaluated with AIAN families and children. Section A describes the review process HomVEE used to identify, screen, and assess the research literature on home visiting models implemented in tribal communities. Section B presents the review results. The final section summarizes the types of participant outcomes measured in the studies and provides descriptions of the home visiting model characteristics. A list of studies included in the report is provided at the end of the report. Appendix A presents study characteristics for high- and moderate-rated effectiveness studies. Appendix B lists participant outcome measures from high- and moderate-rated effectiveness studies, by domain and study. Appendix C provides an overview of the home visiting program models implemented with tribal populations identified in this review.

A companion report, *Assessing the Research on Home Visiting Program Models Implemented in Tribal Communities—Part 2: Lessons Learned about Implementation and Evaluation*, describes the lessons learned across the reviewed studies, with a focus on cultural relevance and implementation, followed by proposed considerations for building the research literature on tribal home visiting programs. This report and *Assessing the Research on Home Visiting Program Models Implemented in Tribal Communities—Part 2: Lessons Learned about Implementation and Evaluation* are available at http://homvee.acf.hhs.gov/tribal.aspx.

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II. HOMVEE REVIEW PROCESS AND DESCRIPTIVE INFORMATION ABOUT HOME VISITING PROGRAM MODELS STUDIED WITH TRIBAL POPULATIONS

To carry out the HomVEE review of home visiting programs implemented in tribal communities (including indigenous communities outside the United States), Mathematica conducted a thorough search of the research literature on home visiting in fall 2010, issued a call for tribal-specific studies in fall 2010 to identify additional research, reviewed the literature, assessed the quality of research studies, and evaluated the strength of evidence for specific home visiting program models. As the research literature on program models studied with tribal populations grows, HomVEE conducts additional literature searches to identify new home visiting studies (see Box 2). These activities mirror those conducted for the general HomVEE review. Information about the review process is available on the HomVEE website (http://homvee.acf.hhs.gov/Review-Procss/4/Overview/19/), which provides additional detail about the activities described below.

Box 2. Timing of HomVEE tribal review updates

The first literature search HomVEE conducted on home visiting programs studied with tribal populations was conducted in fall 2010, and the report was published in February 2011. The report was updated annually through 2014. This update includes studies released through the end of 2015 or received through the HomVEE call for studies that closed in early January 2016.

A. Tribal review process

To conduct a thorough and transparent review of the tribal home visiting research literature, HomVEE performed six main activities:

1. Conducted a broad literature search.
2. Screened studies for relevance.
3. Rated the quality of effectiveness studies with eligible designs.
4. Assessed the evidence of effectiveness for each program model.
5. Reviewed implementation information for each program model.
6. Addressed potential conflicts of interest.

1. Literature search

HomVEE conducted a broad search for literature on home visiting program models implemented in tribal communities or those with samples that included a sizable share (10 percent or more) of AIAN participants. To increase the chance for identifying research that would be relevant to AIAN communities, literature on home visiting programs conducted in indigenous communities outside the United States was included. The target population included pregnant women or families with children from birth to kindergarten entry. HomVEE limited the search to research on models that used home visiting as the primary service delivery strategy and offered home visits to most or all participants. Models that provided services primarily in centers and used only supplemental home visits were excluded. The search was also limited to research on home visiting models that aimed to improve outcomes in at least one of eight domains specified in the legislation:

1. Child health
2. Maternal health
3. Child development and school readiness
4. Family economic self-sufficiency
5. Linkages and referrals
6. Positive parenting practices
7. Reductions in child maltreatment
8. Reductions in juvenile delinquency, family violence, and crime

HomVEE's literature search included three main activities:

1. **Database searches.** HomVEE searched on relevant keywords in a range of research databases. Keywords included terms related to the service delivery approach, target population, and outcome domains of interest. In addition to the key terms included in the general HomVEE literature search, this search included keywords aimed at identifying studies conducted in tribal communities or with AIAN families and children, including tribe, tribal, Indian, Native American, Alaska Native, Aboriginal, indigenous, and Nation(s). The original keyword search was limited to studies published since 1989 and is updated as the literature base grows and as project resources allow.
2. **Call for studies.** HomVEE issued a tribal-specific call for studies in 2010 and issues an annual call for studies for research on home visiting program models. In screening results from both types of calls, HomVEE looks for models implemented in tribal communities or evaluated with AIAN families and children.
3. **Website searches.** In 2010 through 2012, HomVEE used a custom Google engine to search more than 50 government, university, research, and nonprofit websites for unpublished reports and papers. Results of this search, however, largely overlapped with the results of the first two activities, and this activity was dropped in subsequent years.

For the original report published in February 2011, HomVEE identified 213 unduplicated studies of home visiting program models implemented in tribal communities, including 5 unduplicated studies through the call for studies.[3] At the time of this report, the tribal review examined 627 unduplicated studies.

2. Screening studies

HomVEE used a two-step screening process. First, all studies identified through the literature search were screened, and all citations that were not studies or were not relevant were screened out (Table II.1). The citations that were not studies included newspaper articles, literature reviews, and editorials. Many of the off-topic studies were medical interventions, such as home visiting programs

[3] Of the 213 unduplicated studies identified through the literature search on tribal home visiting programs, 154 had been identified during the general HomVEE literature search conducted in 2009. 2010 was the only year HomVEE released a call for tribal studies that was separate from the general HomVEE call for studies.

to treat diabetes among older adults. Others were summaries of child maltreatment rates but did not examine a specific intervention.

Then, HomVEE examined the remaining citations for relevance and screened out studies for the following reasons; some studies were screened out for multiple reasons (Table II.1):

- The study did not have an eligible design (for the tribal review, eligible designs included randomized controlled trials [RCTs], quasi-experimental design studies [QEDs], implementation studies, and non-rigorous outcomes studies such as those that use correlational or pre-post designs).
- The study did not examine a named program.
- The program did not include an eligible target population (pregnant women and families with children from birth to kindergarten entry from tribal or indigenous communities).
- Home visiting was not the primary service delivery strategy.
- The study did not examine at least one outcome from one of the eight eligible domains.
- The study was not published in English.
- The study was published before 1989.
- The citation was not a primary study.

Table II.1. Results of the tribal literature search and screening process

Screening disposition	Number of studies in prior updates	Number of studies added in this update	**Total number of studies in this report**
Total number of unduplicated studies identified through the literature search	449	178	**627**
Screening Step 1			
Screened in	155	83	**238**
Screened out			
Non-studies	45	14	**59**
Off-topic studies[a]	249	81	**330**
Screening Step 2			
Screened in	45	31[d]	**76**
Screened out[b]			
The study did not have an eligible design.	19[c]	7	**26**
The study did not examine a named program.	10	1	**11**
The program did not include an eligible target population (AIAN pregnant women and families with children from birth to kindergarten entry).	26	24	**50**
Home visiting was not the primary service delivery strategy.	37	17	**54**

Screening disposition	Number of studies in prior updates	Number of studies added in this update	**Total number of studies in this report**
The study did not examine any outcomes in the eight eligible domains listed above.	5	1	**6**
The study was not published in English.	2	0	**2**
The study was published before 1989.	3	0	**3**
The citation was not a primary study.	24	2	**26**

Source: HomVEE tribal literature search conducted in early January 2016 to identify studies released through the end of 2015 and the HomVEE call for studies that closed in early January 2016.

[a]Off-topic studies include medical studies unrelated to home visiting as well as other unrelated studies (for example, education topics or elder care with a home visitation component).

[b]Some studies were screened out for multiple reasons.

[c]Two studies of SafeCare that initially screened in as QEDs were later screened out because it was determined that the studies used a design that was not eligible for review under HomVEE.

[d]As of this update, the report also includes research conducted with Native Hawaiian populations. Of the 31 new studies added for this update, 16 were added because Native Hawaiians comprised 10 percent or more of the sample or the number of Native Hawaiian participants combined with the number of American Indian/Alaska Native participants equaled 10 percent or more of the sample; 12 were RCTs, 1 was a QED, and 3 were nonrigorous outcome studies.

Although many studies have been identified through the literature search each year, far fewer have been eligible for review. At the conclusion of the screening process for the original version of this review in fall 2010, 9 effectiveness studies and 10 standalone implementation or descriptive outcome studies were screened in and included in the review. As of the prior update, the tribal review had examined a total of 28 effectiveness studies and 17 standalone implementation or descriptive outcome studies. This review added 21 more effectiveness studies, including 16 RCTs and 5 QEDs. It also added 10 standalone implementation or nonrigorous outcome studies. Thus, the current report is based on reviews of 76 studies of 29 home visiting models.

3. Rating the quality of effectiveness studies

The HomVEE review rated studies on their ability to produce unbiased estimates of a program model's effect on its participants. Assessing whether a model is effective requires a study design that can establish that outcomes are caused by the model or, in other words, that the study has *internal validity*. To link a program model and outcomes, a study tries to establish two comparison conditions: (1) the treatment condition, or participation in the program, and (2) the counterfactual condition, or what would have happened had the same individuals not participated in the program. The ideal—and impossible—method for determining the counterfactual is to observe the same group simultaneously participating in and not participating in the program. Without the possibility of establishing this true counterfactual condition, studies use a comparison group to represent what would have happened to the treatment group in the absence of the program. A study has the potential for strong internal validity if the initial characteristics of the comparison group are very similar to those of the treatment group. If the groups are not similar initially, one cannot be certain whether differences in outcomes that emerge between the groups are due to the effect of the program or to initial differences between the two groups.

HomVEE's rating system helps distinguish between studies in which we have higher confidence that the observed findings were caused by the program and studies in which the observed findings

may be the result of differences between the treatment and comparison conditions. Only study designs where the selection process for these conditions is completely controlled by the researcher—including RCTs, single-case designs, and regression discontinuity designs—can receive the highest rating. This update includes effectiveness studies that use two designs: RCTs and QEDs.[4]

- RCTs assign participants to the treatment or comparison groups by chance and have the potential for strong internal validity. The primary advantage of randomly assigning participants is that the randomization process balances the groups, on average, for characteristics that are known, such as race and ethnicity and education, and characteristics that may be unknown, such as patience or motivation. When groups are similar on known and unknown characteristics before entering the program, any post-treatment differences between the groups that are too large to be due to chance are likely attributable to the program. However, certain factors—such as the number of participants who drop out of the study—can compromise the balance between the groups and weaken the study's ability to draw causal conclusions. In the HomVEE review, an RCT can receive a high, moderate, or low study-quality rating depending on the presence of these factors.

- Matched comparison QEDs use a nonrandom process to assign participants to treatment or comparison groups. The nonrandom process of selecting groups can result in groups that are not balanced on known and/or unknown characteristics. If the groups are different before the study begins, the comparison group is not a good representation of what would have happened to the treatment group without the program. The HomVEE review standards require that QEDs establish baseline equivalence between the two groups on three types of measures: pre-program outcomes, race and ethnicity, and socioeconomic status. HomVEE determined that these measures were key for establishing a reasonable comparison. Regardless of how balanced the treatment and comparison groups are on measured characteristics, however, the weakness of a matched comparison QED is that it can never rule out differences in unmeasured characteristics. Therefore, the conclusions from a QED are suggestive of an initiative's effectiveness but cannot definitely determine causality. In the HomVEE review, a QED can receive a moderate or low study-quality rating.

Trained reviewers assessed the research design and methodology of each study using a standard protocol. Each study was assigned a rating of "high," "moderate," or "low" to indicate the capacity of its design to provide unbiased estimates of program impacts. In brief:

- The *high* rating is reserved for random assignment studies with low attrition of sample members and no later reassignment, as well as for single-case and regression discontinuity designs that meet the standards of the What Works Clearinghouse.[5]

[4] To date, no studies that were eligible for the tribal review used a single-case design or a regression discontinuity design. Details of HomVEE's standards for those designs are available on the HomVEE website: http://homvee.acf.hhs.gov/.

[5] The What Works Clearinghouse, established by the Institute for Education Sciences in the U.S. Department of Education, reviews education research. Its standards are available at http://ies.ed.gov/ncee/wwc/Docs/referenceresources/wwc_version1_standards.pdf.

- The *moderate* rating applies to:

  (1) random assignment studies that, because of flaws in their design, execution, or analysis (for example, high sample attrition), do not meet all the criteria for the *high* rating;

  (2) matched comparison QEDs that establish baseline equivalence on selected measures; and

  (3) single-case and regression discontinuity designs that meet What Works Clearinghouse design standards with reservations. Studies that do not meet all the criteria for either the *high* or the *moderate* rating are assigned the *low* rating.

Additional information about the review criteria is available on the HomVEE website (http://homvee.acf.hhs.gov/Review-Process/4/Producing-Study-Ratings/19/5).

4. Assessing evidence of effectiveness

After completing all effectiveness study reviews for a program model evaluated with a tribal population, HomVEE evaluated the evidence across all studies of the program model that received a high or moderate rating and measured outcomes in at least one of the eligible domains to determine if the model met the criteria for "an evidence-based early childhood home visiting service delivery model" in AIAN populations (see Box 3).

Box 3. Definition of an "evidence-based early childhood home visiting service delivery model" in tribal populations

A program model that has met the HHS criteria for an "evidence-based early childhood home visiting service delivery model" with research on (1) a sample composed entirely of AIAN participants or (2) impacts were reported by ethnicity/tribal community affiliation and the subgroup findings were replicated in another sample.

To meet the HHS criteria for an "evidence-based early childhood home visiting service delivery model," program models must meet at least one of the following criteria:

- At least one high- or moderate-quality effectiveness study of the program model finds favorable, statistically significant impacts in two or more of the eight outcome domains.
- At least two high- or moderate-quality effectiveness studies of the program model using non-overlapping analytic study samples find one or more favorable, statistically significant impacts in the same domain.

In both cases, the impacts considered must either (1) be found for the full sample or, if found for subgroups only, (2) be replicated in the same domain in two or more studies using non-overlapping analytic study samples. In addition, if the model meets the above criteria based on findings from RCTs only, then one or more favorable, statistically significant impacts must be sustained (which HomVEE defines as at least one year after program enrollment), and one or more favorable, statistically significant impacts must be reported in a peer-reviewed journal.[6]

The review of home visiting program models evaluated with tribal populations includes studies in which the full sample is made up entirely of AIAN participants and studies in which at least 10 percent of sample members were AIAN participants. To meet the HHS criteria for an "evidence-

[6] Section 511(d)(3)(A)(i)(I).

based early childhood home visiting service delivery model" in tribal populations, a program model must satisfy the criteria with research on a sample composed entirely of AIAN participants or impacts must be reported by ethnicity/tribal community affiliation and the subgroup findings must be replicated in another sample.

5. Implementation reviews

To provide descriptive information about the home visiting program models that have been implemented with Native populations, HomVEE aimed to collect information from the identified studies about model requirements, including information about prerequisites for implementation and program frequency and duration. HomVEE also extracted information about implementation experiences from the studies reviewed. For example, they collected information on lessons learned about hiring and training qualified staff, developing and/or adapting program models to be culturally relevant for tribal communities, and addressing implementation challenges. These implementation experiences are discussed in the companion report, *Assessing the Research on Home Visiting Program Models Implemented in Tribal Communities—Part 2: Lessons Learned about Implementation and Evaluation* available at http://homvee.acf.hhs.gov/tribal.aspx.

6. Addressing conflicts of interest

All members of the HomVEE project team signed a conflict-of-interest statement in which they declared any financial or personal connections to developers, studies, or products being reviewed, and confirmed their understanding of the process by which they must inform the project director if such conflicts arise. The project director assembled signed conflict-of-interest forms for all project staff and subcontractors and monitored for possible conflicts over time. Any team member found to have a potential conflict of interest concerning a particular home visiting program model was excluded from the review process for the studies of that model.

B. Tribal review results

Overall, the amount of research available on home visiting programs implemented in tribal communities was small. In this section, we describe the study ratings for each of the studies reviewed, as well as the evidence of effectiveness of the home visiting models included in the review.

1. Study ratings

This update added 21 effectiveness studies of home visiting models evaluated with tribal populations; 16 were RCTs and 5 were QEDs (Table II.2). Overall, the HomVEE report includes 49 effectiveness studies. Among the 49 effectiveness studies in the tribal report, 35 used an RCT design and the remaining 14 used a QED.

Table II.2. Number of effectiveness studies included in the tribal review over time, by study design, and by rating

	Number of studies in prior update	Number of studies added in this update[a]	Total number of studies in the report
Total number of RCTs	**19**	**16**	**35**
RCTs with a high rating	4	6	10
RCTs with a moderate rating	6	2	8
RCTs with a low rating	9	8	17
Total number of QEDs	**9**	**5**	**14**
QEDs with a moderate rating[b]	2	0	2
QEDs with a low rating	7	5	12
Total number of effectiveness studies	**28**	**21**	**49**

Source: 49 effectiveness studies included in the HomVEE review of home visiting programs implemented in tribal communities.

[a]As of this update, the report also includes research conducted with Native Hawaiian populations. Of the 21 new effectiveness studies, 13 were added because Native Hawaiians comprised 10 percent or more of the sample or the number of Native Hawaiian participants combined with the number of American Indian/Alaska Native participants equaled 10 percent or more of the sample; 12 were RCTs, 1 was a QED.

[b]In the HomVEE review, a QED can receive only a moderate or low study-quality rating.

RCTs = randomized controlled trials; QEDs = quasi-experimental design studies.

About one-half of effectiveness studies included in the tribal review used a study design that was of at least moderate quality. Of the 35 studies that implemented RCTs, 10 received a high rating,[7] 8 received a moderate rating,[8] and 17 received a low rating[9] (see Table II.3 for a list of all effectiveness studies). The 17 RCTs that received a low rating were most commonly rated low because of high attrition and lack of baseline equivalence among the study sample. Two studies rated low due to the presence of a confounding factor. Of the 14 studies that implemented QEDs, two received a moderate rating.[10] The other 12 received a low rating because (1) the treatment and comparison groups differed on key baseline characteristics or (2) information on baseline characteristics was not presented and equivalence could not be determined.[11] In addition to not establishing baseline equivalence, three QEDs had confounding factors.

[7] RCTs that rated high were Bair-Merritt et al., 2010; Barlow et al., 2013, 2015; Caldera et al., 2007; Duggan et al., 1999, 2007; Duggan, Fuddy, et al., 2004; Duggan, McFarlane, et al., 2004; El-Kamary et al., 2004; Silovsky et al., 2011.

[8] RCTs that rated moderate were Barlow et al., unpublished [2014]; Boyd, 1997b; Campbell & Silva, 1997; Fergusson et al., 2005; Johns Hopkins University, 2005; King et al., 2005; Walker et al., 2015; Walkup et al., 2009.

[9] RCTs that rated low were Anand et al., 2007; Barlow et al., 2006; Boyd, 1997a; Daro et al., 1998; Harvey-Berino & Rourke, 2003; Karanja et al., 2010; le Roux et al., 2010, 2011, 2013, 2014; Livingstone et al., 1999; McCurdy et al., 2001, 2005; McFarlane et al. 2013; Rotheram-Borus et al., 2014; Spieker et al., 2012, 2014.

[10] QEDs that rated moderate were Culp et al., 2004, 2007.

[11] QEDs that rated low were Coughlin et al., unpublished; Dew et al., 2004; Ernst et al., 1999; Fatti et al., 2013; Grimwood et al., 2012; Kartin et al., 2002; Krysik & LeCroy, 2007; McCalman et al., 2014; Nelson et al., 2013; Pfannenstiel, 2006; Pfannenstiel & Lente-Jojola, 2011; Praat, 2011.

Table II.3. Overview of effectiveness studies included in the tribal HomVEE review

Program name	Citation	Study design	Study rating
Baby Basket program	McCalman, J., Searles, A., Edmunds, K., Jongens, C., Wargent, R., Bainbridge, R., . . . Doran, C. (2014). Evaluating the Baby Basket program in North Queensland: As delivered by Apunipima Cape York Health Council, 2009 to 2013, qualitative and quantitative evaluation. Victoria, Australia: Lowitja Institute.[a]	QED	Low
Early Start (New Zealand)	Fergusson, D. M., Horwood, L. J., Grant, H., & Ridder, E. M. (2005). *Early Start evaluation report*. Christchurch, New Zealand: Early Start Project Ltd.	RCT	Moderate
Family and Child Education program	Pfannenstiel, J., & Lente-Jojola, D. (2011). The Family and Child Education (FACE) program and school readiness: A structural model approach in an American Indian reservation context. *Journal of American Indian Education*, *50*(2), 84–96.	QED	Low
Family and Child Education program	Pfannenstiel, J., Yarnell, V., & Seltzer, D. (2006). *Family and Child Education program (FACE): Impact study report.* Overland Park, KS: Research & Training Associates, Inc.	QED	Low
Family Spirit	Barlow, A., Mullany, B., Neault, N., Billy, T., Hastings, R., Lorenzo, S., . . . Walkup, J. T. (2014). *A randomized controlled trial of a paraprofessional delivered, home-visiting intervention: Three-year outcomes for American Indian teen mothers and their children.* Manuscript in submission.	RCT	Moderate[b]
Family Spirit	Barlow, A., Mullany, B., Neault, N., Compton, S., Carter, A., Hastings, R., . . . Walkup, J. (2013). Effect of a paraprofessional home visiting intervention on American Indian teen mothers' and infants' behavioral risks: A randomized controlled trial. *American Journal of Psychiatry*, *170*(1), 83–93.	RCT	High
Family Spirit	Barlow, A., Mullany, B., Neault, N., Goklish, N., Billy, T., Hastings, R., . . . Walkup, J. T. (2015). Paraprofessional-delivered home-visiting intervention for American Indian teen mothers and children: 3-year outcomes from a randomized controlled trial. *American Journal of Psychiatry*, *172*(2), 154–162.[a]	RCT	High
Family Spirit	Barlow, A., Varipatis-Baker, E., Speakman, K., Ginsburg, G., Friberg, I., Goklish, N., . . . Walkup, J. (2006). Home-visiting intervention to improve child care among American Indian adolescent mothers: A randomized trial. *Archives of Pediatrics & Adolescent Medicine*, *160*(11), 1101–1107.	RCT	Low
Family Spirit	Walkup, J. T., Barlow, A., Mullany, B. C., Pan, W., Goklish, N., Hasting, R., . . . Reid, R. (2009). Randomized controlled trial of a paraprofessional-delivered in-home intervention for young reservation-based American Indian mothers. *Journal of the American Academy of Child & Adolescent Psychiatry*, *48*(6), 591–601.	RCT	Moderate

Program name	Citation	Study design	Study rating
Healthy Families America/Hawaii Healthy Start	Bair-Merritt, M. H., Jennings, J. M., Chen, R., Burrell, L., McFarlane, E., Fuddy, L., & Duggan A. K. (2010). Reducing maternal intimate partner violence after the birth of a child: A randomized controlled trial of the Hawaii Healthy Start home visitation program. *Journal of the American Medical Association*, *164*(1), 16–23.[a]	RCT	High
Healthy Families America/Hawaii Healthy Start	Daro, D., McCurdy, K., & Harding, K. (1998). *The role of home visitation in preventing child abuse: An evaluation of the Hawaii Healthy Start project*. Unpublished manuscript.[a]	RCT	Low
Healthy Families America/Hawaii Healthy Start	Dew, B., & Breakey, G. (2004). *Can a modest intervention prevent a major problem? Evidence from a child abuse prevention program*. Unpublished manuscript.[a]	QED	Low
Healthy Families America/Hawaii Healthy Start	Duggan, A., Fuddy, L., Burrell, L., Higman, S. M., McFarlane, E., Windham, A., & Sia, C. (2004). Randomized trial of a statewide home visiting program to prevent child abuse: Impact in reducing parental risk factors. *Child Abuse & Neglect*, *28*(6), 623–643.[a]	RCT	High
Healthy Familie America/ Hawaii Healthy Start	Duggan, A., McFarlane, E., Fuddy, L., Burrell, L., Higman, S. M., Windham, A., & Sia, C. (2004). Randomized trial of a statewide home visiting program: Impact in preventing child abuse and neglect. *Child Abuse & Neglect, 28*(6), 597–622.[a]	RCT	High
Healthy Families America/Hawaii Healthy Start	Duggan, A. K., McFarlane, E. C., Windham, A. M., Rohde, C. A., Salkever, D. S., Fuddy, L., . . . Sia, C. (1999). Evaluation of Hawaii's Healthy Start program. *Future of Children*, *9*(1), 66–90; discussion 177–178.[a]	RCT	High
Healthy Families America/Hawaii Healthy Start	El-Kamary, S. S., Higman, S. M., Fuddy, L., McFarlane, E., Sia, C., & Duggan, A. K. (2004). Hawaii's Healthy Start home visiting program: Determinants and impact of rapid repeat birth. *Pediatrics*, *114*(3), e317–e326.[a]	RCT	High
Healthy Families America/Hawaii Healthy Start	King, T. M., Rosenberg, L. A., Fuddy, L., McFarlane, E., Sia, C., & Duggan, A. K. (2005). Prevalence and early identification of language delays among at-risk three year olds. *Journal of Developmental & Behavioral Pediatrics*, *26*(4), 293–303.[a]	RCT	Moderate
Healthy Families America/Hawaii Healthy Start	McCurdy, K. (2001). Can home visitation enhance maternal social support? *American Journal of Community Psychology*, *29*(1), 97–112.[a]	RCT	Low
Healthy Families America/Hawaii Healthy Start	McCurdy, K. (2005). The influence of support and stress on maternal attitudes. *Child Abuse & Neglect*, *29*(3), 251–268.[a]	RCT	Low
Healthy Families America/Hawaii Healthy Start	McFarlane, E., Burrell, L., Crowne, S., Cluxton-Keller, F., Fuddy, L., Leaf, P., & Duggan, A. (2013). Maternal relationship security as a moderator of home visiting impacts on maternal psychosocial functioning. Prevention Science*, 14*(1), 25–39.[a]	RCT	Low

Program name	Citation	Study design	Study rating
Healthy Families America/Healthy Families Alaska	Caldera, D., Burrell, L., Rodriguez, K., Crowne, S. S., Rohde, C., & Duggan, A. (2007). Impact of a statewide home visiting program on parenting and on child health and development. *Child Abuse & Neglect*, *31*(8), 829–852.	RCT	High
Healthy Families America/Healthy Families Alaska	Duggan, A., Caldera, D., Rodriguez, K., Burrell, L., Rohde, C., & Crowne, S. S. (2007). Impact of a statewide home visiting program to prevent child abuse. *Child Abuse & Neglect*, *31*(8), 801–827.	RCT	High
Healthy Families America/Healthy Families Alaska	Johns Hopkins University. (2005). *Evaluation of the Healthy Families Alaska program.* Report to Alaska State Department of Health and Social Services, Alaska Mental Health Trust Authority. Baltimore, MD: Author.	RCT	Moderate
Healthy Families America/Healthy Families Arizona	Krysik, J., & LeCroy, C. W. (2007). The evaluation of Healthy Families Arizona: A multisite home visitation program. *Journal of Prevention & Intervention in the Community*, *34*(1), 109–127.	QED	Low
Healthy Starts trial	Walker, N., Johnston, V., Glover, M., Bullen, C., Trenholme, A., Chang, A., . . . Thomas, D. (2015). Effect of a family-centered, secondhand smoke intervention to reduce respiratory illness in indigenous infants in Australia and New Zealand: A randomized controlled trial. *Nicotine & Tobacco Research*, *17*(1), 48–57.[a]	RCT	Moderate
Inter-Tribal Council of Michigan's Healthy Start project	Coughlin, R. L., Kushman, E., Copeland, G., & Wilson, M. L. (2010). *Pregnancy and birth outcome improvements for American Indians in the Healthy Start project of the Inter-Tribal Council of Michigan, 1998–2008: An 11-year cohort study.* Unpublished manuscript.	QED	Low
Kheth'Impilo Community-Based Adherence Support	Fatti, G., Shaikh, N., Eley, B., & Grimwood, A. (2013). Improved virological suppression in children on antiretroviral treatment receiving community-based adherence support: A multicentre cohort study from South Africa. *AIDS Care*. Advance online publication.	QED	Low
Kheth'Impilo Community-Based Adherence Support	Grimwood, A., Fatti, G., Mothibi, E., Malahlela, M., Shea, J., & Eley, B. (2012). Community adherence support improves programme retention in children on antiretroviral treatment: A multicentre cohort study in South Africa. *Journal of the International AIDS Society*, *15*(2), 17381.	QED	Low
Obesity Prevention + Parenting Support	Harvey-Berino, J., & Rourke, J. (2003). Obesity prevention in preschool Native-American children: A pilot study using home visiting. *Obesity Research*, *11*(5), 606–611.	RCT	Low
Oklahoma Community-Based Family Resource and Support Program	Culp, A. M., Culp, R. E., Anderson, J. W., & Carter, S. (2007). Health and safety intervention with first-time mothers. *Health Education Research*, *22*(2), 285–294.	QED	Moderate

Program name	Citation	Study design	Study rating
Oklahoma Community-Based Family Resource and Support Program	Culp, A. M., Culp, R. E., Hechtner-Galvin, T., Howell, C. S., Saathoff-Wells, T., & Marr, P. (2004). First-time mothers in home visitation services utilizing child development specialists. *Infant Mental Health Journal*, *25*(1), 1–15. doi:10.1002/imhj.10086.	QED	Moderate
Parent-Child Assistance Program (aka Seattle Birth to 3)	Ernst, C. C., Grant, T. M., Streissguth, A. P., & Sampson, P. D. (1999). Intervention with high-risk alcohol and drug-abusing mothers: II. Three-year findings from the Seattle model of paraprofessional advocacy. *Journal of Community Psychology*, *27*(1), 19–38.[a]	QED	Low
Parent-Child Assistance Program (aka Seattle Birth to 3)	Kartin, D., Grant, T. M., Streissguth, A. P., Sampson, P. D., & Ernst, C. C. (2002). Three-year developmental outcomes in children with prenatal alcohol and drug exposure. *Pediatric Physical Therapy*, *14*(3), 145–153.[a]	QED	Low
Parents as First Teachers (New Zealand)	Boyd, A. (1997a). *Parents as First Teachers pilot project evaluation (PAFT): Report on South Auckland area*. Wellington, New Zealand: Ministry of Education.	RCT	Low
Parents as First Teachers (New Zealand)	Boyd, A. (1997b*). Parents as First Teachers pilot project evaluation (PAFT): Report on Whangarei region: Final complete draft.* Wellington, New Zealand: Ministry of Education.	RCT	Moderate
Parents as First Teachers (New Zealand)	Campbell, K. I., & Silva, P. A. (1997). *Parents as First Teachers pilot programme evaluation: Age three assessments. Final report to the Ministry of Education on the Dunedin and Gisborne/East Coast areas*. Wellington, New Zealand: Ministry of Education.	RCT	Moderate
Parents as First Teachers (New Zealand)	Livingstone, I. D. (1999). *Parents as First Teachers: Supplement to the summary report of the evaluation of the pilot project: Report to the Ministry of Education on consolidated cross-site analysis.* Wellington, New Zealand: Ministry of Education.	RCT	Low
Parents as First Teachers (New Zealand)	Praat, A. (2011). *Parents as First Teachers evaluation: Phase II report*. Wellington, New Zealand: Centre for Social Research and Evaluation.	QED	Low
Philani Outreach Programme	le Roux, I. M., le Roux, K., Comulada, W. S., Greco, E. M., Desmond, K. A., Mbewu, N., & Rotheram-Borus, M. J. (2010). Home visits by neighborhood mentor mothers provide timely recovery from childhood malnutrition in South Africa: Results from a randomized controlled trial. *Nutrition Journal*, *9*(56).	RCT	Low
Philani Outreach Programme	le Roux, I. M., le Roux, K., Mbeutu, K., Comulada, W. S., Desmond, K. A., & Rotheram-Borus, M. (2011). A randomized controlled trial of home visits by neighborhood mentor mothers to improve children's nutrition in South Africa. *Vulnerable Children & Youth Studies*, *6*(2), 91–102.	RCT	Low
Philani Outreach Programme	Le Roux, I. M., Rotheram-Borus, M., Stein, J., & Tomlinson, M. (2014). The impact of paraprofessional home visitors on infants' growth and health at 18 months. *Vulnerable Children and Youth Studies*, *9*(4), 291–304.[a]	RCT	Low

Program name	Citation	Study design	Study rating
Philani Outreach Programme	le Roux, I. M., Tomlinson, M., Harwood, J. M., O'Connor, M. J., Worthman, C. M., Mbewu, N., . . . Rotheram-Borus, M. J. (2013). Outcomes of home visits for pregnant mothers and their infants in South Africa: A cluster randomized controlled trial. *AIDS*, *27*(9), 1461–1471.	RCT	Low
Philani Outreach Programme	Rotheram-Borus, M., Tomlinson, M., le Roux, I. M., Harwood, J. M., Comulada, S., O'Connor, M. J., . . . Worthman, C. M. (2014). A cluster randomised controlled effectiveness trial evaluating perinatal home visiting among South African mothers/infants. *PLOS ONE*, *9*(1): e105934.[a]	RCT	Low
Promoting First Relationships®	Nelson, E. M., & Spieker, S. J. (2013). Intervention effects on morning and stimulated cortisol responses among toddlers in foster care. *Infant Mental Health Journal*, *34*(3), 211–221.[a]	QED	Low
Promoting First Relationships	Spieker, S. J., Oxford, M. L., & Fleming, C. B. (2014). Permanency outcomes for toddlers in child welfare two years after a randomized trial of a parenting intervention. *Children & Youth Services Review*, *44,* 201–206. doi:10.1016/j.childyouth.2014.06.[a]	RCT	Low
Promoting First Relationships	Spieker, S. J., Oxford, M. L., Kelly, J. F., Nelson, E. M., & Fleming, C. B. (2012). Promoting First Relationships: Randomized trial of a relationship-based intervention for toddlers in child welfare. *Child Maltreatment*, *17*(4), 271–286.[a]	RCT	Low
SafeCare Augmented	Silovsky, J. F., Bard, D., Chaffin, M., Hecht, D., Burris, L., Owora, A., . . . Lutzker, J. (2011). Prevention of child maltreatment in high-risk rural families: A randomized clinical trial with child welfare outcomes. *Children and Youth Services Review*, *33*(8), 1435–1444*.*	RCT	High
SHARE-ACTION	Anand, S. S., Davis, A. D., Ahmed, R., Jacobs, R., Xie, C., Hill, A., . . . Yusuf, S. (2007). A family-based intervention to promote healthy lifestyles in an Aboriginal community in Canada. *Canadian Journal of Public Health. Revue Canadienne de Santé Publique*, *98(*6), 447–452. [a]	RCT	Low
Toddler Overweight and Tooth Decay Prevention Study	Karanja, N., Lutz, T., Ritenbaugh, C., Maupome, G., Jones, J., Becker, T., & Aickin, M. (2010). The TOTS community intervention to prevent overweight in American Indian toddlers beginning at birth: A feasibility and efficacy study. *Journal of Community Health*, *35*(6), 667–675.	RCT	Low

Source: 49 effectiveness studies included in the HomVEE review of home visiting programs implemented in tribal communities.

[a]This citation (shaded in gray) was added to this update.

[b]In the prior update, this unpublished manuscript rated high overall (some outcomes rated high and some rated moderate). The manuscript was published as a journal article (Barlow et al., 2015), and all of the outcomes rated high and most of the outcomes rated moderate were reported in the journal article. Thus Barlow et al., 2015, rates high. This unpublished manuscript is rated based on the outcomes not reported in the journal article. There was one moderate-rated outcome in the unpublished manuscript that was not included in the journal article, thus the study rating was changed to moderate.

QED = quasi-experimental design study; RCT = randomized controlled trial.

Six of the 20 high- or moderate-rated studies that included a tribal population specifically examined the effect of a program model with tribal populations. (The remaining 14 studies had samples that were not 100 percent AIAN and did not report findings separately by ethnicity/tribal community affiliation.) Four high- or moderate-rated studies (Barlow et al., 2013, 2014, 2015; Walkup et al., 2009) investigated Family Spirit and included samples made up entirely of AIAN participants. The Healthy Starts trial[12] (Walker et al., 2015) included in this review received a moderate rating and examined a sample made up entirely of indigenous participants in Australia and New Zealand.[13] One moderate-rated study (Fergusson et al., 2005) examined Early Start (New Zealand). The study sample included parents who identified themselves as members of the indigenous population of New Zealand; these participants constituted 42 percent (or 76 individuals) of the treatment group and 36 percent (or 75 individuals) of the control group. Selected findings were reported for the subgroup of families in which at least one parent identified as a member of the indigenous population of New Zealand.[14] (See Appendix C for descriptions of the home visiting models implemented with tribal populations included in this review.)

Fourteen high- and moderate- rated studies evaluated home visiting models with tribal populations, but none reported findings by ethnicity/tribal community affiliation. After determining the quality of the studies, we examined the impact of high- and moderate-rated studies on AIAN populations by looking for subgroup analyses in the 14 studies with samples that were not 100 percent AIAN. The following models have high- and moderate-rated studies, but the studies do not report findings by ethnicity/tribal community affiliation, so HomVEE could not determine the evidence of effectiveness of the models with AIAN participants.

- **Healthy Families America®/Hawaii Healthy Start:** Five high-rated studies (Bair-Merritt et al., 2010; Duggan, Fuddy, et al., 2004; Duggan, McFarlane, et al., 2004; Duggan, McFarlane et al., 1999, and El-Kamary et al., 2004) and one moderate-rated study (King et al., 2005) examined Healthy Families America/Hawaii Healthy Start. All six studies examined the same sample of participants randomized to Hawaii Healthy Start or a control group. The sample consisted of 33 percent Native Hawaiian or Pacific Islander participants in the treatment group and 34 percent in the control group. **None of the studies reported findings by race or ethnicity, so HomVEE could not determine the evidence of effectiveness of Hawaii Healthy Start with Native Hawaiian or Pacific Islander participants.**
- **Healthy Families America/Healthy Families Alaska:** Two high-rated studies (Caldera et al., 2007; Duggan et al., 2007) and one moderate-rated study (Johns Hopkins University, 2005) examined Healthy Families Alaska, a statewide Healthy Families America program. All three of these studies examined the same sample receiving Healthy Families Alaska. The sample consisted of 23 percent Alaska Native participants in the

[12] This trial is known as Healthy Starts in Australia and Te Piripohotanga in New Zealand. Throughout this report, we will refer to this trial as the Healthy Starts trial.

[13] To respect tribal sovereignty, HomVEE does not name specific tribal communities when summarizing findings. When a study identifies a specific tribal community as participants in the study, HomVEE names the community in tables that reference the study.

[14] Appendix B only includes outcomes for the indigenous population subsample in this study. Outcomes for the full sample are on the HomVEE website in the Early Start report.

treatment group and 20 percent in the control group. **The study findings were not reported by ethnicity, so HomVEE could not determine the evidence of effectiveness of Healthy Families Alaska with Alaska Native participants.**

- **Oklahoma Community-Based Family Resource and Support (CBFRS)**[15]**:** Two moderate-rated studies (Culp et al., 2004, 2007) examined the Oklahoma CBFRS program. These two studies examined the same sample receiving Oklahoma CBFRS. The overall sample consisted of 13 percent AIAN participants. **The study findings were not reported by ethnicity/tribal community affiliation, so HomVEE could not determine the evidence of effectiveness of Oklahoma CBFRS with AIAN participants.**
- **Parents as First Teachers (PAFT-New Zealand)**[16]**:** Two moderate-rated studies (Boyd 1997b; Campbell & Silva, 1997) examined PAFT, an adaptation of the Parents as Teachers (PAT)® program model for implementation in New Zealand. In both studies, at least 10 percent of the sample reported speaking an indigenous language.[17] **Neither study reported the findings by race/ethnicity, so HomVEE could not determine the evidence of effectiveness of PAFT with the indigenous participants.**
- **SafeCare® Augmented:** One high-rated study (Silovsky et al., 2011) examined SafeCare Augmented, a supplemented version of the SafeCare model that included motivational interviewing, as well as training of the home visitors on identification and response to imminent child maltreatment and risk factors of substance abuse, depression, and intimate partner violence. The study sample included American Indian participants; these participants constituted 15 percent (or 7 individuals) of the treatment group and 7 percent (or 4 individuals) of the control group. **The study did not report findings by ethnicity/tribal community affiliation, so HomVEE could not determine the evidence of effectiveness of SafeCare Augmented with American Indian participants.**

2. Evidence of effectiveness of the home visiting models

One home visiting program model included in this review, Family Spirit, met HHS criteria for an "evidence-based early childhood home visiting service delivery model" for the AIAN populations. Four studies of Family Spirit—which included samples made up entirely of AIAN participants (three studies focused on the same sample)—rated high or moderate. All four studies found favorable, statistically significant impacts in three domains (Barlow et al., 2013, 2014, 2015; Walkup et al., 2009). At least one of the findings was sustained at least one year after program enrollment, and results were published in a peer-reviewed journal.

The other six models with high- or moderate-quality effectiveness studies did not meet the HHS criteria for an "evidence-based early childhood home visiting service delivery model" for the AIAN populations for a range of reasons (Table II.4).

[15] Implementation support is not currently available for the model as reviewed.

[16] As of 2016, implementation support is no longer available for PAFT (New Zealand)

[17] The studies did not report on the ethnicity of program participants, but ethnicity was reported in a related report: Livingstone, I. D. (1998). *Parents as First Teachers pilot project: Summary report: Evaluation of pilot project*. Wellington, New Zealand: Ministry of Education.

Table II.4. Reason models did not meet the HHS criteria for an "evidence-based early childhood home visiting service delivery model" for AIAN populations

Reason	Program model
Effects were reported separately for AIAN subgroup, but the findings have not been replicated in another sample	• Early Start (New Zealand)
Sample was composed entirely of AIAN participants, but there were no statistically significant impacts (nor were impacts sustained for at least one year after program enrollment)	• Healthy Starts trial
Findings were not reported separately for AIAN populations	• Healthy Families America/Hawaii Healthy Start/ Healthy Families Alaska • Oklahoma Community-Based Family Resource and Support • SafeCare Augmented
Findings were not reported separately for AIAN populations and there were no favorable impacts	• Parents as First Teachers (New Zealand)

Source: Models with high or moderate quality effectiveness studies included in the HomVEE tribal review that did not meet the HHS criteria for an "evidence-based early childhood home visiting service delivery model" for AIAN populations

Note: Early Start (New Zealand), Healthy Families America, Oklahoma CBFRS, and SafeCare Augmented meet the HHS criteria for the general review. Parents as First Teachers (New Zealand) does not meet the HHS criteria for either review because no favorable impacts were found.

Detailed information on the effects found in research on the following models is available on the HomVEE website:

- Early Start (New Zealand) (https://homvee.acf.hhs.gov/Model/1/Early-Start--New-Zealand-/38/1
- Family Spirit (https://homvee.acf.hhs.gov/Model/1/Family-Spirit-sup---sup-/60/1)
- Healthy Families America (which includes Hawaii Healthy Start and Healthy Families Alaska) (https://homvee.acf.hhs.gov/Model/1/Healthy-Families-America--HFA--sup---sup-/10/1)
- Oklahoma CBFRS (https://homvee.acf.hhs.gov/Model/1/Oklahoma-s-Community-Based-Family-Resource-and-Support--CBFRS--Program/50/1)
- Parents as First Teachers (PAFT), an adaption of PAT (https://homvee.acf.hhs.gov/Model/1/Parents-as-Teachers--PAT--sup---sup-/16/1)
- SafeCare Augmented (https://homvee.acf.hhs.gov/Model/1/SafeCare-sup---sup-/18/1)

C. Descriptive information about home visiting program models evaluated with tribal populations

Although limited information was available about program impacts in tribal communities, nearly all studies included some information about the home visiting program models being evaluated or documented lessons learned about implementation, and 18 studies focused specifically on implementation. Much of the information HomVEE was able to extract about implementation can help inform tribes, communities, and states about what is needed to implement a given model. For example, how intensive are the services? What skills and educational levels must home visitors have to implement the model? What are the staff training and supervision requirements?

HomVEE gathered descriptive information from the 49 effectiveness studies and 18 stand-alone implementation studies identified through the tribal literature search and screening process. Because the original review in 2010 identified so few studies, HomVEE , in consultation with ACF, decided that the tribal review would include outcomes studies that had been screened out because they had nonrigorous designs (such as pre-post or correlational) but that were otherwise relevant in the implementation review process. As of this update, 9 otherwise relevant studies with ineligible designs were included in the implementation reviews. The reference list includes (1) the studies from which HomVEE extracted descriptive information, (2) the design of each study, and (3) the home visiting model being evaluated. Additional information about the characteristics of effectiveness studies that were rated high or moderate is in Appendix A.

We begin this section by describing the participant outcomes that the 49 effectiveness studies examined and the characteristics of the measures used. We then describe the home visiting program models that were evaluated across the studies.

1. Participant outcomes measures in effectiveness studies identified in tribal review

The effectiveness studies included in this review measured outcomes in multiple domains and used a wide variety of measures to do so (Table II.5 and Appendix B, Tables B.1 to B.8). Commonly, studies measured child health, maternal health, child development and school readiness, and positive parenting practices; few studies included measures of family economic self-sufficiency, child maltreatment, or juvenile delinquency, family violence, and crime; and one study included measures of linkages and referrals.

Outcome measures should be reliable, producing similar results with the same level of accuracy each time they are administered. They should also be valid, accurately representing the construct of interest. The HomVEE review defines measures as either primary or secondary. HomVEE has more confidence in primary measures, which include direct assessments; direct observations; data extracted from medical, school, or administrative records; and parent and teacher reports based on standardized measures.[18] Secondary measures are nonstandardized parent, teacher, or youth self-reports. Across the 20 high- or moderate-rated effectiveness studies included in this review, 36 percent (178) of the measures were primary measures and 64 percent (320) were secondary.

[18] Standardized measures use a uniform set of procedures for administration and scoring and use established scoring norms based on the performance of a norming sample.

Table II.5. Number of participant outcomes measured in studies of home visiting program models evaluated with tribal populations, by domain

	Participant outcomes	
	Primary outcome measures	Secondary outcome measures
Child health	19	39
Maternal health	27	76
Child development and school readiness	63	8
Family economic self-sufficiency	0	37
Linkages and referrals	1	0
Positive parenting practices	43	61
Reductions in child maltreatment	24	79
Reductions in juvenile delinquency, family violence, and crime	1	20

Source: 20 high- or moderate-rated effectiveness studies included in the HomVEE review of home visiting programs implemented in tribal communities.

Note: Table reports an unduplicated count of measures across overlapping samples (so a measure used in multiple studies of the same sample of participants would be counted once). *Primary outcome measures* refers to outcomes measured through direct observation, direct assessment, or administrative data, or to self-reported data collected using a standardized (normed) instrument. *Secondary outcome measures* refers to most self-reported data, excluding self-reports based on a standardized (normed) instrument.

2. Home visiting program model descriptions

To learn about the home visiting program models that were evaluated with tribal populations, HomVEE gathered information about them across a number of topics, including prerequisites for implementation, qualifications and training of staff, and the availability of curricular materials (such as assessments delivered as part of the program). Very few studies included information on all these topics. In the next section, we provide an overview of the home visiting program models in the areas most commonly reported on in the studies.

Target outcome domains. The program models targeted a variety of outcomes (see Box 4 and Table II.6). Some were focused broadly on improving maternal and child outcomes across a number of domains (see Appendix C, Table C.1), as in the following examples:

Box 4. Common target outcomes

Program models commonly focused on outcomes in three domains:

- child health (18 models)
- child development and school readiness (12 models)
- positive parenting practices (15 models)

- Healthy Families America aimed to (1) reduce child maltreatment, (2) increase prenatal care, (3) improve parent-child interactions and school readiness, (4) ensure healthy child development, (5) promote positive parenting, (6) promote family self-sufficiency and decrease dependency on welfare and other social services, (7) increase access to primary care medical services, and (8) increase immunization rates.
- The Baby and Family Child Education (Baby FACE) program, which used the Parents as Teachers' Born to Learn curriculum, was designed to (1) promote pre-literacy experiences for children from birth to age 5 with the support and involvement of their parents and (2) increase parenting skills and knowledge of child development.

Table II.6. Target outcome domains in studies of home visiting program models evaluated with tribal populations

Target outcome domain	Number of program models
Maternal health	7
Child health	18
Child development and school readiness	12
Reductions in child maltreatment	4
Positive parenting practices	15
Family economic self-sufficiency	3
Increased access to services	5
Development of culturally relevant services	4
Other	5

Source: Twenty-nine models identified across 76 studies included in the HomVEE tribal review of home visiting programs implemented in tribal communities.

Other models were narrowly focused on improving outcomes in a specific domain. For example, the perinatal intervention program aimed to encourage earlier entry to prenatal care and change of health risk habits among American Indian women. Other interventions focused specifically on child health, including the Healthy Starts trial, Nurse Family Partnership, Obesity Prevention + Parenting Support, Kheth'Impilo Community-Based Adherence Support, SHARE-ACTION, the Toddler Overweight and Tooth Decay Prevention Study, and the sudden infant death syndrome risk factor program.

In addition to targeting goals related to family and child outcomes, six program models identified other types of goals. One program model, the Home Activity Program for Parents and Youngsters Rural Outreach Project, specifically aimed to increase access to early intervention services among families living in remote, rural areas in Nevada. One program model, the Parent-Child Assistance Program, worked with mothers with substance use disorders in order to reduce the incidence of children born with substance exposure. Four program models—the Baby Basket program, the Family and Child Education program, Family Spirit, and the Indian Family Wellness Project—explicitly described a targeted goal as providing culturally relevant services for American Indian families, in support of the ultimate goal of improving parent and child outcomes.

Service delivery. All home visiting program models used home visits as the primary mode of service delivery, but many program models also included other services (see Box 5 and Table II.7).

Box 5. Other services offered

Seventeen program models included other services, such as parent group meetings and center-based options. One program model included a community-wide component in addition to home visits.

The home visiting program models differed, however, in the frequency of service delivery and the duration of services (Table II.8). Of the studies that included information about program frequency, home visits ranged from weekly to only one over the course of the entire intervention. Most commonly, however, programs offered home visits weekly to monthly. Similarly, the program models varied in duration from 10 weeks to three to five years.

Table II.7. Model components of studies in home visiting programs evaluated with tribal populations

Components	Number of programs
Home visiting only	12
Home visiting plus other services	17

Source: Twenty-nine models identified across 76 studies included in the HomVEE review of home visiting programs implemented in tribal communities.

Target population. The home visiting program models targeted participants based on the age of their children, as well as the presence of specific risk factors. Thirteen of the 29 models began offering services to families at birth or in early infancy and continue to offer services to families with children up to age 2 to 5 years, with two programs offering services up to age 8 (Tables II.8 and II.9)

Eight program models specifically targeted pregnant women, and one targeted women postnatally (Table II.9). One program targeted families with 2- and 3-year-olds, and another targeted families enrolled in Head Start (4- and 5-year-olds). Some program models were available to any family meeting the target age and living in prespecified geographic locations (such as rural reservations). Other program models, however, targeted families with specific risk factors. For example, Obesity Prevention + Parenting Support targeted mothers whose body mass index was over 25. Family Spirit targeted adolescents and young women up to age 19 (another study of the same program included women up to age 22 at conception). Oklahoma CBFRS targeted first-time mothers living in rural counties. The Parent-Child Assistance Program targeted mothers who were either pregnant or less than six months postpartum who self-reported heavy substance use and were ineffectively engaged in community services. The Healthy Starts trial targeted infants living in a household with someone who smokes.

Location of services and types of implementing agencies. The tribal review included studies of program models specifically examined with families and children living in tribal communities and those whose sample included a proportion of AIAN participants (see Box 6 and Tables II.9 and II.10).

Box 6. Proportion of programs models studied with tribal populations

Descriptive information was extracted from 76 studies on 29 program models. Almost 70 percent (20) of these models were examined specifically with families and children living in tribal communities.

Table II.8. Frequency and duration of home visiting program models in studies evaluated with tribal populations

Model name	Frequency and length of home visits	Duration of the program
Attachment and Biobehavioral Catch-up	10 sessions over an unspecified length of time; length not specified	Not specified
Baby Basket program	3 visits; length not specified	Prenatally to age 6 months
Baby Family and Child Education program	2 to 4 times per month (typically weekly or biweekly); 1-hour visits	Prenatally to age 5 years
Early intervention services	Not specified	Not specified
Early Start (New Zealand)	4 levels of service intensity; started with up to 3 hours per week; graduated to 1 hour of contact per 3 months	To age 5 years
Even Start—tribal program	1 home visit per week; 1- to 2-hour visits	Not specified

Model name	Frequency and length of home visits	Duration of the program
Family and Child Education program	Not specified	Not specified
Family Spirit	Studies 1 and 2: 25 home visits over 9 months; 1.5-hour visits. Studies 3, 4, and 5: weekly visits during pregnancy, biweekly visits for the first four months postpartum, monthly between 4 and 12 months postpartum, and bimonthly between 12 and 36 months postpartum.	Studies 1 and 2: 28 weeks' gestation to 6 months postpartum. Studies 3, 4 and 5: less than 32 weeks' gestation to age 3 years
Halls Creek Community Families Program	Not specified	Not specified
Healthy Families America/ Hawaii Healthy Start/Healthy Families Alaska/Healthy Families Arizona	1 home visit per week until the child was 6 months old, then local programs determined the frequency of the visits; 1-hour visits	Prenatally or at birth to age 3 or 5 years
Healthy Starts trial	3 home visits	Birth to month 3
Home Activity Program for Parents and Youngsters Rural Outreach Project	1 home visit per month; length not specified	Not specified
Indian Family Wellness Project	Not specified	Not specified
Inter-Tribal Council of Michigan's Healthy Start project	Not specified	Not specified
Kheth'Impilo Community-Based Adherence Support	Weekly for the first month, then monthly; length not specified; Study 1: After child was stable, visits occurred quarterly; Study 2: If ART clinic visits were delayed, visit frequency increased	Not specified
Nurse Family Partnership	Weekly prenatal visit during first month following enrollment, then every 2 weeks until birth. Postpartum visit frequency not specified.	Prenatally to age 2 years
Obesity Prevention + Parenting Support	Not specified	16 weeks
Oklahoma Community-Based Family Resource and Support Program	Weekly during the first month, then biweekly until birth; weekly during first 3 months, then biweekly; 1-hour visits	Prenatally to age 1 year
Parent-Child Assistance Program	Weekly for 6 weeks and then twice monthly; length of visits is not specified	Birth to age 3
Parent-Child Home Program	2 times per week; 30-minute visits	Age 2 to 3 years
Parents as First Teachers (New Zealand), an adaptation of Parents as Teachers	A minimum of 25 visits over the course of the program; 1-hour visits	Prenatally to age 3 years
Perinatal intervention program	The program offered two home visits: one prenatally and one postpartum; length not specified	Prenatally to age 1 year
Philani Outreach Programme	Study 2: 20-minute to 1-hour visits; Study 4: Recommends 4 antenatal and 4 postnatal home visits, but on average 6 antenatal and 5 postnatal visits were made, with visits lasting 31 minutes each	Studies 1 and 2: 1 year; Study 3: Prenatally to 6 months postpartum

Model name	Frequency and length of home visits	Duration of the program
Promoting First Relationships	Weekly with 10 sessions; 60- to 75-minute visits	10 weeks
SafeCare Augmented	At least weekly home visits; length not specified	About 6 months
SHARE-ACTION	Not specified	Not specified
Sudden infant death syndrome risk factor program	Not specified	Not specified
Toddler Overweight and Tooth Decay Prevention Study	Study 1: 8 clusters of 3 visits each (one of which must be in the home) over a 24-month period; Study 2: 15 visit clusters length not specified	Prenatally to age 2 years
Universal Health Home Visit offered through Families First	The program offered one home visit; length not specified	Visit to occur within 2 weeks of child's birth

Source: Twenty-nine models identified across 76 studies included in the HomVEE review of home visiting programs implemented in tribal communities.

Table II.9. Participants in studies of home visiting program models evaluated with tribal populations

Model name	Study participants
Attachment and Biobehavioral Catch-up	Not specified, but families were referred because of involvement with Child Protective Services.
Baby Basket program	Pregnant indigenous women from the Murri community in Queensland, Australia.
Baby Family and Child Education program	American Indian families with children from birth to age 3 (some sites offered services up to age 5).
Early intervention services	Families with infants and toddlers enrolled in early intervention services and living in the Navajo Nation (in Arizona and New Mexico).
Early Start (New Zealand)	At-risk families with newborn children up to age 5.
Even Start—tribal program	One community targeted families with at least one American Indian parent and at least one American Indian child under age 8; targeted families also exhibited other risk factors, such as low income, low adult literacy, single or teen parent, and chronic unemployment. The other community had two eligibility requirements for families: (1) at least one American Indian child under age 7 and (2) at least one parent that needs adult education.
Family and Child Education program	Study 1: American Indian families with children from birth to age 8 located on rural reservations. Study 2: American Indian families with children from pre-birth to kindergarten located on rural reservations.
Family Spirit	Pregnant American Indian adolescents ages 12 to 19 at conception and at 28 weeks or earlier gestation. One study enrolled women up to age 22. Two studies enrolled participants at 32 weeks or earlier gestation.
Halls Creek Community Families Program	Parents of young Aboriginal families.
Healthy Families America/Healthy Families Arizona/ Healthy Families Alaska/ Hawaii Healthy Start	Families with the following risk factors: single parenthood, low income, childhood history of substance abuse, mental health issues, domestic violence, or parental dysfunction.

Model name	Study participants
Healthy Starts trial	Indigenous Australian and New Zealand Māori mothers with infants from birth to age 5 weeks.
Home Activity Program for Parents and Youngsters Rural Outreach Project	Children from birth through age 2 and their families.
Indian Family Wellness Project	American Indian families enrolled in the Siletz Tribal Head Start Program.
Inter-Tribal Council of Michigan's Healthy Start project	Pregnant American Indian women living in seven tribal locations, and one urban center in Michigan.
Kheth'Impilo Community-Based Adherence Support	Families with children starting antiretroviral treatment for HIV and living in one of four provinces in South Africa.
Nurse Family Partnership	Diverse, multiracial-ethnic first-time mothers.
Obesity Prevention + Parenting Support	American Indian mother-child pairs who met the following criteria: (1) the family had a child between the ages of 9 months and 3 years, (2) the child was walking, (3) the mother had a body mass index over 25, and (4) the mother agreed to keep all treatment appointments.
Oklahoma Community-Based Family Resource and Support Program	First-time mothers living in rural counties.
Parent-Child Assistance Program	Women who were pregnant or no more than six months postpartum who self-reported heavy substance use and were not engaged effectively (or at all) with community services.
Parents as First Teachers (New Zealand), an adaptation of Parents as Teachers	Families with children 0 to age 3 who are at-risk of poor educational outcomes, such as families with low incomes, young mothers, single parents, and parents with limited support, including Māori and Pasifika families, indigenous populations of New Zealand and the Pacific Island nations.
Parent-Child Home Program	Families with children ages 2 and 3 years with multiple risk factors, such as low levels of education, teen parents, low income, isolation, or single-parent households.
Perinatal intervention program	American Indian women of childbearing age.
Philani Outreach Programme	Studies 1 and 2: Any family living in a target neighborhood in Xhosa townships surrounding Cape Town, South Africa, with a child age 5 years or younger and classified as malnourished (defined as weighing less than 2 standard deviations below his or her weight-for-age norm, including all newborns weighing less than 2,500 grams at birth); Study 3: Available to all pregnant women, but specifically targeted pregnant women living with HIV; Study 4: Available to at-risk (living with HIV, a history of alcohol abuse, depression, or previous low birth weight) pregnant women at least 18 years of age; Study 5: Pregnant mothers in South African townships near Cape Town older than age 18.
Promoting First Relationships	Caregivers of toddlers who are experiencing state dependency (with foster care or change in primary caregiver).
SafeCare Augmented	Families with children ages birth to 5 and a history of child maltreatment or risk factors for child maltreatment.

Model name	Study participants
SHARE-ACTION	Aboriginal households from the Six Nations Reserve in Ohsweken, Canada, comprising a male and/or female parent with at least one child living in the same household.
Sudden infant death syndrome risk factor program	Postnatal women from the Aberdeen Area of the Indian Health Service and a community hospital in North Dakota.
Toddler Overweight and Tooth Decay Prevention Study	Expectant mothers and their families from American Indian tribes in the Northwest.
Universal Health Home Visit offered through Families First	Families of all newborn infants in New South Wales, Australia. One of the goals of the programs was to identify and engage vulnerable families, including Aboriginal families.

Source: Twenty-nine models identified across 76 studies included in the HomVEE review of home visiting programs implemented in tribal communities.

The study of one model gave priority to implementing agencies with service areas that included Indian reservations. The studies in this review of Healthy Families America, Healthy Families Alaska, Healthy Families Arizona, and Hawaii Healthy Start; the Nurse Family Partnership; Oklahoma CBFRS; the Parent-Child Assistance Program; and SafeCare Augmented included American Indian participants (but did not specifically target tribal communities). All but 11 models were implemented and evaluated in the United States. Three program models were evaluated in Canada. Two programs, the Philani Outreach Programme and Kheth'Impilo Community-Based Adherence Support, were implemented and evaluated in South Africa. Two programs, Early Start and Parents as First Teachers (an adaptation of Parents as Teachers), were implemented and evaluated in New Zealand. Three programs—the Baby Basket program, the Halls Creek Community Families Program, and Universal Health Home Visit offered through Families First—were implemented in Australia. The Healthy Starts trial was implemented in New Zealand and Australia. Across program models, services were delivered by a range of implementing agencies, such as health providers (including hospitals), social services agencies, elementary schools, and Head Start programs (Table II.10).

Table II.10. Location of services and implementing agency in studies of home visiting program models evaluated with tribal populations

Model name	Location of services	Type of implementing agency
Attachment and Biobehavioral Catch-up	Hawaii	Public and private agencies
Baby Basket program	Queensland, Australia	Apunipima Cape York Health Council
Baby Family and Child Education Program	28 reservations across the United States	Elementary schools
Early intervention services	Navajo Nation in New Mexico and Arizona	Not specified
Early Start (New Zealand)	Christchurch area of New Zealand	Early Start Project Ltd., a charitable nongovernmental organization
Even Start—tribal program	Two communities: one was the Cherokee Nation in Tahlequah, Oklahoma, and the second was the Makah Indian Tribe in Neah Bay, Washington	Community 1: Tribal Services Department of the Cherokee Nation; Community 2: not specified

Model name	Location of services	Type of implementing agency
Family and Child Education program	Reservations across the United States, including locations in Cheyenne River, Chinle, Eastern Navajo, Fort Defiance, Minneapolis, Oklahoma, Pima, Portland, Shiprock, Southern Pueblos	Elementary schools
Family Spirit	Studies 1 and 2: Four American Indian health service catchment areas on the Navajo and White Mountain Apache reservations in New Mexico and Arizona; Studies 3,4, and 5: Four tribal communities across three reservations in Arizona	Not specified
Halls Creek Community Families Program	Kimberly region of western Australia	Health and community agencies
Healthy Families America/Healthy Families Arizona/ Healthy Families Alaska/ Hawaii Healthy Start	Study 1: Walworth County in Wisconsin, Pottawatomie County in Oklahoma, and Las Vegas; Study 2: Arizona; Studies 3, 4, and 5: Alaska; Studies 6 through 17: Hawaii	Not specified
Healthy Starts trial	Darwin, Australia and Auckland, New Zealand	Not specified
Home Activity Program for Parents and Youngsters Rural Outreach Project	Nevada	Nevada Department of Human Resources
Indian Family Wellness Project	Not specified	Head Start programs
Inter-Tribal Council of Michigan's Healthy Start project	Seven tribal locations and one urban center in Michigan	Health and social services providers
Kheth'Impilo Community-Based Adherence Support	Four South African provinces: Western Cape, Eastern Cape, KwaZulu-Natal, and Mpumalanga	Nongovernmental organization supported public antiretroviral treatment clinics
Nurse Family Partnership	Oklahoma	State health department
Obesity Prevention + Parenting Support	St. Regis Mohawk community of Akwesasne located along the St. Lawrence River in northern New York State, and Ontario and Quebec, Canada	St. Regis Mohawk Health Services
Oklahoma Community-Based Family Resource and Support Program	12 rural counties in Oklahoma	Administered by Oklahoma State Department of Health and implemented by county health departments
Parent-Child Assistance Program	Washington State	University of Washington
Parent-Child Home Program	Studies 1 and 2: Western Manitoba, Canada	Studies 1 and 2: Nonprofit organization that provides child and family services
Parents as First Teachers (New Zealand), an adaptation of Parents as Teachers	Locations throughout New Zealand	Administered by the Ministry of Education and implemented by local contracted providers
Perinatal intervention program	Studies 1 and 2: Milwaukee, Wisconsin	Studies 1 and 2: Community health agency
Philani Outreach Programme	Neighborhoods in townships surrounding Cape Town, South Africa	The Philani Child Health & Nutrition Project, an international nongovernmental organization

Model name	Location of services	Type of implementing agency
Promoting First Relationships	Washington State	Local agencies
SafeCare Augmented	A rural county in a southwestern state	Not specified
SHARE-ACTION	Six Nations Reserve, Canada	Not specified
Sudden infant death syndrome risk factor program	The Aberdeen Area of the Indian Health Service and a community hospital in North Dakota	Community hospital
Toddler Overweight and Tooth Decay Prevention Study	American Indian tribes in the Northwest	Not specified
Universal Health Home Visit offered through Families First	New South Wales, Australia	New South Wales Department of Health

Source: Twenty-nine models identified across 76 studies included in the HomVEE review of home visiting program implemented in tribal communities.

Home visitor qualifications and training. The program models frequently employed paraprofessionals and did not set minimum education requirements (Box 7 and Table II.11).

Box 7. Characteristics of home visitors

More than half (17) of the 29 program models did not have education requirements for staff, placing greater value on home visitors who were members of the community being served, had strong interpersonal skills, and had experience with the targeted families.

Five programs required home visitors to have at least a bachelor's degree. Although few home visiting program models set guidelines for minimum education or experience, of those that did describe training requirements, nearly all mandated that home visitors complete preservice and ongoing training (Table II.12), and some required intensive training. For example, home visitors implementing the Baby FACE program participated in a five-day initial training and three-day follow-up. Home visitors implementing the Obesity Prevention + Parenting Support program participated in 120 hours of training, and those implementing Family Spirit participated in more than 80 hours. To support home visitors during service delivery, many programs offered ongoing consultation with program developers to ensure that staff implemented the model consistently over time.

Table II.11. Home visitor qualifications in studies of home visiting program models evaluated with tribal populations

Program name	Education and experience
Attachment and Biobehavioral Catch-up	All but one of the clinicians had a master's degree.
Baby Basket program	Not specified.
Baby Family and Child Education Program	The minimum qualifications for the position of the parent educator included a high school degree or GED diploma, the ability to read and write in English, and working toward a Child Development Associate credential or an associate's degree.
Early intervention services	Not specified.

Program name	Education and experience
Early Start (New Zealand)	Home visitors with educational backgrounds in nursing, social work, early childhood education, teaching, or related fields; home visitors were also required to have an awareness of cultural issues, experience with high-risk families, and evidence of good interpersonal skills and sound judgment.
Even Start—tribal program	At minimum, a high school degree; one community hired home visitors with an associate's degree or higher.
Family and Child Education program	American Indian staff preferred.
Family Spirit	Bilingual American Indian women who had a job history in tribal health and human services, passed a background screening, and had been teen mothers themselves or had a special interest in this population.
The Halls Creek Community Families Program	Not specified.
Healthy Families America/ Healthy Families Arizona/ Healthy Families Alaska/ Hawaii Healthy Start	Specific educational requirements for direct-service staff were not given. Healthy Families America recommended selecting staff based on their personal characteristics; willingness to work in, or experience working with, culturally diverse communities; experience working with families with multiple needs; and ability to maintain boundaries between personal and professional life. Some Hawaii Healthy Start studies referenced home visitors as being trained paraprofessionals with supervisors having obtained their master's degree and having at least three years of clinical and administrative experience in human services or a bachelor's degree with five years of relevant experience.
Healthy Starts trial	Not specified.
Home Activity Program for Parents and Youngsters Rural Outreach Project	Paraprofessionals.
Indian Family Wellness Project	Tribal members.
Inter-Tribal Council of Michigan's Healthy Start project	Not specified
Kheth'Impilo Community-Based Adherence Support	The minimum qualifications for home visitors, called patient advocates, included a high school degree, and fluency in both English and the local language.
Nurse Family Partnership	Home visitors were registered nurses.
Obesity Prevention + Parenting Support	An indigenous peer educator.
Oklahoma Community-Based Family Resource and Support Program	The home visitors had a bachelor's or master's degree in child development or were attending college and had five years of experience working with children and families; the race and ethnicity of the home visitors mirrored the demographics of the counties in which they worked.
Parent-Child Assistance Program	Paraprofessionals.
Parent-Child Home Program	Home visitors had to be able to write well enough to prepare a written report on each home visit and to administer certain assessments; the model developer encouraged sites to hire former program parent-participants and/or community residents as home visitors.

Program name	Education and experience
Parents as First Teachers (New Zealand), an adaptation of Parents as Teachers	Parent educators were required to have a degree in early childhood education or an equivalent qualification, or work experience in education, health or social work.
Perinatal intervention program	Culturally competent staff with knowledge and assessment skills to address infant mortality and a desire to interact with members of the targeted community.
Philani Outreach Programme	The program sought mentor mothers who (1) had children who were thriving, (2) demonstrated strong communication and interpersonal skills, (3) were committed to community service, and (4) showed an organized and disciplined approach to tasks. One study noted that community health workers were women with a 10th- to 12th-grade education and were community role models.
Promoting First Relationships	Home visitors were mental health professionals who were either earning or had already obtained their master's degree.
SafeCare Augmented	Home visitors were required to have completed a bachelor's degree.
SHARE-ACTION	Not specified.
Sudden infant death syndrome risk factor program	Not specified.
Toddler Overweight and Tooth Decay Prevention Study	Community health workers from tribal communities.
Universal Health Home Visit offered through Families First	Child and family health nurses.

Source: Twenty-nine models identified across 76 studies included in the HomVEE review of home visiting programs implemented in tribal communities.

Table II.12. Home visitor training and technical assistance in studies of home visiting program models evaluated with tribal populations

Program name	Training and technical assistance
Attachment and Biobehavioral Catch-up	Home visitors received training around "in-the-moment" coaching.
Baby Basket program	No training is provided to those who deliver the Baby Basket program.
Baby Family and Child Education Program	New Baby FACE staff members were offered a five-day implementation training and a three-day follow-up. Parent educators were offered two or three training conferences a year on implementing the Baby FACE program.
	Parent educators also had access to technical assistance offered by program technical assistance coordinators.
Early Start (New Zealand)	Home visitors underwent four weeks of initial training and received a minimum of 20 hours of in-service training per year; technical assistance was provided by the Ministry of Development and Family and Community Services.
Early intervention services	Not specified.
Even Start—tribal program	Home visitors received a variety of trainings, including training offered by Head Start agencies, regional workshops, and weekly Child Development Associate classes; in one community that used the Parents as Teachers curriculum, home visitors completed Parents as Teachers trainings.
Family and Child Education program	Not specified.

Program name	Training and technical assistance
Family Spirit	The home visitors participated in more than 80 hours of training and were tested to ensure they had mastered lesson content and delivery strategies before service delivery. In two studies, ongoing training occurred bimonthly throughout the study.
The Halls Creek Community Families Program	Home visitors, called peer support workers, received training from a child health nurse on educational topics such as child safety and nutrition as well as client engagement strategies.
Healthy Families America/Healthy Families Arizona/ Healthy Families Alaska/ Hawaii Healthy Start	Home visitors delivering Healthy Families Arizona were required to participate in an annual two-day statewide institute. Problem areas identified through quarterly reports were followed up by targeted training and technical assistance. Hawaii Healthy Start referenced continuing staff training on relevant topics for both home visitors and supervisors. Home visitors receive a five- or six-week core training before enrolling families to their caseload.
Healthy Starts trial	Home visitors received training on motivational interviewing and program delivery.
Home Activity Program for Parents and Youngsters Rural Outreach Project	Training for home visitors included training on project components and program adaptations. Staff at sites that used the Computerized Curriculum participated in hands-on training and were required to generate appropriate Home Activity Packages to demonstrate proficiency with the software. Ongoing technical assistance was available to staff.
Indian Family Wellness Project	Staff attended a nine-month undergraduate-level research methods class for a full day twice a month, taught by the project methodologist.
Inter-Tribal Council of Michigan's Healthy Start project	Not specified.
Kheth'Impilo Community-Based Adherence Support	Home visitors, called patient advocates, participated in training covering HIV and TB infection and treatment, and psychosocial issues affecting adherence to treatment; one study reported that the training was three weeks long.
Nurse Family Partnership	Not specified.
Obesity Prevention + Parenting Support	The peer educator participated in an intensive 120-hour initial in-service education program conducted by the study's principal investigator and a family therapist/parenting consultant from the St. Regis Mohawk tribe. After the initial training, monthly staff development sessions were conducted.
Oklahoma Community-Based Family Resource and Support Program	Home visitors participated in more than 40 hours of preservice training and received ongoing training.
Parent-Child Assistance Program	Home visitors received training but details are not specified.
Parent-Child Home Program	Home visitors were required to participate in a 16-hour training workshop provided by the site coordinator. In-service training for home visitors was provided by site coordinators during weekly supervision meetings.
Parents as First Teachers (New Zealand), an adaptation of Parents as Teachers	Staff received an average of 5.2 days of professional development every six months. Preservice training was not specified.
Perinatal intervention program	Not specified.

Program name	Training and technical assistance
Philani Outreach Programme	Studies 1 and 2: Mentor Mothers received four phases of training: (1) observing experienced mentor mothers, (2) attending a month of training, (3) learning how to help mothers bond with their children and improve the consistency of healthy daily routines, and (4) implementing their first round of home visits independently in their neighborhoods; Studies 3, 4, and 5: Home visitors participated in a month long training. Two of these studies noted trainings were related to cognitive-behavioral change strategies and role planning. Supervisors provided monthly in-service trainings.
Promoting First Relationships	Community providers of mental health services received training that involved 90 hours over six months. This included a three-day workshop, observations of home visits, shadowing, understanding the model curriculum, and weekly reflection groups.
SafeCare Augmented	Home visitors were required to complete a five-day workshop delivered by the National SafeCare Training and Research Center. Home visitors were also trained in basic motivational interviewing and domestic violence safety training
SHARE-ACTION	Aboriginal health counselors were trained to assess and set dietary and physical activity goals for each household member.
Sudden infant death syndrome risk factor program	Not specified.
Toddler Overweight and Tooth Decay Prevention Study	Study 1: Community health workers received training in the delivery of one-to-one counseling to reduce sugar-sweetened beverage consumption and promote water consumption, using principles of home visiting and outreach, behavior change, and motivational enhancement. Study 2: Not specified.
Universal Health Home Visit offered through Families First	Not specified.

Source: Twenty-nine models identified across 76 studies included in the HomVEE review of home visiting programs implemented in tribal communities.

III. STUDIES CONSULTED FOR HOMVEE TRIBAL REVIEW

Citation	Study design	Program name
Anand, S. S., Davis, A. D., Ahmed, R., Jacobs, R., Xie, C., Hill, A., . . . Yusuf, S. (2007). A family-based intervention to promote healthy lifestyles in an Aboriginal community in Canada. *Canadian Journal of Public Health. Revue Canadienne de Santé Publique*, *98*(6), 447–452.	RCT	SHARE-ACTION
Bailey, D., Applequist, K., & North, C. U. (1997). *Parent perceptions of home visitors: A comparative study of parents who are American Indian and non-Indian parents.* Washington, DC: U.S. Department of Education.	Correlational	Early intervention services
Bair-Merritt, M. H., Jennings, J. M., Chen, R., Burrell, L., McFarlane, E., Fuddy, L., & Duggan, A. K. (2010). Reducing maternal intimate partner violence after the birth of a child: A randomized controlled trial of the Hawaii Healthy Start home visitation program. *Journal of the American Medical Association*, *164*(1), 16–23.[a]	RCT	Healthy Families America/Hawaii Healthy Start
Barlow, A., Mullany, B., Neault, N., Billy, T., Hastings, R., Lorenzo, S., . . . Walkup, J. T. (2014). A randomized controlled trial of a paraprofessional delivered, home-visiting intervention: Three-year outcomes for American Indian teen mothers and their children. Manuscript in submission.	RCT	Family Spirit
Barlow, A., Mullany, B., Neault, N., Compton, S., Carter, A., Hastings, R., . . . Walkup, J. (2013). Effect of a paraprofessional home visiting intervention on American Indian teen mothers' and infants' behavioral risks: A randomized controlled trial. *American Journal of Psychiatry*, *170*(1), 83–93.	RCT	Family Spirit
Barlow, A., Mullany, B., Neault, N., Goklish, N., Billy, T., Hastings, R., . . . Walkup, J. T. (2015). Paraprofessional-delivered home-visiting intervention for American Indian teen mothers and children: 3-Year Outcomes From a randomized controlled trial. *American Journal of Psychiatry*, *172*(2), 154–162.[a]	RCT	Family Spirit
Barlow, A., Varipatis-Baker, E., Speakman, K., Ginsburg, G., Friberg, I., Goklish, N., . . . Walkup, J. (2006). Home-visiting intervention to improve child care among American Indian adolescent mothers: A randomized trial. *Archives of Pediatrics & Adolescent Medicine*, *160*(11), 1101–1107.	RCT	Family Spirit
Boyd, A. (1997a). *Parents as First Teachers pilot project evaluation (PAFT): Report on South Auckland area.* Wellington, New Zealand: Ministry of Education.	RCT	Parents as First Teachers (New Zealand); an adaptation of Parents as Teachers
Boyd, A. (1997b). *Parents as First Teachers pilot project evaluation (PAFT): Report on Whangarei region: Final complete draft.* Wellington, New Zealand: Ministry of Education.	RCT	Parents as First Teachers (New Zealand); an adaptation of Parents as Teachers
Burd, L., Peterson, M., Face, G. C., Face, F. C., Shervold, D., & Klug, M. G. (2007). Efficacy of a SIDS risk factor education methodology at a Native American and Caucasian site. *Maternal & Child Health Journal*, *11*(4), 365–371.	Pre-post	Sudden infant death syndrome risk factor education program

Citation	Study design	Program name
Caldera, D., Burrell, L., Rodriguez, K., Crowne, S. S., Rohde, C., & Duggan, A. (2007). Impact of a statewide home visiting program on parenting and on child health and development. *Child Abuse & Neglect*, *31*(8), 829–852.	RCT	Healthy Families America/ Healthy Families Alaska
Campbell, K. I., & Silva, P. A. (1997). *Parents as First Teachers pilot programme evaluation: Age three assessments. Final report to the Ministry of Education on the Dunedin and Gisborne/East Coast areas.* Wellington, New Zealand: Ministry of Education.	RCT	Parents as First Teachers (New Zealand); an adaptation of Parents as Teachers
Caron, E., Bernard, K., & Dozier, M. (2015). *In vivo feedback predicts parent behavior change in the Attachment and Biobehavioral Catch-up intervention*. Unpublished manuscript.[a]	Correlational	Attachment and Biobehavioral Catch-up
Coughlin, R. L., Kushman, E., Copeland, G., & Wilson, M. L. (2010). *Pregnancy and birth outcome improvements for American Indians in the Healthy Start project of the Inter-Tribal Council of Michigan, 1998–2008: An 11-year cohort study.* Unpublished manuscript.	QED	Inter-Tribal Council of Michigan's Healthy Start project
Culp, A. M., Culp, R. E., Anderson, J. W., & Carter, S. (2007). Health and safety intervention with first-time mothers. *Health Education Research*, *22*(2), 285–294.	QED	Oklahoma Community-Based Family Resource and Support Program
Culp, A. M., Culp, R. E., Hechtner-Galvin, T., Howell, C. S., Saathoff-Wells, T., & Marr, P. (2004). First-time mothers in home visitation services utilizing child development specialists. *Infant Mental Health Journal*, *25*(1), 1–15. doi:10.1002/imhj.10086.	QED	Oklahoma Community-Based Family Resource and Support Program
Daro, D., McCurdy, K., & Harding, K. (1998). *The role of home visitation in preventing child abuse: An evaluation of the Hawaii Healthy Start project*. Unpublished manuscript.[a]	RCT	Healthy Families America/Hawaii Healthy Start
Davis, C. L., & Prater, S. L. (2001). A perinatal intervention program for urban American Indians part 1: Design, implementation, and outcomes. *Journal of Perinatal Education: An ASPO/Lamaze Publication*, *10*(3), 9–19.	Implementation	Perinatal intervention program
Dew, B., & Breakey, G. (2004). *Can a modest intervention prevent a major problem? Evidence from a child abuse prevention program*. Unpublished manuscript.[a]	QED	Healthy Families America/Hawaii Healthy Start
Duggan, A., Caldera, D., Rodriguez, K., Burrell, L., Rohde, C., & Crowne, S. S. (2007). Impact of a statewide home visiting program to prevent child abuse. *Child Abuse & Neglect*, *31*(8), 801–827.	RCT	Healthy Families America/ Healthy Families Alaska
Duggan, A., Fuddy, L., Burrell, L., Higman, S. M., McFarlane, E., Windham, A., et al. (2004). Randomized trial of a statewide home visiting program to prevent child abuse: Impact in reducing parental risk factors. *Child Abuse & Neglect*, *28*(6), 623–643.[a]	RCT	Healthy Families America/Hawaii Healthy Start
Duggan, A., McFarlane, E., Fuddy, L., Burrell, L., Higman, S. M., Windham, A., & Sia, C. (2004). Randomized trial of a statewide home visiting program: Impact in preventing child abuse and neglect. *Child Abuse & Neglect*, *28*(6), 597–622.[a]	RCT	Healthy Families America/Hawaii Healthy Start
Duggan, A. K., McFarlane, E. C., Windham, A. M., Rohde, C. A., Salkever, D. S., Fuddy, L., . . . Sia, C. C. (1999). Evaluation of Hawaii's Healthy Start program. *Future of Children*, *9*(1), 66–90; discussion 177–178.[a]	RCT	Healthy Families America/Hawaii Healthy Start

Citation	Study design	Program name
Duggan, A., Windham, A., McFarlane, E., Fuddy, L., Rohde, C., Buchbinder, S., . . . Sia, C. (2000). Hawaii's Healthy Start program of home visiting for at-risk families: Evaluation of family identification, family engagement, and service delivery. *Pediatrics*, *105*(1, Pt. 3), 250–259.[a]	Correlational	Healthy Families America/Hawaii Healthy Start
Durning, P. (1997). *Parents as First Teachers [Ko Nga Matua Hei Kaiako Tuatahi]: Pilot PAFT process report*. Wellington, New Zealand: Royal New Zealand Plunket Society.	Implementation	Parents as First Teachers (New Zealand); an adaptation of Parents as Teachers
El-Kamary, S. S., Higman, S. M., Fuddy, L., McFarlane, E., Sia, C., & Duggan, A. K. (2004). Hawaii's Healthy Start home visiting program: Determinants and impact of rapid repeat birth. *Pediatrics*, *114*(3), e317–e326.[a]	RCT	Healthy Families America/Hawaii Healthy Start
Ernst, C. C., Grant, T. M., Streissguth, A. P., & Sampson, P. D. (1999). Intervention with high-risk alcohol and drug-abusing mothers: II. Three-year findings from the Seattle model of paraprofessional advocacy. *Journal of Community Psychology*, *27*(1), 19–38.[a]	QED	Parent-Child Assistance Program (aka Seattle Birth to 3)
Farquhar, S. (2003). *Parents as First Teachers: A study of the New Zealand PAFT programme.* Wellington, New Zealand: ChildForum Research.	Implementation	Parents as First Teachers (New Zealand); an adaptation of Parents as Teachers
Fatti, G., Shaikh, N., Eley, B., & Grimwood, A. (2013). Improved virological suppression in children on antiretroviral treatment receiving community-based adherence support: A multicentre cohort study from South Africa. *AIDS Care*. Advance online publication.	QED	Kheth'Impilo Community-Based Adherence Support
Feres-Lewin, C. (2000). *An analysis of the governance and administrative elements of a public-private partnership approach to community-based education.* (Doctoral Dissertation, University of Nevada, Las Vegas, 2000; 0506 Advisor: Chair Teresa S. Jordan). *Dissertation Abstracts International*, *61* (05A), 247–1689.	Implementation	Healthy Families America
Fergusson, D. M., Horwood, L. J., Grant, H., & Ridder, E. M. (2005). *Early Start evaluation report*. Christchurch, New Zealand: Early Start Project Ltd.	RCT	Early Start (New Zealand)
Fisher, P. A., & Ball, T. J. (2002). The Indian Family Wellness Project: An application of the tribal participatory research model. *Prevention Science*, *3*(3), 235–240.	Implementation	Indian Family Wellness Project
Gfellner, B. M., McLaren, L., & Metcalfe, A. (2008). The Parent-Child Home Program in Western Manitoba: A 20-year evaluation. *Child Welfare*, *87*(5), 49–67.	Implementation	Parent Child Home Program
Grant, T. M., Ernst, C. C., Streissguth, A., & Stark, K. (2005). Preventing alcohol and drug exposed births in Washington state: Intervention findings from three Parent-Child Assistance Program sites. *American Journal of Drug & Alcohol Abuse*, *31*(3), 471–490.[a]	Implementation	Parent-Child Assistance Program (aka Seattle Birth to 3)
Grant, T., Christopher Graham, J., Ernst, C. C., Michelle Peavy, K., & Brown, N. N. (2014). Improving pregnancy outcomes among high-risk mothers who abuse alcohol and drugs: Factors associated with subsequent exposed births. *Children and Youth Services Review*, *46*, 11–18.[a]	Correlational	Parent-Child Assistance Program (aka Seattle Birth to 3)

Citation	Study design	Program name
Grant, T., Huggins, J., Graham, C., Ernst, C., Whitney, N., & Wilson, D. (2011). Maternal substance abuse and disrupted parenting: Distinguishing mothers who keep their children from those who do not. *Children and Youth Services Review*, *33*(11), 2176–2185.[a]	Correlational	Parent-Child Assistance Program (aka Seattle Birth to 3)
Grimwood, A., Fatti, G., Mothibi, E., Malahlela, M., Shea, J., & Eley, B. (2012). Community adherence support improves programme retention in children on antiretroviral treatment: A multicentre cohort study in South Africa. *Journal of the International AIDS Society*, *15*(2), 17381.	QED	Kheth'Impilo Community-Based Adherence Support
Harvey Berino, J., & Rourke, J. (2003). Obesity prevention in preschool Native-American children: A pilot study using home visiting. *Obesity Research*, *11*(5), 606–611.	RCT	Obesity Prevention + Parenting Support
Johns Hopkins University. (2005). *Evaluation of the Healthy Families Alaska program*. Report to Alaska State Department of Health and Social Services, Alaska Mental Health Trust Authority. Baltimore, MD: Author.	RCT	Healthy Families America/ Healthy Families Alaska
Jones, B. (2015). *Association of home visiting dosage on preterm birth in Oklahoma* (Doctoral dissertation). *ProQuest Dissertations and Theses.* (1728035306)[a]	Correlational	Nurse Family Partnership
Karanja, N., Aickin, M., Lutz, T., Mist, S., Jobe, J. B., Maupome, G., & Ritenbaugh, C. (2012). A community-based intervention to prevent obesity beginning at birth among American Indian children: Study design and rationale for the PTOTS study. *Journal of Primary Prevention*, *33*(4), 161–174.[b]	Implementation	Toddler Overweight and Tooth Decay Prevention Study
Karanja, N., Lutz, T., Ritenbaugh, C., Maupome, G., Jones, J., Becker, T., & Aickin, M. (2010). The TOTS community intervention to prevent overweight in American Indian toddlers beginning at birth: A feasibility and efficacy study. *Journal of Community Health*, *35*(6), 667–675.	RCT	Toddler Overweight and Tooth Decay Prevention Study
Kartin, D., Grant, T. M., Streissguth, A. P., Sampson, P. D., & Ernst, C. C. (2002). Three-year developmental outcomes in children with prenatal alcohol and drug exposure. *Pediatric Physical Therapy*, *14*(3), 145–153.[a]	QED	Parent-Child Assistance Program (aka Seattle Birth to 3)
King, T. M., Rosenberg, L. A., Fuddy, L., McFarlane, E., Sia, C., & Duggan, A. K. (2005). Prevalence and early identification of language delays among at-risk three year olds. *Journal of Developmental & Behavioral Pediatrics*, *26*(4), 293–303.[a]	RCT	Healthy Families America/Hawaii Healthy Start
Krysik, J., & LeCroy, C. W. (2007). The evaluation of Healthy Families Arizona: A multisite home visitation program. *Journal of Prevention & Intervention in the Community*, *34*(1), 109–127.	QED	Healthy Families America/ Healthy Families Arizona
Lambson, T., Yarnell, V., & Pfannenstiel, J. (2006). *BIA Baby FACE program evaluation study: 2005 report.* Overland Park, KS: Research and Training Associates, Inc.	Implementation	Baby Family and Child Education program
le Roux, I. M., le Roux, K., Comulada, W. S., Greco, E. M., Desmond, K. A., Mbewu, N., & Rotheram-Borus, M. J. (2010). Home visits by neighborhood mentor mothers provide timely recovery from childhood malnutrition in South Africa: Results from a randomized controlled trial. *Nutrition Journal*, *9*(56).	RCT	Philani Outreach Programme

Citation	Study design	Program name
le Roux, I. M., le Roux, K., Mbeutu, K., Comulada, W. S., Desmond, K. A., & Rotheram-Borus, M. (2011). A randomized controlled trial of home visits by neighborhood mentor mothers to improve children's nutrition in South Africa. *Vulnerable Children & Youth Studies*, *6*(2), 91–102.	RCT	Philani Outreach Programme
Le Roux, I. M., Rotheram-Borus, M., Stein, J., & Tomlinson, M. (2014). The impact of paraprofessional home visitors on infants' growth and health at 18 months. *Vulnerable Children and Youth Studies*, *9*(4), 291–304.[a]	RCT	Philani Outreach Programme
le Roux, I. M., Tomlinson, M., Harwood, J. M., O'Connor, M. J., Worthman, C. M., Mbewu, N., . . . Rotheram-Borus, M. J. (2013). Outcomes of home visits for pregnant mothers and their infants in South Africa: A cluster randomized controlled trial. *AIDS*, *27*(9), 1461–1471.	RCT	Philani Outreach Programme
Levin, M., Moss, M., Swartz, J., Khan, S., & Tarr, H. (1997). *National evaluation of the Even Start Family Literacy program: Report on Even Start projects for Indian tribes and tribal organizations.* Bethesda, MD: Abt Associates and Fu Associates.	Implementation	Even Start
Livingstone, I. D. (1999). *Parents as First Teachers: Supplement to the summary report of the evaluation of the pilot project: Report to the Ministry of Education on consolidated cross-site analysis*. Wellington, New Zealand: Ministry of Education.	RCT	Parents as First Teachers (New Zealand); an adaptation of Parents as Teachers
McCalman, J., Searles, A., Bainbridge, R., Ham, R., Mein, J., Neville, J., Campbell, S., & Tsey, K. (2015). Empowering families by engaging and relating Murri way: a grounded theory study of the implementation of the Cape York Baby Basket program. *BMC Pregnancy & Childbirth*, *15*(1), 1.[a]	Implementation	Baby Basket program
McCalman, J., Searles, A., Edmunds, K., Jongens, C., Wargent, R., Bainbridge, R., . . . Doran, C. (2014). Evaluating the Baby Basket program in North Queensland: As delivered by Apunipima Cape York Health Council, 2009 to 2013, qualitative and quantitative evaluation. Victoria, Australia: Lowitja Institute.[a]	QED	Baby Basket program
McCurdy, K. (2001). Can home visitation enhance maternal social support? *American Journal of Community Psychology*, *29*(1), 97–112.[a]	RCT	Healthy Families America/Hawaii Healthy Start
McCurdy, K. (2005). The influence of support and stress on maternal attitudes. *Child Abuse & Neglect*, *29*(3), 251–268.[a]	RCT	Healthy Families America/Hawaii Healthy Start
McFarlane, E., Burrell, L., Crowne, S., Cluxton-Keller, F., Fuddy, L., Leaf, P., & Duggan, A. (2013). Maternal relationship security as a moderator of home visiting impacts on maternal psychosocial functioning. *Prevention Science*, *14*(1), 25–39.[a]	RCT	Healthy Families America/Hawaii Healthy Start
McLaren, L. (1988). Fostering mother-child relationships. *Child Welfare*, *67*(4), 353–365.	Pre-post	Parent-Child Home Program
Mills, R. M., Siever, J. E., Hicks, M., Badry, D., Tough, S. C., & Benzies, K. (2009). Child guardianship in a Canadian home visitation program for women who use substances in the perinatal period. *Canadian Journal of Clinical Pharmacology/Journal Canadien De Pharmacologie Clinique*, *16*(1), e126–139.[a]	Correlational	Parent-Child Assistance Program aka Seattle Birth to 3)

Citation	Study design	Program name
Munns, A., & Walker, R. (2015). The Halls Creek Community Families Program: Elements of the role of the child health nurse in development of a remote Aboriginal home visiting peer support program for families in the early years. *Australian Journal of Rural Health*, *23*(6), 322–326.[a]	Implementation	The Halls Creek Community Families Program
Nelson, E. M., & Spieker, S. J. (2013). Intervention effects on morning and stimulated cortisol responses among toddlers in foster care. *Infant Mental Health Journal*, *34*(3), 211–221.[a]	QED	Promoting First Relationships
Nevada State Department of Human Resources, Early Childhood Services. (1997). *HAPPY Rural Outreach Project. Final report.* Reno, NV: Author.	Implementation	Home Activity Program for Parents and Youngsters Rural Outreach Project
Pfannenstiel, J., & Lente-Jojola, D. (2011). The Family and Child Education (FACE) program and school readiness: A structural model approach in an American Indian reservation context. *Journal of American Indian Education*, *50*(2), 84–96.	QED	Family and Child Education program
Pfannenstiel, J., Yarnell, V., & Seltzer, D. (2006). *Family and Child Education program (FACE): Impact study report.* Overland Park, KS: Research & Training Associates, Inc.	QED	Family and Child Education program
Praat, A. (2011). *Parents as First Teachers evaluation: Phase II report*. Wellington, New Zealand: Centre for Social Research and Evaluation.	QED	Parents as First Teachers (New Zealand); an adaptation of Parents as Teachers
Praat, A., Davie, S., & McGray, S. (2010). *Parents as First Teachers evaluation: Phase one report*. Wellington, New Zealand: Centre for Social Research and Evaluation.	Implementation	Parents as First Teachers (New Zealand); an adaptation of Parents as Teachers
Prater, S. L., & Davis, C. L. (2002). A perinatal intervention program for urban American Indians: Part 2: The story of a program and its implications for practice. *Journal of Perinatal Education*, *11*(2), 23–32.	Implementation	Perinatal intervention program
Rotheram-Borus, M., Tomlinson, M., le Roux, I. M., Harwood, J. M., Comulada, S., O'Connor, M. J., . . . Worthman, C. M. (2014). A cluster randomised controlled effectiveness trial evaluating perinatal home visiting among South African mothers/infants. *PLOS ONE 9*(1): e105934.[a]	RCT	Philani Outreach Programme
Shaw, M. R., Grant, T., Barbosa-Leiker, C., Fleming, S. E., Henley, S., & Graham, J. C. (2015). Intervention with substance-abusing mothers: Are there rural-urban differences? *American Journal on Addictions*, *24*(2), 144–152.[a]	Implementation	Parent-Child Assistance Program (aka Seattle Birth to 3)
Silovsky, J. F., Bard, D., Chaffin, M., Hecht, D., Burris, L., Owora, A., . . . Lutzker, J. (2011). Prevention of child maltreatment in high-risk rural families: A randomized clinical trial with child welfare outcomes. *Children and Youth Services Review*, *33*(8), 1435–1444.	RCT	SafeCare Augmented
Spieker, S. J., Oxford, M. L., & Fleming, C. B. (2014). Permanency outcomes for toddlers in child welfare two years after a randomized trial of a parenting intervention. *Children & Youth Services Review, 44*, 201–206. doi:10.1016/j.childyouth.2014.06.[a]	RCT	Promoting First Relationships

Citation	Study design	Program name
Spieker, S. J., Oxford, M. L., Kelly, J. F., Nelson, E. M., & Fleming, C. B. (2012). Promoting First Relationships: Randomized trial of a relationship-based intervention for toddlers in child welfare. *Child Maltreatment*, *17*(4), 271–286.[a]	RCT	Promoting First Relationships
Walker, N., Johnston, V., Glover, M., Bullen, C., Trenholme, A., Chang, A., . . . Thomas, D. (2015). Effect of a family-centered, secondhand smoke intervention to reduce respiratory illness in indigenous infants in Australia and New Zealand: A randomized controlled trial. *Nicotine & Tobacco Research*, *17*(1), 48–57.[a]	RCT	Healthy Starts trial
Walkup, J. T., Barlow, A., Mullany, B. C., Pan, W., Goklish, N., Hasting, R., . . . Reid, R. (2009). Randomized controlled trial of a paraprofessional-delivered in-home intervention for young reservation-based American Indian mothers. *Journal of the American Academy of Child & Adolescent Psychiatry*, *48*(6), 591–601.	RCT	Family Spirit
Widdup, J., Comino, E. J., Webster, V., & Knight, J. (2012). Universal for whom? Evaluating an urban Aboriginal population's access to a mainstream universal health home visiting program. *Australian Health Review*, *36*(1), 27–33.	Implementation	Universal Health Home Visit offered through Families First
Yarnell, V., Lambson, T., & Pfannenstiel, J. C. (2008). *BIE Family and Child Education Program.* Overland Park, KS: Research & Training Associates, Inc.	Implementation	Family and Child Education program

[a]This citation (shaded in gray) was added to this update.

[b]This study describes an enhancement to the Toddler Overweight and Tooth Decay Prevention Study intervention that includes additional nutrition and physical activity components.

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APPENDIX A

STUDY CHARACTERISTICS FOR HIGH- AND MODERATE-RATED EFFECTIVENESS STUDIES IN THE HOMVEE TRIBAL REVIEW

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Citation	Bair-Merritt, M. H., Jennings, J. M., Chen, R., Burrell, L., McFarlane, E., Fuddy, L., et al. (2010). Reducing maternal intimate partner violence after the birth of a child: A randomized controlled trial of the Hawaii Healthy Start home visitation program. *Journal of the American Medical Association, 164*(1), 16–23.
Study Characteristics	
Study participants	Families were recruited to the study from November 1994 to December 1995. Hawaii Healthy Start Program staff screened the medical records of mothers from one of four Oahu communities delivering children at Kapiolani Maternity Hospital for risk factors for child abuse and neglect. Mothers found to be at risk, or those whose records did not contain sufficient information to screen out, were screened further using the Kempe Family Stress Checklist; eligible families were those in which either parent scored 25 or greater. Of the 897 families who were eligible to participate in the study, 730 (81 percent) agreed to participate and were randomly assigned to the program group (n = 395), the main comparison group (n = 290), or a testing comparison group (n = 45). This study includes data from all three follow-up years of the Hawaii Healthy Start randomized controlled trial. Specifically, the sample includes 373 families from the program group and 270 families from the main comparison group. At baseline, 24 percent of program group and 21 percent of comparison group mothers were age 18 or younger, 45 percent of program group and 48 percent of comparison group mothers were ages 19 to 25, and 31 percent of mothers in both groups were age 26 or older. Sixty-four percent of program group mothers and 69 percent of comparison group mothers were high school graduates. The racial composition of the program group was 34 percent Native Hawaiian or Pacific Islander, 28 percent Asian or Filipino, 10 percent Caucasian, and 28 percent of unknown primary ethnicity. The comparison group consisted of 33 percent Native Hawaiian or Pacific Islander, 28 percent Asian or Filipino, 13 percent Caucasian, and 26 percent of unknown primary ethnicity.
Setting	Six Healthy Start Program sites operated by three community-based organizations in Oahu, Hawaii.
Home visiting services	Home visiting services were designed to provide three to five years of home visiting, with weekly visits for most or all of the child's first year of life, and visits of gradually decreasing frequency thereafter depending on family need. Home visitors endeavored to establish trusting relationships with families, help them resolve immediate crises, and help them build on existing strengths to improve their ability to function independently. Visitors helped families develop problem-solving skills, connected them to needed services, and aimed to develop an individual service plan with each family every six months and help the family reach six-month goals. The actual frequency of visits, however, was lower than that specified by the model, with families receiving an average of 13 visits in the child's first year of life (Duggan et al., 1999). Family participation rates declined over time, with 90 percent participating when the child was 3 months of age, 70 percent at 6 months, 49 percent at 12 months, and 25 percent when the child was 36 months old.
Comparison condition	The main comparison group was tested annually to measure outcomes. A second "testing" comparison group was evaluated only at year 3 to ascertain the effect of repeated testing on observed outcomes (Duggan et al., 2004).

Funding source	The parent study, evaluation of the Hawaii Healthy Start Program, was supported by grants R40 MC 00029 and R40 MC 00123 from the Federal Maternal and Child Health Bureau; the Robert Wood Johnson Foundation; the Annie E. Casey Foundation; the David and Lucile Packard Foundation; the Hawaii State Department of Health; and grant P30MH38725 from the National Institutes of Health. Dr. Bair-Merritt is funded in part by Career Development Award K23HD057180 sponsored by the National Institute of Child Health and Human Development.
Author affiliation	None of the study authors are developers of this program model.

Citation	Barlow, A., Mullany, B., Neault, N., Billy, T., Hastings, R., Lorenzo, S., Kee, C., Lake, K., Redmond, C., Carter, A., & Walkup, J. T. (2014). *A randomized controlled trial of a paraprofessional delivered, home-visiting intervention: Three-year outcomes for American Indian teen mothers and their children*. Manuscript in submission.
Study Characteristics	
Study participants	American Indian adolescent females ages 12 to 19 years at conception and at 32 weeks or earlier gestation who resided in one of four participating communities were recruited. The study sample included 322 participants who were randomly assigned to either the Family Spirit group (159) or the control group (163). The average age of participants at baseline was 18.1 years. Sixty percent lived with their parents and slightly more than half lived in two or more homes within the past year. Seventy-seven percent of participants were pregnant with their first child. During pregnancy, 14 percent of participants drank alcohol, 19 percent smoked cigarettes, and 13 percent used marijuana.
Setting	The program was implemented in four tribal communities across three reservations in Arizona.
Home visiting services	Family Spirit is a home visiting program for young American Indian pregnant and parenting mothers staffed by American Indian paraprofessionals. The program's goals are to increase mothers' parenting knowledge and involvement, mothers' psychosocial functioning, and children's emotional and behavioral outcomes. The curriculum includes 43 lessons that cover parenting skills, infant development, and maternal psychosocial development. The frequency of the visits depends upon the stage of the program. One-hour home visits are provided weekly during pregnancy, biweekly visits for the first four months following the child's birth, monthly from 4 to 14 months postpartum, and then bimonthly until the child's third birthday. The study did not specify the dosage of services that program participants actually received.
Comparison condition	Participants in the control group received transportation to and from prenatal and well-baby visits, information on child care and community resources, and referrals for services.
Funding source	Support for this research was provided by the National Institute on Drug Abuse.
Author affiliation	Ms. Barlow is part of the team that developed this program model. Dr. Walkup was affiliated with the Center for American Indian Health at the Johns Hopkins Bloomberg School of Public Health, where the team that developed this program model is based.

Citation	Barlow, A., Mullany, B., Neault, N., Compton, S., Carter, A., Hastings, R., Billy, T., Coho-Mescal, V., Lorenzo, S., & Walkup, J. (2013). Effect of a paraprofessional home visiting intervention on American Indian teen mothers' and infants behavioral risks: A randomized controlled trial. *American Journal of Psychiatry*, *170*(1), 83–93.
Study Characteristics	
Study participants	Expectant American Indian adolescents ages 12 to 19 years at conception and at 28 weeks' or earlier gestation who resided in one of four participating communities were potentially eligible for participation. To increase recruitment, the eligibility criteria were expanded to include a gestational period of 32 weeks or earlier. The study sample included 322 participants who were randomly assigned to either the Family Spirit group (159) or the control group (163). The average age of participants at baseline was 18.1 years. Sixty percent lived with their parents and slightly more than half lived in two or more homes within the past year. Seventy-seven percent of participants were pregnant with their first child. During pregnancy, 14 percent of participants drank alcohol, 19 percent smoked cigarettes, and 13 percent used marijuana.
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Funding source	Support for this research was provided by the National Institute on Drug Abuse.
Author affiliation	Ms. Barlow is part of the team that developed this program model. Dr. Walkup was affiliated with the Center for American Indian Health at the Johns Hopkins Bloomberg School of Public Health, where the team that developed this program model is based.

Citation	Barlow, A., Mullany, B., Neault, N., Goklish, N., Billy, T., Hastings, R., Lorenzo, S., Kee, C., Lake, K., Redmond, C., Carter, A., & Walkup, J. T. (2015). Paraprofessional-delivered home-visiting intervention for American Indian teen mothers and children: 3-year outcomes from a randomized controlled trial. *American Journal of Psychiatry, 172*(2), 154–162.
Study Characteristics	
Study participants	From 2006 to 2008, expectant women who were at less than or equal to 32 weeks gestation, age 12-19 at conception, self-identified as American Indian, and resided in one of the four participating reservation communities were recruited into the study. Eligible participants were randomized by site, age, and history of previous live births. The sample consisted of 322 women, 159 in the treatment group and 163 in the control group. Note that the study does not use a consistent analytic sample across different outcomes. The sample sizes shown here are relevant for maternal outcomes only, the sample sizes for child outcomes differ.
Setting	Four southwestern reservation communities.
Home visiting services	The Family Spirit intervention consisted of 43 lessons delivered by Native American paraprofessionals from within participating communities. The lessons focused on parenting skills and maternal behavioral and psychosocial risks. The lessons were conducted in each participant's home and the visits lasted approximately one hour each. The visits occurred weekly through pregnancy, biweekly until 4 months postpartum, monthly between 4-12 months postpartum, and bimonthly between 12-36 months postpartum.
Comparison condition	Participants in the control group received transportation to and from prenatal and well-baby visits, information on child care and community resources, and referrals for services.
Funding source	Supported by National Institute on Drug Abuse grant R01 DA-019042 (principal investigator, J. Walkup).
Author affiliation	The corresponding author is one of the program developers.

Citation	Boyd, A. (1997b). *Parents as First Teachers pilot project evaluation (PAFT): Report on Whangarei region: Final complete draft.* Wellington, New Zealand: Ministry of Education.
Study Characteristics	
Study participants	PAFT targeted first-time mothers with infants less than eight weeks old. Participants in the Whangarei region included 190 participants (101 treatment; 89 comparison). Approximately 90 percent of children lived in a nuclear family. English was the most commonly spoken language (95 percent of participants); a small proportion of families reporting regularly speaking Samoan, Māori, and Tongan in the home. Forty-five percent of families were supported by father's earnings; 20 percent from both parents equally; 12 percent from the mother supplementing family earnings; and 15 percent were supported by the government.
Setting	Four areas in New Zealand: Whangarei, South Auckland, Gisborne and Dunedin. The study's outcomes are based solely on Whangarei, but the information on program implementation applies to the entire trial.
Home visiting services	PAFT is a strengths-based, primary prevention parent education and support program for families with children under three years of age that is designed to enhance children's health, development and school readiness. PAFT is based on the Parents as Teachers (PAT) model, adapted to meet the needs of New Zealand. PAFT uses an adapted form of PAT's Born to Learn curriculum and Āhuru Mōwai, a Māori specific curriculum developed for PAFT. PAFT services include: (1) information on child development provided during each home visit, including monthly developmental milestones and guidance on how to foster children's intellectual, social, language and motor-skill development; (2) periodic screening of the child's sensory and motor development to detect possible delays (if delays were detected, referrals were made to appropriate sources of support); (3) monthly visits by parent educators to the family's home; (4) monthly group meetings arranged by parent educators as a venue where parents could share experiences and discuss topics of interest; and (5) resources for parents and children, including books and learning materials.
Comparison condition	Comparison group mothers received only annual contact with program staff, via mailings, to maintain contact and update addresses.
Funding source	The New Zealand Ministry of Education.
Author affiliation	None of the study authors are developers of this program model.

Citation	Caldera, D., Burrell, L., Rodriguez, K., Crowne, S. S., Rohde, C., & Duggan, A. (2007). Impact of a statewide home visiting program on parenting and on child health and development. *Child Abuse & Neglect, 31*(8), 829–852.
Study Characteristics	
Study participants	Between January 2000 and July 2001, 388 families who screened positive on a Healthy Families Alaska (HFAK) protocol for risk factors associated with poor health and social outcomes and received scores of 25 or higher on the Kempe Family Stress Checklist were recruited during pregnancy or at the time of birth (Duggan et al., 2007). Of these families, 364 consented to participate and were randomly assigned to the program group (n = 179) or the comparison group (n = 185). Of these, 325 families completed a baseline interview. The sample was 22 percent Alaska native, 55 percent Caucasian, 8 percent multiracial, and 15 percent other race. 58 percent of families were below poverty level, 58 percent of mothers had graduated from high school, and 73 percent had worked in the year prior to enrollment (Johns Hopkins University, 2005). The average age of mothers at baseline was 23.5 years. This study reports the second-year follow-up results of the HFAK evaluation, with a sample size of 138 program group primary caregivers and 140 comparison group primary caregivers. Most of the analyses are limited to families in which the biological mothers had custody of the index child at follow-up (249 families), with additional outcomes obtained from medical records (268 families). The outcomes included in this study were also described in an earlier report (Johns Hopkins University, 2005).
Setting	This study included six HFAK sites, two in Anchorage and one each in Wasilla, Fairbanks, Juneau, and Kenai.
Home visiting services	Families in the program group were assigned to receive visits monthly until their child's birth and weekly thereafter. By design, families receive gradually less frequent visits as they reach critical milestones, ranging to quarterly visits at the highest level of functioning. Families were enrolled in the program until they functioned sufficiently to "graduate" or until their child turned 2. In practice, home visits were less frequent than intended, with only 4 percent of families receiving 75 percent or more of their designated frequency of visits and completing the full two years. Home visits were intended to emphasize preparing for child growth, development, and critical milestones; screening and referral for developmental delays; promoting a safe environment; positive parent-child interactions; establishing a "medical home" for the child; and supporting the family during crises. The program also emphasized the development of an individual family support plan (IFSP) or setting and monitoring progress toward individual family goals.
Comparison condition	Families assigned to the comparison condition received referrals to other community services.
Funding source	Alaska Mental Health Trust Authority and the Alaska State Department of Health and Social Services.
Author affiliation	None of the study authors are developers of this program model.

Citation	Campbell, K. I., & Silva, P. A. (1997). *Parents as First Teachers pilot programme evaluation: Age three assessments. Final report to the Ministry of Education on the Dunedin and Gisborne/East Coast areas.* Wellington, New Zealand: Ministry of Education.
Study Characteristics	
Study participants	PAFT targeted first-time mothers with infants less than eight weeks old. The study included two samples: one from the Dunedin area and one from the Gisborne/East Coast area (characteristics are presented separately). Participants in the Dunedin area included 267 families, including 133 in the treatment group and 134 in the comparison group. Overall, 84 percent of parents in the sample were married. Eighty-four percent of fathers and 61 percent of mothers were working in paid employment. Most participants (87 percent) spoke only English in the home. Participants in the Gisborne/East Coast area included 208 families, including 108 in the treatment group and 100 in the comparison group. Overall, 77 percent of parents in the sample were married. Ninety percent of fathers and 48 percent of mothers were working in paid employment. Nearly all participants (99 percent) spoke English; about a third (28 percent) also spoke other languages in addition to English.
Setting	Four areas in New Zealand: Whangarei, South Auckland, Gisborne and Dunedin. The study's outcomes are based solely on Dunedin and Gisborne, but the information on program implementation applies to the entire trial.
Home visiting services	PAFT, a strengths-based, primary prevention parent education and support program for families with children under three years of age, was designed to enhance children's health, development and school readiness. PAFT was based on the Parents as Teachers (PAT) model, adapted to meet the needs of New Zealand. PAFT used an adapted form of PAT's Born to Learn curriculum and Āhuru Mōwai, a Māori specific curriculum developed for PAFT. PAFT services include: (1) information on child development provided during each home visit, including monthly developmental milestones and guidance on how to foster children's intellectual, social, language and motor-skill development; (2) periodic screening of the child's sensory and motor development to detect possible delays (if delays were detected, referrals were made to appropriate sources of support); (3) monthly visits by parent educators to the family's home; (4) monthly group meetings arranged by parent educators as a venue where parents could share experiences and discuss topics of interest; and (5) resources for parents and children, including books and learning materials.
Comparison condition	Comparison group mothers received only annual contact with program staff, via mailings, to maintain contact and update addresses.
Funding source	The New Zealand Ministry of Education.
Author affiliation	None of the study authors are developers of this program model.

Citation	Culp, A. M., Culp, R. E., Anderson, J. W., & Carter, S. (2007). Health and safety intervention with first-time mothers. *Health Education Research, 22*(2), 285–294.
Study Characteristics	
Study participants	The study sample included 205 first-time pregnant women enrolled in Oklahoma's Community-Based Family Resource and Support (CBFRS) program. The study reported characteristics of the 156 women who remained enrolled in the program through completion. Mothers were, on average, 17.4 weeks pregnant at enrollment and 20 years old at the birth of their child. Most mothers were white (69 percent). Other participants were African American, Native American, Hispanic, or another race/ethnicity. On average, mothers had between 11 and 12 years of education and most were low-income. Most mothers were single (68 percent), 30 percent were married, and 2 percent were divorced or separated. Fifty-nine percent of mothers participated in Medicaid.
Setting	The program was implemented in five rural counties in Oklahoma.
Home visiting services	The program consisted of prenatal home visits until the child's first birthday. Home visits focused on teaching mothers about maternal and child health, child development, home safety, and parenting skills. The content and intensity of the program varied depending upon the stage of the intervention and the age of the child. Home visitors could tailor the standardized curriculum by selecting topics that addressed families' specific concerns or interests. During the prenatal phase, home visitors presented topics focused on maternal health, parenting roles, and education and employment goals. During postnatal visits they mostly focused on child development, parenting roles, and child health. In both prenatal and postnatal visits, home visitors spent the smallest proportion of their time discussing other topics, such as crisis management, environmental health, and friends and family. During pregnancy, the program was designed for weekly home visits in the first month of the program, followed by biweekly visits until the child's birth for a total of eight prenatal visits. After the child's birth, home visits were intended to occur weekly during the first three months of the child's life and biweekly for the remaining nine months, for a total of 30 postnatal visits. Each visit was intended to last about one hour.
Comparison condition	Similar rural counties in Oklahoma served as control. Control participants received standard health department services that did not include home visits.
Funding source	Funding was provided by the Office of Child Abuse Prevention, Oklahoma State Department of Health.
Author affiliation	None of the study authors are developers of this program model.

Citation	Culp, A. M., Culp, R. E., Hechtner-Galvin, T., Howell, C. S., Saathoff-Wells, T., & Marr, P. (2004). First-time mothers in home visitation services utilizing child development specialists. *Infant Mental Health Journal*, *25*(1), 1–15. doi:10.1002/imhj.10086.
Study Characteristics	
Study participants	The study sample included 205 first-time pregnant women enrolled in Oklahoma's CBFRS program. The study reported characteristics of the 156 women who remained enrolled in the program through completion. Mothers were, on average, 17.4 weeks pregnant at enrollment and 20 years old at the birth of their child. Most mothers were white (69 percent). Other participants were African American, Native American, Hispanic, or another race/ethnicity. On average, mothers had between 11 and 12 years of education and most were low-income. Most mothers were single (68 percent), 30 percent were married, and 2 percent were divorced or separated. Fifty-nine percent of mothers participated in Medicaid.
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Comparison condition	Similar rural counties in Oklahoma served as control. Control participants received standard health department services that did not include home visits.
Funding source	Funding was provided by the Office of Child Abuse Prevention, Oklahoma State Department of Health.
Author affiliation	None of the study authors are developers of this program model.

Citation	Duggan, A., Caldera, D., Rodriguez, K., Burrell, L., Rohde, C., & Crowne, S. S. (2007). Impact of a statewide home visiting program to prevent child abuse. *Child Abuse & Neglect, 31*(8), 801–827.
Study Characteristics	
Study participants	Between January 2000 and July 2001, 388 families who screened positive on a Healthy Families Alaska (HFAK) protocol for risk factors associated with poor health and social outcomes and received scores of 25 or higher on the Kempe Family Stress Checklist were recruited during pregnancy or at the time of birth (Duggan et al., 2007). Of these families, 364 consented to participate and were randomly assigned to the program group (n = 179) or the comparison group (n = 185). Of these, 325 families completed a baseline interview. The sample was 22 percent Alaska native, 55 percent Caucasian, 8 percent multiracial, and 15 percent other race. Fifty-eight percent of families were below poverty level, 58 percent of mothers had graduated from high school, and 73 percent had worked in the year before enrollment (Johns Hopkins University, 2005). The average age of mothers at baseline was 23.5 years. This study reports the second-year follow-up results of the HFAK evaluation, with a sample size of 138 program group primary caregivers and 140 comparison group primary caregivers. Most of the analyses are limited to families in which the biological mothers had custody of the index child at follow-up (249 families), with additional outcomes obtained from medical records (268 families). The outcomes included in this study were also described in an earlier report (Johns Hopkins University, 2005).
Setting	This study included six HFAK sites, two in Anchorage and one each in Wasilla, Fairbanks, Juneau, and Kenai.
Home visiting services	Families in the program group were assigned to receive visits monthly until their child's birth and weekly thereafter. By design, families receive gradually less frequent visits as they reach critical milestones, ranging to quarterly visits at the highest level of functioning. Families were enrolled in the program until they functioned sufficiently to "graduate" or until their child turned 2. In practice, home visits were less frequent than intended, with only 4 percent of families receiving 75 percent or more of their designated frequency of visits and completing the full two years. Home visits were intended to emphasize preparing for child growth, development, and critical milestones; screening and referral for developmental delays; promoting a safe environment; positive parent-child interactions; establishing a "medical home" for the child; and supporting the family during crises. The program also emphasized the development of an individual family support plan (IFSP) or setting and monitoring progress toward individual family goals.
Comparison condition	Families assigned to the comparison condition received referrals to other community services.
Funding source	Alaska Mental Health Trust Authority and Alaska State Department of Health and Social Services.
Author affiliation	None of the study authors are developers of this program model.

Citation	Duggan, A., Fuddy, L., Burrell, L., Higman, S. M., McFarlane, E., Windham, A., et al. (2004). Randomized trial of a statewide home visiting program to prevent child abuse: Impact in reducing parental risk factors. *Child Abuse & Neglect, 28*(6), 623–643.
Study Characteristics	
Study participants	Families were recruited to the study from November 1994 to December 1995. Hawaii Healthy Start Program staff screened the medical records of mothers from one of four Oahu communities delivering children at Kapiolani Maternity Hospital for risk factors for child abuse and neglect. Mothers found to be at risk, or those whose records did not contain sufficient information to screen out, were screened further using the Kempe Family Stress Checklist; eligible families were those in which either parent scored 25 or greater (Duggan, 2004a). Of the 897 families who were eligible to participate in the study, 730 (81 percent) agreed to participate and were randomly assigned to the program group (n = 395), the main comparison group (n = 290), or a testing comparison group (n = 45). A total of 684 families completed a baseline interview (373 families in the program group, 270 families in the main comparison group, and 41 in the testing group comparison). At baseline, mothers were, on average, age 23.7 years (program group) and 23.3 years (comparison group). Sixty-three percent (program group) and 67 percent (comparison group) of participating families lived below the poverty line. The racial composition of the program group was 34 percent Native Hawaiian or Pacific Islander, 28 percent Asian or Filipino, 10 percent Caucasian, and 27 percent of unknown primary ethnicity. The main comparison group consisted of 33 percent Native Hawaiian or Pacific Islander, 28 percent Asian or Filipino, 14 percent Caucasian, and 26 percent of unknown primary ethnicity. This study reports results from the first two follow-ups of the Hawaii Healthy Start randomized controlled trial. Follow-up interviews were completed for 88 percent of families in years 1 and 2, and 83 percent of participating families were included in both follow-ups.
Setting	Six Healthy Start Program sites operated by three community-based organizations in Oahu, Hawaii.
Home visiting services	Home visiting services were designed to provide three to five years of home visiting, with weekly visits for most or all of the child's first year of life, and visits of gradually decreasing frequency thereafter depending on family need. Home visitors endeavored to establish trusting relationships with families, help them resolve immediate crises, and help them build on existing strengths to improve their ability to function independently. Visitors helped families develop problem-solving skills, connected them to needed services, and aimed to develop an individual service plan with each family every six months and help the family reach six-month goals. The actual frequency of visits, however, was lower than that specified by the model, with families receiving an average of 13 visits in the child's first year of life, and 51 percent of families not actively participating in the program by the time the child was 12 months old. Families still active at the end of year 1 received an average of 22 visits in the first year.
Comparison condition	The main comparison group was tested annually to measure outcomes. A second "testing" comparison group was evaluated only at year 3 to ascertain the effect of repeated testing on observed outcomes (Duggan et al., 2004).
Funding source	Maternal and Child Health Bureau (R40 MC 00029 [formerly MCJ 240637] and R40 MC 00123 [formerly MCJ 240838]); The Robert Wood Johnson Foundation (18303); The Annie E. Casey Foundation (94-4041); The David and Lucile Packard Foundation (93-6051, 94-7957, 97-8058, and 98-3448); the Hawaii State Department of Health (99-29-J); and the National Institute of Mental Health, Epidemiological Center for Early Risk Behaviors, P30MH38725.
Author affiliation	None of the study authors are developers of this program model.

Citation	Duggan, A., McFarlane, E., Fuddy, L., Burrell, L., Higman, S. M., Windham, A., et al. (2004). Randomized trial of a statewide home visiting program: Impact in preventing child abuse and neglect. *Child Abuse & Neglect, 28*(6), 597–622.
Study Characteristics	
Study participants	Families were recruited to the study from November 1994 to December 1995. Hawaii Healthy Start Program staff screened the medical records of mothers from one of four Oahu communities delivering children at Kapiolani Maternity Hospital for risk factors for child abuse and neglect. Mothers found to be at risk, or those whose records did not contain sufficient information to screen out, were screened further using the Kempe Family Stress Checklist; eligible families were those in which either parent scored 25 or greater (Duggan, 2004a). Of the 897 families who were eligible to participate in the study, 730 (81 percent) agreed to participate and were randomly assigned to the program group (n = 395), the main comparison group (n = 290), or a testing comparison group (n = 45). A total of 684 families completed a baseline interview (373 families in the program group, 270 families in the main comparison group, and 41 in the testing group comparison). At baseline, mothers were, on average, age 23.7 years (program group) and 23.3 years (comparison group). Sixty-three percent (program group) and 67 percent (comparison group) of participating families lived below the poverty line. The racial composition of the program group was 34 percent Native Hawaiian or Pacific Islander, 28 percent Asian or Filipino, 10 percent Caucasian, and 27 percent of unknown primary ethnicity. The main comparison group consisted of 33 percent Native Hawaiian or Pacific Islander, 28 percent Asian or Filipino, 14 percent Caucasian, and 26 percent of unknown primary ethnicity. This study reports results from the three follow-ups of the Hawaii Healthy Start randomized controlled trial. In each follow-up year, interviews were completed for 88 percent of families. Eighty-one percent of participating families completed all three follow-up interviews. Data were also collected from home observations, administrative records from child protective services, and pediatric medical records.
Setting	Six Healthy Start Program sites operated by three community-based organizations in Oahu, Hawaii.
Home visiting services	Home visiting services were designed to provide three to five years of home visiting, with weekly visits for most or all of the child's first year of life, and visits of gradually decreasing frequency thereafter depending on family need. Home visitors endeavored to establish trusting relationships with families, help them resolve immediate crises, and help them build on existing strengths to improve their ability to function independently. Visitors helped families develop problem-solving skills, connected them to needed services, and aimed to develop an individual service plan with each family every six months and help the family reach six-month goals. The actual frequency of visits, however, was lower than that specified by the model, with families receiving an average of 13 visits in the child's first year of life, and 51 percent of families not actively participating in the program by the time the child was 12 months old. Families still active at the end of year 1 received an average of 22 visits in the first year (Duggan et al., 1999).
Comparison condition	The main comparison group was tested annually to measure outcomes. A second testing comparison group was evaluated only at year 3 to ascertain the effect of repeated testing on observed outcomes (Duggan et al., 2004).

Funding source	Maternal and Child Health Bureau (R40MC00029 [formerly MCJ 240637] and R40 MC 00123 [formerly MCJ 240838]; The Robert Wood Johnson Foundation (18303); The Annie E. Casey Foundation (94-4041); The David and Lucile Packard Foundation (93-6051, 94-7957, 97-8058, and 98-3448); National Institute of Mental Health, Epidemiological Center for Early Risk Behaviors, P30MH38725; the Hawaii State Department of Health (99-29-J); and the National Institute of Mental Health, Epidemiological Center for Early Risk Behaviors, P30MH38725.
Author affiliation	None of the study authors are developers of this program model.

Citation	Duggan, A. K., McFarlane, E. C., Windham, A. M., Rohde, C. A., Salkever, D. S., Fuddy, L., et al. (1999). Evaluation of Hawaii's Healthy Start program. *Future of Children, 9*(1), 66–90; discussion 177–178.
Study Characteristics	
Study participants	Families were recruited to the study from November 1994 to December 1995. Hawaii Healthy Start Program staff screened the medical records of mothers from one of four Oahu communities delivering children at Kapiolani Maternity Hospital for risk factors for child abuse and neglect. Mothers found to be at risk, or those whose records did not contain sufficient information to screen out, were screened further using the Kempe Family Stress Checklist; eligible families were those in which either parent scored 25 or greater (Duggan, 2004a). Of the 897 families who were eligible to participate in the study, 730 (81 percent) agreed to participate and were randomly assigned to the program group (n = 395), the main comparison group (n = 290), or a testing comparison group (n = 45). A total of 684 families completed a baseline interview (373 families in the program group, 270 families in the main comparison group, and 41 in the testing group comparison). At baseline, mothers were, on average, age 23.7 years (program group) and 23.3 years (comparison group). Sixty-three percent (program group) and 67 percent (comparison group) of participating families lived below the poverty line. The racial composition of the program group was 34 percent Native Hawaiian or Pacific Islander, 28 percent Asian or Filipino, 10 percent Caucasian, and 27 percent of unknown primary ethnicity. The main comparison group consisted of 33 percent Native Hawaiian or Pacific Islander, 28 percent Asian or Filipino, 14 percent Caucasian, and 26 percent of unknown primary ethnicity. This study reports results from the first two follow-ups of the Hawaii Healthy Start randomized controlled trial. Follow-up interviews were completed for 88 percent of families in years 1 and 2, and 83 percent of participating families were included in both follow-ups.
Setting	Six Healthy Start Program sites operated by three community-based organizations in Oahu, Hawaii.
Home visiting services	Home visiting services were designed to provide three to five years of home visiting, with weekly visits for most or all of the child's first year of life, and visits of gradually decreasing frequency thereafter depending on family need. Home visitors endeavored to establish trusting relationships with families, help them resolve immediate crises, and help them build on existing strengths to improve their ability to function independently. Visitors helped families develop problem-solving skills, connected families to needed services, and aimed to develop an individual service plan with each family every six months and help the family reach six-month goals. The actual frequency of visits, however, was lower than that specified by the model, with families receiving an average of 13 visits in the child's first year of life, and 51 percent of families not actively participating in the program by the time the child was 12 months old. Families still active at the end of year 1 received an average of 22 visits in the first year.
Comparison condition	The main comparison group was tested annually to measure outcomes. A second testing comparison group was evaluated only at year 3 to ascertain the effect of repeated testing on observed outcomes (Duggan et al., 2004).
Funding source	From 1991 to 1994, this evaluation received funding from: the Robert Wood Johnson Foundation, the Annie E. Casey Foundation, The David and Lucile Packard Foundation, the Maternal and Child Health Bureau of the U.S. Department of Health and Human Services, and the Hawaii Department of Health; the Hawaii Medical Association committed office space and an administrative home for fieldwork staff.
Author affiliation	None of the study authors are developers of this program model.

Citation	El-Kamary, S. S., Higman, S. M., Fuddy, L., McFarlane, E., Sia, C., & Duggan, A. K. (2004). Hawaii's Healthy Start home visiting program: Determinants and impact of rapid repeat birth. *Pediatrics, 114*(3), e317–e326.
Study Characteristics	
Study participants	Families were recruited to the study from November 1994 to December 1995. Hawaii Healthy Start Program staff screened the medical records of mothers from one of four Oahu communities delivering children at Kapiolani Maternity Hospital for risk factors for child abuse and neglect. Mothers found to be at risk, or those whose records did not contain sufficient information to screen out, were screened further using the Kempe Family Stress Checklist; eligible families were those in which either parent scored 25 or greater (Duggan, 2004a). Of the 897 families who were eligible to participate in the study, 730 (81 percent) agreed to participate and were randomly assigned to the program group (n = 395), the main comparison group (n = 290), or a testing comparison group (n = 45). A total of 684 families completed a baseline interview (373 families in the program group, 270 families in the main comparison group, and 41 in the testing group comparison). At baseline, mothers were, on average, age 23.7 years (program group) and 23.3 years (comparison group). Sixty-three percent (program group) and 67 percent (comparison group) of participating families lived below the poverty line. The racial composition of the program group was 34 percent Native Hawaiian or Pacific Islander, 28 percent Asian or Filipino, 10 percent Caucasian, and 27 percent of unknown primary ethnicity. The main comparison group consisted of 33 percent Native Hawaiian or Pacific Islander, 28 percent Asian or Filipino, 14 percent Caucasian, and 26 percent of unknown primary ethnicity. This study reports results from the three follow-ups of the Hawaii Healthy Start randomized controlled trial. In each follow-up year, interviews were completed for 88 percent of families. Eighty-one percent of participating families completed all three follow-up interviews.
Setting	Six Healthy Start Program sites operated by three community-based organizations in Oahu, Hawaii.
Home visiting services	Home visiting services were designed to provide three to five years of home visiting, with weekly visits for most or all of the child's first year of life, and visits of gradually decreasing frequency thereafter depending on family need. Home visitors endeavored to establish trusting relationships with families, help them resolve immediate crises, and help them build on existing strengths to improve their ability to function independently. Visitors helped families develop problem-solving skills, connected them to needed services, and aimed to develop an individual service plan with each family every six months and help the family reach six-month goals. The actual frequency of visits, however, was lower than that specified by the model, with families receiving an average of 13 visits in the child's first year of life, and 51 percent of families not actively participating in the program by the time the child was 12 months old. Families still active at the end of year 1 received an average of 22 visits in the first year.
Comparison condition	The main comparison group was tested annually to measure outcomes. A second testing comparison group was evaluated only at year 3 to ascertain the effect of repeated testing on observed outcomes (Duggan et al., 2004).
Funding source	Maternal and Child Health Bureau (grant R40 MC 00029, formerly grant MCJ-240637, and grant R40 MC 00123, formerly grant MCJ-240838), the Robert Wood Johnson Foundation (grant 18303), the Annie E. Casey Foundation (grant 94–4041), the David and Lucile Packard Foundation (grants 93–6051, 94–7957, 97–8058, and 98–3448), and the Hawaii State Department of Health (grant 99-29-J).
Author affiliation	None of the study authors are developers of this program model.

Citation	Fergusson, D. M., Horwood, L. J., Grant, H., & Ridder, E. M. (2005). *Early Start evaluation report.* Christchurch, New Zealand: Early Start Project Ltd.
Study Characteristics	
Study participants	The program enrolled 206 families. Mothers were 25 years old and fathers were 27 years old, on average. Children were enrolled as infants and were eligible for up to 5 years. Twenty-five percent of mothers and 31 percent of biological fathers identified as Māori, an indigenous population of New Zealand. Mothers were on average 19 years old during their first pregnancy, and 14 percent had been pregnant before age 16. About 14 percent of mothers who had a previous child reported that the child was in foster care, and 35 percent of current male partners were reported to have assaulted their partners. Most parents (71 percent of mothers and 78 percent of fathers) lacked formal education credentials. Nearly two-thirds of families (64 percent) were headed by a single parent, most families (88 percent) received public assistance, and 40 percent had income that was considered inadequate or very inadequate to meet the costs of daily living.
Setting	The program was located in Christchurch, New Zealand.
Home visiting services	Early Start (New Zealand) consisted of home visits and parenting classes. Community nurses referred clients to the program based on an oral assessment. Referred families participated in a one-month assessment period during which they could learn about the program without making a long-term commitment and program staff could conduct a more in-depth needs assessment. After this one-month period, families that did not exhibit a high need received a telephone call every three months. Home visits for other families focused on two family plans. A family support plan described common issues to address over the next three months (such as child abuse or neglect) and steps to address them. Second, families prepared an individual family plan that delineated their goals for the same period. The home visitors used a collaborative, problem-solving approach in working with families to carry out these plans. The frequency of home visits corresponded with the families' need. • High-need families (level 1) received one to two hours of home visits per week. • Moderate-need families (level 2) received up to one hour of home visits every two weeks. • Low-need families (level 3) received up to one hour of home visits per month. • Graduate-level families (level 4) received up to one-hour of contact with a worker by telephone or through a home visit every three months. All families began at level 1 and moved to other levels based on their individual progress. Services were offered for up to five years. Early Start families participated in the program for a median duration of 14 months. Almost three-fourths (74 percent) of families actively received services after 12 months, 65 percent were active after 24 months, and 60 percent still received services at 36 months.
Comparison condition	The control group had access to the full range of other health, welfare, and related services available in Christchurch.
Funding source	The Department of Child, Youth and Family, Ministry of Health, Canterbury District Health Board, Christchurch City Council, Trustbank Community Trust, and Health Research Council of New Zealand.
Author affiliation	One co-author is the general manager of Early Start.

Citation	Johns Hopkins University. (2005). *Evaluation of the Healthy Families Alaska program.* Report to Alaska State Department of Health and Social Services, Alaska Mental Health Trust Authority. Baltimore, MD: Author.
Study Characteristics	
Study participants	Between January 2000 and July 2001, 388 families who screened positive on a Healthy Families Alaska (HFAK) protocol for risk factors associated with poor health and social outcomes and received scores of 25 or higher on the Kempe Family Stress Checklist were recruited during pregnancy or at the time of birth (Duggan et al., 2007). Of these families, 364 consented to participate and were randomly assigned to the program group (n = 179) or the comparison group (n = 185). 325 families completed a baseline interview. The sample was 22 percent Alaska native, 55 percent Caucasian, 8 percent multiracial, and 15 percent were other race. 58 percent of families were below poverty level, 58 percent of mothers had graduated from high school, and 73 percent had worked in the year before enrollment (Johns Hopkins University, 2005). The average age of mothers at baseline was 23.5 years. This study reports the second-year follow-up results of the HFAK evaluation, with a sample size of 138 program group primary caregivers and 140 comparison group primary caregivers. Most of the analyses of interview data reported by the authors are limited to biological mothers with custody of the index child at follow-up (249 families). Additional outcomes are reported from medical records (268 families), child protective services reports (309 families), and observational data (~237 families). **Note:** Information on sample size was received through communication with the author.
Setting	This study included six HFAK sites, two in Anchorage and one each in Wasilla, Fairbanks, Juneau, and Kenai.
Home visiting services	Families in the program group were assigned to receive visits monthly until their child's birth and weekly thereafter. By design, families receive gradually less frequent visits as they reach critical milestones, ranging to quarterly visits at the highest level of functioning. Families were enrolled in the program until they functioned sufficiently to "graduate" or until their child turned 2. In practice, home visits were less frequent than intended, with only 4 percent of families receiving 75 percent or more of their designated frequency of visits and completing the full two years. Home visits were intended to emphasize preparing for child growth, development, and critical milestones, screening and referral for developmental delays, promoting a safe environment, positive parent-child interactions, establishing a "medical home" for the child, and supporting the family during crises. The program also emphasized the development of an individual family support plan (IFSP) or setting and monitoring progress toward individual family goals.
Comparison condition	Families assigned to the comparison condition received referrals to other community services.
Funding source	Alaska Mental Health Trust Authority; Alaska State Department of Health and Social Services
Author affiliation	None of the study authors are developers of this program model.

Citation	King, T. M., Rosenberg, L. A., Fuddy, L., McFarlane, E., Sia, C., & Duggan, A. K. (2005). Prevalence and early identification of language delays among at-risk three year olds. *Journal of Developmental & Behavioral Pediatrics, 26*(4), 293–303.[f]
Study Characteristics	
Study participants	Families were recruited to the study from November 1994 to December 1995. Hawaii Healthy Start Program staff screened the medical records of mothers from one of four Oahu communities delivering children at Kapiolani Maternity Hospital for risk factors for child abuse and neglect. Mothers found to be at risk, or those whose records did not contain sufficient information to screen out, were screened further using Kempe's Family Stress Checklist; eligible families were those in which either parent scored 25 or greater. Of the 897 families who were eligible to participate in the study, 730 (81 percent) agreed to participate and were randomly assigned to the program group (n = 395), the main comparison group (n = 290), or a testing comparison group (n = 45). This study focuses on 304 program group children and 209 comparison group children who had available medical records and developmental testing results at age 3 and whose mothers completed at least one interview. At baseline, mothers were, on average, age 23.7 years (program group) and 22.9 years (comparison group). Sixty-two percent (program group) and 64 percent (comparison group) of participating families lived below the poverty line. The racial composition of the program sample was 34 percent Native Hawaiian or Pacific Islander, 27 percent Asian or Filipino, 11 percent Caucasian, and 29 percent of unknown primary ethnicity. The comparison group consisted of 33 percent Native Hawaiian or Pacific Islander, 28 percent Asian or Filipino, 12 percent Caucasian, and 28 percent of unknown primary ethnicity.
Setting	Six Healthy Start Program sites operated by three community-based organizations in Oahu, Hawaii.
Home visiting services	Home visiting services were designed to provide three to five years of home visiting, with weekly visits for most or all of the child's first year of life, and visits of gradually decreasing frequency thereafter depending on family need. Home visitors endeavored to establish trusting relationships with families, help them resolve immediate crises, and help them build on existing strengths to improve their ability to function independently. Visitors helped families develop problem-solving skills, connected them to needed services, and aimed to develop an individual service plan with each family every six months and help the family reach six-month goals. The actual frequency of visits, however, was lower than that specified by the model, with families receiving an average of 13 visits in the child's first year of life, and 51 percent of families not actively participating in the program by the time the child was 12 months. Families still active at the end of year 1 received an average of 22 visits in the first year (Duggan et al., 1999).
Comparison condition	The main comparison group was tested annually to measure outcomes. A second testing comparison group was evaluated only at year 3 to ascertain the effect of repeated testing on observed outcomes (Duggan et al., 2004).
Funding source	Maternal and Child Health Bureau (R40 MC 00029, formerly MCJ 240637, and R40 MC 00123, formerly MCJ 240838); The Robert Wood Johnson Foundation (18303); The Annie E. Casey Foundation (94-4041); The David and Lucile Packard Foundation (93-6051, 94-7957, 97-8058, and 98-3448); and the Hawaii State Department of Health (99-29-J). Dr. King's effort was also supported by a National Research Service Award from the Health Resources and Services Administration, Bureau of Health Professions (5 T32 HP 10004).
Author affiliation	None of the study authors are developers of this program model.

Citation	Silovsky, J. F., Bard, D., Chaffin, M., Hecht, D., Burris, L., Owora, A., Beasley, L., Doughty, D., & Lutzker, J. (2011). Prevention of child maltreatment in high-risk rural families: A randomized clinical trial with child welfare outcomes. *Children and Youth Services Review*, *33*(8), 1435–1444.
Study Characteristics	
Study participants	The study participants included 105 parents who were at least 16 years of age, had at least one child age 5 years or younger, and had at least one of the following risk factors: parental substance abuse, mental health issues, or intimate partner violence. Participants were randomly assigned to a treatment condition, SafeCare Augmented (SafeCare with the addition of Motivational Interviewing, as well as training of the home visitors on identification and response to imminent child maltreatment and risk factors of substance abuse, depression, and intimate partner violence) or a control condition, services as usual (standard home-based mental health services). Sixty-eight percent of participants in the treatment group and 74 percent in the control group were white, 15 percent of participants in the treatment and 14 percent in the control group were African American, 15 percent of participants in the treatment group and 7 percent in the control group were American Indian, and 2 percent of participants in the treatment group and 4 percent in the control group were Hispanic. The average age of treatment group participants was 25.9 years and of control participants was 27.7 years. All participants were female. Most study participants had a high school degree or equivalent or less education (60 percent of the treatment group and 55 percent of the control group). More than half of participants were employed at least part-time (54 percent of the treatment group and 56 percent of the control group).
Setting	The study was conducted in a rural county in the Southwest.
Home visiting services	SafeCare is a home-based model that targets parenting behavior related to child health, home safety and cleanliness, and parent-child bonding. Home visitors typically provide 18 to 20 weeks of training to parents with children from birth to age 5. During one- to two-hour weekly home visits, trained home visitors conduct baseline and follow-up assessments, observations, and trainings with parents. For this study, SafeCare was augmented. The enhanced model consisted of the regular SafeCare model with the addition of Motivational Interviewing (Miller & Rollnick, 2004), as well as training of the home visitors on identification and response to imminent child maltreatment and risk factors of substance abuse, depression, and intimate partner violence.
Comparison condition	The comparison condition was the standard provision of home-based mental health services. Services as usual utilized standard community mental health program approaches and included individual and family therapy as well as case management services. Goal setting and treatment planning varied among families and was designed to fit the specific family's needs, such as parenting, anger management, substance abuse, depression, and anxiety
Funding source	No information was available in the study about the funding source.
Author affiliation	The developer of SafeCare, John Lutzker, is a study author.

Citation	Walker, N., Johnston, V., Glover, M., Bullen, C., Trenholme, A., Chang, A., Morris, P., Segan, C., Brown, N., Fenton, D., Hawthorne, E., Borland, R., Parag, V., Von Blaramberg, T., Westphal, D., & Thomas, D. (2015). Effect of a family-centered, secondhand smoke intervention to reduce respiratory illness in indigenous infants in Australia and New Zealand: A randomized controlled trial. *Nicotine & Tobacco Research, 17*(1), 48-57.
Study Characteristics	
Study participants	Mothers were recruited by community workers through antenatal clinics and identification through hospital birth records and randomized in a 1:1 ratio to the treatment or control group. The study used blocked randomization in which families were stratified by country (Australia or New Zealand). Overall, 321 eligible mother/infants were randomized (n = 161 treatment, n = 160 control). Post-randomization—but before baseline data collection and before implementation began—28 dyads dropped out, leaving 145 mothers in the treatment group and 148 in the control group; all of these mothers completed the baseline assessment. At 4-month follow-up, 134 mothers were in the treatment group and 132 in the control group; at 12 months, 126 were in the treatment group and 128 in the control group. Eligibility criteria were: (1) infant from birth to age 5 weeks; (2) mother self-identified as Māori or Australian Aboriginal/Torres Strait Islander; (3) mother was at least 16 years old; (4) mother was a current smoker or at least one other household member was a smoker; (5) mother permanently resided with the infant; (6) mother lived in Darwin/Greater Darwin area in Australia or in the Counties Manukau District Health Board region in New Zealand; (7) infant was a singleton or the first born if a multiple delivery; and (8) mother spoke English and/or Māori. At baseline—excluding 28 mothers/infants who were assigned but did not contribute to baseline data—about three-fourths of the mothers were from New Zealand; mothers (in both countries) were, on average, 26 years old; infants were about 6 weeks old; and most mothers (about 75 percent) at most had a secondary school level of education. Most mothers identified as current smokers (treatment = 72 percent, control = 60 percent). About 80 percent of mothers breastfed at least partially.
Setting	Darwin, Australia, and Auckland, New Zealand
Home visiting services	The treatment group received usual care plus three home visits during the infant's first three months. All mothers (and other present family members) who smoked received behavioral coaching about the dangers of secondhand smoke exposure to children, smoking restrictions in the home and car, positive role modeling, and strategies to overcoming obstacles to making smoke-free changes. Those who smoked also received brief advice on quitting, or more intensive counseling depending on how receptive the participant was, and free nicotine replacement therapy and/or a quitline referral (unless the participant was clearly not interested in these options). The intervention was based on Māori and Aboriginal holistic health models. Both the treatment and control groups also received brief health promotion messages from community workers at baseline and when infants were 4 and 12 months old. Messages focused on immunization, infant nutrition/breastfeeding, and safe infant sleeping.
Comparison condition	The control group received usual care from hospital and primary care providers. Both the treatment and control groups also received brief health promotion messages from community workers at baseline and when infants were 4 and 12 months old. Messages focused on immunization, infant nutrition/breastfeeding, and safe infant sleeping.

Funding source	Two authors have consulted for manufacturers of smoking cessation medications. All authors declared that they did not receive support from any companies for the paper and that the trial was designed, conducted, and analyzed by researchers independent of all funders. The funding sources for the trial or paper are not reported.
Author affiliation	Authors David Thomas, Anne Chang, and Vanessa Johnston conceived the original idea for the trial. Others were involved in the trial. Authors are affiliated with universities and/or public health entities.

Citation	Walkup, J. T., Barlow, A., Mullany, B. C., Pan, W., Goklish, N., Hasting, R., Cowboy, B., Fields, P., Baker, E. V., Speakman, K., Ginsburg, G., & Reid, R. (2009). Randomized controlled trial of a paraprofessional-delivered in-home intervention for young reservation-based American Indian mothers. *Journal of the American Academy of Child & Adolescent Psychiatry, 48*(6), 591–601.
Study Characteristics	
Study participants	Expectant reservation-based American Indian mothers ages 12 to 22 years with 28 weeks or less of gestation were eligible for participation. Randomized participants ranged in age from 14 to 22 years, with a median age of 18. All were American Indian, primarily Navajo (65 percent), White Mountain Apache (18 percent), or from mixed tribes. At enrollment, 8 percent were married, and 10 percent had one or more children. Slightly more than a third (39 percent) of the sample completed high school, a general equivalency diploma, or some college, and 12 percent were employed. Sixty-eight percent of the participants were living with their male partners, and 72 percent were living with their parents or the baby's father's parents.
Setting	The program was implemented in four American Indian health service catchment areas on the Navajo and White Mountain Apache reservations in New Mexico and Arizona.
Home visiting services	The Family Spirit program was developed to address newborn care and maternal life skills among young American Indian pregnant and parenting mothers living on reservations. The program's goals were (1) to increase mothers' parenting knowledge and involvement, infants' social and emotional behavior, and the quality of the home environment; and (2) to reduce stress, depression, and substance use among mothers. Families in Family Spirit participated in home visits. The program was modeled on Healthy Families America (HFA), a national program founded on 12 research-based principles to ensure quality of home visiting interventions for at-risk families. The content of the home-visiting intervention was derived from extensive community input on what teen parents needed to learn and was based on the *American Academy of Pediatrics Guide to Baby Care: Caring for Your Baby and Young Child: Birth to Age 5*. Cultural adaptations—including style, graphics, delivery, and content—were achieved through a community-based participatory process.
Comparison condition	Control participants received a breastfeeding/nutrition education intervention over the course of 23 visits from paraprofessionals.
Funding source	Support for this research was provided by the Substance Abuse Mental Health Services Administration, the Ford Foundation, the Annie E. Casey Foundation, and the C.S. Mott Foundation.
Author affiliation	Ms. Barlow is part of the team that developed this program model. Dr. Walkup was affiliated with the Center for American Indian Health at the Johns Hopkins Bloomberg School of Public Health, where the team that developed this program model is based.

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APPENDIX B

PARTICIPANT OUTCOME MEASURES FROM HIGH- AND MODERATE-RATED EFFECTIVENESS STUDIES IN THE HOMVEE TRIBAL REVIEW, [1] BY DOMAIN AND STUDY

[1] A similar appendix in earlier reports listed all outcomes, regardless of study rating. As the literature base has grown over time, HomVEE now lists only outcomes from studies that earned a high or moderate rating. Studies included in this appendix may have measured outcomes multiple times (such as at each of several follow-ups), and/or may have reported the overall scale score and the individual items separately. In this appendix, we collapse repetitive outcomes to be reported once. More detailed reporting for each study is available on the HomVEE website.

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Table B.1. Child Health Outcome Measures, by Study

Citation	Measure	Primary or Secondary
Caldera, D., Burrell, L., Rodriguez, K., Crowne, S. S., Rohde, C., & Duggan, A. (2007). Impact of a statewide home visiting program on parenting and on child health and development. *Child Abuse & Neglect, 31*(8), 829–852.	Has health care coverage	Secondary
	Has primary care provide	Secondary
	Adequate well-child visits	Primary
	Immunizations up-to-date	Primary
Campbell, K. I., & Silva, P. A. (1997). *Parents as First Teachers pilot programme evaluation: Age three assessments. Final report to the Ministry of Education on the Dunedin and Gisborne/East Coast areas.* Wellington, New Zealand: Ministry of Education.	Incidence of ear infections	Secondary
	Incidence of hearing problems	Secondary
	Number of health problems children had experienced	Secondary
	Number of hospital admissions	Secondary
	Number of hospital visits	Secondary
	Number of times children visited a hospital clinic	Secondary
	Number of times children visited general practitioner	Secondary
	Number of times children visited health specialist	Secondary
	Number of times children visited other professional health service	Secondary
	Total number of injuries	Secondary
Culp, A. M., Culp, R. E., Anderson, J. W., & Carter, S. (2007). Health and safety intervention with first-time mothers. *Health Education Research, 22*(2), 285–294.	Percentage of children admitted to the hospital during the first year of life	Secondary
	Percentage of children admitted to an emergency room during the first year of life	Secondary
	Percentage of children who were current with their immunizations at 6 and 12 months of age	Secondary
Duggan, A., Caldera, D., Rodriguez, K., Burrell, L., Rohde, C., & Crowne, S. S. (2007). Impact of a statewide home visiting program to prevent child abuse. *Child Abuse & Neglect, 31*(8), 801–827.	Child hospitalized for ambulatory care sensitive conditions (ACSC) (including asthma, pneumonia, other upper airway conditions, gastroenteritis, dehydration, cellulitis, and seizures)	Primary
	Child seen in emergency department for ACSC	Primary
	Number of times hospitalized for ACSC	Primary
	Number of times seen in emergency department for ACSC	Primary

Citation	Measure	Primary or Secondary
Duggan, A., McFarlane, E., Fuddy, L., Burrell, L., Higman, S. M., Windham, A., et al. (2004). Randomized trial of a statewide home visiting program: Impact in preventing child abuse and neglect. *Child Abuse & Neglect, 28*(6), 597–622.	Hospitalizations for ambulatory care	Primary
Duggan, A. K., McFarlane, E. C., Windham, A. M., Rohde, C. A., Salkever, D. S., Fuddy, L., et al. (1999). Evaluation of Hawaii's Healthy Start program. *Future of Children, 9*(1), 66–90; discussion 177–178.	Ever used emergency department	Secondary
	Ever hospitalized for any reason	Secondary
	Has a primary care provider	Secondary
	Has a primary care provider who handles most health care needs	Secondary
	Has a primary care provider who knows all aspects of child's care	Secondary
	Has a primary care provider who knows family's concerns about child	Secondary
	Immunizations up-to-date	Secondary
Fergusson, D. M., Horwood, L. J., Grant, H., & Ridder, E. M. (2005). *Early Start evaluation report*. Christchurch, New Zealand: Early Start Project Ltd.[Outcomes for Māori subgroup only]	Percentage of children up to date with well-child checks	Primary
	Mean number of visits to family doctor within the past 36 months	Primary
	Percentage with dental service	Secondary
Walker, N., Johnston, V., Glover, M., Bullen, C., Trenholme, A., Chang, A., Morris, P., Segan, C., Brown, N., Fenton, D., Hawthorne, E., Borland, R., Parag, V., Von Blaramberg, T., Westphal, D., & Thomas, D. (2015). Effect of a family-centered, secondhand smoke intervention to reduce respiratory illness in indigenous infants in Australia and New Zealand: A randomized controlled trial. *Nicotine & Tobacco Research, 17*(1), 48-57.	Health provider presentations for new primary episodes of acute respiratory illness	Primary
	Health provider presentations for new primary episodes of upper respiratory tract infection	Primary
	Health provider presentations for new primary episodes of lower respiratory tract infection	Primary
	Health provider presentations for new primary episodes of otitis media	Primary
	Infant is breastfed	Secondary
	Cotinine/creatinine ratio (ng/mg)	Primary
	Infant has no daytime cough	Secondary
	Infant has no nighttime cough	Secondary

Table B.2. Maternal Health Outcome Measures, by Study

Citation	Measure	Primary or Secondary
Barlow, A., Mullany, B., Neault, N., Compton, S., Carter, A., Hastings, R., Billy, T., Coho-Mescal, V., Lorenzo, S., & Walkup, J. (2013). Effect of a paraprofessional home visiting intervention on American Indian teen mothers' and infants behavioral risks: A randomized controlled trial. *American Journal of Psychiatry*, *170*(1), 83–93.	Center for Epidemiological Studies Depression Scale (CESD). Items are rated on a 4-point scale from rarely or none of the time to most or all of the time.	Secondary
	The Achenbach System of Empirically Based Assessment (ASEBA) was used to measure mothers' psychosocial behavior. Internalizing, externalizing, and total problems scores were reported.	Primary
	The Problem Oriented Screening Instrument for Teenagers (POSIT) was used to measure potentially problematic functional areas. The authors used the Mental Health and Substance Abuse subscales.	Primary
	Alcohol use within the past 30 days	Secondary
	Marijuana use within the past 30 days	Secondary
	Any illegal drug use within the past 30 days	Secondary
	Any alcohol or illegal drug use within the past 30 days	Secondary
Barlow, A., Mullany, B., Neault, N., Goklish, N., Billy, T., Hastings, R., Lorenzo, S., Kee, C., Lake, K., Redmond, C., Carter, A., & Walkup, J. T. (2015). Paraprofessional-delivered home-visiting intervention for American Indian teen mothers and children: 3-year outcomes from a randomized controlled trial. *American Journal of Psychiatry, 172*(2), 154–162.	Parenting stress index	Primary
	CES-D score	Secondary
	ASEBA externalizing score	Primary
	ASEBA internalizing score	Primary
	ASEBA total problems score	Primary
	Alcohol use in past 30 days	Secondary
	Marijuana use in past 30 days	Secondary
	Any illegal drug use in past 30 days	Secondary

Citation	Measure	Primary or Secondary
Campbell, K. I., & Silva, P. A. (1997). *Parents as First Teachers pilot programme evaluation: Age three assessments. Final report to the Ministry of Education on the Dunedin and Gisborne/East Coast areas.* Wellington, New Zealand: Ministry of Education.	Maternal Social Support Index (MSSI), Overall	Secondary
Culp, A. M., Culp, R. E., Anderson, J. W., & Carter, S. (2007). Health and safety intervention with first-time mothers. *Health Education Research, 22*(2), 285–294.	Percentage of mothers who reported using birth control 12 months after the birth of their child	Secondary
	Percentage of mothers who reported subsequent pregnancies 12 months after the birth of their first child	Secondary
	Percentage of mothers who were pregnant 12 months after the birth of their first child	Secondary
Duggan, A., Caldera, D., Rodriguez, K., Burrell, L., Rohde, C., & Crowne, S. S. (2007). Impact of a statewide home visiting program to prevent child abuse. *Child Abuse & Neglect, 31*(8), 801–827.	Problem alcohol use	Secondary
	Any illicit drug use	Secondary
	Alcohol or drug use	Secondary
Duggan, A., Fuddy, L., Burrell, L., Higman, S. M., McFarlane, E., Windham, A., et al. (2004). Randomized trial of a statewide home visiting program to prevent child abuse: Impact in reducing parental risk factors. *Child Abuse & Neglect, 28*(6), 623–643.	CES-D: Depressive symptoms	Secondary
	Parenting Stress Index (PSI): Severe parenting stress	Primary
	Illicit drug use	Secondary
	Problem alcohol use (CAGE)	Secondary
	Mental Health Inventory (MHI): Poor general mental health	Secondary
Duggan, A. K., McFarlane, E. C., Windham, A. M., Rohde, C. A., Salkever, D. S., Fuddy, L., et al. (1999). Evaluation of Hawaii's Healthy Start program. Future of Children, 9(1), 66–90; discussion 177–178.	Community Life Skills Scale (CLSS): Maternal life skills	Secondary
	MSSI: Maternal social support	Secondary
	Confidence in adult relations	Secondary
El-Kamary, S. S., Higman, S. M., Fuddy, L., McFarlane, E., Sia, C., & Duggan, A. K. (2004). Hawaii's Healthy Start home visiting program: Determinants and impact of rapid repeat birth. *Pediatrics, 114*(3), e317–e326.	Rapid repeat birth (RRB)	Secondary
	Maternal desire for RRB	Secondary
	No family-planning site	Secondary
	Did not use birth control after index child's birth	Secondary

Citation	Measure	Primary or Secondary
Johns Hopkins University. (2005). *Evaluation of the Healthy Families Alaska program*. Report to Alaska State Department of Health and Social Services, Alaska Mental Health Trust Authority. Baltimore, MD: Author.	Rapid repeat birth	Secondary
Silovsky, J. F., Bard, D., Chaffin, M., Hecht, D., Burris, L., Owora, A., Beasley, L., Doughty, D., & Lutzker, J. (2011). Prevention of child maltreatment in high-risk rural families: A randomized clinical trial with child welfare outcomes. *Children and Youth Services Review*, *33*(8), 1435–1444.	Beck Depression Inventory-2	Primary
	Diagnostic Interview Schedule (DIS) drug and alcohol module	Secondary
Walker, N., Johnston, V., Glover, M., Bullen, C., Trenholme, A., Chang, A., Morris, P., Segan, C., Brown, N., Fenton, D., Hawthorne, E., Borland, R., Parag, V., Von Blaramberg, T., Westphal, D., & Thomas, D. (2015). Effect of a family-centered, secondhand smoke intervention to reduce respiratory illness in indigenous infants in Australia and New Zealand: A randomized controlled trial. *Nicotine & Tobacco Research, 17*(1), 48–57.	Mother is current smoker	Secondary
Walkup, J. T., Barlow, A., Mullany, B. C., Pan, W., Goklish, N., Hasting, R., Cowboy, B., Fields, P., Baker, E. V., Speakman, K., Ginsburg, G., & Reid, R. (2009). Randomized controlled trial of a paraprofessional-delivered in-home intervention for young reservation-based American Indian mothers. *Journal of the American Academy of Child & Adolescent Psychiatry, 48*(6), 591–601.	Parenting stress index	Primary
	Change in social support	Secondary
	Change in depressive symptoms	Secondary
	Alcohol use in past month	Secondary
	Cigarette use in past month	Secondary
	Illegal substance use in past month	Secondary

Table B.3. Child Development and School Readiness Outcome Measures, by Study

Citation	Measure	Primary or Secondary
Barlow, A., Mullany, B., Neault, N., Billy, T., Hastings, R., Lorenzo, S., Kee, C., Lake, K., Redmond, C., Carter, A., & Walkup, J. T. (2014). *A randomized controlled trial of a paraprofessional delivered, home-visiting intervention: Three-year outcomes for American Indian teen mothers and their children*. Manuscript in submission.	Child Behavior Checklist (CBCL), externalizing domain	Primary
	CBCL, internalizing domain	Primary
	CBCL, total problems	Primary
Barlow, A., Mullany, B., Neault, N., Compton, S., Carter, A., Hastings, R., Billy, T., Coho-Mescal, V., Lorenzo, S., & Walkup, J. (2013). Effect of a paraprofessional home visiting intervention on American Indian teen mothers' and infants behavioral risks: A randomized controlled trial. *American Journal of Psychiatry*, *170*(1), 83–93.	Infant-Toddler Social and Emotional Assessment (ITSEA) score, competence domain	Primary
	ITSEA score, dysregulation domain	Primary
	ITSEA score, externalizing domain	Primary
	ITSEA score, internalizing domain	Primary
Barlow, A., Mullany, B., Neault, N., Goklish, N., Billy, T., Hastings, R., Lorenzo, S., Kee, C., Lake, K., Redmond, C., Carter, A., & Walkup, J. T. (2015). Paraprofessional-delivered home-visiting intervention for American Indian teen mothers and children: 3-Year outcomes from a randomized controlled trial. *American Journal of Psychiatry, 172*(2), 154–162.	ITSEA score, externalizing domain	Primary
	ITSEA score, internalizing domain	Primary
	ITSEA score, dysregulation domain	Primary
	ITSEA score, competence domain	Primary
Boyd, A. (1997b). *Parents as First Teachers pilot project evaluation (PAFT): Report on Whangarei region: Final complete draft.* Wellington, New Zealand: Ministry of Education.	Positive child behaviors – imaginative play episode, attending to help	Secondary
	Positive child behaviors – imaginative play episode, using information	Secondary
	Positive child behaviors – problem solving task, total	Secondary
Caldera, D., Burrell, L., Rodriguez, K., Crowne, S. S., Rohde, C., & Duggan, A. (2007). Impact of a statewide home visiting program on parenting and on child health and development. *Child Abuse & Neglect, 31*(8), 829–852.	Bayley Scales of Infant Development (BSID), Mental Development Index and Psychomotor Developmental Index	Primary
	CBCL, internalizing score and externalizing score	Primary
	Child Responsiveness Score, Nursing Child Assessment Satellite Training (NCAST)	Primary

Citation	Measure	Primary or Secondary
Campbell, K. I., & Silva, P. A. (1997). *Parents as First Teachers pilot programme evaluation: Age three assessments. Final report to the Ministry of Education on the Dunedin and Gisborne/East Coast areas.* Wellington, New Zealand: Ministry of Education.	Age in months when child first walked six steps unaided	Secondary
	Behavior Checklist	Secondary
	Denver II Assessment, fine motor delay	Primary
	Denver II Assessment, gross motor delay	Primary
	Denver II Assessment, language delay	Primary
	Denver II Assessment, personal social items	Primary
	Kauffman Assessment Battery for Children (K-ABC), mental processing composite	Primary
	K-ABC, sequential processing	Primary
Fergusson, D. M., Horwood, L. J., Grant, H., & Ridder, E. M. (2005). *Early Start evaluation report*. Christchurch, New Zealand: Early Start Project Ltd.	Duration of attendance in early childhood education (months)	Secondary
	Total behavior score	Primary
	Total externalizing score	Primary
	Total internalizing score	Primary
King, T. M., Rosenberg, L. A., Fuddy, L., McFarlane, E., Sia, C., & Duggan, A. K. (2005). Prevalence and early identification of language delays among at-risk three year olds. *Journal of Developmental & Behavioral Pediatrics, 26*(4), 293–303.	Preschool Language Scale, Third Edition (PLS-3) score	Primary
Walkup, J. T., Barlow, A., Mullany, B. C., Pan, W., Goklish, N., Hasting, R., Cowboy, B., Fields, P., Baker, E. V., Speakman, K., Ginsburg, G., & Reid, R. (2009). Randomized controlled trial of a paraprofessional-delivered in-home intervention for young reservation-based American Indian mothers. *Journal of the American Academy of Child & Adolescent Psychiatry, 48*(6), 591–601.	ITSEA, competence domain (overall and subscales)	Primary
	ITSEA, dysregulation domain (overall and subscales)	Primary
	ITSEA, externalizing domain (overall and subscales)	Primary
	ITSEA, internalizing domain (overall and subscales)	Primary

Table B.4. Family Economic Self-Sufficiency Outcome Measures, by Study

Citation	Measure	Primary or Secondary
Campbell, K. I., & Silva, P. A. (1997). *Parents as First Teachers pilot programme evaluation: Age three assessments. Final report to the Ministry of Education on the Dunedin and Gisborne/East Coast areas.* Wellington, New Zealand: Ministry of Education.	Attained additional educational qualifications since birth of child	Secondary
	Elley-Irving Socio-Economic Index	Secondary
	Family composition	Secondary
	Family means of transport	Secondary
	Family owns car	Secondary
	Family Strains Questionnaire, sum of strains	Secondary
	Family Stressors Questionnaire, sum of stressors	Secondary
	Family type	Secondary
	Father in paid employment	Secondary
	Held a community services card	Secondary
	In a "married" relationship	Secondary
	Language use in the home	Secondary
	Live-in partner	Secondary
	Mother working in full-time position	Secondary
	Mother working in paid employment	Secondary
	Number of hours father figure employed per week	Secondary
	Receiving government support	Secondary
	Solo parenting	Secondary
	Subjective perception of income level	Secondary
	Type of accommodation	Secondary
Duggan, A. K., McFarlane, E. C., Windham, A. M., Rohde, C. A., Salkever, D. S., Fuddy, L., et al. (1999). Evaluation of Hawaii's Healthy Start program. Future of Children, 9(1), 66–90; discussion 177–178.	Mother earned high school degree or in school	Secondary
	Someone in household worked	Secondary

Citation	Measure	Primary or Secondary
Johns Hopkins University. (2005). *Evaluation of the Healthy Families Alaska program.* Report to Alaska State Department of Health and Social Services, Alaska Mental Health Trust Authority. Baltimore, MD: Author.	Household income above poverty level	Secondary
	Household member employed	Secondary
Silovsky, J. F., Bard, D., Chaffin, M., Hecht, D., Burris, L., Owora, A., Beasley, L., Doughty, D., & Lutzker, J. (2011). Prevention of child maltreatment in high-risk rural families: A randomized clinical trial with child welfare outcomes. *Children and Youth Services Review*, *33*(8), 1435–1444.	Family Resources Scale-Revised	Secondary
	Social Provisions Scale (SPS)	Secondary

Table B.5. Outcome Measures of Linkages and Referrals, by Study

Citation	Measure	Primary or Secondary
Silovsky, J. F., Bard, D., Chaffin, M., Hecht, D., Burris, L., Owora, A., Beasley, L., Doughty, D., & Lutzker, J. (2011). Prevention of child maltreatment in high-risk rural families: A randomized clinical trial with child welfare outcomes. *Children and Youth Services Review*, *33*(8), 1435–1444.	Referrals/linkages to additional services	Primary

Table B.6. Positive Parenting Practices Outcome Measures, by Study

Citation	Measure	Primary or Secondary
Barlow, A., Mullany, B., Neault, N., Goklish, N., Billy, T., Hastings, R., Lorenzo, S., Kee, C., Lake, K., Redmond, C., Carter, A., & Walkup, J. T. (2015). Paraprofessional-delivered home-visiting intervention for American Indian teen mothers and children: 3-year outcomes from a randomized controlled trial. *American Journal of Psychiatry, 172*(2), 154–162.	Parenting knowledge	Secondary
	Parental Locus of Control-Parental Self-Efficacy subscale	Secondary
	The Home Observation for Measurement of the Environment (HOME) Inventory is a 45-item observational checklist that assesses parent-child interactions. The authors examined the following subscales: involvement, learning materials, organization, responsivity, and variety. The acceptance subscale was excluded due to concerns regarding cultural and age appropriateness.	Primary
Barlow, A., Mullany, B., Neault, N., Compton, S., Carter, A., Hastings, R., Billy, T., Coho-Mescal, V., Lorenzo, S., & Walkup, J. (2013). Effect of a paraprofessional home visiting intervention on American Indian teen mothers' and infants behavioral risks: A randomized controlled trial. *American Journal of Psychiatry*, *170*(1), 83–93.	Parenting knowledge	Secondary
	Parental Locus of Control-Parental Self-Efficacy subscale	Secondary
	HOME Inventory	Primary
	Home safety attitudes	Secondary
	Home safety practices	Secondary
Boyd, A. (1997b). *Parents as First Teachers pilot project evaluation (PAFT): Report on Whangarei region: Final complete draft.* Wellington, New Zealand: Ministry of Education.	Positive caregiver behaviors – imaginative play episode, responding to child	Secondary

Citation	Measure	Primary or Secondary
Caldera, D., Burrell, L., Rodriguez, K., Crowne, S. S., Rohde, C., & Duggan, A. (2007). Impact of a statewide home visiting program on parenting and on child health and development. *Child Abuse & Neglect, 31*(8), 829–852.	Knowledge of Infant Development Inventory (KIDI)	Secondary
	Adult-Adolescent Parenting Inventory (AAPI)	Primary
	Maternal self-efficacy scale	Secondary
	Home Observation for Measurement of the Environment (HOME) is a 45-item observational checklist that assesses parent support and stimulation of the child in the home environment. It includes six subscales: acceptance, involvement, learning materials, organization, responsitivity, and variety.	Primary
	NCAST	Primary
	Conflict Tactics Scale – Parent-Child Version (CTS-PC) is a parent self-report measure of parenting, including harsh and neglectful parenting.	Secondary
	Recognition of child developmental delay	Secondary
Campbell, K. I., & Silva, P. A. (1997). *Parents as First Teachers pilot programme evaluation: Age three assessments. Final report to the Ministry of Education on the Dunedin and Gisborne/East Coast areas.* Wellington, New Zealand: Ministry of Education.	HOME Inventory, overall	Primary
	Parental concerns, disruption of plans	Secondary
	Parental concerns, disruption of relationship with partner	Secondary
	Parental concerns, significant concern	Secondary
	Parental concerns, social concern	Secondary
	Parents as Teachers Questionnaire, overall	Secondary
	Video session, parent-child interaction	Primary
	Total number of activities	Secondary
	Total number of experiences	Secondary
Culp, A. M., Culp, R. E., Hechtner-Galvin, T., Howell, C. S., Saathoff-Wells, T., & Marr, P. (2004). First-time mothers in home visitation services utilizing child development specialists. *Infant Mental Health Journal, 25*(1), 1–15. doi:10.1002/imhj.10086.	Home safety	Primary
	HOME Inventory scores on six subscales	Primary

Citation	Measure	Primary or Secondary
Duggan, A., Caldera, D., Rodriguez, K., Burrell, L., Rohde, C., & Crowne, S. S. (2007). Impact of a statewide home visiting program to prevent child abuse. *Child Abuse & Neglect, 31*(8), 801–827.	Mother relinquished role (child lived separately from mother for one month or more)	Secondary
Duggan, A., McFarlane, E., Fuddy, L., Burrell, L., Higman, S. M., Windham, A., et al. (2004). Randomized trial of a statewide home visiting program: Impact in preventing child abuse and neglect. *Child Abuse & Neglect, 28*(6), 597–622.	HOME Inventory: Acceptance of child's behavior, responsivity	Primary
	Conflict Tactics Scale-Parent Child (CTS-PC): Timeouts	Secondary
	CTS-PC: Nonviolent discipline	Secondary
Duggan, A. K., McFarlane, E. C., Windham, A. M., Rohde, C. A., Salkever, D. S., Fuddy, L., et al. (1999). Evaluation of Hawaii's Healthy Start program. Future of Children, 9(1), 66–90; discussion 177–178.	HOME Inventory: Learning environment	Primary
	NCAST: Caregiver total score and child total score	Primary
	Parenting Sense of Competence (PSOC): Parenting efficacy	Secondary
Fergusson, D. M., Horwood, L. J., Grant, H., & Ridder, E. M. (2005). *Early Start evaluation report*. Christchurch, New Zealand: Early Start Project Ltd.	Child Rearing Practices Report (CRPR): Non-punitive attitudes	Primary
	CRPR: Positive parenting attitude	Primary
	CRPR: Total parenting score	Primary
Walker, N., Johnston, V., Glover, M., Bullen, C., Trenholme, A., Chang, A., Morris, P., Segan, C., Brown, N., Fenton, D., Hawthorne, E., Borland, R., Parag, V., Von Blaramberg, T., Westphal, D., & Thomas, D. (2015). Effect of a family-centered, secondhand smoke intervention to reduce respiratory illness in indigenous infants in Australia and New Zealand: A randomized controlled trial. *Nicotine & Tobacco Research, 17*(1), 48–57.	Full smoking ban in home	Secondary
	Smoking ban in car	Secondary
	Household members smoke inside	Secondary
	Infant was cared for in another place where people smoke	Secondary
	Infant was around tobacco smoke	Secondary
	Infant was near an open fire for cooking or heating or camp fire	Secondary
	Infant was near people smoking cannabis	Secondary
Walkup, J. T., Barlow, A., Mullany, B. C., Pan, W., Goklish, N., Hasting, R., Cowboy, B., Fields, P., Baker, E. V.,	HOME Inventory	Primary
	Change in parenting knowledge	Secondary

Citation	Measure	Primary or Secondary
Speakman, K., Ginsburg, G., & Reid, R. (2009). Randomized controlled trial of a paraprofessional-delivered in-home intervention for young reservation-based American Indian mothers. *Journal of the American Academy of Child & Adolescent Psychiatry, 48*(6), 591–601.	Change in maternal involvement	Secondary

Table B.7. Outcome Measures of Reductions in Child Maltreatment, by Study

Citation	Measure	Primary or Secondary
Caldera, D., Burrell, L., Rodriguez, K., Crowne, S. S., Rohde, C., & Duggan, A. (2007). Impact of a statewide home visiting program on parenting and on child health and development. *Child Abuse & Neglect, 31*(8), 829–852.	No injuries requiring medical care	Secondary
	No hospitalizations due to injuries	Primary
	No emergency department visits due to injuries	Primary
Duggan, A., Caldera, D., Rodriguez, K., Burrell, L., Rohde, C., & Crowne, S. S. (2007). Impact of a statewide home visiting program to prevent child abuse. *Child Abuse & Neglect, 31*(8), 801–827.	Conflict Tactics Scale – Parent-Child Version (CTS-PC): Psychological aggression, mild physical assault, severe assault, traditional neglect, common corporal punishment, threat to esteem, hit with object, extreme physical punishment, revised neglect, corporal/verbal punishment.	Secondary
	Substantiated Child Protective Services (CPS) reports, all types	Primary
	Substantiated CPS reports, neglect	Primary
Duggan, A., McFarlane, E., Fuddy, L., Burrell, L., Higman, S. M., Windham, A., et al. (2004). Randomized trial of a statewide home visiting program: Impact in preventing child abuse and neglect. *Child Abuse & Neglect, 28*(6), 597–622.	CTS-PC: Psychological aggression, minor physical assault, severe physical abuse, common corporal/verbal punishment during the past year, assault on child's self-esteem, hitting with an object, extreme physical abuse, shook child, common corporal/verbal punishment during the past week, traditional neglect, revised neglect	Secondary
	Hospitalizations for trauma	Primary
	Conflict Tactics Scale-Parent Child (CTS-PC): Timeouts	Secondary
	CTS-PC: Nonviolent discipline	Secondary
	Substantiated CPS reports, all types	Primary
	Substantiated CPS reports, abuse or neglect	Primary
	Substantiated CPS reports, threatened abuse, neglect, or harm	Primary

Citation	Measure	Primary or Secondary
Duggan, A. K., McFarlane, E. C., Windham, A. M., Rohde, C. A., Salkever, D. S., Fuddy, L., et al. (1999). Evaluation of Hawaii's Healthy Start program. *Future of Children, 9*(1), 66–90; discussion 177–178.	Ever had injury needing medical care	Secondary
Fergusson, D. M., Horwood, L. J., Grant, H., & Ridder, E. M. (2005). *Early Start evaluation report*. Christchurch, New Zealand: Early Start Project Ltd.	Percentage attended hospital for accident/injury or accidental poisoning	Primary
	Percentage severe/very severe physical assault by any parent (CTS)	Secondary
Silovsky, J. F., Bard, D., Chaffin, M., Hecht, D., Burris, L., Owora, A., Beasley, L., Doughty, D., & Lutzker, J. (2011). Prevention of child maltreatment in high-risk rural families: A randomized clinical trial with child welfare outcomes. *Children and Youth Services Review*, *33*(8), 1435–1444.	Child Abuse Potential Inventory (CAPI)	Primary
	CTS-PC: nonviolent discipline	Secondary
	CTS-PC: physical assault	Secondary
	CTS-PC: psychological aggression	Secondary
	Post-enrollment referral to child welfare	Primary
	Post-enrollment referral to child welfare: for domestic violence	Primary
	Post-enrollment referral to child welfare: for neglect	Primary
	Post-enrollment referral to child welfare: where child was removed from the home	Primary

Table B.8. Outcome Measures of Reductions in Juvenile Delinquency, Family Violence, and Crime, by Study

Citation	Measure	Primary or Secondary
Bair-Merritt, M. H., Jennings, J. M., Chen, R., Burrell, L., McFarlane, E., Fuddy, L., et al. (2010). Reducing maternal intimate partner violence after the birth of a child: A randomized controlled trial of the Hawaii Healthy Start home visitation program. *Journal of the American Medical Association, 164*(1), 16–23.	Maternal victimization	Secondary
	Maternal perpetration	Secondary
Duggan, A., Fuddy, L., Burrell, L., Higman, S. M., McFarlane, E., Windham, A., et al. (2004). Randomized trial of a statewide home visiting program to prevent child abuse: Impact in reducing parental risk factors. *Child Abuse & Neglect, 28*(6), 623–643.	Conflicts Tactics Scale (CTS): Partner psychological abuse, partner physical abuse, partner incident resulting in injury	Secondary
Silovsky, J. F., Bard, D., Chaffin, M., Hecht, D., Burris, L., Owora, A., Beasley, L., Doughty, D., & Lutzker, J. (2011). Prevention of child maltreatment in high-risk rural families: A randomized clinical trial with child welfare outcomes. *Children and Youth Services Review*, *33*(8), 1435–1444.	CTS 2: victimization, negotiation	Secondary
	CTS 2: victimization, partnered	Secondary

APPENDIX C

OVERVIEW OF HOME VISITING PROGRAM MODELS IDENTIFIED IN THE HOMVEE TRIBAL REVIEW

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Table C.1. Overview of Home Visiting Program Models Identified in the HomVEE Tribal Review

Program Model Name	Goals	Model Components	Content
Attachment and Biobehavioral Catch-up (ABC)	The ABC intervention seeks to address the attachment and regulatory problems of infants who have experienced early adversity, including maltreatment, by targeting parenting behavior such as (1) providing sensitive, nurturing care when children are distressed; (2) following children's lead with positive affect/regard when children are not distressed; and (3) avoiding behavior that may frighten children.	Home visitors, called clinicians, implement ABC in families' homes by encouraging targeted parent behaviors through manual-guided discussions, video feedback, and "in-the-moment" comments.	In-the-moment commenting uses real-time feedback to highlight times when parents engage in intervention-targeted behaviors by (1) describing the specific behaviors of the parents; (2) linking behaviors to intervention targets; and (3) indicating the long-term outcomes of the parent's behaviors. Most feedback consists of positive responses to targeted behaviors but can also be constructive and respond to negative parent behaviors.
Baby Basket Program	The Baby Basket program seeks to improve knowledge about healthy choices concerning diet, tobacco, and alcohol as well as improving interaction with health services, particularly for antenatal and postnatal clinic visits among indigenous women. This is intended to lead to (1) better maternal health, (2) reduced complications, (3) increased proportion of normal-weight babies, and (4) thriving infants. Ultimately, the intervention is intended to reduce the gap in life expectancy between indigenous and non-indigenous Australians.	To achieve these goals, pregnant or postnatal women receive three baskets of goods that correspond with the formative stages in their maternal cycle including (1) antenatal at pregnancy diagnosis, (2) delivery or around the time of childbirth, and (3) postpartum when the baby is 6 months old. Baskets are provided at home visits as well as visits to the clinic.	The home visitors deliver the baskets and use the contents to inform conversations about infant and maternal health and wellness. Basket 1 contains a safe baby sleeper; information on healthy pregnancy to address health behaviors such as smoking, drinking, and healthy diet; a booklet on pregnancy, birth, and the postnatal period written by indigenous health workers and midwives; and a fresh food voucher. Basket 2 includes diapers and clothes for the baby and personal hygiene items for the mother. Basket 3 includes postnatal information, toys, a toothbrush, and toothpaste.

Program Model Name	Goals	Model Components	Content
Baby Family and Child Education Program (FACE)	The Baby FACE program was developed to expand opportunities for American Indian families to learn about early childhood development and support children, including infants and toddlers with special needs, during their first years of life. The goals of the program were to (1) promote pre-literacy experiences for children from birth to age 5 with the support and involvement of their parents, and (2) increase parenting skills and knowledge of child development.	To achieve these goals, families enrolled in the Baby FACE program participated in home visits that included screenings of children's development and group parent meetings and received referrals through a resource network.	The program implemented the Parents as Teachers' Born to Learn curriculum, which was adapted to each tribal community's culture.
Early intervention services	The Individuals with Disabilities Education Act (IDEA) includes a program for infants and toddlers with disabilities (the study refers to this as Part H of IDEA; in current legislation this is Part C). The program for infants and toddlers with disabilities is a federal grant program that assists states in operating a comprehensive statewide program of early intervention services for infants and toddlers with disabilities, birth through age 2 years, and their families. In order for a state to participate in the program, it must assure that early intervention will be available to every eligible child and its family.	Families enrolled in the early intervention services received home visits.	Not specified.

Program Model Name	Goals	Model Components	Content
Early Start (New Zealand)	Early Start is a voluntary home visiting program designed to improve child health; reduce child abuse; improve parenting skills; support parental physical and mental health; encourage family economic well-being; and encourage stable, positive partner relationships.	Early Start provides services through home visitation. Families are offered several additional services based on need: infant and child safety awareness; linkages to supportive services in the community, including budget, health, and relationship services; advice and support concerning healthy lifestyle choices, including family and child nutrition; and household and time management services.	All Early Start families receive services based on four established curricula: (1) Partnership in Parenting Education (PIPE) "Listen, Love, Play," which focuses on listening, trust, language, problem solving, feelings, and how babies learn; (2) Triple P Positive Parenting Program®, which focuses on positive parenting practices and means to address childhood behavior problems; (3) Getting Ready for School, focused on 4-year-olds; and (4) Incredible Years.
Even Start - tribal program	Even Start (also known as the Even Start Family Literacy Program and the William F. Goodling Even Start Family Literacy Program) had three primary goals: (1) to help parents improve their literacy or basic educational skills, (2) to help parents become full partners in educating their children, and (3) to assist children in reaching their full potential as learners.	Services included weekly home visits plus additional services. The program in Oklahoma offered monthly center-based parent meetings that included parent education and offered opportunity for social gatherings. The program in Washington offered play groups five days per week. Parents were offered classes in accounting, marketing, and computer instruction.	Even Start projects had to combine four core components: (1) early childhood education, (2) adult literacy, (3) parenting education, and (4) interactive literacy activities between parents and their children. The content of the visits varied by community. In Oklahoma home visits primary focused on parent education, specifically academic areas tested on the General Educational Development (GED) tests, and child development (including content from seven areas: language naming, language comprehension, cognitive matching, cognitive counting, fine motor skills, gross motor skills, and personal and social skills). The program in Washington used the Parents as Teachers curriculum for child development topics.

Program Model Name	Goals	Model Components	Content
Family and Child Education Program (FACE)	The FACE program was designed to address the achievement gap for American Indian children, particularly those living on rural reservations, and to better prepare American Indian children for school. The goals of the program were (1) to support parents in their role as their child's first teacher; (2) to increase family literacy; (3) to strengthen connections among family, school, and community; (4) to promote the early identification of children with special needs; (5) to increase parent participation in their child's learning and expectations for academic achievement; (6) to support and celebrate the unique cultural and linguistic diversity of each American Indian community served by the program; and (7) to promote lifelong learning.	To achieve these goals, families enrolled in the FACE program participated in home visits and a center-based component delivered through elementary schools.	Study 1: The FACE program was a modification of three national models to explicitly include the language and culture of the tribal communities served. Study 2: The FACE program was a modification of two national models: Parents as Teachers and the National Center for Family Literacy.
Family Spirit	The Family Spirit program was developed to address newborn care and maternal life skills among young American Indian pregnant and parenting mothers living on reservations. The program's goals are to (1) increase mothers' parenting knowledge and involvement, infants' social and emotional behavior, and the quality of the home environment; and (2) reduce stress, depression, and substance use among mothers.	Families participating in Family Spirit participate in home visits.	The program was modeled on Healthy Families America (HFA), a national program founded on 12 research-based principles to ensure quality of home visiting interventions for at-risk families. The content of the home-visiting intervention was derived from extensive community input on what teen parents needed to learn and was based on the *American Academy of Pediatrics Guide to Baby Care: Caring for Your Baby and Young Child: Birth to Age 5*. Cultural adaptations—including style, graphics, delivery, and content—were achieved through a community-based participatory process.

Program Model Name	Goals	Model Components	Content
Halls Creek Community Families Program	The Halls Creek Community Families Program focuses on improving the health, development, and well-being of children by (1) providing young families with support and (2) helping parents develop culturally relevant solutions to parenting issues.	Families were offered home visits conducted by Aboriginal peer support workers.	The program seeks to develop partnerships between Aboriginal peer support workers and parents by encouraging both groups to collaboratively identify culturally relevant solutions to parenting issues that address a range of social and health issues affecting Aboriginal child and maternal health. This includes (1) high rates of parental discord, (2) family breakdown, (3) preventable childhood illness, (4) child safety, and (5) nutrition.
Healthy Families America/ Healthy Families Arizona/ Healthy Families Alaska/ Hawaii Healthy Start	HFA aims (1) to reduce child maltreatment; (2) to increase utilization of prenatal care; (3) to improve parent-child interactions and school readiness; (4) to ensure healthy child development; (5) to promote positive parenting; (6) to promote family self-sufficiency and decrease dependency on welfare and other social services; (7) to increase access to primary care medical services; and (8) to increase immunization rates. Healthy Families Arizona is a state-based program that is guided by six community-based statewide steering committees (focused on training, policies and procedures, credentialing, excellence, community partnerships, and advocacy). Hawaii Healthy Start tailors its services according to family functioning to meet certain goals such as (1) no major crisis in the past 30 days, (2) regular use of a medical provider, (3) identification of a positive source of support other than the home visitor, and (4) consistent participation in the home visits.	To achieve its goals, enrolled families participate in home visits that including screenings and assessments.	HFA is based upon a set of critical elements that serve as the framework for program development and implementation. HFA program components are theoretically rooted in a strength-based approach that recognizes that all families have strengths and that programs should build on these strengths rather than focus on correcting weaknesses.

Program Model Name	Goals	Model Components	Content
Healthy Starts trial	The Healthy Starts trial was a family-centered secondhand smoke intervention that sought to reduce acute respiratory illness among indigenous infants in Australia and New Zealand by reducing their exposure to secondhand smoke.	The intervention was administered through three face-to-face home visits conducted over the first three months of the infants' lives.	All mothers (and present family members) who smoked received behavioral coaching about the dangers of secondhand smoke exposure to children, positive role modeling, and strategies for overcoming obstacles to making smoke-free changes. Those who smoked also received either brief advice or more intensive counseling to quit and were offered free nicotine replacement therapy and/or a quitline referral.
Home Activity Program for Parents and Youngsters (HAPPY) Rural Outreach Project	The HAPPY Rural Outreach Program was designed to meet the needs of families with children with developmental delays that live in remote, rural areas of Nevada where daily home- or center-based services are not practical. The outreach project was a collaborative effort of the Nevada Departments of Education and Human Resources, colleges within the University of Nevada, Reno, rural Nevada Inter-Tribal Council Head Starts, rural Nevada Head Starts, rural community service providers, and rural local education agencies.	Families participating in HAPPY received monthly home visits, quarterly progress reviews, and semi-annual assessments by a child development specialist; initial in-home evaluations, and regular video and telephone consultation with speech, physical, occupational therapists and other related service personnel; and recommendations of individualized early intervention and therapeutic activities to be done by the parents with their child in the home.	Not specified.

Program Model Name	Goals	Model Components	Content
Indian Family Wellness Project	The Indian Wellness Project was a federally funded research project with the dual goals of developing a culturally grounded, family-centered preventive intervention and facilitating the development of tribal research infrastructure.	The intervention had two components: home visitation and parent/child curricula. The program, delivered through Head Start centers, included a classroom component designed to build relationships among intervention staff, Head Start staff, and families. Families then participated in parent group meetings and home visits.	The curricula for parents and children were based on six tribal stories/legends and focused on reintroducing the practice of storytelling. The stories selected for the intervention were made into brief videos (narrated by tribal elders), in which footage interposed scenes of stories being told with historical photographs, tribal artwork, and scenes of cultural events.
ITCM Healthy Start project	Healthy Start-Home Visiting was authorized under Title III, Part D, Section 330H of the Public Health Service Act; (42 USC 254 c-8). The Healthy Start Initiative provided program funds to local agencies committed to community-driven strategies to mitigate the causes of infant mortality, low birth weight, and other poor perinatal outcomes. The purpose of Healthy Start-Home Visiting was to address significant disparities in perinatal health, especially disparities experienced by at-risk populations. The program also aimed to enhance the capacity of a community's perinatal and women's health service system. The Inter-Tribal Council of Michigan's (ITCM) Healthy Start project aimed to improve birth outcomes among American Indians living in Michigan.	During visits with families, staff referred clients to appropriate services, and then followed up with clients and providers to ensure that adequate care was provided.	Not specified.

Program Model Name	Goals	Model Components	Content
Kheth'Impilo Community-Based Adherence Support (CBAS)	The intervention is designed to provide adherence and psychosocial support to families with children living with HIV. The primary goal is the achievement of virological suppression.	The program consists of home visits and group workshops.	During the initial visit, the home visitor, called a patient advocate, assesses a family's tuberculosis and HIV-testing status, food security, substance use, domestic violence risk, social assistance grant eligibility, and adherence challenges. A multidisciplinary team discusses the family's challenges and develops strategies to facilitate adherence. The patient advocate works with the child's caregiver to implement the adherence strategies, discusses psychosocial problems, supervises medication administration, and conducts adherence checks.
Nurse Family Partnership	The intervention aims to reduce risk factors, and improve birth outcomes and maternal and child health.	The intervention consists of home visits beginning prenatally and continuing to the child's second birthday.	Nurse home visitors focus on six domains: (1) personal health; (2) environmental health; (3) family and friends; (4) maternal role; (5) use of health care and human services; and (6) maternal life course development.
Obesity Prevention + Parenting Support	The intervention was designed to promote parenting skills that facilitate healthy attitudes and interactions around eating and activity and ultimately to promote short- and long-term weight regulation for children.	To achieve its goals, enrolled families participated in home visits.	The curriculum emphasized the child's psychological and behavioral goals, logical and natural consequences, mutual respect, and encouragement techniques, as well as specifically targeted how improved parenting skills could facilitate the development of appropriate eating and exercise behaviors in children.

Program Model Name	Goals	Model Components	Content
Oklahoma Community-Based Family Resource and Support (CBFRS) Program	The model was designed to enhance maternal and child health and development. Specifically, the program sought to positively affect mothers' parenting knowledge and skill, use of community services, family planning, household safety, and child immunization. The program also aimed to increase mothers' knowledge of the effects of second-hand smoke on their children and decrease the number of cigarettes smoked.	The program consisted of home visits beginning prenatally and continuing to the child's first birthday.	The program followed a standardized curriculum that covered (1) maternal and child health, (2) child growth and development, and (3) parenting skills. Curriculum topics included characteristics of newborns and growing infants; bonding and attachment; play activities that emphasize touching and talking with the infant; healthy and safe living environments; and guidance and discipline.
Parent-Child Assistance Program (PCAP)	PCAP's primary goal is to prevent exposure to alcohol and drugs for future babies by helping clients (1) complete substance use treatment, (2) maintain abstinence from substances, (3) engage in family planning, (4) enhance the health and well-being of their child, (5) connect with community services, and (6) increase their economic stability.	To achieve this goal, enrolled mothers receive at least two home visits per month over the course of three years.	Home visitors, called case managers, work individually with mothers to identify personal, realistic, and appropriate goals using principles of motivational interviewing. They define the steps necessary to achieve these goals and monitor progress. They facilitate integrated service delivery among providers, offer regular home visitation, transport clients and children to important appointments, and work actively within the context of the extended family.

Program Model Name	Goals	Model Components	Content
Parent-Child Home Program	The Parent-Child Home Program focuses on (1) promoting positive parenting skills and building positive parent-child interaction, (2) enhancing the child's conceptual and social-emotional development, and (3) developing early literacy skills. The Parent-Child Home Program home visitors use a "light touch" approach that is non-didactic and empowers parents. The program aims to enhance the quality (including enhanced vocabulary, a reduction in discouragements, and an increase in encouragements used by the parent) and quantity of parent-child interaction to promote children's cognitive and social-emotional development and language and early literacy skills.	Enrolled families participate in home visits and receive toys and books, referrals to community services, and assistance with transition to the next educational step for the child.	Not specified.
Parents as First Teachers (PAFT) New Zealand; an adaptation of Parents as Teachers (PAT)	PAFT is based on the Parents as Teachers model and is designed to support families' in their efforts to foster their children's development, to enhance children's school readiness, to promote children's health, to prevent child abuse and neglect, and to support parents' involvement in their children's education.	To achieve these goals, families participate in home visits and group meetings.	The PAFT program uses two curricula: an adapted version of the Parents as Teachers' Born to Learn curriculum and Āhuru Mōwai, a curriculum developed for the program that is based on Māori traditional beliefs and child-rearing practices. The home visits include rapport building, child assessment, discussion of parenting issues and child development, a parent-child activity and a summary of the session.

Program Model Name	Goals	Model Components	Content
Perinatal intervention program	The perinatal intervention program was designed to encourage earlier entry to prenatal care and change of health risk habits among American Indian women. Program objectives included the need (1) to identify pregnancies early, (2) to decrease the interval between diagnosis of pregnancy and initial maternity care visit, (3) to increase the numbers of prenatal visits per patient, (4) to provide health education (including topics on pregnancy, nutrition, preterm labor, smoking cessation, prepared childbirth, breastfeeding, immunizations, well-child checks, and infant safety), and (5) to develop a system to ensure uninterrupted prenatal care when traveling between city and reservation.	Women participating in the program received two home visits (one prior to delivery and one postpartum). Additional contact occurred by telephone, during drop-in or scheduled visits to the nurse's or outreach worker's offices, through outreach programs such as WIC, during medical appointments, and during program offerings to the community (such as Lamaze childbirth education classes).	Not specified.
Philani Outreach Programme	The Philani Outreach Programme aims to build community relationships and encourage pregnant women and mothers to engage in healthy practices to improve maternal and child nutrition and health.	To achieve its goals, families participate in regular home visits.	During prenatal visits, the home visitor discusses the importance of maternal nutrition, regular prenatal clinic appointments, HIV testing, the prevention of the transmission of HIV, and the cessation of alcohol use. After the child is born, the home visitor weighs the participating child during visits and discusses his/her progress with the mother. The home visitor also makes sure that the mother has the social grants she might be entitled to and that she understands proper nutrition and hygiene. The home visitors stress the importance of breastfeeding, the proper time to introduce solids, frequent feeding, and a mixed diet including vegetables and fruit. She checks to see if immunizations are up-to-date and if the child has been dewormed.

Program Model Name	Goals	Model Components	Content
Promoting First Relationships (PFR)	PFR is a home visiting program delivered to caregivers (birth or foster/kin) of toddlers recently transitioned to their care because of child welfare placement decisions, and is intended to improve parenting and toddler outcomes. PFR providers focus on increasing parenting sensitivity using attachment theory-informed, strength-based consultation strategies in conjunction with video feedback.	To achieve its goals, 10 home visits are offered in conjunction with video recording of caregiver-child interactions.	PFR focuses on instruction for caregivers to understand child behavioral cues for nurturance, improve caregiver understanding of toddler behavioral, and increase caregiver sensitivity. Caregivers review video recordings of their interactions with the focal child, receive feedback from the home visitor on those interactions, and review handouts and instructional videos on various topics such as attachment and healthy relationships.
SafeCare Augmented	SafeCare Augmented is designed to improve caregiving and parent-child interactions, and ultimately to reduce the incidence of child maltreatment.	SafeCare Augmented supplements the regular SafeCare model with the addition of motivational interviewing, as well as training of the home visitors on identification of and response to imminent child maltreatment and risk factors of substance abuse, depression, and intimate partner violence. To achieve its goals, home visits are offered at least weekly for about six months.	SafeCare Augmented focuses on three areas: (1) infant and child health care, (2) home safety, and (3) parent-child interaction. During visits, home visitors conduct ongoing measurement of observable behaviors, model skills, observe and provide feedback on parents' practice, and train parents.
SHARE-ACTION	The SHARE-ACTION program was designed to reduce energy intake and increase physical activity among Aboriginal families by influencing participants' health behavior, modeling health behaviors, and reinforcing healthy lifestyle changes.	To achieve its goals, the program included regular home visits by Aboriginal health counselors who were trained to assess and set dietary and physical activity goals for each household member. In addition, families received weekly deliveries of spring water.	Not specified.

Program Model Name	Goals	Model Components	Content
SIDS risk factor program	This intervention aimed to improve parental knowledge of SIDS risk factors and thus reduce child deaths from SIDS. To achieve its goals, program developers created baby blankets with nine risk factors for SIDS printed on them.	Services were delivered through a home visiting program for American Indian mothers and families.	Nursing or home visiting staff distributed the blankets to families and reviewed the information on the blankets.
Toddler Overweight and Tooth Decay Prevention Study (TOTS)	The goals of TOTS were to (1) increase breastfeeding initiation and duration, (2) limit the introduction of sugar-sweetened beverages to infants and toddlers, and (3) promote the consumption of water for thirst among toddlers. The TOTS enhancement also included the following goals: (1) promoting the appropriate introduction of solid foods, (2) decreasing sedentary behavior among infants and toddlers, and (3) increasing infant and toddler motor and movement skills.	Services included a community-wide intervention and a family intervention delivered through home visits.	The first two visit clusters were intended to establish rapport, solidify contact guidelines between participants and their assigned community health workers, and collect baseline data. In the original TOTS, community health workers created a client-specific plan for initiating and maintaining breastfeeding along with water and sugar-sweetened beverage interventions in clusters 1-3. Clusters 4-7 consisted of intervention implementation and monitoring and the final cluster covered closure activities. In the TOTS enhancement, clusters 3 and 4 focused on promoting breastfeeding and connecting families to community resources. Clusters 5 and 6 focused on feeding issues and maintaining breastfeeding, Clusters 7-15 consisted of the introduction of solid foods, discussion of sugar sweetened beverage consumption, and the introduction of physical activity topics.
Universal Health Home Visit offered through Families First	The Universal Health Home Visit offered through Families First aims to connect at-risk families to child and family services.	The program offers one home visit to all newborn infants within two weeks of birth. The other services provided are not specified.	During the home visit, the nurses assess the family's needs, provide support and parent education, and refer families to a range of health and community support services.

Source: Twenty-nine models identified across 76 studies included in the HomVEE tribal review of home visiting programs implemented in tribal communities.

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