



Implementation of Evidence-Based Early Childhood Home Visiting

RESULTS FROM THE MOTHER
AND INFANT HOME VISITING
PROGRAM EVALUATION

Technical Appendix for Chapters 4 and 5

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Implementation of Evidence-Based Early Childhood Home Visiting: Results from the Mother and Infant Home Visiting Program Evaluation

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Overview

This technical appendix provides details about the family trajectory analyses conducted for Chapter 4 of the MIHOPE implementation research report and about the regression analyses conducted for Chapter 5 of that report.¹

The technical appendix first describes the empirical estimation approaches for the family trajectory analyses and the regression analyses. Next, it presents detailed results from multiple regression models summarized in Chapter 5 that predict three general service delivery measures. Last, it shows detailed results from models predicting three types of outcome-specific service delivery measures.

The tables in this appendix provide detailed estimates for all of the analyses summarized in Chapter 5 of the MIHOPE implementation research report. These tables also present descriptive statistics for the measures used in the models and report the results of the sensitivity tests and additional bivariate analyses for the different estimates. Overall, these analyses found that the analysis samples were similar in most ways to the full sample, but did show differences in mother's education, mother's verbal intelligence, and organizational rigidity. Various checks for sensitivity of model results found few differences in coefficient estimates or statistical significance patterns from the model results summarized in the MIHOPE implementation research report.

¹Anne Duggan, Ximena A. Portilla, Jill H. Filene, Sarah Shea Crowne, Carolyn J. Hill, Helen Lee, and Virginia Knox, *Implementation of Evidence-Based Early Childhood Home Visiting: Results from the Mother and Infant Home Visiting Program Evaluation*, OPRE Report 2018-76A (Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2018).

Contents

Overview	iii
List of Exhibits	v
Acknowledgments	x
Technical Appendix for Chapters 4 and 5	1
References	205

List of Exhibits

Table

TA.1	Summary Information on Home Visitors Serving Program Group Families Who Ever Received a Home Visit	23
TA.2	Sample Sizes for Analyses of Service Delivery	24
TA.3	Comparison of Characteristics Between Families Included in and Families Excluded from Analysis of Ever Receiving a Home Visit	25
TA.4	Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analysis of Whether Families Ever Received a Home Visit	27
TA.5	Comparison of Characteristics Between Families Included in and Families Excluded from Analysis of Months of Participation in Home Visiting	28
TA.6	Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analysis of Months of Participation in Home Visiting	30
TA.7	Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analysis of Months of Participation in Home Visiting	32
TA.8	Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Family Planning and Birth Spacing Service Delivery	34
TA.9	Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Family Planning and Birth Spacing Service Delivery	36
TA.10	Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Family Planning and Birth Spacing Service Delivery	38
TA.11	Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Substance Use Service Delivery	40

Table

TA.12	Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Substance Use Service Delivery	42
TA.13	Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Substance Use Service Delivery	44
TA.14	Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Mental Health Service Delivery	46
TA.15	Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Mental Health Service Delivery	48
TA.16	Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Mental Health Service Delivery	50
TA.17	Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Intimate Partner Violence Service Delivery	52
TA.18	Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Intimate Partner Violence Service Delivery	54
TA.19	Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Intimate Partner Violence Service Delivery	56
TA.20	Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Economic Self-Sufficiency Service Delivery	58
TA.21	Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Economic Self-Sufficiency Service Delivery	60
TA.22	Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Economic Self-Sufficiency Service Delivery	62

Table

TA.23	Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Child Preventative Care Service Delivery	64
TA.24	Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Child Preventive Care Service Delivery	66
TA.25	Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Child Preventive Care Service Delivery	68
TA.26	Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Child Development Service Delivery	70
TA.27	Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Child Development Service Delivery	72
TA.28	Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Child Development Service Delivery	74
TA.29	Model Results for Analysis of Ever Receiving a Home Visit	76
TA.30	Sensitivity Model Results for Analysis of Ever Receiving a Home Visit, Model Including Only Family Characteristics and Conditioned Only on Their Completeness	79
TA.31	Logit Model Results for Analysis of Ever Receiving a Home Visit	81
TA.32	Selected Model Results for Analysis of Ever Receiving a Home Visit	84
TA.33	Model Results for Analysis of Months of Participation in Home Visiting	85
TA.34	Sensitivity Model Results for Analysis of Months of Participation in Home Visiting, Model Including Only Family and Local Program Characteristics and Conditioned Only on Their Completeness	90
TA.35	Selected Model Results for Analysis of Months of Participation in Home Visiting	93
TA.36	Characteristics of Families, Home Visitors, and Local Programs Used for Predictions of Duration	94

Table

TA.37	Variation Across Families, Home Visitors, and Local Programs: General Outcomes of Service Delivery	98
TA.38	Model Results for Analysis of Trajectory Groups of Home Visits per Month	99
TA.39	Outcome-Specific Discussions and Referrals by Presence of Risk or Need at Study Entry	104
TA.40	Model Results for Ever Discussed Family Planning and Birth Spacing	106
TA.41	Model Results for Number of Visits Discussing Family Planning and Birth Spacing	112
TA.42	Model Results for Ever Received a Referral for Family Planning and Birth Spacing	117
TA.43	Model Results for Ever Discussed Substance Use	123
TA.44	Model Results for Number of Visits Discussing Substance Use	130
TA.45	Model Results for Ever Received a Referral for Substance Use	135
TA.46	Model Results for Number of Visits Discussing Mental Health	142
TA.47	Model Results for Ever Received a Referral for Mental Health	147
TA.48	Model Results for Ever Discussed Intimate Partner Violence	153
TA.49	Model Results for Number of Visits Discussing Intimate Partner Violence	159
TA.50	Model Results for Ever Received a Referral for Intimate Partner Violence	164
TA.51	Model Results for Number of Visits Discussing Economic Self-Sufficiency	170
TA.52	Model Results for Ever Received a Referral for Economic Self-Sufficiency	175
TA.53	Model Results for Number of Visits Discussing Child Preventive Care	181
TA.54	Model Results for Ever Received a Referral for Child Preventive Care	186
TA.55	Model Results for Number of Visits Discussing Child Development	192
TA.56	Model Results for Ever Received a Referral for Child Development	196

Table

TA.57	Variation Across Families, Home Visitors, and Local Programs: Family Ever Discussed Topic, by Outcome-Specific Category	202
TA.58	Variation Across Families, Home Visitors, and Local Programs: Number of Visits in Which Family Discussed Topic, by Outcome-Specific Category	203
TA.59	Variation Across Families, Home Visitors, and Local Programs: Family Received at Least One Referral, by Outcome-Specific Category	204

Box

TA.1	Data Sources	2
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The Authors

¹Duggan et al. (2018).

This technical appendix provides details about the family trajectory analyses conducted for Chapter 4 and the regression analyses conducted for Chapter 5 of the MIHOPE implementation research report.¹ The regression analyses examined how the services that families received varied based on characteristics of families, home visitors, and local programs. The trajectory analyses and regression analyses are nonexperimental and exploratory. They produce estimated associations that can suggest hypotheses for further research but cannot confirm causal relationships.

This appendix first describes the empirical estimation approaches for the family trajectory analyses in Chapter 4 and the regression analyses in Chapter 5. Next, it presents detailed results from models summarized in Chapter 5 that predict three general service delivery measures: (1) whether the family received at least one home visit, (2) how long the family continued to receive visits in the 12 months after the first home visit, and (3) the trajectory or pattern of the family's participation in home visiting during the year after the first home visit. Last, it shows detailed results from models predicting the following three outcome-specific service delivery measures: (1) whether a family ever discussed a topic, (2) whether a family ever received a referral in an outcome-specific area, and (3) the number of visits in which each outcome-specific topic was discussed.

Empirical Estimation Approaches

The analyses draw from a subset of the data sources described in the MIHOPE implementation research report. For the implementation study, the full potential sample includes the 2,104 families randomly assigned to the MIHOPE program group and the staff at all 88 local programs. Box TA.1 describes the data sources used in Chapter 5 analyses along with sample sizes and data collection time periods. The family trajectory analyses conducted for Chapter 4 use only the MIHOPE weekly family service logs, listed as the last item in Box TA.1.

These data sources capture characteristics that may explain differences in services delivered across families, described in the MIHOPE implementation research report.

¹Duggan et al. (2018).

Box TA.1
Data Sources

The analyses for Chapter 5 use data from all of the following sources. The analyses for family trajectory analyses in Chapter 4 use only the family service logs.

Family Characteristics

A **family baseline survey** with the child's mother provides data on 2,104 women assigned to the program group, and the 675 children who were already born at the time of the family baseline survey. Surveys were completed between October 2012 and September 2015.

Home Visiting Staff Characteristics and Experiences

Staff surveys of 521 home visitors and 138 supervisors provide data on their demographic and psychosocial characteristics and their perceptions, attitudes, and beliefs regarding work. Surveys were completed between September 2012 and July 2015.

Training logs, completed monthly by 600 home visitors and 142 supervisors, provide data on the dosage, content, and modality of training they received. Training logs were completed between November 2012 and May 2016.

Supervision logs, completed weekly by supervisors, provide data on the dosage, topics, and methods of supervision provided to 596 individual home visitors. Supervision logs were completed between November 2012 and February 2016.

Local Programs

Program manager surveys at 88 local programs provide data on key characteristics of local programs, such as service plan components, policies and protocols, presence and types of implementation system supports, and networks of referral agencies. Surveys were completed between September 2012 and June 2015.

Community Characteristics

Community services inventories with program managers at 86 local programs provide data on service availability of and coordination with community service providers. Community services inventories were completed between December 2012 and March 2015.

Census tract data from the 2014 American Community Survey five-year estimates for the geocoded addresses of 4,195 families (2,092 in the program group; 2,103 in the control group) provide data on the sociodemographic characteristics of the communities in which families lived.

(continued)

Box TA.1 (continued)

Services for Individual Families

Family service logs, completed weekly by home visitors for 2,021 families, provide information on frequency, type, and duration of contacts with the family. The logs also provide information on topics discussed, referrals provided, and levels of family responsiveness for a subsample of 1,671 families who received at least one visit. Family service logs were completed between November 2012 and June 2016.

Empirical Approach Used for Trajectory Analyses in Chapter 4

This section describes analyses for the Chapter 4 section “Patterns of Participation in Home Visiting Among Families,” which presents patterns of participation in home visiting over the first year.

First, the MIHOPE research team computed the number of home visits per month for each family, using information from the family service logs. These logs were collected weekly, and home visitors did not record the day of a visit in the log. As a result, the analysis defined “month” as a four-week period, corresponding to 28 days. Thirteen of these four-week periods compose a calendar year. The analysis included only families who received at least one home visit. Families who did not receive a visit in a particular month had a value of zero for that month.

Second, the analysis used PROC TRAJ, a user-created model fitting procedure for SAS v9.x 64-bit, to identify the main participation patterns over the year.² Trajectories were based on the number of visits a family had in each month of the year beginning with the family’s first visit. The models did not include explanatory variables such as family characteristics or the evidence-based model used by the local program. Following Nagin’s recommendations for model selection, the Bayesian information criterion (BIC) score was maximized by estimating a Poisson model with six cubic trajectories.³ This exploratory analysis identified six trends in the data, presented in Chapter 4.

Empirical Approaches Used in Chapter 5

The results in Chapter 5 are based on a series of multilevel regression models, which allow for the statistical examination of the independent associations of family, home visitor, and local program characteristics with key service delivery measures.

²Jones (2017). See also Nagin and Odgers (2010).

³Nagin (2005).

The next subsection describes the measures of service delivery that are dependent variables in the analyses. A following subsection describes the measures of family, home visitor, and local program characteristics that are explanatory variables.

Dependent Variables: Measures of Service Delivery

The research team analyzed two types of dependent variables that were derived from family service logs: (1) *general* service delivery measures and (2) *outcome-specific* service delivery measures.

General service delivery measures. The general service delivery analyses examined three dependent variables:

1. *Whether the family ever received a home visit.* This measure is a binary indicator equal to one if the family received at least one home visit, and equal to zero if the family never received a home visit. This measure reflects whether a family had any exposure to the home visiting program.
2. *The total number of months a family participated in home visiting.* This measure is a count of the number of months a family participated in home visiting during the 12-month period beginning with the family's first home visit. Thus this analysis included only families who received at least one home visit.
3. *Membership in different participation and duration trajectories.* Trajectories were based on the number of visits a family had in each month of the year following the family's first visit. Families who did not receive a visit in a particular month had a value of zero for that month. The trajectory analysis included only families who received at least one home visit. Chapter 4 showed the trajectories.

Outcome-specific service delivery measures. The outcome-specific analyses examined three dependent variables:

1. *Whether a family ever discussed a topic in an outcome-specific area.*⁴
2. *Whether a family ever received a referral in an outcome-specific area.*

⁴These analyses focused on topic areas of family planning and birth spacing, substance use, and intimate partner violence, because they had the most variation, indicated by percentages of families who ever discussed the topic being relatively closer to 50 percent than to 0 or 100 percent. By contrast, the other four topic areas had less variation, indicated by percentages of families who ever discussed the topic being relatively closer to 100 percent.

3. *The number of visits in which each outcome-specific topic was discussed.*

Analyses focused on 7 of the 18 outcome-specific areas that were discussed in the MIHOPE implementation research report:

- Family planning and birth spacing
- Substance use
- Mental health
- Intimate partner violence
- Economic self-sufficiency
- Child preventive care
- Child development

The MIHOPE implementation research report prioritized these seven outcome-specific areas for further analysis in Chapter 5 because, on balance, they had:

1. *Sufficient variation to explore the characteristics related to that variation.* Outcome-specific areas with more variation in the outcome measure were more useful for understanding relationships with other characteristics because there is more variation to explain. Outcome measures with little variation were less useful for understanding these relationships. Chapter 4 of the MIHOPE implementation research report provides information about whether topics in outcome-specific service delivery areas were discussed and whether referrals were provided in these areas, as well as the percentage of visits in which specific topics were discussed.
2. *Available explanatory variables for home visitors and local programs that were related to the outcome-specific area.* Some outcome-specific areas such as mental health or intimate partner violence had available and aligned measures for almost all of the explanatory variables that the MIHOPE research team identified. For other areas such as maternal physical health, breastfeeding, child maltreatment, child preventive care, child care, or health insurance, however, the survey did not collect information on particular explanatory variables and thus information was not available.
3. *Reliable and valid measures of baseline risk or need.* Each outcome-specific area had a baseline risk or need measure. These measures varied in whether they were aligned with discussion or referral receipt in various

outcome-specific areas. Alignment was weaker for positive parenting behavior, child maltreatment, and child preventive care.

4. *Relevance to the outcome-specific area in both prenatal and postnatal periods.* Some areas, such as substance use or mental health, are highly relevant to maternal and child health in both the prenatal and postnatal periods. Other areas are, by definition, most relevant to either prenatal or postnatal period: For example, improving birth outcomes is relevant in the prenatal period, while child care is relevant in the postnatal period. The analyses focused primarily on measures that were relevant in both prenatal and postnatal periods.⁵

Explanatory Variables: Characteristics of Families, Home Visitors, and Local Programs

Many possible explanatory variables at the family, home visitor, and local program levels were available from MIHOPE data sources. Selecting explanatory variables for each model was guided by the MIHOPE implementation study conceptual framework and research questions described in the MIHOPE implementation research report (Chapter 1). In selecting explanatory variables, the research team considered findings from previous studies of home visiting implementation and the potential relevance of findings for policy and program decision making. The team also considered variation in the measure as well as the measure's validity, reliability, and item nonresponse (missing data).⁶ With these considerations in mind, the research team emphasized the following in selecting the explanatory variables:

1. **Pre-specification.** Pre-specification of the model occurred after each measure was assessed for conceptual importance; for sufficient variation across families, home visitors, or local programs; and for lack of missing data problems, but before the multivariate model was estimated.

⁵Child preventive care and child development were treated as exceptions. Even though both child preventive care and child development are relevant only in the postnatal period, they were included in the analysis because they represent an important domain in home visiting — child health and development — and satisfied the other criteria listed.

⁶In selecting the explanatory variables, the research team considered the criteria just described, not whether statistically significant relationships from bivariate regressions or multiple regressions were found between the explanatory variables and the service delivery measures in this study. As described later in this appendix, this method emphasizes a concern with omitted variable bias and with explaining variation.

2. **Parsimony.** Theory and prior empirical work informed the selection of explanatory variables, using the implementation study conceptual framework as a guide. Parsimonious specifications were balanced with concerns about omitted variable bias.
3. **Combination or composite measures.** The research team developed combination or composite measures when theoretically relevant and empirically appropriate. The use of composites carried two further advantages. First, it allowed for the measurement of overarching constructs of potential interest to the field, such as home visitors' perceptions of implementation system supports. Second, using composites may reduce measurement error across multiple individual measures of the same construct, improving predictive power in a multivariate model.
4. **Appropriate level of measurement** for variables that could be represented at more than one level. In some instances, data collected at one level could be used to measure a construct at more than one level. In these instances, the MIHOPE research team considered the relevant level for the hypothesized construct (as indicated by theory). For example, home visitors responded to survey items about organizational culture. The analysis aggregated these responses to reflect local programs' organizational culture, because organizational culture is a construct defined at the group level, not at the individual (in this case, home visitor) level.

This process resulted in the explanatory variables listed in Tables 5.1 and 5.2 of the MIHOPE implementation research report. Later sections of this technical appendix present descriptive statistics of each explanatory variable for the different analytical samples.

Multilevel Methods

Multilevel methods produced estimates of empirical relationships between the subset of service delivery measures (dependent variables) and characteristics of the family, home visitor, and local program (explanatory variables).

Estimation of each model proceeded in a series of steps. First, analyses produced an "empty" model for each service delivery dependent variable. The empty model had no explanatory variables at any level. This step provided information about variance components, with the total variance decomposed into across-family (within home visitor), across-home visitor (within local program), and across-local program components. The multilevel analyses of service delivery reflected the nesting of

families who were served by home visitors within local programs in the following general way, with results reported in a later section of this appendix:⁷

$$\text{Level 1 (family):} \quad Y_{ijk} = \pi_{0jk} + e_{ijk} \quad [1]$$

$$\text{Level 2 (home visitors):} \quad \pi_{0jk} = \beta_{00k} + r_{0jk} \quad [2]$$

$$\text{Level 3 (local programs):} \quad \beta_{00k} = \gamma_{000} + u_{00k} \quad [3]$$

Where

Y_{ijk} = Service delivery measure Y for family i served by home visitor j in local program k .

π_{0jk} = The mean service delivery for home visitor j in local program k .

e_{ijk} = Individual-level random error around the home-visitor mean service delivery; assumed to be normally distributed with mean of 0 and variance of σ^2 .

β_{00k} = The mean service delivery for local program k .

r_{0jk} = Home visitor-level random error around the local program mean service delivery. For a linear model, assumed to be normally distributed with a mean of 0 and variance of τ_π .

γ_{000} = The grand mean of service delivery measure Y .

u_{00k} = Local program-level random error around the grand mean. For a linear model, assumed normally distributed with a mean of 0 and variance of τ_β .

Next, analyses estimated a bivariate relationship for each explanatory variable at the family, home visitor, and local program levels by including each variable separately in the multi-level model, one at a time. A later section of this appendix reports these estimates. The sample used for these bivariate analyses was the same as the sample used for the multiple regression analyses.

Next, all prespecified explanatory variables at the family, home visitor, and local program levels were entered into the model simultaneously:

$$\text{Level 1 (family):} \quad Y_{ijk} = \pi_{0jk} + \sum_{f=1}^F \pi_{fjk} FC_{fijk} + e_{ijk} \quad [4]$$

⁷There is not a standard notation for multilevel models. The notation used here draws from Raudenbush and Bryk (2002).

$$\text{Level 2 (home visitors): } \pi_{0jk} = \beta_{00k} + \sum_{h=1}^H \beta_{hk} HVC_{hjk} + r_{0jk} \quad [5]$$

$$\text{Level 3 (local programs): } \beta_{00k} = \gamma_{000} + \sum_{l=1}^L \gamma_l LPC_{lk} + u_{00k} \quad [6]$$

Where

FC_{fijk} = Family characteristic f for family i served by home visitor j in local office k .

HVC_{hjk} = Home visitor characteristic h for home visitor j in local office k .

LPC_{lk} = Local program characteristic l for local program k .

π_{fjk} = The change in service delivery measure Y associated with a one-unit increase in family characteristic f .

β_{hk} = The change in mean service delivery associated with a one-unit increase in home visitor characteristic h .

γ_l = The change in mean service delivery associated with a one-unit increase in local program characteristic l .

When estimating organizational effects through multilevel methods, whether and how variables are centered can affect values of estimates and their interpretations.⁸ In the current study, centering family characteristics around either the home visitor mean or the local program mean was not conceptually meaningful since home visiting practice occurred as a one-on-one interaction between a family and home visitor, not in a group setting. Further, because more of the variation in the dependent variables occurred at the family level, centering around the group means or the grand means would not have a meaningful effect on the estimates. For similar reasons, the home visitor characteristics were not centered.

Model estimation reflected the different types of dependent variables:

- Models for binary dependent variables (whether the family ever received a visit, whether a topic was ever discussed, or whether a referral was ever provided) and for the number of months a family participated in home visiting used a *linear model* for estimation using SAS PROC MIXED. The linear model for binary outcomes produces coefficient estimates that are straightforward to interpret and whose meaning is similar to those produced by logit or probit models when evaluated near the center of the distribution.

⁸Enders and Tofighi (2007).

- The model of a family's membership in a trajectory group used an *ordinal logit model*. Analyses used PROC TRAJ to identify a trajectory group for each family, resulting in six distinct participation patterns, each representing increasing levels of participation. Analyses then used SAS PROC GLIMMIX to estimate an ordinal logit model that predicted group membership.
- The model of the number of times a family and home visitor discussed particular topics used a *negative binomial model*. It included an offset term for each family of the log value of the family's total number of home visits in the time period in which the outcome is being modeled. Negative binomial models are appropriate for measuring counts or rates and are suitable when overdispersion is present (that is, variance is greater than the mean), as it was for the number of times that different topics were discussed.⁹ Analyses used SAS PROC GLIMMIX to estimate these models, and the coefficients from them have interpretations as semi-log coefficients.

Analysis Samples

The analyses used information on program group families only. Sample sizes varied by the dependent variable and on data availability for both dependent variable and explanatory variables. Analyses used complete cases, that is, analyses included only observations with nonmissing data on all measures in the model. The current section provides information on the sample sizes, availability of data, and comparisons of characteristics between observations that were included and excluded from different analyses. After describing results from matching families with home visitors, the section is organized by dependent variable.

Matching families to home visitors. The top panel of Technical Appendix Table TA.1 shows the distribution of the number of home visitors for families. Among families who received at least one home visit, almost 80 percent had just one home visitor (1,328 out of 1,671 families).

The second panel of Technical Appendix Table TA.1 also presents the distributions of the number of home visitors for families, but only shows the number of home visitors who completed a survey. Among families who received at least one home visit, 309 families were served by a home visitor who did not complete a survey. Thus, any

⁹Hilbe (2011).

analysis that uses home visitor characteristics in the model and that uses a sample of families who had at least one visit will have at most 1,362 families (1,671 families total with 309 missing home visitor information) even before considering item nonresponse. Among families who received at least one home visit and who were served by at least one home visitor who completed a survey, 87 percent had responses from just one home visitor (1,179 families divided by 1,362). When at least two home visitors who served a family completed a survey, the analysis used the responses for the home visitor who completed more than half of the family's visits, if that home visitor completed a survey. Otherwise, a home visitor was selected at random from among the home visitors who had visited the family and who had completed a survey. Among families where multiple home visitors completed a survey, the home visitor used in the analysis provided at least half of all visits in 94 percent of the families.

Technical Appendix Table TA.2 shows sample sizes for families, home visitors, and local programs that are included in the analyses for each service delivery measure reported in Chapter 5. It also shows the number of families, home visitors, and local programs that were excluded from analyses of each service delivery measure. Families, home visitors, or local programs were included in the analysis of a service delivery measure for two types of reasons. First, as described earlier, only families whose explanatory variables and service delivery measures were nonmissing were used in the statistical models. Because each family was matched to a home visitor and local program, if a value for any explanatory variable at the level of home visitor or local program was missing then the family was dropped from the analysis. The first row of the table shows that the analysis of whether a family received a home visit included 1,753 families from 81 local programs, and excluded 268 families from 6 local programs. Second, analyses of most service delivery measures examined only families who received at least one visit, indicated by note "a" in the table. Families who did not receive a home visit were removed from the possible sample before computing the sample sizes, shown in Appendix Table TA.2 for these measures.

Technical Appendix Table TA.3 through Technical Appendix Table TA.28 show characteristics of the included and excluded samples (family, home visitor, and local program) for each of the general service delivery variables and for each of the seven outcome-specific areas.¹⁰ The title of each table indicates the service delivery dependent variable (for example, "ever receiving a home visit" in Technical Appendix

¹⁰Characteristics are not shown separately for the third general service delivery measure — membership in a trajectory group — because they would be the same as the ones shown for the service delivery measure of "months of home visiting" shown in Appendix Tables TA.5, TA.6, and TA.7.

Table TA.3) and the level of characteristic reported in the table (family, home visitor, or local program). For example, Technical Appendix Table TA.3 reports on family characteristics while Table TA.4 reports on local program characteristics. The tables appear in order by dependent variable as discussed in Chapter 5. For each dependent variable, the first table shows family characteristics, the second table shows home visitor characteristics (for all service delivery measures except for whether the family ever received a home visit), and the third table shows local program characteristics. The tables show the sample mean of each characteristic included in the statistical model for the analysis sample and for the excluded sample. The sample size for the analysis sample is reported at the bottom of the first column, while an additional column shows the number of available observations contributing to the mean for the excluded sample.

Overall, most of the differences between the included or excluded samples are either small, statistically insignificant, or both. However, because of the large number of comparisons, some will be statistically different just by chance.¹¹ Therefore, analyses that adjusted for multiple comparisons were conducted, but the results shown do not reflect the adjustments. A Benjamini-Hochberg adjustment applied to the results in Technical Appendix Tables TA.3 through TA.28 found that 7 of the 392 tests were statistically significant after applying the adjustment:¹² In the outcome-specific service delivery area of economic self-sufficiency, women in the analysis sample had higher intelligence scores, were more likely to be employed in the last three years, and more likely to have earnings in the past month compared with participants who were excluded (Table TA.20). Women in the analysis samples for mental health and child preventive care service delivery areas had more education, compared with women who were excluded from the analysis (Table TA.14 and Table TA.23). Local programs with less rigid organizational cultures were more likely to be in the analysis sample for whether families ever received a visit and also the number of months the family participated in home visiting, compared with local programs excluded from the analysis (Table TA.4 and TA.7). Future analyses could test the sensitivity of the model results in the chapter to the complete case criterion, for example by exploring multiple imputation of missing values.

The available sample size for each characteristic should also be considered when interpreting any differences (or lack of differences) shown in these tables: Unless

¹¹Even if no relationship actually exists, just by chance 100 out of every 1,000 statistical tests will show a statistically significant relationship, if $p < 0.10$ is used as a testing standard.

¹²The Benjamini-Hochberg adjustment used a false discovery rate of 10 percent.

the information is missing at random, then the sample mean value might be different if information for the full sample were known. Thus, care should be taken in interpreting sample means that reflect only a portion of the total excluded sample, as well as statistical tests that include them, because differences might or might not be evident if information for the full sample were available.

Compared with analyses of the general service delivery measures, analyses of the outcome-specific service delivery measures included fewer families, home visitors, and local programs. This is due to the number of outcome-specific explanatory variables (primarily from home visitor surveys) that were included in the models. Table 5.1 of the MIHOPE implementation research report shows the explanatory variables used in analyses of the general service delivery measures, and Table 5.2 shows the explanatory variables used in analyses of the outcome-specific service delivery measures.

Sensitivity Checks

Analyses conducted to test the sensitivity, or robustness, of the estimates reported in Chapter 5 centered around three types of investigations: different analytic samples, different model distributions, and different criteria for selecting variables for the model.

Different analytic samples. As discussed earlier, the analyses summarized in Chapter 5 used observations with nonmissing data on all explanatory variables. Additional analyses explored whether this analytic decision might have affected the estimates. In particular, for the general service delivery measure “ever received a home visit,” a set of regression models used all observations with nonmissing information on family characteristics and evidence-based model indicators (removing other local program characteristics from consideration); and another set of regression models used all observations with nonmissing information on both family and local program characteristics (removing home visitor characteristics from consideration). Findings from these analyses are reported in “Sensitivity Tests” sections later in this appendix.

Distributions. Linear model estimation of binary dependent variables results in heteroskedasticity and can produce predictions outside the possible range of 0 to 1. Thus, analyses of binary dependent variables were also estimated with logit models, which use an error distribution that is appropriate for a dependent variable that can have just two values. Findings from these analyses are reported in “Sensitivity Tests” sections later in this appendix.

Alternate set of explanatory variables using model fit criteria. The main analyses pre-specified explanatory variables. Selecting these variables involved balancing considerations of omitted variable bias and of overcontrolling; and of explaining variation and of emphasis on a simpler model with coefficients that may be easier to interpret (because they are not conditional on many other factors). Omitted variable bias or explaining variation would be addressed by including more variables, while overcontrolling or a goal of having simpler models would be addressed by including fewer variables.

The results presented in Chapter 5 reflect a prespecification approach that emphasized a concern with omitted variable bias and explaining variation. An alternative “model selection approach” used different criteria for selecting explanatory variables for the model. This process started with all the pre-specified explanatory variables, except for the evidence-based model indicators, then used model fit criteria to reduce the number of explanatory variables. Specifically, analyses used SAS PROC GLMSELECT with the following model options:

- Stepwise model selection (SELECTION=STEPWISE).
- Model selection choice based on the predicted residual sum of square with k -fold cross validation (CHOOSE=CV).
- Order in which effects enter or leave the model in stepwise selection was also based on the predicted residual sum of squares with k -fold cross validation (SELECT=CV).
- At each iteration, the stepwise procedure was guided by whether an explanatory variable should be dropped or added to the last model based on the selection criteria (DROP=COMPETITIVE).
- The cross-validation was based on leave-one-out observation at the local program level (CVMETHOD=INDEX(SITEID)).

This analysis produced a reduced set of explanatory variables. Next, analyses included this reduced set in a multilevel, multiple regression model using the same distribution that was used in the main analysis (for example, a linear model for binary or duration outcomes). A later section of the appendix reports findings for these models for the general service delivery measures of whether the family received a home visit, and how long the family participated in home visiting. This approach resulted in findings, discussed in the next section, that were broadly similar to those reported in the main analyses.

What Characteristics Are Associated with Families' Participation in Home Visiting?

This section presents detailed estimates for the results presented in Chapter 5 of the MIHOPE implementation research report, as well as a series of sensitivity tests for each.

Characteristics Associated with a Family's Receipt of at Least One Home Visit

Results Summarized in Chapter 5

Technical Appendix Table TA.29 shows the full model from analyses reported in Figures 5.1 and 5.2 of Chapter 5. The dependent variable is a binary measure of whether the family received at least one home visit. The first three columns show results from a series of bivariate models (coefficient, standard error, p-value) that include each characteristic separately, and the last three columns show results from a multiple regression model that includes all explanatory variables simultaneously. The same analytic sample was used to estimate the bivariate and multiple regression models.

Sensitivity Tests

To test the sensitivity of results to the sample used in the main analysis, which used complete case analysis, analyses included only family characteristics and indicators for evidence-based model for the 1,852 observations that had nonmissing values on these family characteristics. Technical Appendix Table TA.30 shows results using this sample. Results are generally consistent with those reported in Technical Appendix Table TA.29 and summarized in Chapter 5. Specifically, signs and magnitudes of coefficients and patterns of statistical significance are similar across the models.

To test whether the results are sensitive to use of a linear model, analyses used a logit model. Technical Appendix Table TA.31 shows bivariate and multiple regression logit coefficients; exponentiating the coefficient estimate (that is, $e^{\hat{\beta}}$) produces the odds ratio. Results are generally consistent with those reported in Technical Appendix Table TA.29. Because the models assume different error structures, the point estimates for the coefficients and standard errors are not directly comparable — that is, one would not expect them to have similar values. However, the coefficient signs are the same and statistical significance levels are very similar, as expected.

To test whether the results are robust to using model fit criteria to select a subset of explanatory variables for the model, analyses followed the steps described earlier in this technical appendix. Technical Appendix Table TA.32 shows results from this model. Inferences about magnitude and statistical significance based on this model are generally consistent with those from the main model. The coefficient estimates for the explanatory variables that this process selected were similar in magnitude to the main analysis estimates shown in Technical Appendix Table TA.29. The standard errors are smaller, as would be expected with fewer explanatory variables in the model. Thus, coefficients for a few explanatory variables — biological father living in the household, a language other than English spoken at home, and poor maternal self-rating of health — are statistically significant in the multiple regression model shown in Technical Appendix Table TA.32 but they did not meet the criteria stated for highlighting in Chapter 5.¹³

Characteristics Associated with the Duration of a Family’s Participation in Home Visiting

Results Summarized in Chapter 5

Technical Appendix Table TA.33 shows full model results from analyses reported in Figures 5.3, 5.4, and 5.5 of Chapter 5. The dependent variable is the number of months a family participated in home visiting. The first three columns show results from a series of bivariate models (coefficient, standard error, p-value) that include each characteristic separately, and the last three columns show results from the multiple regression model that includes all explanatory variables simultaneously. The same analytic sample was used to estimate the bivariate and multiple regression models.

Sensitivity Tests

To test the sensitivity of results to the sample used in the main analysis, which used complete case analysis, analyses used a two-level model that included only family characteristics and local program characteristics with nonmissing values. Technical Appendix Table TA.34 shows results using this sample. The results are generally consistent with the main results shown in Technical Appendix Table TA.33. Most coefficient estimates were the same sign and similar in magnitude in both models, and patterns of statistical significance were similar. A few coefficients changed

¹³The highlighted findings are conditional associations whose 90 percent confidence intervals include a relatively large value (at least 5 percentage points in either direction for this dependent variable) but do not include zero.

signs, but were not close to being statistically significant in either model. Other coefficients, such as those indicating women who did not speak English at home or families in which the biological father lived in the home, did change in magnitude across the specifications, but the patterns of statistical significance were similar. The association of mothers whose race and ethnicity were classified as “other/multiracial” with the number of months the family participated in home visiting was negative and statistically significant in the multiple regression model shown in Appendix Table TA.34, which differed from the results summarized in Chapter 5.¹⁴

To test whether the results are robust to using model fit criteria to select a subset of explanatory variables for the model, analyses followed the steps described earlier in this technical appendix. Technical Appendix Table TA.35 shows results from this model. Inferences about magnitude and statistical significance based on this model are generally consistent with those from the main model. The coefficient estimates for the explanatory variables that this process selected were similar in magnitude to the main analysis estimates shown in Technical Appendix Table TA.33. The standard errors were smaller, as would be expected with fewer explanatory variables in the model. Two explanatory variables that were discussed in Chapter 5 for this outcome were not identified through the model fit approach: mother’s self-rating of health and whether the family had moved more than once in the past year. One explanatory variable was identified through the model fit approach but not highlighted in Chapter 5: home visitor’s morale score. Results from the model fit approach indicated that home visitor morale was positively related to the duration of families’ participation in home visiting. Because explanatory variables themselves can be correlated, the variables included or excluded from a regression model specification can affect both estimated coefficients and standard errors. Future research could further explore associations for the characteristics noted here — such as mother’s self-rating of health, whether the family had moved more than once in the past year, and home visitor morale — that seem to be sensitive to the inclusion of other explanatory variables in the models.

Predicted Values in Figure 5.6

Figure 5.6 in Chapter 5 shows predictions based on the multivariate model for different profiles of families, home visitors, and local programs: those with relatively

¹⁴The magnitude (substantively large) and direction (negative) of the estimated association for this variable are similar in results reported in Appendix Tables TA.33 and TA.34. However, the estimated association in Appendix Table TA.33 is not statistically different from zero, while it is statistically different in TA.34.

greater barriers or challenges, those with average values for the characteristics, and those with relatively fewer barriers or challenges. Predictions used the values of the explanatory variables that are shown in Technical Appendix Table TA.36, along with the coefficient estimates from the main results that are shown in Technical Appendix Table TA.33.

Variance Decomposition

Technical Appendix Table TA.37 shows the sample sizes and variance decomposition for the general service delivery measures of whether a family received a home visit, the number of months a family participated in home visiting, and the trajectory group membership. Almost all the variation in these outcomes occurs at the family level.

Characteristics Associated with a Family's Trajectory Group Membership

Analyses used an ordinal logit model to predict membership in one of the six trajectory groups, shown in Chapter 4 of the MIHOPE implementation research report. Technical Appendix Table TA.38 reports the results. The results are generally consistent with the estimates from the main analysis for the number of months a family participated in home visiting. While the models are not directly comparable because different dependent variables were modeled and different distributions were used, the coefficient signs and patterns of statistical significance are the same for almost all estimates. An exception is the estimate on home visitor morale, which is statistically significant ($p < 0.05$) and positive in the ordinal logit model but is not statistically significant in the model of duration in months. As noted in the previous section on the general service delivery measure of duration in months, home visitor morale was also positively related to membership in trajectory groups with longer duration and more visits, when the model fit approach was used. These findings suggest potential in further exploring associations between home visitor morale and general service delivery measures.

What Characteristics Are Associated with Outcome-Specific Service Delivery of Home Visiting?

Simple Associations between Risk and Outcome-Specific Service Delivery Measures

Table 5.6 in Chapter 5 shows the bivariate relationship between presence of baseline risk or need and services related to that baseline risk or need. The analysis examined three outcome-specific service delivery measures:

- Whether a family ever discussed a topic in an outcome-specific area
- The number of visits in which each outcome-specific topic was discussed
- Whether a family ever received a referral in an outcome-specific area

The analysis examined seven different outcome-specific areas:

- Family planning and birth spacing
- Substance use
- Mental health
- Intimate partner violence
- Economic self-sufficiency
- Child preventive care
- Child development

Analyses in Table 5.6 used the subsample of families who received at least one home visit and who had nonmissing values on all covariates needed for the multiple regression analyses reported in Chapter 5 of the MIHOPE implementation research report. To investigate whether the bivariate associations shown in Table 5.6 were sensitive to these sample restrictions, another set of analyses used all available observations for each bivariate association. Technical Appendix Table TA.39 shows those results. While the point estimates differ somewhat, they are generally the same magnitude — within about 2 percentage points or less for ever discussing or ever receiving a referral in an outcome specific area, and within half a visit or less for the number of visits in which a particular topic was discussed. Somewhat larger differences are evident for ever discussing substance abuse, ever receiving a referral for

child preventive care or for child development, and for the number of visits in which child preventive care or child development was discussed. Even for these five outcome-specific service delivery areas, however, the patterns of statistical significance are consistent across Table 5.6 and Appendix Table TA.39, suggesting that the overall takeaway is consistent as well. More generally, the pattern of statistical significance across all the outcome-specific service delivery measures is largely consistent, with all of the statistically significant differences from Table 5.6 remaining at least as strong in Appendix Table TA.39. The number of visits in which family planning and birth spacing and mental health were discussed were statistically different for the sample shown in Appendix Table TA.39 but not for the sample shown in Table 5.6. The differences in statistical significance for these outcomes are not surprising, given the relatively small differences in the means between the groups and the larger sample sizes used in analyses for Appendix Table TA.39, compared with those used in analyses for Table 5.6.

Outcome-Specific Area Results

Results Summarized in Chapter 5 and Sensitivity Tests

Analyses of outcome-specific service delivery measures examined seven topics, as described earlier in this technical appendix. Summary results in Chapter 5 drew from results in the following set of tables. Three outcome-specific areas (family planning and birth spacing, substance use, and intimate partner violence) have three tables:

1. Whether a family ever discussed a topic in an outcome-specific area
2. The number of visits in which each outcome-specific topic was discussed
3. Whether a family ever received a referral in an outcomes-specific area

Four areas (mental health, economic self-sufficiency, child preventive care, and child development) have two tables:

1. The number of visits in which each outcome-specific topic was discussed
2. Whether a family ever received a referral in an outcome-specific area

As discussed earlier in this appendix, analyses did not focus on whether the family ever discussed these four areas (mental health, economic self-sufficiency, child preventive care, and child development) because the discussion rates were closer to 100 percent and there was less variation to explain.

- Family planning and birth spacing: Technical Appendix Tables TA.40 through TA.42
- Substance use: Technical Appendix Tables TA.43 through TA.45
- Mental health: Technical Appendix Tables TA.46 and TA.47
- Intimate partner violence: Technical Appendix Tables TA.48 through TA.50
- Economic self-sufficiency: Technical Appendix Tables TA.51 and TA.52
- Child preventive care: Technical Appendix Tables TA.53 and TA.54
- Child development: Technical Appendix Tables TA.55 and TA.56

Summary analyses in Chapter 5 drew from the following models shown in these tables:

- Multiple regression linear model results for the two binary service delivery measures (whether the family discussed a topic in an outcome-specific area, and whether the family received a referral in an outcome-specific area)
- The negative binomial multiple regression results for the number of times a family discussed the outcome-specific area

The tables also show bivariate results for each characteristic. For the binary service delivery measures, multiple regression logit model results are shown.

Variance Decomposition

Technical Appendix Table TA.57 shows the sample sizes and variance decomposition for the service delivery measure of whether families and home visitors discussed a topic. Technical Appendix Table TA.58 shows these values for the number of times a family and home visitor discussed a topic. Technical Appendix Table TA.59 shows these values for whether a family received a referral in an outcome-specific area. As with the general service delivery measures, most of the variation is at the family level. These outcome-specific service delivery measures show relatively more variation than the general service delivery measures across home visitors and local programs.

The tables in this appendix provide detailed estimates for all of the analyses summarized in Chapter 5 of the MIHOPE implementation research report. These tables also present descriptive statistics for the measures used in the models, and report the results of the sensitivity tests and additional bivariate analyses for the different estimates. Overall these analyses found that the analysis samples were similar in most ways to the full sample, but did show differences in mother's education, mother's verbal intelligence, and organizational rigidity. Future analyses could test the sensitivity of the model results in the chapter to the complete case criterion, for example, by exploring multiple imputation of missing values. Various checks for sensitivity of model results found few differences in coefficient estimates or statistical significance patterns from the model results summarized in the MIHOPE implementation research report.

Table TA.1**Summary Information on Home Visitors Serving Program Group Families
Who Ever Received a Home Visit**

Characteristic	Families in the Overall Analysis Period	Families in the Prenatal Period	Families in the Postnatal Period
Number of families with...			
One home visitor	1,328	969	1,180
Two home visitors	272	92	209
Three home visitors	64	9	45
Four home visitors	7	0	4
Number of families with...			
No survey-completing home visitors	309	216	268
One survey-completing home visitor	1,179	791	1,041
Two survey-completing home visitors	169	59	123
Three survey-completing home visitors	14	4	6
Among families with one survey-completing home visitor, average percentage of visits completed by that home visitor (%)	96.0	98.5	96.2
Among families with multiple survey-completing home visitors, average percentage of visits completed by the survey-completing home visitor who visited the family the most often (%)	72.5	70.3	71.9
Sample size ^a	1,671	1,070	1,438

SOURCE: The MIHOPE family service logs.

NOTE: ^aSamples include only families with visits in the relevant time period. There were 350 families who received no home visits in any time period.

Table TA.2
Sample Sizes for Analyses of Service Delivery

Service Delivery Outcome	Included in Analysis			Excluded From Analysis		
	Number of Families	Number of Home Visitors	Number of Local Programs	Number of Families	Number of Home Visitors	Number of Local Programs
<u>General service delivery</u>						
Whether family received a home visit	1,753	NA	81	268	NA	6
Duration of participation in home visiting, in months ^a	1,088	324	81	274	61	5
Membership to trajectory group of number of home visits per month ^{a,b}	1,088	324	81	274	61	5
<u>Outcome-specific service delivery^a</u>						
Whether topic was ever discussed						
Family planning and birth spacing	916	292	78	446	93	8
Substance use	937	272	72	425	113	14
Intimate partner violence	990	292	76	372	93	10
Number of visits in which topic was discussed						
Family planning and birth spacing	916	292	78	446	93	8
Substance use	937	272	72	425	113	14
Mental health	996	288	74	366	97	12
Intimate partner violence	990	292	76	372	93	10
Economic self-sufficiency	821	277	78	541	108	8
Child preventive care ^c	295	141	55	145	53	9
Child development ^c	306	143	55	134	51	9
Whether family ever received a referral						
Family planning and birth spacing	652	259	74	316	82	10
Substance use	497	212	67	184	79	15
Mental health	832	276	73	292	92	13
Intimate partner violence	412	199	71	161	68	11
Economic self-sufficiency	730	264	75	471	104	11
Child preventive care ^c	280	136	55	131	52	9
Child development ^c	296	139	55	131	51	9

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: NA = not applicable.

Analyses were restricted to observations that had complete data on all the characteristics in the statistical model.

^aThese analyses were further restricted to families ever receiving at least one home visit.

^bFor the purposes of this analysis only, a month is defined as four weeks (28 days).

^cThese analyses were further restricted to families in which the mother was not pregnant at study entry.

^dThese analyses were further restricted to families discussing the outcome-specific area at least once or receiving at least one referral in the outcome-specific area.

Table TA.3

Comparison of Characteristics Between Families Included in and Families Excluded from Analysis of Ever Receiving a Home Visit

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Maternal sociodemographic characteristics</u>				
Mother was pregnant at study entry (%)	68.9	65.7	268	0.497
Average maternal age ^a (years)	23.3	25.1	268	0.025
First-time mother (%)	65.1	58.2	225	0.284
Language other than English spoken in the home (%)	35.5	39.2	268	0.472
Mother's race or ethnicity ^b (%)				0.357
White, non-Hispanic	24.8	22.4	254	
Black, non-Hispanic	30.6	31.5	254	
Hispanic, Mexican	23.3	27.2	254	
Hispanic, other	13.4	8.3	254	
Other/multiracial	7.9	10.6	254	
Child's biological father lives in the home (%)	41.0	42.9	226	0.626
Mother is in a relationship (%)	74.3	74.6	232	0.939
<u>Maternal and household risk factors</u>				
Mother's health self-rated as "poor" or "fair" or limits activities (%)	26.4	27.9	258	0.663
Mother's depression symptoms score at or above cutoff ^c (%)	38.4	35.6	247	0.493
Mother's abstract verbal reasoning score ^{a,d}	0.0	-0.1	246	0.216
Mother's relationship anxiety score ^{a,e}	0.0	-0.1	242	0.607
Mother's relationship avoidance score ^{a,e}	0.0	0.0	245	0.310
<u>Maternal and household economic self-sufficiency (%)</u>				
Mother's highest level of education ^b				0.004
Less than a high school diploma ^f	42.0	53.0	217	
High school diploma	34.8	22.6	217	
At least some college	23.2	24.4	217	
Household experiences food insecurity ^g	54.5	52.0	254	0.487
Mother has moved more than once in the past year	20.3	20.8	245	0.830
Sample size	1,753	268		

(continued)

Table TA.3 Family Sample Comparison for Ever Receiving a Home Visit (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of families within local programs.

^bSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Percentages may not sum to 100 because of rounding.

^cA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^dMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008). This variable was standardized to a mean of 0 and a standard deviation of 1.

^eMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

^fThis category includes mothers who have received a General Educational Development certificate.

^gRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

Table TA.4

Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analysis of Whether Families Ever Received a Home Visit

Characteristic	Analysis	Excluded	Excluded	P-Value
	Sample	Sample	Sample Not Missing	
	Mean	Mean	Characteristic (N)	
<u>Community characteristics</u>				
Index of neighborhood socioeconomic disadvantage ^{a,b}	0.9	0.5	6	0.187
<u>Organizational culture scores^{a,c}</u>				
Rigidity	-0.1	1.8	3	0.001
Proficiency	0.0	0.5	3	0.377
Resistance	0.0	-0.4	1	0.683
<u>Staffing</u>				
Difficult to recruit qualified home visitor candidates (%)	51.9	66.7	6	0.680
At least one staff person with dedicated time to support CQI activities (%)	60.5	40.0	5	0.393
Average number of families in home visitors' caseloads ^a	13.9	13.1	6	0.669
<u>Evidence-based model^d (%)</u>				
Early Head Start Home-based option	21.0	16.7	6	0.082
Healthy Families America	30.9	16.7	6	
Nurse-Family Partnership	27.2	0.0	6	
Parents as Teachers	21.0	66.7	6	
Sample size	81	6		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: CQI = continuous quality improvement.

For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Fisher's exact test. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA.

^bThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^cMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations. These variables were standardized to a mean of 0 and a standard deviation of 1.

^dSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Fisher's exact test. Percentages may not sum to 100 because of rounding.

Table TA.5

Comparison of Characteristics Between Families Included in and Families Excluded from Analysis of Months of Participation in Home Visiting

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
Maternal sociodemographic characteristics				
Mother was pregnant at study entry (%)	68.8	63.5	274	0.211
Average maternal age ^a (years)	23.3	24.6	274	0.064
First-time mother (%)	64.6	59.3	248	0.311
Language other than English spoken in the home (%)	36.3	44.5	274	0.084
Mother's race or ethnicity ^b (%)				0.171
White, non-Hispanic	26.2	17.6	267	
Black, non-Hispanic	29.0	31.1	267	
Hispanic, Mexican	24.5	29.2	267	
Hispanic, other	13.1	12.4	267	
Other/multiracial	7.3	9.7	267	
Child's biological father lives in the home (%)	42.6	45.7	247	0.365
Mother is in a relationship (%)	74.7	75.7	251	0.717
Maternal and household risk factors				
Mother's health self-rated as "poor" or "fair" or limits activities (%)	28.0	25.2	270	0.366
Mother's depression symptoms score at or above cutoff ^c (%)	38.1	36.1	266	0.596
Mother's abstract verbal reasoning score ^{a,d}	0.0	-0.1	263	0.244
Mother's relationship anxiety score ^{a,e}	0.0	-0.1	264	0.612
Mother's relationship avoidance score ^{a,e}	-0.1	0.0	265	0.319
Maternal and household economic self-sufficiency (%)				
Mother's highest level of education ^b				0.003
Less than a high school diploma ^f	41.3	53.6	239	
High school diploma	33.8	23.4	239	
At least some college	24.9	23.0	239	
Household experiences food insecurity ^g	57.5	50.0	268	0.023
Mother has moved more than once in the past year	20.0	20.1	259	0.986
Sample size	1,088	274		

(continued)

Table TA.5 Family Sample Comparison for Months of Home Visiting (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of families within local programs.

^bSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Percentages may not sum to 100 because of rounding.

^cA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^dMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008). This variable was standardized to a mean of 0 and a standard deviation of 1.

^eMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

^fThis category includes mothers who have received a General Educational Development certificate.

^gRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

Table TA.6

Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analysis of Months of Participation in Home Visiting

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Education and work experience</u>				
Experience in home visiting ^a (%)				0.296
Less than 1 year of experience as a home visitor	14.8	23.0	61	
1 to 2 years experience as a home visitor	35.5	29.5	61	
3 or more years experience as a home visitor	49.7	47.5	61	
Earned a bachelor's degree or higher (%)	74.4	82.0	61	0.179
<u>Home visitor perceptions^b</u>				
Number of outcomes home visitor feels comfortable and effective to improve ^c	12.6	11.7	56	0.151
Number of outcomes home visitor feels supported by implementation system to improve ^d	12.3	11.1	52	0.200
Overall score of self-efficacy ^e	7.2	7.2	54	0.937
<u>Intended service plan</u>				
Number of outcomes rated as high priority ^{b,f}	10.3	10.2	57	0.774
<u>Well-being</u>				
Home visitor's depression symptoms score at or above cutoff ^g (%)	12.7	11.7	60	0.837
Home visitor's relationship anxiety score ^{b,h}	0.0	0.0	58	0.877
Home visitor's relationship avoidance score ^{b,h}	0.0	0.0	59	0.926
<u>Training and supervision^b</u>				
Percentage of supervision sessions devoted to client-specific issues	65.1	62.2	31	0.586
Time spent in individual supervision per week (minutes)	44.0	43.2	33	0.870
Training hours per month	8.4	8.7	43	0.784
<u>Work attitudes</u>				
Organizational work attitudes—morale score ^{b,i}	0.1	-0.2	47	0.039
Intent to leave position in next 12 months (%)	12.3	26.7	60	0.038
Sample size	324	61		

(continued)

Table TA.6 Home Visitor Sample Comparison for Months of Home Visiting (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Each category was tested separately. See footnote 'b' below for further information on statistical tests used with continuous variables.

^aSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Percentages may not sum to 100 because of rounding.

^bSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of home visitors within local programs.

^cCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in these areas.

^dCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^eThis measure reflects the mean score of home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^hMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. This variable was standardized to a mean of 0 and a standard deviation of 1.

Table TA.7

Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analysis of Months of Participation in Home Visiting

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Community characteristics</u>				
Index of neighborhood socioeconomic disadvantage ^{a,b}	0.9	0.7	5	0.463
<u>Organizational culture scores^{a,c}</u>				
Rigidity	-0.1	1.8	3	0.001
Proficiency	0.0	0.5	3	0.377
Resistance	0.0	-0.4	1	0.683
<u>Staffing</u>				
Difficult to recruit qualified home visitor candidates (%)	51.9	60.0	5	1.000
At least one staff person with dedicated time to support CQI activities (%)	60.5	50.0	4	1.000
Average number of families in home visitors' caseloads ^a	13.9	15.1	5	0.576
<u>Evidence-based model^d (%)</u>				0.218
Early Head Start Home-based option	21.0	20.0	5	
Healthy Families America	30.9	20.0	5	
Nurse-Family Partnership	27.2	0.0	5	
Parents as Teachers	21.0	60.0	5	
Sample size	81	5		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: CQI = continuous quality improvement.

For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Fisher's exact test. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA.

^bThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

(continued)

Table TA.7 Local Program Sample Comparison for Months of Home Visiting (cont.)

^cMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations. These variables were standardized to a mean of 0 and a standard deviation of 1.

^dSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Fisher's exact test. Percentages may not sum to 100 because of rounding.

Table TA.8

Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Family Planning and Birth Spacing Service Delivery

Characteristic	Analysis	Excluded	Excluded	P-Value
	Sample	Sample	Sample Not Missing Characteristic (N)	
	Mean	Mean		
<u>Maternal sociodemographic characteristics</u>				
Mother was pregnant at study entry (%)	67.5	68.2	446	0.850
Average maternal age ^a (years)	23.5	23.8	446	0.530
First-time mother (%)	63.2	64.5	420	0.767
Language other than English spoken in the home (%)	34.9	44.2	446	0.030
Mother's race or ethnicity ^b (%)				0.517
White, non-Hispanic	26.1	21.2	439	
Black, non-Hispanic	29.1	29.8	439	
Hispanic, Mexican	25.2	26.0	439	
Hispanic, other	11.8	15.3	439	
Other/multiracial	7.8	7.7	439	
Child's biological father lives in the home (%)	42.7	44.4	419	0.532
Mother is in a relationship (%)	74.5	75.9	423	0.546
Mother would like another child (%)	55.1	51.9	349	0.473
<u>Maternal and household risk factors</u>				
Mother's health self-rated as "poor" or "fair" or limits activities (%)	28.6	25.1	442	0.202
Mother's depression symptoms score at or above cutoff ^c (%)	38.4	36.3	438	0.438
Mother's abstract verbal reasoning score ^{a,d}	0.0	0.0	435	0.396
Mother's relationship anxiety score ^{a,e}	0.0	-0.1	436	0.364
Mother's relationship avoidance score ^{a,e}	0.0	-0.1	437	0.783
Baseline risk presence in family planning and birth spacing ^f (%)	47.7	51.8	440	0.191
<u>Maternal and household economic self-sufficiency (%)</u>				
Mother's highest level of education ^b				0.005
Less than a high school diploma ^g	41.6	47.7	411	
High school diploma	34.8	25.5	411	
At least some college	23.6	26.8	411	
Household experiences food insecurity ^h	57.8	52.5	440	0.049
Mother has moved more than once in the past year	20.0	20.2	431	0.917

(continued)

Table TA.8 Family Sample Comparison for Family Planning and Birth Spacing (cont.)

Characteristic	Analysis	Excluded	Excluded	P-
	Sample	Sample	Sample	
	Mean	Mean	Not Missing Characteristic (N)	Value
Maternal health care access and insurance (%)				
Mother's insurance type ^b				0.426
Uninsured	18.6	21.8	409	
Public coverage only	67.9	67.5	409	
Private insurance only	9.1	6.6	409	
Private insurance and public coverage	4.5	4.2	409	
Sample size	916	446		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of families within local programs.

^bSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Percentages may not sum to 100 because of rounding.

^cA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^dMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008). This variable was standardized to a mean of 0 and a standard deviation of 1.

^eMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

^fSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^gThis category includes mothers who have received a General Educational Development certificate.

^hRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

Table TA.9

Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Family Planning and Birth Spacing Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Education and work experience (%)</u>				
Experience in home visiting ^a				0.879
Less than 1 year of experience as a home visitor	15.8	17.2	93	
1 to 2 years experience as a home visitor	34.2	35.5	93	
3 or more years experience as a home visitor	50.0	47.3	93	
Earned a bachelor's degree or higher	75.7	75.3	93	0.940
<u>Home visitor perceptions</u>				
Home visitor feels they are comfortable and effective working to improve family planning and birth spacing ^b (%)	67.8	58.8	85	0.233
Home visitor feels they are supported by the local implementation system to improve family planning and birth spacing ^c (%)	63.7	53.4	73	0.136
Home visitor ratings of confidence, when faced with a challenging situation, to improve family planning and birth spacing ^{d,e}	7.0	6.9	84	0.882
<u>Intended service plan (%)</u>				
Home visitor rates family planning and birth spacing as high priority ^f	63.0	60.0	90	0.637
<u>Well-being</u>				
Home visitor's depression symptoms score at or above cutoff ^g (%)	13.4	9.8	92	0.350
Home visitor's relationship anxiety score ^{d,h}	0.1	-0.1	90	0.095
Home visitor's relationship avoidance score ^{d,h}	0.1	0.0	91	0.464
<u>Training and supervision</u>				
Percentage of supervision sessions devoted to client-specific issues ^d	65.1	63.5	63	0.699
Time spent in individual supervision per week ^d (minutes)	43.9	44.1	65	0.960
Average number of training hours per month ^d	8.4	8.8	75	0.575
Ever attended training in family planning and birth spacing (%)	49.7	37.8	74	0.058
<u>Work attitudes</u>				
Organizational work attitudes—morale score ^{d,i}	0.1	-0.1	79	0.155
Intent to leave position in next 12 months (%)	13.4	18.5	92	0.291
Sample size	292	93		

(continued)

Table TA.9 Home Visitor Sample Comparison for Family Planning and Birth Spacing (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Each category was tested separately. See footnote 'd' below for further information on statistical tests used with continuous variables.

^aSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Percentages may not sum to 100 because of rounding.

^bCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^cCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^dSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of home visitors within local programs.

^eReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^hMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. This variable was standardized to a mean of 0 and a standard deviation of 1.

Table TA.10

Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Family Planning and Birth Spacing Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Community characteristics</u>				
Index of neighborhood socioeconomic disadvantage ^{a,b}	1.0	0.6	8	0.166
Has MOU and designated point of contact with community service provider in family planning and reproductive health care ^c (%)	24.4	0.0	6	0.329
Has service provider that is available, accessible, and effective in family planning and reproductive health care ^c (%)	59.0	16.7	6	0.083
<u>Organizational culture scores^{a,d}</u>				
Rigidity	-0.1	1.0	6	0.007
Proficiency	0.0	0.1	6	0.914
Resistance	-0.1	0.5	4	0.238
<u>Staffing</u>				
Difficult to recruit qualified home visitor candidates (%)	51.3	62.5	8	0.716
At least one staff person with dedicated time to support CQI activities (%)	60.3	57.1	7	1.000
Average number of families in home visitors' caseloads ^a	14.0	14.0	8	0.979
<u>Service priorities (%)</u>				
Program rates family planning and birth spacing as "high priority" ^e	70.5	37.5	8	0.106
Program raised priority of family planning and birth spacing as a result of receipt of MIECHV funding	29.5	37.5	8	0.693
<u>Evidence-based model^f (%)</u>				
Early Head Start Home-based option	19.2	37.5	8	0.366
Healthy Families America	32.1	12.5	8	
Nurse-Family Partnership	26.9	12.5	8	
Parents as Teachers	21.8	37.5	8	
Sample size	78	8		

(continued)

Table TA.10 Local Program Sample Comparison for Family Planning and Birth Spacing (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: MOU = memorandum of understanding. CQI = continuous quality improvement.

For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Fisher's exact test. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA.

^bThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010.) The index was normed to the population-weighted national averages.

^cRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^dMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations. These variables were standardized to a mean of 0 and a standard deviation of 1.

^eHigh priority defined as a score of 8 or higher on a 10-point scale.

^fSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Fisher's exact test. Percentages may not sum to 100 because of rounding.

Table TA.11

Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Substance Use Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Maternal sociodemographic characteristics</u>				
Mother was pregnant at study entry (%)	68.4	66.1	425	0.635
Average maternal age ^a (years)	23.4	24.0	425	0.349
First-time mother (%)	65.1	60.2	399	0.317
Language other than English spoken in the home (%)	35.8	42.8	425	0.234
Mother's race or ethnicity ^b (%)				0.846
White, non-Hispanic	25.8	21.5	418	
Black, non-Hispanic	29.2	29.7	418	
Hispanic, Mexican	24.8	27.0	418	
Hispanic, other	12.7	13.4	418	
Other/multiracial	7.5	8.4	418	
Child's biological father lives in the home (%)	42.3	45.5	398	0.395
Mother is in a relationship (%)	75.2	74.1	402	0.649
<u>Maternal and household risk factors</u>				
Mother's health self-rated as "poor" or "fair" or limits activities (%)	27.1	28.3	421	0.646
Mother's depression symptoms score at or above cutoff ^c (%)	38.3	36.5	417	0.560
Mother's abstract verbal reasoning score ^{a,d}	0.0	-0.1	414	0.022
Mother's relationship anxiety score ^{a,e}	0.0	-0.1	415	0.352
Mother's relationship avoidance score ^{a,e}	-0.1	0.0	416	0.535
Smoking is permitted in the home (%)	17.0	17.4	414	0.878
Baseline risk presence in substance use ^f (%)	46.9	40.3	412	0.063
<u>Maternal and household economic self-sufficiency (%)</u>				
Mother's highest level of education ^b				0.016
Less than a high school diploma ^g	40.8	50.0	390	
High school diploma	32.8	30.0	390	
At least some college	26.5	20.0	390	
Household experiences food insecurity ^h	57.5	52.7	419	0.113
Mother has moved more than once in the past year	20.3	19.5	410	0.725

(continued)

Table TA.11 Family Sample Comparison for Substance Use (cont.)

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P- Value
<u>Substance use services (%)</u>				
Received help or treatment for alcohol or substance use in the past year	10.5	8.9	417	0.537
Sample size	937	425		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of families within local programs.

^bSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Percentages may not sum to 100 because of rounding.

^cA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^dMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008). This variable was standardized to a mean of 0 and a standard deviation of 1.

^eMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

^fSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^gThis category includes mothers who have received a General Educational Development certificate.

^hRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

Table TA.12

Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Substance Use Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Education and work experience (%)</u>				
Experience in home visiting ^a				0.638
Less than 1 year of experience as a home visitor	15.4	17.7	113	
1 to 2 years experience as a home visitor	36.0	31.0	113	
3 or more years experience as a home visitor	48.5	51.3	113	
Earned a bachelor's degree or higher	76.1	74.3	113	0.737
<u>Home visitor perceptions</u>				
Home visitor feels they are comfortable and effective working to address substance use ^b (%)	63.2	59.6	104	0.530
Home visitor feels they are comfortable and effective working to reduce tobacco use ^b (%)	64.0	56.2	105	0.226
Home visitor feels they are supported by the local implementation system to address substance use ^c (%)	57.7	46.6	103	0.085
Home visitor feels they are supported by the local implementation system to reduce tobacco use ^c (%)	61.8	46.3	95	0.020
Home visitor ratings of confidence, when faced with a challenging situation, to address substance use ^{d,e}	6.4	6.1	98	0.105
<u>Intended service plan (%)</u>				
Home visitor rates mental health and substance use as high priority ^f	75.7	79.3	111	0.448
Home visitor rates tobacco use as high priority ^f	58.8	60.2	108	0.822
<u>Well-being</u>				
Home visitor's depression symptoms score at or above cutoff ^g (%)	11.4	15.2	112	0.297
Home visitor's relationship anxiety score ^{d,h}	0.0	0.0	110	0.903
Home visitor's relationship avoidance score ^{d,h}	0.0	0.0	111	0.925
<u>Training and supervision</u>				
Percentage of supervision sessions devoted to client-specific issues ^d	63.4	69.5	83	0.208
Time spent in individual supervision per week ^d (minutes)	45.1	40.1	85	0.423
Average number of training hours per month ^d	8.7	7.8	95	0.323
Ever attended training in substance use (%)	50.7	45.7	94	0.424

(continued)

Table TA.12 Home Visitor Sample Comparison for Substance Use (cont.)

Characteristic	Analysis	Excluded	Excluded	P-
	Sample	Sample	Sample	
	Mean	Mean	Characteristic (N)	Value
Work attitudes				
Organizational work attitudes—morale score ^{d,i}	0.1	-0.1	99	0.055
Intent to leave position in next 12 months (%)	13.2	17.9	112	0.285
Sample size	272	113		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Each category was tested separately. See footnote 'd' below for further information on statistical tests used with continuous variables.

^aSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Percentages may not sum to 100 because of rounding.

^bCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^cCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^dSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of home visitors within local programs.

^eReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^hMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. This variable was standardized to a mean of 0 and a standard deviation of 1.

Table TA.13

Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Substance Use Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Community characteristics</u>				
Index of neighborhood socioeconomic disadvantage ^{a,b}	1.0	0.5	14	0.025
Has MOU and designated point of contact with community service provider in substance use and mental health treatment ^c (%)	26.4	25.0	12	1.000
Has service provider that is available, accessible, and effective in substance use and mental health treatment ^c (%)	48.6	41.7	12	0.760
<u>Organizational culture score^{a,d}</u>				
Rigidity	-0.1	0.2	12	0.331
Proficiency	0.0	0.0	12	0.913
Resistance	0.0	-0.1	10	0.838
<u>Staffing</u>				
Difficult to recruit qualified home visitor candidates (%)	52.8	50.0	14	1.000
At least one staff person with dedicated time to support CQI activities (%)	61.1	53.8	13	0.760
Average number of families in home visitors' caseloads ^a	14.1	13.3	14	0.539
Access to professional consultants in substance use ^e (%)	69.4	50.0	14	0.217
<u>Service priorities (%)</u>				
Program rates mental health and substance use as "high priority" ^f	80.6	80.0	10	1.000
Program rates tobacco use as "high priority" ^f	65.3	58.3	12	0.748
Program raised priority of mental health and substance use as a result of receipt of MIECHV funding	31.9	64.3	14	0.033
Program raised priority of tobacco use as a result of receipt of MIECHV funding	29.2	57.1	14	0.063

(continued)

Table TA.13 Local Program Sample Comparison for Substance Use (cont.)

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Organizational structure and policies (%)</u>				
Processes for formal screening and internal monitoring ^g				0.928
Program requires formal substance use screening tool at a certain time and has internal monitoring procedures regarding screening	44.4	38.5	13	
Program requires formal substance use screening tool at a certain time and does not have internal monitoring procedures regarding screening	25.0	30.8	13	
Program does not require formal substance use screening tool at a certain time	30.6	30.8	13	
<u>Evidence-based model^g (%)</u>				
Early Head Start Home-based option	20.8	21.4	14	0.066
Healthy Families America	31.9	21.4	14	
Nurse-Family Partnership	29.2	7.1	14	
Parents as Teachers	18.1	50.0	14	
Sample size	72	14		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: MOU = memorandum of understanding. CQI = continuous quality improvement.

For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Fisher's exact test. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA.

^bThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^cRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^dMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations. These variables were standardized to a mean of 0 and a standard deviation of 1.

^eIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Fisher's exact test. Percentages may not sum to 100 because of rounding.

Table TA.14

Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Mental Health Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Maternal sociodemographic characteristics</u>				
Mother was pregnant at study entry (%)	68.4	65.8	366	0.590
Average maternal age ^a (years)	23.4	24.3	366	0.147
First-time mother (%)	64.8	60.3	340	0.405
Language other than English spoken in the home (%)	35.2	45.4	366	0.089
Mother's race or ethnicity ^b (%)				0.701
White, non-Hispanic	25.5	21.7	359	
Black, non-Hispanic	30.2	27.0	359	
Hispanic, Mexican	24.3	28.7	359	
Hispanic, other	12.4	14.2	359	
Other/multiracial	7.5	8.4	359	
Child's biological father lives in the home (%)	42.0	46.9	339	0.165
Mother is in a relationship (%)	74.7	75.5	343	0.739
<u>Maternal and household risk factors</u>				
Mother's health self-rated as "poor" or "fair" or limits activities (%)	27.9	26.2	362	0.533
Mother's abstract verbal reasoning score ^{a,c}	0.0	-0.1	355	0.041
Mother's relationship anxiety score ^{a,d}	0.0	0.0	356	0.704
Mother's relationship avoidance score ^{a,d}	0.0	0.0	357	0.994
Baseline risk presence in mental health ^e (%)	43.0	39.7	358	0.388
<u>Maternal and household economic self-sufficiency (%)</u>				
Mother's highest level of education ^b				0.001
Less than a high school diploma ^f	40.1	53.8	331	
High school diploma	34.1	25.4	331	
At least some college	25.8	20.8	331	
Household experiences food insecurity ^g	57.3	52.5	360	0.126
Mother has moved more than once in the past year	20.1	19.9	351	0.948
<u>Mental health services (%)</u>				
Received help or treatment for mental health in the past year	17.8	16.9	354	0.750
Sample size	996	366		

(continued)

Table TA.14 Family Sample Comparison for Mental Health (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of families within local programs.

^bSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Percentages may not sum to 100 because of rounding.

^cMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler: Tercera Edición (EIWA-III; Wechsler, 2008). This variable was standardized to a mean of 0 and a standard deviation of 1.

^dMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

^eSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^fThis category includes mothers who have received a General Educational Development certificate.

^gRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

Table TA.15

Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Mental Health Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Education and work experience (%)</u>				
Experience in home visiting ^a				0.768
Less than 1 year of experience as a home visitor	16.3	15.5	97	
1 to 2 years experience as a home visitor	35.4	32.0	97	
3 or more years experience as a home visitor	48.3	52.6	97	
Earned a bachelor's degree or higher	76.7	72.2	97	0.420
<u>Home visitor perceptions</u>				
Home visitor feels they are comfortable and effective working to address mental health ^b (%)	73.6	68.5	89	0.381
Home visitor feels they are supported by the local implementation system to address mental health ^c (%)	61.1	45.5	88	0.032
Home visitor ratings of confidence, when faced with a challenging situation, to address mental health ^{d,e}	6.5	6.3	89	0.361
<u>Intended service plan (%)</u>				
Home visitor rates mental health and substance use as high priority ^f	75.7	80.0	95	0.385
<u>Well-being</u>				
Home visitor's depression symptoms score at or above cutoff ^g (%)	11.1	16.7	96	0.163
Home visitor's relationship anxiety score ^{d,h}	0.0	0.0	94	0.973
Home visitor's relationship avoidance score ^{d,h}	0.0	0.0	95	0.826
<u>Training and supervision</u>				
Percentage of supervision sessions devoted to client-specific issues ^d	63.7	69.5	67	0.236
Time spent in individual supervision per week ^d (minutes)	44.8	40.1	69	0.464
Average number of training hours per month ^d	8.8	7.4	79	0.136
Ever attended training in mental health (%)	81.9	89.7	78	0.135
<u>Work attitudes</u>				
Organizational work attitudes—morale score ^{d,i}	0.1	-0.1	83	0.154
Intent to leave position in next 12 months (%)	12.5	20.8	96	0.071
Sample size	288	97		

(continued)

Table TA.15 Home Visitor Sample Comparison for Mental Health (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Each category was tested separately. See footnote 'd' below for further information on statistical tests used with continuous variables.

^aSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Percentages may not sum to 100 because of rounding.

^bCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^cCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^dSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of home visitors within local programs.

^eReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^hMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. This variable was standardized to a mean of 0 and a standard deviation of 1.

Table TA.16

Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Mental Health Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Community characteristics</u>				
Index of neighborhood socioeconomic disadvantage ^{a,b}	1.0	0.5	12	0.024
Has MOU and designated point of contact with community service provider in substance use and mental health treatment ^c (%)	25.7	30.0	10	0.717
Has service provider that is available, accessible, and effective in substance use and mental health treatment ^c (%)	47.3	50.0	10	1.000
<u>Organizational culture scores^{a,d}</u>				
Rigidity	-0.1	0.4	10	0.203
Proficiency	0.0	-0.1	10	0.705
Resistance	-0.1	0.2	8	0.420
<u>Staffing</u>				
Difficult to recruit qualified home visitor candidates (%)	51.4	58.3	12	0.761
At least one staff person with dedicated time to support CQI activities (%)	60.8	54.5	11	0.748
Average number of families in home visitors' caseloads ^a	14.1	13.2	12	0.539
Access to professional consultants in mental health ^e (%)	73.0	66.7	12	0.732
<u>Service priorities (%)</u>				
Program rates mental health and substance use as "high priority" ^f	81.1	75.0	8	0.650
Program raised priority of mental health and substance use as a result of receipt of MIECHV funding	32.4	66.7	12	0.049
<u>Organizational structure and policies (%)</u>				
Processes for formal screening and internal monitoring ^g				0.019
Program requires formal mental health screening tool at a certain time and has internal monitoring procedures regarding screening	77.0	36.4	11	
Program requires formal mental health screening tool at a certain time and does not have internal monitoring procedures regarding screening	14.9	45.5	11	
Program does not require formal mental health screening tool at a certain time	8.1	18.2	11	

(continued)

Table TA.16 Local Program Sample Comparison for Mental Health (cont.)

Characteristic	Analysis	Excluded	Excluded	P-
	Sample	Sample	Sample	
	Mean	Mean	Not Missing Characteristic (N)	Value
Evidence-based model^g (%)				0.092
Early Head Start Home-based option	20.3	25.0	12	
Healthy Families America	32.4	16.7	12	
Nurse-Family Partnership	28.4	8.3	12	
Parents as Teachers	18.9	50.0	12	
Sample size	74	12		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: MOU = memorandum of understanding. CQI = continuous quality improvement.

For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Fisher's exact test. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA.

^bThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^cRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^dMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations. These variables were standardized to a mean of 0 and a standard deviation of 1.

^eIncludes external and internal consultants who provide advice to the home visitor and/or direct services to families.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Fisher's exact test. Percentages may not sum to 100 because of rounding.

Table TA.17

Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Intimate Partner Violence Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Maternal sociodemographic characteristics</u>				
Mother was pregnant at study entry (%)	68.4	65.9	372	0.627
Average maternal age ^a (years)	23.4	24.0	372	0.359
First-time mother (%)	64.2	61.8	346	0.675
Language other than English spoken in the home (%)	35.6	44.4	372	0.095
Mother's race or ethnicity ^b (%)				0.530
White, non-Hispanic	25.8	21.1	365	
Black, non-Hispanic	30.1	27.4	365	
Hispanic, Mexican	24.9	26.8	365	
Hispanic, other	11.9	15.6	365	
Other/multiracial	7.3	9.0	365	
Child's biological father lives in the home (%)	42.5	45.2	345	0.436
Mother is in a relationship (%)	75.3	73.9	349	0.611
<u>Maternal and household risk factors</u>				
Mother's health self-rated as "poor" or "fair" or limits activities (%)	28.1	25.8	368	0.379
Mother's depression symptoms score at or above cutoff ^c (%)	38.8	34.9	364	0.247
Mother's abstract verbal reasoning score ^{a,d}	0.0	-0.1	361	0.197
Mother's relationship anxiety score ^{a,e}	0.0	0.0	362	0.639
Mother's relationship avoidance score ^{a,e}	0.0	0.0	363	0.979
Arrested in the past year (%)	8.1	3.6	363	0.003
Baseline risk presence in intimate partner violence ^f (%)	22.6	20.7	343	0.481
<u>Maternal and household economic self-sufficiency (%)</u>				
Mother's highest level of education ^b				0.041
Less than a high school diploma ^g	41.2	50.1	337	
High school diploma	33.3	27.9	337	
At least some college	25.5	22.0	337	
Household experiences food insecurity ^h	58.0	50.8	366	0.018
Mother has moved more than once in the past year	20.3	19.3	357	0.651

(continued)

Table TA.17 Family Sample Comparison for Intimate Partner Violence (cont.)

Characteristic	Analysis	Excluded	Excluded	P-
	Sample	Sample	Sample	
	Mean	Mean	Characteristic (N)	Value
<u>Intimate partner violence (IPV) services (%)</u>				
Received help or treatment for IPV or anger management in the past year	4.1	2.2	363	0.060
Sample size	990	372		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of families within local programs.

^bSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Percentages may not sum to 100 because of rounding.

^cA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^dMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008). This variable was standardized to a mean of 0 and a standard deviation of 1.

^eMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

^fSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^gThis category includes mothers who have received a General Educational Development certificate.

^hRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

Table TA.18

Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Intimate Partner Violence Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Education and work experience (%)</u>				
Experience in home visiting ^a				0.931
Less than 1 year of experience as a home visitor	15.8	17.2	93	
1 to 2 years experience as a home visitor	34.9	33.3	93	
3 or more years experience as a home visitor	49.3	49.5	93	
Earned a bachelor's degree or higher	74.0	80.6	93	0.210
<u>Home visitor perceptions</u>				
Home visitor feels they are comfortable and effective working to address intimate partner violence ^b (%)	69.2	57.0	86	0.029
Home visitor feels they are supported by the local implementation system to address intimate partner violence ^c (%)	63.7	48.8	80	0.023
Home visitor ratings of confidence, when faced with a challenging situation, to address intimate partner violence ^{d,e}	7.0	6.9	77	0.587
<u>Intended service plan (%)</u>				
Home visitor rates intimate partner violence as high priority ^f	77.7	79.3	87	0.781
<u>Well-being</u>				
Home visitor's depression symptoms score at or above cutoff ^d (%)	12.7	12.0	92	0.845
Home visitor's relationship anxiety score ^{d,h}	0.0	0.0	90	0.850
Home visitor's relationship avoidance score ^{d,h}	0.0	0.0	91	0.966
<u>Training and supervision</u>				
Percentage of supervision sessions devoted to client-specific issues ^d	64.7	65.2	63	0.913
Time spent in individual supervision per week ^d (minutes)	44.9	39.5	65	0.176
Average number of training hours per month ^d	8.6	8.0	75	0.443
Ever attended training in intimate partner violence (%)	67.8	68.9	74	0.858
<u>Work attitudes</u>				
Organizational work attitudes—morale score ^{d,i}	0.1	-0.1	79	0.196
Intent to leave position in next 12 months (%)	12.0	22.8	92	0.034
Sample size	292	93		

(continued)

Table TA.18 Home Visitor Sample Comparison for Intimate Partner Violence (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Each category was tested separately. See footnote 'd' below for further information on statistical tests used with continuous variables.

^aSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Percentages may not sum to 100 because of rounding.

^bCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^cCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^dSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of home visitors within local programs.

^eReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^hMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. This variable was standardized to a mean of 0 and a standard deviation of 1.

Table TA.19

Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Intimate Partner Violence Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Community characteristics</u>				
Index of neighborhood socioeconomic disadvantage ^{a,b}	1.0	0.6	10	0.147
Has MOU and designated point of contact with community service provider in intimate partner violence services ^c (%)	25.0	12.5	8	0.673
Has service provider that is available, accessible, and effective in intimate partner violence services ^c (%)	72.4	25.0	8	0.012
<u>Organizational culture scores^{a,d}</u>				
Rigidity	-0.1	0.4	8	0.262
Proficiency	0.0	0.5	8	0.179
Resistance	-0.1	0.3	6	0.423
<u>Staffing</u>				
Difficult to recruit qualified home visitor candidates (%)	51.3	60.0	10	0.741
At least one staff person with dedicated time to support CQI activities (%)	59.2	66.7	9	0.735
Average number of families in home visitors' caseloads ^a	13.8	15.0	10	0.426
Access to professional consultants in intimate partner violence ^e (%)	68.4	70.0	10	1.000
<u>Service priorities (%)</u>				
Program rates intimate partner violence as "high priority" ^f	81.6	77.8	9	0.675
Program raised priority of intimate partner violence as a result of receipt of MIECHV funding	38.2	88.9	9	0.009
<u>Organizational structure and policies (%)</u>				
Processes for formal screening and internal monitoring ^g				0.663
Program requires formal intimate partner violence screening tool at a certain time and has internal monitoring procedures regarding screening	48.7	33.3	9	
Program requires formal intimate partner violence screening tool at a certain time and does not have internal monitoring procedures regarding screening	22.4	33.3	9	
Program does not require formal intimate partner violence screening tool at a certain time	28.9	33.3	9	

(continued)

Table TA.19 Local Program Sample Comparison for Intimate Partner Violence (cont.)

Characteristic	Analysis	Excluded	Excluded	P-
	Sample	Sample	Sample	
	Mean	Mean	Not Missing Characteristic (N)	Value
Evidence-based model^g (%)				0.194
Early Head Start Home-based option	21.1	20.0	10	
Healthy Families America	32.9	10.0	10	
Nurse-Family Partnership	26.3	20.0	10	
Parents as Teachers	19.7	50.0	10	
Sample size	76	10		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: MOU = memorandum of understanding. CQI = continuous quality improvement.

For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Fisher's exact test. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA.

^bThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^cRespondents answering "don't know" were treated as non-yes responses along with responses of "no." Includes shelter for intimate partner violence and intimate partner violence counseling or anger management.

^dMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations. These variables were standardized to a mean of 0 and a standard deviation of 1.

^eIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Fisher's exact test. Percentages may not sum to 100 because of rounding.

Table TA.20

Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Economic Self-Sufficiency Service Delivery

Characteristic	Analysis	Excluded	Excluded	P-Value
	Sample	Sample	Sample Not Missing Characteristic (N)	
	Mean	Mean		
<u>Maternal sociodemographic characteristics</u>				
Mother was pregnant at study entry (%)	68.8	66.0	541	0.434
Average maternal age ^a (years)	23.5	23.7	541	0.711
First-time mother (%)	62.9	64.9	515	0.605
Language other than English spoken in the home (%)	36.4	40.3	541	0.331
Mother's race or ethnicity ^b (%)				0.296
White, non-Hispanic	26.6	21.3	534	
Black, non-Hispanic	28.6	30.5	534	
Hispanic, Mexican	26.2	24.3	534	
Hispanic, other	11.7	14.8	534	
Other/multiracial	6.9	9.0	534	
Child's biological father lives in the home (%)	44.5	41.2	514	0.241
Mother is in a relationship (%)	75.9	73.4	518	0.291
<u>Maternal and household risk factors</u>				
Mother's health self-rated as "poor" or "fair" or limits activities (%)	27.3	27.7	537	0.856
Mother's depression symptoms score at or above cutoff ^c (%)	37.9	37.5	533	0.903
Mother's abstract verbal reasoning score ^{a,d}	0.1	-0.1	530	0.000
Mother's relationship anxiety score ^{a,e}	-0.1	0.0	531	0.214
Mother's relationship avoidance score ^{a,e}	-0.1	0.0	532	0.055
Baseline risk presence in economic self-sufficiency ^e (%)	60.0	57.6	491	0.382
<u>Maternal and household economic self-sufficiency (%)</u>				
Mother's highest level of education ^b				0.084
Less than a high school diploma ^g	41.2	47.2	506	
High school diploma	33.9	28.9	506	
At least some college	25.0	23.9	506	
Mother has moved more than once in the past year	18.9	21.9	526	0.162
Mother ever employed during the past three years	82.9	75.0	519	0.000
Any earnings in the last month	42.3	32.0	519	0.000
Currently taking education or training classes or planning to take education or training classes	70.5	70.9	471	0.895
Currently working or planning to work in the next year	82.1	79.9	507	0.339

(continued)

Table TA.20 Family Sample Comparison for Economic Self-Sufficiency (cont.)

Characteristic	Analysis	Excluded	Excluded	P-
	Sample	Sample	Sample	
	Mean	Mean	Not Missing Characteristic (N)	Value
Sources of household income or benefits				
Temporary Assistance for Needy Families	20.2	19.5	514	0.789
Food stamps/Supplemental Nutrition Assistance Program	59.1	58.8	522	0.950
Disability insurance	18.9	15.8	514	0.156
Earnings from other household members	59.8	58.0	448	0.575
Women, Infants, and Children	75.3	73.7	529	0.585
Sample size	821	541		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of families within local programs.

^bSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Percentages may not sum to 100 because of rounding.

^cA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^dMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008). This variable was standardized to a mean of 0 and a standard deviation of 1.

^eMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

^fSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^gThis category includes mothers who have received a General Educational Development certificate.

Table TA.21

Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Economic Self-Sufficiency Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Education and work experience (%)</u>				
Experience in home visiting ^a				0.743
Less than 1 year of experience as a home visitor	17.0	13.9	108	
1 to 2 years experience as a home visitor	34.7	34.3	108	
3 or more years experience as a home visitor	48.4	51.9	108	
Earned a bachelor's degree or higher	74.0	79.6	108	0.256
<u>Home visitor perceptions</u>				
Home visitor feels they are comfortable and effective working to improve economic self-sufficiency ^b (%)	71.8	73.2	97	0.801
Home visitor feels they are supported by the local implementation system to improve economic self-sufficiency ^c (%)	61.7	64.5	93	0.606
Home visitor ratings of confidence, when faced with a challenging situation, to improve economic self-sufficiency ^{d,e}	7.2	7.7	95	0.076
<u>Intended service plan (%)</u>				
Home visitor rates economic self-sufficiency as high priority ^f	80.5	81.0	105	0.922
<u>Well-being</u>				
Home visitor's depression symptoms score at or above cutoff ^d (%)	12.3	13.1	107	0.845
Home visitor's relationship anxiety score ^{d,h}	0.0	-0.1	105	0.464
Home visitor's relationship avoidance score ^{d,h}	0.1	-0.1	106	0.290
<u>Training and supervision</u>				
Percentage of supervision sessions devoted to client-specific issues ^d	63.9	68.0	78	0.334
Time spent in individual supervision per week ^d (minutes)	44.0	43.7	80	0.942
Average number of training hours per month ^d	8.6	8.0	90	0.404
Ever attended training in economic self-sufficiency (%)	60.6	47.2	89	0.025
<u>Work attitudes</u>				
Organizational work attitudes—morale score ^{d,i}	0.1	0.0	94	0.174
Intent to leave position in next 12 months (%)	13.4	17.8	107	0.293
Sample size	277	108		

(continued)

Table TA.21 Home Visitor Sample Comparison for Economic Self-Sufficiency (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Each category was tested separately. See footnote 'd' below for further information on statistical tests used with continuous variables.

^aSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Percentages may not sum to 100 because of rounding.

^bCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^cCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^dSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of home visitors within local programs.

^eReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^hMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. This variable was standardized to a mean of 0 and a standard deviation of 1.

Table TA.22

Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Economic Self-Sufficiency Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Community characteristics</u>				
Index of neighborhood socioeconomic disadvantage ^{a,b}	1.0	0.5	8	0.103
Has MOU and designated point of contact with community service provider in adult education or employment services ^c (%)	20.5	0.0	6	0.590
Has service provider that is available, accessible, and effective in adult education or employment services ^c (%)	62.8	50.0	6	0.670
<u>Organizational culture scores^{a,d}</u>				
Rigidity	-0.1	0.8	6	0.030
Proficiency	0.0	0.3	6	0.477
Resistance	0.0	-0.1	4	0.815
<u>Staffing</u>				
Difficult to recruit qualified home visitor candidates (%)	52.6	50.0	8	1.000
At least one staff person with dedicated time to support CQI activities (%)	60.3	57.1	7	1.000
Average number of families in home visitors' caseloads ^a	14.0	14.1	8	0.931
Access to professional consultants in economic self-sufficiency ^e (%)	66.7	62.5	8	1.000
<u>Service priorities (%)</u>				
Program rates economic self-sufficiency as "high priority" ^f	84.6	62.5	8	0.140
Program raised priority in economic self-sufficiency as a result of receipt of MIECHV funding	14.1	42.9	7	0.084
<u>Evidence-based model^g (%)</u>				
Early Head Start Home-based option	20.5	25.0	8	0.737
Healthy Families America	30.8	25.0	8	
Nurse-Family Partnership	26.9	12.5	8	
Parents as Teachers	21.8	37.5	8	
Sample size	78	8		

(continued)

Table TA.22 Local Program Sample Comparison for Economic Self-Sufficiency (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: MOU = memorandum of understanding. CQI = continuous quality improvement.

For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Fisher's exact test. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA.

^bThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^cRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^dMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations. These variables were standardized to a mean of 0 and a standard deviation of 1.

^eIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Fisher's exact test. Percentages may not sum to 100 because of rounding.

Table TA.23

Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Child Preventive Care Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Maternal sociodemographic characteristics</u>				
Average maternal age ^a (years)	25.5	26.0	145	0.540
First-time mother (%)	42.4	45.7	140	0.489
Language other than English spoken in the home (%)	31.9	41.4	145	0.028
Mother's race or ethnicity ^b (%)				0.652
White, non-Hispanic	34.9	28.2	142	
Black, non-Hispanic	25.8	28.2	142	
Hispanic, Mexican	22.7	22.5	142	
Hispanic, other	9.8	12.7	142	
Other/multiracial	6.8	8.5	142	
Child's biological father lives in the home (%)	52.5	50.7	140	0.725
Mother is in a relationship (%)	78.3	69.3	137	0.026
<u>Maternal and household risk factors</u>				
Mother's health self-rated as "poor" or "fair" or limits activities (%)	27.8	25.5	145	0.627
Mother's depression symptoms score at or above cutoff ^c (%)	36.9	34.7	144	0.699
Mother's abstract verbal reasoning score ^{a,d}	0.0	-0.2	142	0.025
Mother's relationship anxiety score ^{a,e}	-0.1	0.0	144	0.331
Mother's relationship avoidance score ^{a,e}	-0.1	0.0	144	0.378
Baseline risk presence in child preventive care ^f (%)	14.2	21.6	116	0.044
<u>Maternal and household economic self-sufficiency (%)</u>				
Mother's highest level of education ^b				0.000
Less than a high school diploma ^g	32.5	54.9	133	
High school diploma	38.6	29.3	133	
At least some college	28.8	15.8	133	
Household experiences food insecurity ^h	55.6	53.1	145	0.713
Mother has moved more than once in the past year	16.9	17.5	143	0.899
<u>Child characteristics</u>				
Child's sex is female (%)	43.1	54.5	145	0.021
Child's age in months ^a	1.6	1.5	145	0.803

(continued)

Table TA.23 Family Sample Comparison for Child Preventive Care (cont.)

Characteristic	Analysis	Excluded	Excluded	P-
	Sample	Sample	Sample	
	Mean	Mean	Not Missing Characteristic (N)	Value
<u>Child health care access and insurance (%)</u>				
Child's insurance type				
Uninsured	10.8	16.2	142	0.121
<u>Mother's primary reason for enrolling (%)</u>				
Get help getting health insurance	0.3	0.9	113	0.570
Sample size	295	145		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of families within local programs.

^bSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Percentages may not sum to 100 because of rounding.

^cA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^dMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008). This variable was standardized to a mean of 0 and a standard deviation of 1.

^eMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

^fSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^gThis category includes mothers who have received a General Educational Development certificate.

^hRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

Table TA.24

Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Child Preventive Care Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Education and work experience (%)</u>				
Experience in home visiting ^a				0.057
Less than 1 year of experience as a home visitor	18.4	18.9	53	
1 to 2 years experience as a home visitor	38.3	22.6	53	
3 or more years experience as a home visitor	43.3	58.5	53	
Earned a bachelor's degree or higher	72.3	66.0	53	0.322
<u>Home visitor perceptions</u>				
Home visitor feels they are comfortable and effective working to improve child preventive care ^b (%)	89.4	92.3	52	0.575
Home visitor feels they are supported by the local implementation system to improve child preventive care ^c (%)	75.2	65.3	49	0.220
Home visitor ratings of confidence, when faced with a challenging situation, to improve child preventive care ^{d,e}	8.2	7.9	48	0.291
<u>Intended service plan (%)</u>				
Home visitor rates child preventive care as high priority ^f	95.0	86.0	50	0.073
<u>Well-being</u>				
Home visitor's depression symptoms score at or above cutoff ^g (%)	13.5	9.4	53	0.419
Home visitor's relationship anxiety score ^{d,h}	-0.1	0.1	51	0.308
Home visitor's relationship avoidance score ^{d,h}	0.0	0.2	52	0.460
<u>Training and supervision</u>				
Percentage of supervision sessions devoted to client-specific issues ^d	61.4	68.4	34	0.192
Time spent in individual supervision per week ^d (minutes)	43.9	36.6	36	0.197
Average number of training hours per month ^d	8.6	7.8	44	0.464
Ever attended training in child preventive care (%)	87.2	88.6	44	0.782
<u>Work attitudes</u>				
Organizational work attitudes—morale score ^{d,i}	0.1	-0.3	47	0.003
Intent to leave position in next 12 months (%)	10.6	18.9	53	0.161
Sample size	141	53		

(continued)

Table TA.24 Home Visitor Sample Comparison for Child Preventive Care (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Each category was tested separately. See footnote 'd' below for further information on statistical tests used with continuous variables.

^aSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Percentages may not sum to 100 because of rounding.

^bCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^cCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^dSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of home visitors within local programs.

^eReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^hMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. This variable was standardized to a mean of 0 and a standard deviation of 1.

Table TA.25

Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Child Preventive Care Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Community characteristics</u>				
Index of neighborhood socioeconomic disadvantage ^{a,b}	0.9	0.7	9	0.585
Has MOU and designated point of contact with community service provider in pediatric primary care ^c (%)	20.0	12.5	8	1.000
Has service provider that is available, accessible, and effective in pediatric primary care ^c (%)	70.9	37.5	8	0.104
<u>Organizational culture scores^{a,d}</u>				
Rigidity	0.1	0.8	7	0.051
Proficiency	0.0	0.1	7	0.712
Resistance	0.1	0.4	5	0.441
<u>Staffing</u>				
Difficult to recruit qualified home visitor candidates (%)	54.5	44.4	9	0.723
At least one staff person with dedicated time to support CQI activities (%)	60.0	50.0	8	0.707
Average number of families in home visitors' caseloads ^a	12.4	14.0	9	0.259
Access to professional consultants in child preventive care ^e (%)	69.1	66.7	9	1.000
<u>Service priorities (%)</u>				
Program rates child preventive care as "high priority" ^f	98.2	77.8	9	0.050
Program raised priority of child preventive care as a result of receipt of MIECHV funding	14.5	25.0	8	0.602
<u>Evidence-based model^g (%)</u>				
Early Head Start Home-based option	29.1	22.2	9	0.254
Healthy Families America	43.6	22.2	9	
Parents as Teachers	27.3	55.6	9	
Sample size	55	9		

(continued)

Table TA.25 Local Program Sample Comparison for Child Preventive Care (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: MOU = memorandum of understanding. CQI = continuous quality improvement.

For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Fisher's exact test. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA.

^bThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^cRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^dMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations. These variables were standardized to a mean of 0 and a standard deviation of 1.

^eIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Fisher's exact test. Percentages may not sum to 100 because of rounding.

Table TA.26

Comparison of Characteristics Between Families Included in and Families Excluded from Analyses of Child Development Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Maternal sociodemographic characteristics</u>				
Average maternal age ^a (years)	25.6	25.8	134	0.779
First-time mother (%)	42.8	45.0	129	0.702
Language other than English spoken in the home (%)	33.3	38.8	134	0.224
Mother's race or ethnicity ^b (%)				0.510
White, non-Hispanic	35.0	27.5	131	
Black, non-Hispanic	24.2	32.1	131	
Hispanic, Mexican	22.9	22.1	131	
Hispanic, other	11.1	9.9	131	
Other/multiracial	6.9	8.4	131	
Child's biological father lives in the home (%)	52.6	50.4	129	0.688
Mother is in a relationship (%)	78.1	69.0	126	0.054
<u>Maternal and household risk factors</u>				
Mother's health self-rated as "poor" or "fair" or limits activities (%)	27.8	25.4	134	0.610
Mother's depression symptoms score at or above cutoff ^c (%)	37.3	33.8	133	0.556
Mother's abstract verbal reasoning score ^{a,d}	0.0	-0.3	131	0.004
Mother's relationship anxiety score ^{a,e}	-0.1	0.1	133	0.203
Mother's relationship avoidance score ^{a,e}	-0.1	0.0	133	0.222
Baseline risk presence in child development ^f (%)	47.1	46.8	109	0.966
<u>Maternal and household economic self-sufficiency (%)</u>				
Mother's highest level of education ^b				0.009
Less than a high school diploma ^g	35.0	50.8	122	
High school diploma	36.9	32.8	122	
At least some college	28.1	16.4	122	
Household experiences food insecurity ^h	56.5	50.7	134	0.320
Mother has moved more than once in the past year	17.3	16.7	132	0.873
<u>Child characteristics</u>				
Child's sex is female (%)	45.1	50.7	134	0.305
Child's age in months	1.5	1.5	134	0.817
Sample size	306	134		

(continued)

Table TA.26 Family Sample Comparison for Child Development (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of families within local programs.

^bSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Percentages may not sum to 100 because of rounding.

^cA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^dMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008). This variable was standardized to a mean of 0 and a standard deviation of 1.

^eMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

^fSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^gThis category includes mothers who have received a General Educational Development certificate.

^hRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

Table TA.27

Comparison of Characteristics Between Home Visitors Included in and Home Visitors Excluded from Analyses of Child Development Service Delivery

Characteristic	Analysis Sample Mean	Excluded Sample Mean	Excluded Sample Not Missing Characteristic (N)	P-Value
<u>Education and work experience (%)</u>				
Experience in home visiting ^a				0.277
Less than 1 year of experience as a home visitor	16.8	23.5	51	
1 to 2 years experience as a home visitor	37.1	25.5	51	
3 or more years experience as a home visitor	46.2	51.0	51	
Earned a bachelor's degree or higher	69.2	74.5	51	0.384
<u>Home visitor perceptions</u>				
Home visitor feels they are comfortable and effective working to promote child development ^b (%)	95.8	92.0	50	0.375
Home visitor feels they are supported by the local implementation system to promote child development ^c (%)	81.8	76.6	47	0.484
Overall score of self efficacy ^{d,e}	7.4	7.1	48	0.302
<u>Intended service plan (%)</u>				
Home visitor rates child development as high priority ^f	93.0	93.6	47	0.865
<u>Well-being</u>				
Home visitor's depression symptoms score at or above cutoff ^d (%)	12.6	11.8	51	0.877
Home visitor's relationship anxiety score ^{d,h}	-0.1	0.1	49	0.401
Home visitor's relationship avoidance score ^{d,h}	0.0	0.3	50	0.240
<u>Training and supervision</u>				
Percentage of supervision sessions devoted to client-specific issues ^d	61.7	67.7	32	0.307
Time spent in individual supervision per week ^d (minutes)	43.3	38.4	34	0.466
Average number of training hours per month ^d	8.4	8.2	42	0.848
Ever attended training in child development (%)	93.0	92.9	42	0.977
<u>Work attitudes</u>				
Organizational work attitudes—morale score ^{d,i}	0.1	-0.2	45	0.014
Intent to leave position in next 12 months (%)	9.8	21.6	51	0.065
Sample size	143	51		

(continued)

Table TA.27 Home Visitor Sample Comparison for Child Development (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Each category was tested separately. See footnote 'd' below for further information on statistical tests used with continuous variables.

^aSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of home visitors within local programs. Percentages may not sum to 100 because of rounding.

^bCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^cCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^dSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA, adjusting for clustering of home visitors within local programs.

^eThis measure reflects the mean score of home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^fHigh priority defined as a score of 8 or higher on a 10-point scale.

^gA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^hMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. This variable was standardized to a mean of 0 and a standard deviation of 1.

Table TA.28

Comparison of Characteristics Between Local Programs Included in and Local Programs Excluded from Analyses of Child Development Service Delivery

Characteristic	Analysis	Excluded	Excluded	P-Value
	Sample	Sample	Sample	
	Mean	Mean	Not Missing Characteristic (N)	
<u>Community characteristics</u>				
Index of neighborhood socioeconomic disadvantage ^{a,b}	0.9	0.6	9	0.275
Has MOU and designated point of contact with community service provider in early intervention services ^c (%)	40.0	28.6	7	0.696
Has service provider that is available, accessible, and effective in early intervention services ^c (%)	69.1	28.6	7	0.086
<u>Organizational culture scores^{a,d}</u>				
Rigidity	0.1	0.9	7	0.038
Proficiency	-0.1	0.5	7	0.173
Resistance	0.1	0.2	5	0.863
<u>Staffing</u>				
Difficult to recruit qualified home visitor candidates (%)	54.5	44.4	9	0.723
At least one staff person with dedicated time to support CQI activities (%)	58.2	62.5	8	1.000
Average number of families in home visitors' caseloads ^a	12.4	14.0	9	0.278
Access to professional consultants in child development ^e (%)	69.1	77.8	9	0.713
<u>Service priorities (%)</u>				
Program raised priority of child development as a result of receipt of MIECHV funding	12.7	33.3	9	0.140
<u>Evidence-based model^f (%)</u>				
Early Head Start Home-based option	29.1	22.2	9	0.254
Healthy Families America	43.6	22.2	9	
Parents as Teachers	27.3	55.6	9	
Sample size	55	9		

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: MOU = memorandum of understanding. CQI = continuous quality improvement.

For all categorical variables except those with multiple categories, differences across samples were tested for statistical significance using a Fisher's exact test. Each category was tested separately. See footnote 'a' below for further information on statistical tests used with continuous variables.

^aSince this variable is continuous, differences across samples were tested for statistical significance using a one-way ANOVA.

(continued)

Table TA.28 Local Program Sample Comparison for Child Development (cont.)

^bThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^cRespondents answering “don’t know” were treated as non-yes responses along with responses of “no.”

^dMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations. These variables were standardized to a mean of 0 and a standard deviation of 1.

^eIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

^fSince this variable includes multiple categories, differences in the distribution of categories across samples were tested for statistical significance using a Fisher's exact test. Percentages may not sum to 100 because of rounding.

Table TA.29

Model Results for Analysis of Ever Receiving a Home Visit

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient	Standard	P-Value	Coefficient	Standard	P-Value
	Estimate	Error		Estimate	Error	
Intercept	NA	NA	NA	0.768	0.083	0.000
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Mother was pregnant at study entry	0.013	0.021	0.527	0.024	0.023	0.288
Maternal age (years)	0.004	0.002	0.007	0.002	0.002	0.431
First-time mother	-0.058	0.020	0.005	-0.046	0.024	0.054
Language other than English spoken in the home	0.043	0.020	0.034	0.021	0.029	0.477
Mother's race or ethnicity						
Black, non-Hispanic	-0.012	0.026	0.644	0.009	0.028	0.757
Hispanic, Mexican	0.035	0.027	0.207	0.028	0.035	0.420
Hispanic, other	0.041	0.033	0.206	0.041	0.039	0.290
Other/multiracial	-0.007	0.036	0.844	-0.004	0.037	0.923
Child's biological father lives in the home	0.051	0.018	0.005	0.023	0.022	0.303
Mother is in a relationship	0.041	0.020	0.042	0.021	0.023	0.362
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	0.030	0.020	0.133	0.032	0.020	0.118
Mother's depression symptoms score at or above cutoff ^a	0.009	0.018	0.613	0.009	0.021	0.666
Mother's abstract verbal reasoning score ^b	0.011	0.009	0.220	0.008	0.010	0.391
Mother's relationship anxiety score ^c	-0.003	0.009	0.764	-0.001	0.011	0.961
Mother's relationship avoidance score ^c	-0.013	0.009	0.142	-0.009	0.011	0.416

(continued)

Table TA.29 Ever Receiving a Home Visit (cont.)

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	-0.001	0.020	0.956	-0.005	0.021	0.802
At least some college	0.053	0.023	0.022	0.042	0.025	0.091
Household experiences food insecurity ^d	0.027	0.018	0.133	0.022	0.019	0.241
Mother has moved more than once in the past year	-0.011	0.022	0.608	-0.004	0.022	0.849
<u>Local program characteristics</u>						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^e	-0.016	0.017	0.343	-0.009	0.019	0.625
Organizational culture ^f						
Rigidity	0.002	0.014	0.868	0.004	0.021	0.861
Proficiency	-0.005	0.013	0.689	-0.004	0.014	0.790
Resistance	-0.007	0.013	0.580	-0.008	0.019	0.681
Staffing						
Difficult to recruit qualified home visitor candidates	0.010	0.026	0.690	-0.021	0.027	0.448
At least one staff person with dedicated time to support CQI activities	0.054	0.026	0.042	0.051	0.028	0.078
Average number of families in home visitors' caseloads	-0.006	0.003	0.029	-0.004	0.004	0.311
Evidence-based model						
Early Head Start Home-based option	0.115	0.038	0.003	0.083	0.044	0.064
Nurse-Family Partnership	0.004	0.030	0.889	0.023	0.044	0.598
Parents as Teachers	-0.038	0.034	0.267	-0.037	0.038	0.333

(continued)

Table TA.29 Ever Receiving a Home Visit (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 1,753 families and 81 local programs.

NA = not applicable. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^eThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^fMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

Table TA.30

**Sensitivity Model Results for Analysis of Ever Receiving a Home Visit,
Model Including Only Family Characteristics and Conditioned Only on Their Completeness**

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	0.738	0.059	0.000
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Mother was pregnant at study entry	0.006	0.020	0.771	0.016	0.022	0.458
Maternal age (years)	0.004	0.002	0.013	0.001	0.002	0.482
First-time mother	-0.048	0.020	0.014	-0.033	0.023	0.145
Language other than English spoken in the home	0.052	0.020	0.008	0.026	0.029	0.365
Mother's race or ethnicity						
Black, non-Hispanic	-0.017	0.025	0.503	0.002	0.027	0.952
Hispanic, Mexican	0.045	0.026	0.090	0.030	0.034	0.379
Hispanic, other	0.043	0.032	0.178	0.034	0.038	0.364
Other/multiracial	-0.014	0.035	0.684	-0.012	0.035	0.743
Child's biological father lives in the home	0.053	0.018	0.003	0.023	0.022	0.286
Mother is in a relationship	0.044	0.020	0.026	0.023	0.023	0.308
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	0.025	0.019	0.198	0.027	0.020	0.172
Mother's depression symptoms score at or above cutoff ^a	0.010	0.018	0.567	0.013	0.020	0.516
Mother's abstract verbal reasoning score ^b	0.012	0.009	0.157	0.012	0.009	0.206
Mother's relationship anxiety score ^c	0.000	0.008	0.990	0.004	0.010	0.685
Mother's relationship avoidance score ^c	-0.015	0.009	0.087	-0.012	0.011	0.265

(continued)

Table TA.30 Ever Receiving a Home Visit (Sensitivity) (cont.)

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient	Standard	P-Value	Coefficient	Standard	P-Value
	Estimate	Error		Estimate	Error	
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	-0.006	0.020	0.771	-0.010	0.020	0.609
At least some college	0.043	0.022	0.050	0.031	0.024	0.195
Household experiences food insecurity ^d	0.026	0.017	0.138	0.020	0.018	0.260
Mother has moved more than once in the past year	-0.017	0.021	0.410	-0.008	0.022	0.697
<u>Local program characteristics</u>						
Evidence-based model						
Early Head Start Home-based option	0.112	0.038	0.004	0.109	0.038	0.006
Nurse-Family Partnership	-0.001	0.031	0.976	-0.002	0.033	0.956
Parents as Teachers	-0.041	0.033	0.220	-0.052	0.033	0.117

SOURCES: The MIHOPE family baseline survey and the MIHOPE family service logs.

NOTES: Sample size: 1,852 families.

NA = not applicable.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

Table TA.31

Logit Model Results for Analysis of Ever Receiving a Home Visit

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient	Standard	P-Value	Coefficient	Standard	P-Value
	Estimate	Error		Estimate	Error	
Intercept	NA	NA	NA	1.298	0.612	0.037
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Mother was pregnant at study entry	0.092	0.159	0.563	0.187	0.177	0.293
Maternal age (years)	0.036	0.013	0.007	0.012	0.016	0.436
First-time mother	-0.463	0.160	0.004	-0.404	0.188	0.032
Language other than English spoken in the home	0.337	0.160	0.035	0.168	0.241	0.486
Mother's race or ethnicity						
Black, non-Hispanic	-0.074	0.191	0.698	0.078	0.214	0.718
Hispanic, Mexican	0.279	0.215	0.195	0.225	0.286	0.431
Hispanic, other	0.349	0.260	0.180	0.367	0.320	0.252
Other/multiracial	-0.054	0.275	0.845	-0.013	0.283	0.964
Child's biological father lives in the home	0.399	0.143	0.005	0.202	0.175	0.250
Mother is in a relationship	0.298	0.148	0.044	0.148	0.172	0.390
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	0.235	0.157	0.134	0.265	0.163	0.103
Mother's depression symptoms score at or above cutoff ^a	0.071	0.138	0.608	0.069	0.164	0.676
Mother's abstract verbal reasoning score ^b	0.083	0.070	0.230	0.071	0.078	0.361
Mother's relationship anxiety score ^c	-0.022	0.067	0.747	-0.009	0.082	0.914
Mother's relationship avoidance score ^c	-0.100	0.068	0.141	-0.072	0.087	0.408

(continued)

Table TA.31 Ever Receiving a Home Visit (Logit) (cont.)

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	-0.005	0.150	0.971	-0.044	0.158	0.782
At least some college	0.427	0.184	0.021	0.343	0.204	0.092
Household experiences food insecurity ^d	0.202	0.134	0.131	0.190	0.143	0.186
Mother has moved more than once in the past year	-0.087	0.164	0.597	-0.050	0.170	0.770
<u>Local program characteristics</u>						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^e	-0.106	0.126	0.403	-0.053	0.134	0.694
Organizational culture ^f						
Rigidity	0.031	0.103	0.764	0.030	0.151	0.843
Proficiency	-0.036	0.100	0.723	-0.020	0.101	0.845
Resistance	-0.051	0.099	0.604	-0.074	0.133	0.577
Staffing						
Difficult to recruit qualified home visitor candidates	0.080	0.196	0.684	-0.194	0.199	0.329
At least one staff person with dedicated time to support CQI activities	0.397	0.193	0.040	0.409	0.203	0.044
Average number of families in home visitors' caseloads	-0.051	0.022	0.019	-0.034	0.028	0.218
Evidence-based model						
Early Head Start Home-based option	1.205	0.351	0.001	1.004	0.390	0.010
Nurse-Family Partnership	0.022	0.222	0.919	0.166	0.311	0.593
Parents as Teachers	-0.269	0.244	0.271	-0.285	0.264	0.281

(continued)

Table TA.31 Ever Receiving a Home Visit (Logit) (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 1,753 families and 81 local programs.

NA = not applicable. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^eThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^fMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

Table TA.32

Selected Model Results for Analysis of Ever Receiving a Home Visit

Characteristic	Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value
Intercept	0.832	0.056	0.000
<u>Family characteristics</u>			
Maternal sociodemographic characteristics			
First-time mother	-0.049	0.022	0.028
Language other than English spoken at home	0.045	0.020	0.029
Child's biological father lives in the home	0.039	0.019	0.036
Maternal and household risk factors			
Mother's health self-rated as "poor" or "fair" or limits activities	0.034	0.020	0.083
Maternal and household economic self-sufficiency			
Mother's highest level of education is at least some college	0.052	0.021	0.013
<u>Local program characteristics</u>			
Staffing			
At least one staff person with dedicated time to support CQI activities	0.044	0.026	0.093
Average number of families in home visitors' caseloads	-0.004	0.003	0.223
Evidence-based model			
Early Head Start Home-based option	0.079	0.041	0.057
Nurse-Family Partnership	0.036	0.036	0.314
Parents as Teachers	-0.037	0.035	0.294

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 1,753 families and 81 local programs.

CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; and for evidence-based model it is Healthy Families America.

Table TA.33

Model Results for Analysis of Months of Participation in Home Visiting

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient	Standard	P-Value	Coefficient	Standard	P-Value
	Estimate	Error		Estimate	Error	
Intercept	NA	NA	NA	4.830	1.916	0.012
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Mother was pregnant at study entry	-0.005	0.305	0.988	-0.217	0.340	0.524
Maternal age (years)	0.070	0.024	0.004	0.063	0.029	0.033
First-time mother	0.236	0.292	0.419	0.411	0.354	0.247
Language other than English spoken in the home	0.601	0.288	0.037	0.221	0.418	0.597
Mother's race or ethnicity						
Black, non-Hispanic	-1.091	0.368	0.003	-0.488	0.419	0.244
Hispanic, Mexican	-0.058	0.382	0.879	-0.512	0.490	0.296
Hispanic, other	-0.112	0.471	0.811	-0.412	0.571	0.471
Other/multiracial	-0.949	0.550	0.085	-0.718	0.557	0.198
Child's biological father lives in the home	1.162	0.267	0.000	0.576	0.339	0.090
Mother is in a relationship	0.948	0.301	0.002	0.315	0.351	0.370
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	-0.694	0.292	0.018	-0.531	0.299	0.076
Mother's depression symptoms score at or above cutoff ^a	-0.246	0.270	0.363	0.088	0.314	0.780
Mother's abstract verbal reasoning score ^b	0.110	0.134	0.413	-0.031	0.144	0.832
Mother's relationship anxiety score ^c	-0.088	0.130	0.497	0.188	0.159	0.238
Mother's relationship avoidance score ^c	-0.586	0.127	0.000	-0.466	0.165	0.005

(continued)

Table TA.33 Months of Home Visiting (cont.)

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	0.746	0.303	0.014	0.465	0.313	0.137
At least some college	0.701	0.336	0.037	0.209	0.371	0.573
Household experiences food insecurity ^d	0.198	0.266	0.459	0.356	0.280	0.204
Mother has moved more than once in the past year	-0.498	0.328	0.129	-0.556	0.331	0.094
<u>Home visitor characteristics</u>						
Education and work experience						
Experience in home visiting						
1 to 2 years experience as a home visitor	-0.005	0.430	0.991	0.094	0.448	0.835
3 or more years experience as a home visitor	0.325	0.417	0.436	0.560	0.470	0.234
Earned a bachelor's degree or higher	0.086	0.354	0.810	-0.293	0.392	0.455
Home visitor perceptions						
Number of outcomes home visitor feels comfortable and effective to improve ^d	0.058	0.036	0.105	0.060	0.047	0.202
Number of outcomes home visitor feels supported by implementation system to improve ^f	0.051	0.024	0.032	0.019	0.034	0.577
Overall score of self-efficacy ^g	0.014	0.090	0.878	-0.082	0.109	0.455

(continued)

Table TA.33 Months of Home Visiting (cont.)

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intended service plan						
Number of outcomes rated as high priority ^h	0.059	0.049	0.231	-0.013	0.058	0.825
Well-being						
Home visitor's depression symptoms score at or above cutoff ^b	0.170	0.434	0.696	0.505	0.487	0.301
Home visitor's relationship anxiety score ^c	-0.019	0.146	0.899	0.136	0.188	0.470
Home visitor's relationship avoidance score ^c	-0.161	0.150	0.284	-0.242	0.185	0.193
Training and supervision						
Percent of supervision sessions devoted to client-specific issues	0.003	0.006	0.616	0.003	0.007	0.696
Time spent in individual supervision per week (minutes)	-0.008	0.007	0.242	-0.003	0.012	0.813
Average number of training hours per month	-0.020	0.027	0.452	-0.015	0.030	0.621
Work attitudes						
Organizational work attitudes—morale ⁱ	0.407	0.146	0.006	0.294	0.198	0.140
Intent to leave position in next 12 months	-0.808	0.466	0.084	-0.556	0.517	0.284
<u>Local program characteristics</u>						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^j	-0.082	0.222	0.714	-0.017	0.242	0.944
Organizational culture ⁱ						
Rigidity	-0.337	0.173	0.055	-0.258	0.289	0.376
Proficiency	0.057	0.182	0.755	0.044	0.209	0.834
Resistance	-0.312	0.164	0.061	0.169	0.262	0.522

(continued)

Table TA.33 Months of Home Visiting (cont.)

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Staffing						
Difficult to recruit qualified home visitor candidates	0.101	0.334	0.764	0.564	0.367	0.130
At least one staff person with dedicated time to support CQI activities	0.016	0.344	0.964	-0.128	0.388	0.742
Average number of families in home visitors' caseloads	0.077	0.036	0.035	0.034	0.053	0.523
Evidence-based model						
Early Head Start Home-based option	0.377	0.456	0.412	0.759	0.838	0.368
Nurse-Family Partnership	1.337	0.370	0.001	1.057	0.642	0.105
Parents as Teachers	0.304	0.429	0.482	-0.252	0.676	0.711

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services Inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 1,088 families, 324 home visitors, and 81 local programs.

NA = not applicable. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^eCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in these areas.

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Table TA.33 Months of Home Visiting (cont.)

^fCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^gThis measure reflects the mean score of home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^hHigh priority defined as a score of 8 or higher on a 10-point scale.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^jThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

Table TA.34

Sensitivity Model Results for Analysis of Months of Participation in Home Visiting, Model Including Only Family and Local Program Characteristics and Conditioned Only on Their Completeness

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	4.639	1.008	0.000
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Mother was pregnant at study entry	0.086	0.270	0.749	0.038	0.292	0.896
Maternal age (years)	0.076	0.021	0.000	0.072	0.025	0.004
First-time mother	0.148	0.259	0.567	0.388	0.306	0.205
Language other than English spoken in the home	0.769	0.254	0.003	0.392	0.367	0.286
Mother's race or ethnicity						
Black, non-Hispanic	-1.112	0.329	0.001	-0.544	0.366	0.137
Hispanic, Mexican	0.022	0.345	0.949	-0.356	0.441	0.419
Hispanic, other	-0.062	0.409	0.880	-0.237	0.489	0.628
Other/multiracial	-1.337	0.471	0.005	-1.187	0.473	0.012
Child's biological father lives in the home	1.057	0.234	0.000	0.473	0.290	0.103
Mother is in a relationship	0.812	0.266	0.002	0.225	0.304	0.460
Maternal and household risk factors						
Mother's health self rated as "poor" or "fair" or limits activities						
	-0.673	0.258	0.009	-0.544	0.262	0.038
Mother's depression symptoms score at or above cutoff ^a	-0.341	0.236	0.149	-0.072	0.268	0.788
Mother's abstract verbal reasoning score ^b	0.164	0.115	0.157	0.091	0.123	0.455
Mother's relationship anxiety score ^c	-0.068	0.113	0.550	0.181	0.139	0.193
Mother's relationship avoidance score ^c	-0.538	0.113	0.000	-0.350	0.143	0.015

(continued)

Table TA.34 Months of Home Visiting (Sensitivity) (cont.)

Characteristic	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	0.678	0.264	0.010	0.426	0.270	0.115
At least some college	0.760	0.294	0.010	0.227	0.317	0.473
Household experiences food insecurity ^d	0.228	0.232	0.326	0.360	0.239	0.132
Mother has moved more than once in the past year	-0.662	0.286	0.021	-0.612	0.287	0.033
<u>Local program characteristics</u>						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^e	-0.199	0.206	0.339	-0.111	0.223	0.620
Organizational culture ^f						
Rigidity	-0.313	0.158	0.052	-0.353	0.252	0.166
Proficiency	0.010	0.161	0.952	0.052	0.166	0.756
Resistance	-0.195	0.156	0.218	0.249	0.220	0.261
Staffing						
Difficult to recruit qualified home visitor candidates	0.164	0.311	0.601	0.214	0.317	0.503
At least one staff person with dedicated time to support CQI activities	0.092	0.319	0.774	0.031	0.336	0.928
Average number of families in home visitors' caseload	0.078	0.032	0.019	0.060	0.046	0.197
Evidence-based model						
Early Head Start Home-based option	0.525	0.435	0.232	0.856	0.512	0.099
Nurse-Family Partnership	1.277	0.355	0.001	0.809	0.520	0.124
Parents as Teachers	0.322	0.410	0.434	-0.129	0.457	0.778

(continued)

Table TA.34 Months of Home Visiting (Sensitivity) (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 1,462 families and 81 local programs.

NA = not applicable. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^eThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^fMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

Table TA.35

Selected Model Results for Analysis of Months of Participation in Home Visiting

Characteristic	Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value
Intercept	4.942	0.956	0.000
<u>Family characteristics</u>			
Maternal sociodemographic characteristics			
Maternal age (years)	0.069	0.027	0.011
First-time mother	0.379	0.344	0.271
Child's biological father lives in the home	0.918	0.283	0.001
Maternal and household risk factors			
Mother's relationship avoidance score ^a	-0.395	0.130	0.003
<u>Home visitor characteristics</u>			
Work attitudes			
Organizational work attitudes—morale ^b	0.352	0.139	0.012
<u>Local program characteristics</u>			
Organizational culture—resistance ^b	-0.111	0.162	0.498
Staffing			
Average number of families in home visitors' caseloads	0.039	0.044	0.387
Evidence-based model			
Early Head Start Home-based option	0.620	0.484	0.205
Nurse-Family Partnership	1.035	0.460	0.029
Parents as Teachers	0.043	0.427	0.919

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 1,088 families, 324 home visitors, and 81 local programs.

The reference category for evidence-based model is Healthy Families America.

^aMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Avoidance is measured using 16 items.

^bMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy.

Table TA.36

Characteristics of Families, Home Visitors, and Local Programs Used for Predictions of Duration

Characteristic	Profile		
	Greater Challenges or Barriers	Average	Fewer Challenges or Barriers
<u>Family characteristics</u>			
Maternal sociodemographic characteristics			
Mother was pregnant at study entry	1.0	0.7	0.0
Maternal age (years)	17.8	23.3	28.9
First-time mother	1.0	0.6	0.0
Language other than English spoken in the home	1.0	0.4	0.0
Mother's race or ethnicity			
Black, non-Hispanic	0.3	0.3	0.3
Hispanic, Mexican	0.2	0.2	0.2
Hispanic, other	0.1	0.1	0.1
Other/multiracial	0.1	0.1	0.1
Child's biological father lives in the home	0.0	0.4	1.0
Mother is in a relationship	0.0	0.7	1.0
Maternal and household risk factors			
Mother's health self-rated as "poor" or "fair" or limits activities	1.0	0.3	0.0
Mother's depression symptoms score at or above cutoff ^a	1.0	0.4	0.0
Mother's abstract verbal reasoning score ^b	-1.0	0.0	1.0
Mother's relationship anxiety score ^c	1.0	0.0	-1.0
Mother's relationship avoidance score ^c	1.0	-0.1	-1.1
Maternal and household economic self-sufficiency			
Mother's highest level of education			
High school diploma	0.0	0.3	0.0
At least some college	0.0	0.2	1.0
Household experiences food insecurity ^d	1.0	0.6	0.0
Mother has moved more than once in the past year	1.0	0.2	0.0
<u>Home visitor characteristics</u>			
Education and work experience			
Experience in home visiting			
1 to 2 years experience as a home visitor	0.0	0.4	0.0
3 or more years experience as a home visitor	0.0	0.5	1.0
Earned a bachelor's degree or higher	0.0	0.7	1.0

(continued)

Table TA.36 Profiles for Duration Predictions (cont.)

Characteristic	Profile		
	Greater Challenges or Barriers	Average	Fewer Challenges or Barriers
Home visitor perceptions			
Number of outcomes home visitor feels comfortable and effective to improve ^e	8.5	12.6	16.8
Number of outcomes home visitor feels supported by implementation system to improve ^f	6.2	12.3	18.4
Overall score of self-efficacy ^g	5.6	7.2	8.9
Intended service plan			
Number of outcomes rated as high priority ^h	7.3	10.3	13.3
Well-being			
Home visitor's depression symptoms score at or above cutoff ^a	1.0	0.1	0.0
Home visitor's relationship anxiety score ^c	1.0	0.0	-1.0
Home visitor's relationship avoidance score ^c	1.0	0.0	-0.9
Training and supervision			
Percentage of supervision sessions devoted to client-specific issues	38.1	65.1	92.0
Time spent in individual supervision per week (minutes)	19.3	44.0	68.7
Average number of training hours per month	3.0	8.4	13.9
Work attitudes			
Organizational work attitudes—morale score ⁱ	-0.9	0.1	1.1
Intent to leave position in next 12 months	1.0	0.1	0.0
<u>Local program characteristics</u>			
Community characteristics			
Index of neighborhood socioeconomic disadvantage ^j	1.7	0.9	0.2
Organizational culture scoresⁱ			
Rigidity	-1.0	-0.1	0.8
Proficiency	1.0	0.0	-1.0
Resistance	1.0	0.0	-1.0
Staffing			
Difficult to recruit qualified home visitor candidates	1.0	0.5	0.0
At least one staff person with dedicated time to support CQI activities	0.0	0.6	1.0
Average number of families in home visitors' caseloads	18.5	13.9	9.3

(continued)

Table TA.36 Profiles for Duration Predictions (cont.)

Characteristic	Profile		
	Greater Challenges or Barriers	Average	Fewer Challenges or Barriers
Evidence-based model ^k			
Early Head Start Home-based option	0.2	0.2	0.2
Healthy Families America	0.3	0.3	0.3
Nurse-Family Partnership	0.3	0.3	0.3
Parents as Teachers	0.2	0.2	0.2

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 1,088 families, 324 home visitors, and 81 local programs.

CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008). This variable was standardized to a mean of 0 and a standard deviation of 1.

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items. This variable was standardized to a mean of 0 and a standard deviation of 1.

^dRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^eCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in these areas.

^fCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^gThis measure reflects the mean score of home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^hHigh priority defined as a score of 8 or higher on a 10-point scale.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations. These variables were standardized to a mean of 0 and a standard deviation of 1.

^jThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

(continued)

Table TA.36 Profiles for Duration Predictions (cont.)

^kBecause this multi-category variable was included in the statistical model as a single categorical variable, rather than as a series of dummy variables with one variable for each non-reference category, values for all four categories (including the reference category) were syntactically required in Statistical Analysis System (SAS) and are presented in this table. Other multi-category variables (e.g., mother's race and ethnicity) were inputted into the statistical models as a series of dummies and did not syntactically require values for the reference category in SAS.

Table TA.37

**Variation Across Families, Home Visitors, and Local Programs:
General Outcomes of Service Delivery**

Outcome	Mean or Percentage	Sample Size			Proportion of Variance at Each Level		
		Family	Home Visitor	Local Program	Family	Home Visitor	Local Program
Received a home visit (%)	83.4	1,753	NA	81	0.95	NA	0.05
Number of months participating in home visiting ^a	8.2	1,088	324	81	0.95	0.02	0.03
Membership to trajectory group of number of home visits per month ^{a,b}	4.0	1,088	324	81	0.97	0.01	0.03

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Proportions may not sum to 1.00 because of rounding.

NA = not applicable.

^aThese outcomes were only modeled for families that received at least one home visit.

^bAlthough this outcome was modeled as an ordinal logit in Statistical Analysis System (SAS) proc glimmix, the variance decomposition reported in this table was computed from a linear model in SAS proc mixed. For the purposes of this analysis only, a month is defined to be four weeks (28 days). Although the mean value is presented for this measure, it could only take on whole numbers valued one through six, corresponding to the six trajectory groups (1=A, 2=B, 3=C, 4=D, 5=E, 6=F). Percentages in each trajectory are reported in the MIHOPE implementation research report.

Table TA.38

Model Results for Analysis of Trajectory Groups of Home Visits per Month

Characteristic	Bivariate Ordinal Logit Model			Multiple Regression Ordinal Logit Model		
	Coefficient	Standard	P-Value	Coefficient	Standard	P-Value
	Estimate	Error		Estimate	Error	
Intercepts^a						
Group B	NA	NA	NA	0.831	0.891	0.354
Group C	NA	NA	NA	-0.066	0.889	0.941
Group D	NA	NA	NA	-0.358	0.889	0.689
Group E	NA	NA	NA	-0.842	0.889	0.347
Group F	NA	NA	NA	-2.933	0.893	0.002
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Mother was pregnant at study entry	-0.274	0.138	0.046	-0.201	0.154	0.192
Maternal age (years)	0.046	0.011	0.000	0.036	0.013	0.008
First-time mother	-0.183	0.131	0.162	0.103	0.158	0.514
Language other than English spoken in the home	0.177	0.125	0.158	0.090	0.178	0.616
Mother's race or ethnicity						
Black, non-Hispanic	-0.522	0.161	0.001	-0.183	0.182	0.316
Hispanic, Mexican	-0.081	0.167	0.629	-0.182	0.212	0.389
Hispanic, other	-0.247	0.208	0.235	-0.231	0.251	0.358
Other/multiracial	-0.453	0.237	0.057	-0.341	0.244	0.164
Child's biological father lives in the home	0.558	0.117	0.000	0.318	0.149	0.033
Mother is in a relationship	0.339	0.128	0.008	0.074	0.152	0.625
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	-0.244	0.126	0.053	-0.208	0.132	0.116

(continued)

Table TA.38 Trajectory Groups (cont.)

Characteristic	Bivariate Ordinal Logit Model			Multiple Regression Ordinal Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Mother's depression symptoms score at or above cutoff ^b	-0.062	0.115	0.589	0.048	0.136	0.726
Mother's verbal intelligence score ^c	0.084	0.057	0.143	0.035	0.063	0.576
Mother's relationship anxiety score ^d	-0.039	0.055	0.474	0.108	0.069	0.119
Mother's relationship avoidance score ^d	-0.254	0.055	0.000	-0.242	0.072	0.001
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	0.355	0.132	0.007	0.180	0.138	0.193
At least some college	0.244	0.144	0.091	-0.033	0.164	0.840
Household experiences food insecurity ^e	0.054	0.114	0.634	0.143	0.122	0.243
Mother has moved more than once in the past year	-0.262	0.138	0.058	-0.302	0.144	0.036
<u>Home visitor characteristics</u>						
Education and work experience						
Experience in home visiting						
1 to 2 years experience as a home visitor	-0.235	0.186	0.208	-0.140	0.195	0.473
3 or more years experience as a home visitor	-0.027	0.183	0.884	0.225	0.204	0.270
Earned a bachelor's degree or higher	-0.148	0.163	0.365	-0.104	0.181	0.565
Home visitor perceptions						
Number of outcomes home visitor feels comfortable and effective to improve ^f	0.019	0.015	0.210	0.021	0.020	0.280
Number of outcomes home visitor feels supported by implementation system to improve ^g	0.018	0.010	0.072	0.002	0.014	0.865
Overall score of self-efficacy ^h	0.030	0.038	0.426	-0.026	0.046	0.569

(continued)

Table TA.38 Trajectory Groups (cont.)

Characteristic	Bivariate Ordinal Logit Model			Multiple Regression Ordinal Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intended service plan						
Number of outcomes rated as high priority ⁱ	0.013	0.021	0.537	-0.009	0.025	0.724
Well-being						
Home visitor's depression symptoms score at or above cutoff ^b	-0.013	0.181	0.942	0.086	0.204	0.673
Home visitor's relationship anxiety score ^d	0.001	0.061	0.984	0.093	0.080	0.244
Home visitor's relationship avoidance score ^d	-0.087	0.064	0.174	-0.115	0.079	0.143
Training and supervision						
Percent of supervision sessions devoted to client-specific issues	0.001	0.003	0.688	0.001	0.003	0.770
Time spent in individual supervision per week (minutes)	-0.001	0.003	0.830	0.004	0.005	0.400
Training hours per month (hours)	0.000	0.012	0.997	-0.001	0.013	0.951
Work attitudes						
Organizational work attitudes—morale ^j	0.180	0.065	0.005	0.167	0.084	0.048
Intent to leave position in next 12 months	-0.387	0.191	0.043	-0.199	0.215	0.355
<u>Local program characteristics</u>						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^k	-0.155	0.104	0.137	-0.068	0.112	0.541
Organizational culture ^j						
Rigidity	0.031	0.085	0.713	-0.015	0.133	0.911
Proficiency	-0.031	0.088	0.721	-0.008	0.097	0.934

(continued)

Table TA.38 Trajectory Groups (cont.)

Characteristic	Bivariate Ordinal Logit Model			Multiple Regression Ordinal Logit Model		
	Coefficient	Standard	P-Value	Coefficient	Standard	P-Value
	Estimate	Error		Estimate	Error	
Resistance	-0.051	0.080	0.524	0.015	0.120	0.900
Staffing						
Difficult to recruit qualified home visitor candidates	0.052	0.158	0.742	0.246	0.170	0.148
At least one staff person with dedicated time to support CQI activities	0.013	0.164	0.939	-0.108	0.180	0.549
Average number of families in home visitors' caseloads	-0.029	0.018	0.104	0.001	0.025	0.970
Evidence-based model						
Early Head Start Home-based option	0.421	0.242	0.082	0.736	0.395	0.063
Nurse-Family Partnership	-0.153	0.195	0.431	0.073	0.298	0.807
Parents as Teachers	-0.369	0.221	0.095	-0.392	0.306	0.200

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 1,088 families, 324 home visitors, and 81 local programs.

NA = not applicable. CQI = continuous quality improvement.

For the purposes of this analysis only, a month is defined to be four weeks (28 days). The dependent variable for this model is a multi-category measure ("trajectory group"). This variable has six categories, reflecting the six trajectory groups (A, B, C, D, E, and F) that describe common patterns of participation, or visit trajectories, of MIHOPE families that received at least one home visit. Families in higher-ordered groups (e.g., E and F) are, on average, enrolled in home visiting for longer and average a greater number of visits in each month of participation. Groups A and B comprise the early leavers; Groups C and D comprise the later leavers; and Groups E and F comprise the long-term participators. See Chapter 4 of the MIHOPE implementation research report for more information.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" and for evidence-based model it is Healthy Families America.

^aTrajectory Group A is the reference category.

^bA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

(continued)

Table TA.38 Trajectory Groups (cont.)

^cMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^dMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in these areas.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hThis measure reflects the mean score of home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

Table TA.39

**Outcome-Specific Discussions and Referrals
by Presence of Risk or Need at Study Entry**

Outcome-Specific Category	Sample Size ^a	Families with Whom Topic Was Ever Discussed (%)	Number of Visits in Which Topic Was Discussed	Families Who Ever Received a Referral (%)
<u>Maternal and newborn health and well-being</u>				
Family planning and birth spacing				
Risk or need present at study entry	808	69.6	3.8	25.0
Risk or need not present at study entry	856	68.1	3.1	22.3
P-value ^b		0.527	0.015	0.175
Substance use				
Risk or need present at study entry	742	56.7	2.1	7.5
Risk or need not present at study entry	912	41.1	0.9	1.8
P-value ^b		0.000	0.000	0.000
Mental health				
Risk or need present at study entry	706	84.1	6.6	29.7
Risk or need not present at study entry	954	79.2	5.7	16.8
P-value ^b		0.032	0.035	0.000
Intimate partner violence				
Risk or need present at study entry	360	46.7	1.4	13.9
Risk or need not present at study entry	1,275	36.6	0.9	7.5
P-value ^b		0.001	0.001	0.002
<u>Family economic self-sufficiency</u>				
Economic self-sufficiency				
Risk or need present at study entry	934	86.3	8.4	40.8
Risk or need not present at study entry	671	85.2	7.9	35.3
P-value ^b		0.558	0.312	0.015
<u>Child health and development</u>				
Child preventive care ^{c,d}				
Risk or need present at study entry	78	91.0	11.5	29.5
Risk or need not present at study entry	415	93.5	12.5	29.9
P-value ^b		0.420	0.385	0.941
Child development ^{c,d}				
Risk or need present at study entry	226	97.3	18.6	19.5
Risk or need not present at study entry	271	96.3	16.5	15.1
P-value ^b		0.414	0.047	0.118

(continued)

Table TA.39 Outcome-Specific Service Delivery, by Risk at Study Entry (cont.)

SOURCES: Calculations based on data from the MIHOPE family baseline survey and the MIHOPE family service logs.

NOTES: See Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^aSample is restricted to families who ever received a home visit.

^bDifference in "families with whom topic was ever discussed (%)" and "families who ever received a referral (%)" across risk or need groups were tested for statistical significance using a Rao-Scott second-order chi-square test, adjusting for clustering of families within local programs. Because this variable is continuous, differences across groups in "number of visits in which topic was discussed" were tested for statistical significance using a one-way ANOVA, adjusting for clustering of families within local programs.

^cThe models for these outcome-specific areas were only run among visits in the postnatal period.

^dThe samples for these outcome-specific areas were further restricted to include only mothers that had given birth to the focal child before study entry.

Table TA.40

Model Results for Ever Discussed Family Planning and Birth Spacing

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	0.586	0.225	0.010	0.584	1.146	0.612
<u>Family characteristics</u>									
Maternal sociodemographic characteristics									
Mother was pregnant at study entry	0.040	0.035	0.247	0.005	0.038	0.897	-0.029	0.212	0.893
Maternal age (years)	-0.003	0.003	0.354	-0.002	0.003	0.507	-0.016	0.018	0.382
First-time mother	0.069	0.033	0.039	0.059	0.041	0.147	0.322	0.227	0.157
Language other than English spoken in the home	0.011	0.034	0.749	-0.021	0.050	0.675	-0.099	0.290	0.733
Mother's race or ethnicity									
Black, non-Hispanic	-0.018	0.043	0.680	0.023	0.048	0.637	0.142	0.269	0.598
Hispanic, Mexican	0.040	0.044	0.367	0.048	0.057	0.398	0.207	0.325	0.526
Hispanic, other	-0.029	0.057	0.610	0.009	0.068	0.895	0.025	0.376	0.948
Other/multiracial	0.051	0.060	0.395	0.061	0.061	0.316	0.380	0.359	0.291
Child's biological father lives in the home	0.081	0.030	0.007	0.081	0.038	0.035	0.504	0.223	0.024
Mother is in a relationship	0.091	0.033	0.007	0.047	0.039	0.238	0.216	0.220	0.325
Mother would like another child	0.030	0.030	0.315	-0.010	0.033	0.754	-0.070	0.189	0.711
Maternal and household risk factors									
Mother's health self-rated as "poor" or "fair" or limits activities	0.008	0.032	0.793	0.018	0.033	0.590	0.072	0.189	0.704
Mother's depression symptoms score at or above cutoff ^a	-0.007	0.030	0.825	0.012	0.035	0.740	0.076	0.203	0.707
Mother's abstract verbal reasoning score ^b	-0.005	0.015	0.763	-0.017	0.016	0.317	-0.104	0.093	0.265

(continued)

Table TA.40 Ever Discussed Family Planning and Birth Spacing (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Mother's relationship anxiety score ^c	0.004	0.014	0.791	0.009	0.018	0.600	0.050	0.102	0.626
Mother's relationship avoidance score ^c	-0.020	0.014	0.147	-0.021	0.018	0.261	-0.111	0.104	0.286
Baseline risk presence in family planning and birth spacing ^d	0.025	0.030	0.398	0.010	0.031	0.737	0.039	0.176	0.824
Maternal and household economic self-sufficiency									
Mother's highest level of education									
High school diploma	0.011	0.033	0.733	-0.001	0.035	0.981	-0.025	0.200	0.901
At least some college	-0.008	0.038	0.835	0.015	0.042	0.716	0.115	0.237	0.626
Household experiences food insecurity ^e	-0.008	0.030	0.799	-0.004	0.032	0.908	0.021	0.181	0.906
Mother has moved more than once in the past year	0.010	0.037	0.786	-0.002	0.037	0.963	0.001	0.215	0.995
Maternal health care access and insurance									
Mother's insurance type									
Uninsured	-0.014	0.040	0.730	-0.041	0.042	0.321	-0.246	0.238	0.302
Private insurance only	0.023	0.052	0.653	0.022	0.054	0.686	0.089	0.309	0.774
Private insurance and public coverage	-0.081	0.073	0.265	-0.128	0.074	0.085	-0.739	0.403	0.067
<u>Home visitor characteristics</u>									
Education and work experience									
Home visitor's experience									
1 to 2 years experience as a home visitor	-0.018	0.054	0.742	-0.002	0.056	0.978	-0.005	0.295	0.986
3 or more years experience as a home visitor	-0.060	0.053	0.261	-0.052	0.058	0.370	-0.273	0.304	0.371
Earned a bachelor's degree or higher	-0.029	0.046	0.539	-0.075	0.050	0.138	-0.385	0.257	0.134

(continued)

Table TA.40 Ever Discussed Family Planning and Birth Spacing (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Home visitor perceptions									
Home visitor feels they are comfortable and effective working to improve family planning and birth spacing ^f	0.103	0.039	0.009	0.047	0.047	0.322	0.316	0.243	0.194
Home visitor feels they are supported by the local implementation system to improve family planning and birth spacing ^g	0.137	0.039	0.001	0.124	0.049	0.012	0.741	0.260	0.005
Home visitor ratings of confidence, when faced with a challenging situation, to improve family planning and birth spacing ^h	0.002	0.010	0.862	-0.019	0.011	0.096	-0.110	0.061	0.071
Intended service plan									
Home visitor rates family planning and birth spacing as high priority ⁱ	0.107	0.038	0.006	0.036	0.044	0.410	0.218	0.231	0.344
Well-being									
Home visitor's depression symptoms score at or above cutoff ^a	-0.004	0.054	0.947	0.025	0.060	0.680	0.079	0.315	0.801
Home visitor's relationship anxiety score ^c	0.006	0.018	0.738	0.014	0.023	0.539	0.093	0.124	0.452
Home visitor's relationship avoidance score ^c	-0.011	0.019	0.550	-0.026	0.023	0.271	-0.188	0.125	0.134
Training and supervision									
Percent of supervision sessions devoted to client-specific issues	0.002	0.001	0.002	0.003	0.001	0.001	0.017	0.004	0.000

(continued)

Table TA.40 Ever Discussed Family Planning and Birth Spacing (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Time spent in individual supervision per week (minutes)	0.001	0.001	0.250	-0.003	0.001	0.083	-0.015	0.007	0.044
Average number of training hours per month	0.001	0.003	0.715	-0.003	0.004	0.485	-0.015	0.020	0.454
Ever attended training in family planning and birth spacing	0.062	0.037	0.100	0.074	0.040	0.063	0.454	0.206	0.028
Work attitudes									
Organizational work attitudes—morale ^j	0.047	0.019	0.014	0.017	0.024	0.476	0.081	0.124	0.512
Intent to leave position in next 12 months	-0.090	0.057	0.111	-0.019	0.060	0.754	-0.038	0.314	0.904
<u>Local program characteristics</u>									
Community characteristics									
Index of neighborhood socioeconomic disadvantage ^k	-0.014	0.031	0.643	-0.021	0.033	0.517	-0.116	0.154	0.455
Has MOU and designated point of contact with community service provider in family planning and reproductive health care ^l	-0.054	0.053	0.310	-0.133	0.053	0.016	-0.795	0.251	0.002
Has service provider that is available, accessible, and effective in family planning and reproductive health care ^l	-0.041	0.046	0.382	-0.035	0.045	0.445	-0.272	0.211	0.199
Organizational culture^l									
Rigidity	-0.019	0.024	0.436	-0.071	0.041	0.092	-0.360	0.195	0.066
Proficiency	0.022	0.024	0.371	0.007	0.026	0.795	0.075	0.125	0.549
Resistance	0.003	0.023	0.902	0.088	0.035	0.014	0.466	0.168	0.006

(continued)

Table TA.40 Ever Discussed Family Planning and Birth Spacing (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Staffing									
Difficult to recruit qualified home visitor candidates	0.019	0.046	0.682	0.081	0.049	0.106	0.435	0.228	0.058
At least one staff person with dedicated time to support CQI activities	0.049	0.047	0.298	-0.015	0.052	0.769	-0.099	0.244	0.686
Average number of families in home visitors' caseloads	0.006	0.005	0.272	0.006	0.007	0.423	0.030	0.033	0.371
Service priorities									
Program rates family planning and birth spacing as "high priority" ⁱ	0.150	0.046	0.002	0.101	0.063	0.114	0.498	0.293	0.090
Program raised priority of family and birth spacing as a result of receipt of MIECHV funding	-0.087	0.050	0.088	-0.002	0.052	0.965	0.056	0.239	0.815
Evidence-based model									
Early Head Start Home-based option	-0.130	0.065	0.051	-0.111	0.108	0.309	-0.593	0.524	0.258
Nurse-Family Partnership	0.038	0.055	0.496	-0.124	0.087	0.158	-0.664	0.422	0.116
Parents as Teachers	-0.096	0.062	0.125	-0.163	0.086	0.062	-0.896	0.420	0.033

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 916 families, 292 home visitors, and 78 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for mother's insurance type it is "public coverage only;" for home visitor experience it is "less than one year of experience;" and for evidence-based model it is Healthy Families America.

(continued)

Table TA.40 Ever Discussed Family Planning and Birth Spacing (cont.)

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

Table TA.41

Model Results for Number of Visits Discussing Family Planning and Birth Spacing

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	-2.242	0.524	0.000
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Mother was pregnant at study entry	0.378	0.077	0.000	0.300	0.078	0.000
Maternal age (years)	-0.021	0.006	0.001	-0.023	0.007	0.001
First-time mother	0.070	0.076	0.361	-0.174	0.082	0.035
Language other than English spoken in the home	0.045	0.073	0.534	-0.065	0.093	0.485
Mother's race or ethnicity						
Black, non-Hispanic	0.228	0.090	0.012	0.227	0.097	0.020
Hispanic, Mexican	0.258	0.095	0.007	0.244	0.110	0.027
Hispanic, other	0.148	0.118	0.212	0.161	0.127	0.206
Other/multiracial	0.149	0.122	0.224	0.139	0.117	0.236
Child's biological father lives in the home	0.006	0.061	0.917	-0.040	0.071	0.571
Mother is in a relationship	0.163	0.070	0.020	0.184	0.076	0.015
Mother would like another child	0.176	0.061	0.004	0.163	0.063	0.010
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	-0.031	0.066	0.645	-0.030	0.065	0.639
Mother's depression symptoms score at or above cutoff ^a	-0.057	0.059	0.335	-0.029	0.066	0.664
Mother's abstract verbal reasoning score ^b	0.011	0.031	0.726	0.021	0.032	0.514
Mother's relationship anxiety score ^c	0.001	0.028	0.977	-0.005	0.034	0.886
Mother's relationship avoidance score ^c	0.004	0.028	0.881	-0.001	0.035	0.975
Baseline risk presence in family planning and birth spacing ^d	0.004	0.060	0.943	0.001	0.059	0.988
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	0.048	0.066	0.471	0.101	0.065	0.122
At least some college	-0.048	0.080	0.550	0.075	0.083	0.363
Household experiences food insecurity ^e	-0.017	0.060	0.771	-0.035	0.060	0.560

(continued)

Table TA.41 Number of Visits Discussing Family Planning and Birth Spacing (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Mother has moved more than once in the past year	0.071	0.073	0.329	0.077	0.070	0.274
Maternal health care access and insurance						
Mother's insurance type						
Uninsured	0.127	0.077	0.098	0.130	0.076	0.090
Private insurance only	-0.099	0.105	0.347	-0.050	0.103	0.632
Private insurance and public coverage	-0.256	0.144	0.075	-0.330	0.141	0.020
Home visitor characteristics						
Education and work experience						
Home visitor's experience						
1 to 2 years experience as a home visitor	-0.028	0.156	0.856	-0.060	0.141	0.670
3 or more years experience as a home visitor	-0.089	0.153	0.562	-0.257	0.147	0.081
Earned a bachelor's degree or higher	-0.033	0.136	0.812	-0.249	0.122	0.042
Home visitor perceptions						
Home visitor feels they are comfortable and effective working to improve family planning and birth spacing ^f	0.256	0.115	0.026	0.117	0.121	0.334
Home visitor feels they are supported by the local implementation system to improve family planning and birth spacing ^g	0.311	0.115	0.007	0.156	0.124	0.208
Home visitor ratings of confidence, when faced with a challenging situation, to improve family planning and birth spacing ^h	0.045	0.028	0.110	0.033	0.029	0.246
Intended service plan						
Home visitor rates family planning and birth spacing as high priority ⁱ	0.049	0.118	0.681	-0.234	0.114	0.041
Well-being						
Home visitor's depression symptoms score at or above cutoff ^a	0.039	0.149	0.791	0.123	0.152	0.417
Home visitor's relationship anxiety score ^c	0.029	0.050	0.558	0.011	0.058	0.847
Home visitor's relationship avoidance score ^c	0.021	0.052	0.690	-0.038	0.059	0.517

(continued)

Table TA.41 Number of Visits Discussing Family Planning and Birth Spacing (cont.)

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Training and supervision						
Percent of supervision sessions devoted to client-specific issues	0.006	0.002	0.014	0.008	0.002	0.000
Time spent in individual supervision per week (minutes)	0.003	0.003	0.297	-0.007	0.004	0.071
Average number of training hours per month	0.000	0.010	0.988	-0.011	0.010	0.266
Ever attended training in family planning and birth spacing	0.154	0.107	0.153	0.213	0.099	0.031
Work attitudes						
Organizational work attitudes—morale ^j	0.039	0.055	0.482	-0.028	0.060	0.643
Intent to leave position in next 12 months	-0.164	0.157	0.298	-0.065	0.157	0.680
Local program characteristics						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^k	0.130	0.096	0.178	-0.033	0.077	0.669
Has MOU and designated point of contact with community service provider in family planning and reproductive health care ^l	-0.099	0.170	0.560	-0.305	0.123	0.013
Has service provider that is available, accessible, and effective in family planning and reproductive health care ^l	-0.264	0.144	0.067	-0.177	0.103	0.086
Organizational culture^l						
Rigidity	-0.052	0.076	0.496	-0.177	0.096	0.065
Proficiency	0.132	0.074	0.075	0.094	0.059	0.113
Resistance	0.009	0.075	0.900	0.231	0.082	0.005
Staffing						
Difficult to recruit qualified home visitor candidates	-0.018	0.147	0.901	0.052	0.116	0.658
At least one staff person with dedicated time to support CQI activities	0.149	0.150	0.322	-0.011	0.117	0.924
Average number of families in home visitors' caseloads	0.040	0.016	0.010	0.019	0.017	0.256

(continued)

Table TA.41 Number of Visits Discussing Family Planning and Birth Spacing (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Service priorities						
Program rates family planning and birth spacing as "high priority" ⁱ	0.670	0.137	0.000	0.368	0.148	0.013
Program raised priority of family planning and birth spacing as a result of receipt of MIECHV funding	-0.330	0.162	0.042	0.105	0.125	0.405
Evidence-based model						
Early Head Start Home-based option	-0.372	0.180	0.039	-0.334	0.252	0.186
Nurse-Family Partnership	0.498	0.150	0.001	0.044	0.198	0.822
Parents as Teachers	-0.318	0.175	0.070	-0.388	0.212	0.067

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 916 families, 292 home visitors, and 78 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for mother's insurance type it is "public coverage only;" for home visitor experience it is "less than one year of experience;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale

^lMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

(continued)

Table TA.41 Number of Visits Discussing Family Planning and Birth Spacing (cont.)

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lRespondents answering “don’t know” were treated as non-yes responses along with responses of “no.”

Table TA.42

Model Results for Ever Received a Referral for Family Planning and Birth Spacing

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	-0.263	0.273	0.337	-4.612	1.449	0.002
Family characteristics									
Maternal sociodemographic characteristics									
Mother was pregnant at study entry	0.069	0.043	0.108	0.050	0.048	0.299	0.310	0.275	0.261
Maternal age (years)	-0.006	0.003	0.069	-0.005	0.004	0.222	-0.029	0.025	0.251
First-time mother	0.047	0.041	0.250	0.024	0.053	0.649	0.193	0.302	0.524
Language other than English spoken in the home	0.103	0.040	0.011	0.076	0.059	0.198	0.435	0.339	0.201
Mother's race or ethnicity									
Black, non-Hispanic	0.046	0.052	0.371	0.067	0.061	0.271	0.375	0.352	0.288
Hispanic, Mexican	0.161	0.053	0.002	0.131	0.068	0.054	0.830	0.382	0.030
Hispanic, other	0.105	0.069	0.128	0.113	0.082	0.166	0.682	0.461	0.140
Other/multiracial	0.042	0.072	0.557	0.041	0.073	0.579	0.238	0.425	0.576
Child's biological father lives in the home	0.032	0.037	0.387	-0.011	0.047	0.809	-0.042	0.261	0.872
Mother is in a relationship	0.137	0.042	0.001	0.168	0.050	0.001	1.022	0.297	0.001
Mother would like another child	0.071	0.037	0.053	0.018	0.042	0.670	0.163	0.239	0.496
Maternal and household risk factors									
Mother's health self-rated as "poor" or "fair" or limits activities	-0.063	0.040	0.117	-0.081	0.042	0.053	-0.505	0.240	0.036
Mother's depression symptoms score at or above cutoff ^a	0.042	0.036	0.249	0.029	0.044	0.503	0.120	0.250	0.633
Mother's abstract verbal reasoning score ^b	0.007	0.019	0.714	0.025	0.020	0.223	0.163	0.115	0.157

(continued)

Table TA.42 Ever Received a Referral for Family Planning and Birth Spacing (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Mother's relationship anxiety score ^c	0.026	0.017	0.131	0.011	0.022	0.620	0.082	0.126	0.517
Mother's relationship avoidance score ^c	0.010	0.017	0.571	0.020	0.023	0.389	0.137	0.134	0.307
Baseline risk presence in family planning and birth spacing ^d	-0.002	0.037	0.946	-0.032	0.038	0.409	-0.161	0.221	0.467
Maternal and household economic self-sufficiency									
Mother's highest level of education									
High school diploma	-0.031	0.041	0.446	-0.013	0.042	0.765	-0.102	0.240	0.672
At least some college	-0.105	0.047	0.028	-0.084	0.052	0.110	-0.545	0.306	0.076
Household experiences food insecurity ^e	0.016	0.036	0.664	-0.019	0.039	0.626	-0.136	0.223	0.541
Mother has moved more than once in the past year	-0.017	0.044	0.704	-0.008	0.045	0.856	-0.054	0.259	0.836
Maternal health care access and insurance									
Mother's insurance type									
Uninsured	0.056	0.048	0.243	0.014	0.051	0.782	0.005	0.290	0.986
Private insurance only	0.085	0.064	0.186	0.100	0.067	0.133	0.561	0.373	0.133
Private insurance and public coverage	-0.078	0.090	0.389	-0.078	0.094	0.410	-0.454	0.565	0.422
<u>Home visitor characteristics</u>									
Education and work experience									
Home visitor's experience									
1 to 2 years experience as a home visitor	0.132	0.065	0.044	0.103	0.067	0.127	0.576	0.362	0.113
3 or more years experience as a home visitor	0.124	0.063	0.051	0.079	0.072	0.274	0.368	0.386	0.341
Earned a bachelor's degree or higher	-0.010	0.055	0.856	0.007	0.062	0.915	0.106	0.320	0.740

(continued)

Table TA.42 Ever Received a Referral for Family Planning and Birth Spacing (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Home visitor perceptions									
Home visitor feels they are comfortable and effective working to improve family planning and birth spacing ^f	0.010	0.049	0.834	-0.080	0.060	0.179	-0.470	0.317	0.140
Home visitor feels they are supported by the local implementation system to improve family planning and birth spacing ^g	0.014	0.048	0.778	-0.019	0.061	0.757	-0.074	0.322	0.819
Home visitor ratings of confidence, when faced with a challenging situation, to improve family planning and birth spacing ^h	0.034	0.012	0.004	0.043	0.014	0.003	0.248	0.077	0.001
Intended service plan									
Home visitor rates family planning and birth spacing as high priority ⁱ	0.075	0.048	0.117	-0.020	0.056	0.725	-0.128	0.292	0.663
Well-being									
Home visitor's depression symptoms score at or above cutoff ^a	-0.043	0.067	0.521	-0.081	0.078	0.295	-0.469	0.416	0.260
Home visitor's relationship anxiety score ^c	0.004	0.022	0.874	0.046	0.028	0.108	0.284	0.153	0.063
Home visitor's relationship avoidance score ^c	-0.006	0.023	0.779	-0.035	0.029	0.230	-0.176	0.156	0.260
Training and supervision									
Percent of supervision sessions devoted to client-specific issues	0.001	0.001	0.221	0.002	0.001	0.084	0.010	0.005	0.057

(continued)

Table TA.42 Ever Received a Referral for Family Planning and Birth Spacing (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Time spent in individual supervision per week (minutes)	0.002	0.001	0.020	0.001	0.002	0.475	0.007	0.009	0.431
Average number of training hours per month	0.004	0.004	0.351	0.007	0.005	0.155	0.044	0.025	0.080
Ever attended training in family planning and birth spacing	0.016	0.045	0.718	-0.002	0.050	0.968	-0.012	0.263	0.964
Work attitudes									
Organizational work attitudes—morale ^j	0.011	0.023	0.642	0.011	0.030	0.711	0.103	0.157	0.510
Intent to leave position in next 12 months	0.062	0.072	0.384	0.101	0.078	0.194	0.617	0.406	0.130
Local program characteristics									
Community characteristics									
Index of neighborhood socioeconomic disadvantage ^k	-0.007	0.034	0.846	-0.065	0.039	0.101	-0.360	0.197	0.068
Has MOU and designated point of contact with community service provider in family planning and reproductive health care ^l	-0.014	0.059	0.809	-0.006	0.063	0.921	-0.033	0.315	0.917
Has service provider that is available, accessible, and effective in family planning and reproductive health care ^l	-0.144	0.046	0.003	-0.099	0.052	0.067	-0.558	0.254	0.029
Organizational culture^l									
Rigidity	0.007	0.026	0.796	-0.037	0.049	0.453	-0.273	0.234	0.243
Proficiency	0.019	0.026	0.471	-0.002	0.031	0.950	-0.064	0.153	0.677
Resistance	0.022	0.024	0.370	0.112	0.041	0.010	0.707	0.202	0.001

(continued)

Table TA.42 Ever Received a Referral for Family Planning and Birth Spacing (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Staffing									
Difficult to recruit qualified home visitor candidates	-0.042	0.050	0.404	-0.001	0.061	0.983	0.007	0.308	0.983
At least one staff person with dedicated time to support CQI activities	-0.041	0.052	0.430	0.002	0.061	0.973	0.028	0.297	0.924
Average number of families in home visitors' caseloads	0.008	0.006	0.141	0.005	0.008	0.568	0.026	0.041	0.520
Service priorities									
Program rates family planning and birth spacing as "high priority" ⁱ	0.108	0.054	0.051	0.043	0.076	0.569	0.415	0.375	0.269
Program raised priority of family and birth spacing as a result of receipt of MIECHV funding	-0.025	0.057	0.656	-0.033	0.064	0.602	-0.306	0.314	0.330
Evidence-based model									
Early Head Start Home-based option	-0.209	0.075	0.007	-0.057	0.127	0.653	-0.407	0.641	0.526
Nurse-Family Partnership	-0.024	0.060	0.694	-0.041	0.100	0.687	-0.329	0.487	0.500
Parents as Teachers	-0.060	0.070	0.394	0.070	0.103	0.500	0.431	0.506	0.395

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 652 families, 259 home visitors, and 74 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for mother's insurance type it is "public coverage only;" for home visitor experience it is "less than one year of experience;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

(continued)

Table TA.42 Ever Received a Referral for Family Planning and Birth Spacing (cont.)

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

Table TA.43

Model Results for Ever Discussed Substance Use

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	0.442	0.261	0.093	-0.660	1.466	0.654
<u>Family characteristics</u>									
Maternal sociodemographic characteristics									
Mother was pregnant at study entry	0.095	0.038	0.012	0.055	0.040	0.168	0.324	0.251	0.196
Maternal age (years)	-0.002	0.003	0.587	0.005	0.003	0.162	0.022	0.021	0.291
First-time mother	0.089	0.035	0.012	0.019	0.041	0.637	0.098	0.253	0.699
Language other than English spoken in the home	-0.128	0.036	0.000	-0.155	0.048	0.001	-0.984	0.309	0.002
Mother's race or ethnicity									
Black, non-Hispanic	-0.129	0.044	0.004	-0.136	0.049	0.006	-0.916	0.307	0.003
Hispanic, Mexican	-0.103	0.046	0.025	0.032	0.056	0.568	0.134	0.348	0.701
Hispanic, other	-0.130	0.058	0.027	-0.014	0.066	0.830	-0.104	0.414	0.803
Other/multiracial	-0.073	0.062	0.234	-0.081	0.062	0.190	-0.557	0.382	0.145
Child's biological father lives in the home	0.035	0.031	0.257	0.025	0.037	0.506	0.204	0.236	0.388
Mother is in a relationship	0.048	0.034	0.162	0.017	0.039	0.656	0.124	0.243	0.611
Maternal and household risk factors									
Mother's health self-rated as "poor" or "fair" or limits activities	0.009	0.033	0.789	0.016	0.033	0.642	0.063	0.211	0.766
Mother's depression symptoms score at or above cutoff ^a	-0.053	0.030	0.083	-0.110	0.035	0.002	-0.711	0.222	0.001
Mother's abstract verbal reasoning score ^b	0.054	0.015	0.000	0.049	0.016	0.003	0.298	0.103	0.004
Mother's relationship anxiety score ^c	0.001	0.015	0.929	-0.005	0.018	0.789	-0.019	0.112	0.865

(continued)

Table TA.43 Ever Discussed Substance Use (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Mother's relationship avoidance score ^c	0.007	0.015	0.652	0.034	0.019	0.066	0.206	0.118	0.083
Smoking is permitted in the home	0.119	0.040	0.003	0.052	0.042	0.218	0.387	0.269	0.151
Baseline risk presence in substance use ^d	0.135	0.030	0.000	0.098	0.032	0.002	0.662	0.205	0.001
Maternal and household economic self-sufficiency									
Mother's highest level of education									
High school diploma	0.005	0.035	0.878	-0.004	0.035	0.900	-0.014	0.223	0.950
At least some college	-0.011	0.038	0.773	-0.066	0.041	0.109	-0.402	0.257	0.118
Household experiences food insecurity ^e	0.035	0.030	0.251	0.046	0.031	0.138	0.313	0.195	0.110
Mother has moved more than once in the past year	0.052	0.037	0.164	0.015	0.037	0.676	0.106	0.231	0.646
Received help or treatment for alcohol or substance use in the past year	0.128	0.048	0.008	0.130	0.048	0.007	0.833	0.308	0.007
<u>Home visitor characteristics</u>									
Education and work experience									
Home visitor's experience									
1 to 2 years experience as a home visitor	-0.108	0.068	0.113	-0.057	0.071	0.418	-0.350	0.412	0.397
3 or more years experience as a home visitor	-0.144	0.066	0.030	-0.114	0.071	0.110	-0.780	0.416	0.061
Earned a bachelor's degree or higher	0.047	0.057	0.415	0.009	0.063	0.891	0.165	0.359	0.646
Home visitor perceptions									
Home visitor feels they are comfortable and effective working to address substance use ^f	-0.045	0.047	0.344	-0.009	0.067	0.893	-0.003	0.391	0.994

(continued)

Table TA.43 Ever Discussed Substance Use (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Home visitor feels they are comfortable and effective working to reduce tobacco use ^f	-0.024	0.048	0.614	-0.080	0.074	0.282	-0.483	0.435	0.267
Home visitor feels they are supported by the local implementation system to address substance use ^g	-0.004	0.046	0.925	-0.105	0.075	0.163	-0.675	0.446	0.130
Home visitor feels they are supported by the local implementation system to reduce tobacco use ^g	0.090	0.046	0.052	0.143	0.073	0.053	1.051	0.436	0.016
Home visitor ratings of confidence, when faced with a challenging situation, to address substance use ^h	-0.006	0.010	0.578	-0.003	0.012	0.824	-0.016	0.071	0.815
Intended service plan									
Home visitor rates mental health and substance use as high priority ⁱ	0.010	0.053	0.851	-0.030	0.065	0.649	-0.258	0.381	0.499
Home visitor rates tobacco use as high priority ⁱ	0.055	0.046	0.230	0.041	0.055	0.460	0.288	0.323	0.373
Well-being									
Home visitor's depression symptoms score at or above cutoff ^a	0.070	0.071	0.326	0.083	0.077	0.285	0.560	0.462	0.225
Home visitor's relationship anxiety score ^c	0.016	0.023	0.482	-0.010	0.030	0.733	-0.057	0.179	0.752
Home visitor's relationship avoidance score ^c	0.002	0.023	0.949	0.011	0.029	0.714	0.090	0.173	0.603
Training and supervision									
Percent of supervision sessions devoted to client-specific issues	0.002	0.001	0.039	0.001	0.001	0.207	0.009	0.007	0.186

(continued)

Table TA.43 Ever Discussed Substance Use (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Time spent in individual supervision per week (minutes)	0.001	0.001	0.583	-0.003	0.002	0.164	-0.015	0.011	0.180
Average number of training hours per month	0.008	0.004	0.047	0.001	0.005	0.757	0.010	0.026	0.699
Ever attended training in substance use	0.167	0.046	0.000	0.161	0.048	0.001	1.060	0.290	0.000
Work attitudes									
Organizational work attitudes—morale ^j	0.025	0.023	0.278	0.026	0.030	0.384	0.136	0.172	0.429
Intent to leave position in next 12 months	-0.022	0.069	0.754	-0.028	0.077	0.713	-0.063	0.450	0.889
<u>Local program characteristics</u>									
Community characteristics									
Index of neighborhood socioeconomic disadvantage ^k	-0.011	0.037	0.771	0.010	0.039	0.800	0.069	0.212	0.745
Has MOU and designated point of contact with community service provider in substance use and mental health treatment ^l	0.101	0.064	0.120	0.123	0.071	0.088	0.872	0.393	0.027
Has service provider that is available, accessible, and effective in substance use and mental health treatment ^l	0.032	0.056	0.567	0.023	0.058	0.690	0.125	0.307	0.685
Organizational culture^j									
Rigidity	-0.044	0.029	0.136	-0.005	0.049	0.913	0.019	0.264	0.944
Proficiency	0.050	0.030	0.101	0.042	0.034	0.222	0.268	0.186	0.151
Resistance	-0.042	0.028	0.135	0.004	0.045	0.925	-0.002	0.242	0.992

(continued)

Table TA.43 Ever Discussed Substance Use (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Staffing									
Difficult to recruit qualified home visitor candidates	0.036	0.056	0.522	-0.010	0.064	0.874	-0.081	0.337	0.810
At least one staff person with dedicated time to support CQI activities	0.094	0.056	0.099	0.031	0.060	0.608	0.213	0.317	0.501
Average number of families in home visitors' caseloads	0.002	0.006	0.807	-0.010	0.008	0.256	-0.060	0.044	0.176
Access to professional consultants in substance use ^m	0.008	0.061	0.900	-0.011	0.059	0.858	0.028	0.305	0.928
Service priorities									
Program rates mental health and substance use as "high priority" ⁱ	0.134	0.068	0.054	0.079	0.092	0.397	0.566	0.505	0.263
Program rates tobacco use as "high priority" ⁱ	0.123	0.057	0.035	0.028	0.079	0.725	0.118	0.425	0.781
Program raised priority of mental health and substance use as a result of the MIECHV program	-0.086	0.061	0.161	-0.085	0.072	0.242	-0.456	0.391	0.243
Program raised priority of tobacco use as a result of receipt of MIECHV funding	-0.071	0.061	0.248	0.124	0.085	0.148	0.767	0.467	0.101
Organizational structure and policies									
Processes for formal screening and internal monitoring									
Program requires formal substance use screening tool at a certain time and has internal monitoring procedures regarding screening	0.152	0.064	0.020	0.103	0.076	0.181	0.594	0.410	0.148
Program requires formal substance use screening tool at a certain time and does not have internal monitoring procedures regarding screening	0.028	0.075	0.707	0.054	0.084	0.521	0.336	0.443	0.448

(continued)

Table TA.43 Ever Discussed Substance Use (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value	Estimate	Error	Value
Evidence-based model									
Early Head Start Home-based option	-0.059	0.076	0.440	-0.339	0.150	0.026	-2.107	0.833	0.012
Nurse-Family Partnership	0.158	0.064	0.016	0.065	0.112	0.566	0.483	0.610	0.429
Parents as Teachers	-0.087	0.078	0.269	-0.118	0.116	0.314	-0.561	0.641	0.382

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 937 families, 272 home visitors, and 72 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" for processes for formal screening and internal monitoring it is "program does not require formal substance use screening tool at a certain time;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzias, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

(continued)

Table TA.43 Ever Discussed Substance Use (cont.)

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lRespondents answering “don’t know” were treated as non-yes responses along with responses of “no.”

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.44

Model Results for Number of Visits Discussing Substance Use

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	-2.708	0.751	0.001
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Mother was pregnant at study entry	0.615	0.140	0.000	0.409	0.138	0.003
Maternal age (years)	-0.022	0.011	0.046	0.005	0.011	0.648
First-time mother	0.477	0.132	0.000	0.092	0.136	0.498
Language other than English spoken in the home	-0.670	0.127	0.000	-0.350	0.150	0.020
Mother's race or ethnicity						
Black, non-Hispanic	-0.646	0.150	0.000	-0.669	0.154	0.000
Hispanic, Mexican	-0.908	0.159	0.000	-0.321	0.176	0.069
Hispanic, other	-0.701	0.199	0.000	-0.248	0.204	0.225
Other/multiracial	-0.252	0.197	0.201	-0.315	0.180	0.080
Child's biological father lives in the home	-0.158	0.107	0.140	-0.247	0.116	0.034
Mother is in a relationship	0.175	0.123	0.155	0.320	0.123	0.010
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	0.103	0.115	0.371	0.067	0.105	0.527
Mother's depression symptoms score at or above cutoff ^a	0.029	0.105	0.785	-0.173	0.113	0.127
Mother's abstract verbal reasoning score ^b	0.151	0.055	0.007	0.102	0.054	0.056
Mother's relationship anxiety score ^c	0.064	0.050	0.205	-0.052	0.056	0.348
Mother's relationship avoidance score ^c	0.125	0.052	0.016	0.148	0.060	0.015
Smoking is permitted in the home	0.497	0.131	0.000	0.115	0.122	0.344
Baseline risk presence in substance use ^d	0.954	0.101	0.000	0.717	0.103	0.000
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	-0.086	0.119	0.469	-0.043	0.110	0.694
At least some college	-0.013	0.138	0.924	-0.121	0.134	0.366
Household experiences food insecurity ^e	0.009	0.106	0.933	-0.019	0.100	0.853

(continued)

Table TA.44 Number of Visits Discussing Substance Use (cont.)

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Mother has moved more than once in the past year	0.508	0.122	0.000	0.352	0.110	0.001
Received help or treatment for alcohol or substance use in the past year	0.382	0.157	0.015	0.282	0.139	0.043
<u>Home visitor characteristics</u>						
Education and work experience						
Home visitor's experience						
1 to 2 years experience as a home visitor	-0.338	0.234	0.150	-0.324	0.199	0.105
3 or more years experience as a home visitor	-0.515	0.228	0.024	-0.629	0.207	0.002
Earned a bachelor's degree or higher	0.339	0.208	0.105	0.064	0.191	0.738
Home visitor perceptions						
Home visitor feels they are comfortable and effective working to address substance use ^f	-0.164	0.166	0.326	-0.107	0.190	0.573
Home visitor feels they are comfortable and effective working to reduce tobacco use ^f	-0.147	0.173	0.395	-0.089	0.211	0.672
Home visitor feels they are supported by the local implementation system to address substance use ^g	-0.144	0.162	0.372	-0.236	0.216	0.277
Home visitor feels they are supported by the local implementation system to reduce tobacco use ^g	0.034	0.168	0.841	0.128	0.212	0.546
Home visitor ratings of confidence, when faced with a challenging situation, to address substance use ^h	-0.059	0.035	0.093	-0.019	0.036	0.602
Intended service plan						
Home visitor rates mental health and substance use as high priority ^j	-0.017	0.187	0.927	-0.029	0.192	0.880
Home visitor rates tobacco use as high priority ^j	0.145	0.161	0.369	0.245	0.163	0.135

(continued)

Table TA.44 Number of Visits Discussing Substance Use (cont.)

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Well-being						
Home visitor's depression symptoms score at or above cutoff ^a	0.092	0.249	0.713	0.077	0.232	0.740
Home visitor's relationship anxiety score ^c	0.081	0.079	0.309	-0.049	0.091	0.592
Home visitor's relationship avoidance score ^c	0.031	0.081	0.704	0.079	0.089	0.376
Training and supervision						
Percent of supervision sessions devoted to client-specific issues	0.006	0.003	0.059	0.006	0.003	0.081
Time spent in individual supervision per week (minutes)	-0.001	0.004	0.876	-0.007	0.006	0.209
Training hours per month (hours)	0.014	0.015	0.331	-0.009	0.013	0.510
Ever attended training in substance use	0.630	0.162	0.000	0.527	0.139	0.000
Work attitudes						
Organizational work attitudes—morale ^j	-0.051	0.083	0.544	0.039	0.086	0.649
Intent to leave position in next 12 months	0.149	0.245	0.544	0.038	0.231	0.869
Local program characteristics						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^k	-0.193	0.130	0.138	-0.162	0.112	0.150
Has MOU and designated point of contact with community service provider in substance use and mental health treatment ^l	0.175	0.223	0.433	0.223	0.189	0.237
Has service provider that is available, accessible, and effective in substance use and mental health treatment ^l	0.138	0.198	0.487	0.064	0.160	0.688
Organizational culture^j						
Rigidity	-0.230	0.097	0.017	-0.026	0.133	0.845
Proficiency	0.106	0.107	0.323	0.150	0.095	0.114
Resistance	-0.138	0.097	0.156	0.121	0.122	0.321

(continued)

Table TA.44 Number of Visits Discussing Substance Use (cont.)

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Staffing						
Difficult to recruit qualified home visitor candidates	0.021	0.196	0.914	-0.269	0.176	0.127
At least one staff person with dedicated time to support CQI activities	0.441	0.197	0.026	0.222	0.163	0.173
Average number of families in home visitors' caseloads	0.019	0.022	0.392	-0.038	0.023	0.105
Access to professional consultants in substance use ^m	0.083	0.214	0.698	-0.008	0.162	0.960
Service priorities						
Program rates mental health and substance use as "high priority" ⁱ	0.226	0.249	0.363	0.085	0.270	0.753
Program rates tobacco use as "high priority" ⁱ	0.390	0.205	0.058	0.072	0.216	0.741
Program raised priority of mental health and substance use as a result of receipt of MIECHV funding	-0.388	0.215	0.071	-0.284	0.203	0.162
Program raised priority of tobacco use as a result of receipt of MIECHV funding	-0.451	0.210	0.033	0.110	0.241	0.648
Organizational structure and policies						
Processes for formal screening and internal monitoring						
Program requires formal substance use screening tool at a certain time and has internal monitoring procedures regarding screening	0.564	0.227	0.013	0.403	0.207	0.052
Program requires formal substance use screening tool at a certain time and does not have internal monitoring procedures regarding screening	0.067	0.267	0.803	0.183	0.226	0.420
Evidence-based model						
Early Head Start Home-based option	-0.129	0.262	0.622	-0.924	0.418	0.027
Nurse-Family Partnership	0.667	0.213	0.002	0.335	0.305	0.272
Parents as Teachers	-0.037	0.276	0.893	0.002	0.338	0.996

(continued)

Table TA.44 Number of Visits Discussing Substance Use (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 937 families, 272 home visitors, and 72 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" for processes for formal screening and internal monitoring it is "program does not require formal substance use screening tool at a certain time;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages..

^lRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.45

Model Results for Ever Received a Referral for Substance Use

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	-0.293	0.187	0.119	-13.153	3.513	0.000
<u>Family characteristics</u>									
Maternal sociodemographic characteristics									
Mother was pregnant at study entry	0.025	0.032	0.434	0.066	0.039	0.089	1.920	0.736	0.010
Maternal age (years)	0.000	0.002	0.867	0.002	0.003	0.502	0.040	0.056	0.474
First-time mother	-0.001	0.031	0.961	-0.021	0.039	0.591	0.183	0.681	0.788
Language other than English spoken in the home	-0.021	0.030	0.471	0.033	0.043	0.436	1.705	0.909	0.062
Mother's race or ethnicity									
Black, non-Hispanic	-0.057	0.036	0.113	-0.055	0.044	0.212	-1.067	0.718	0.139
Hispanic, Mexican	-0.087	0.037	0.019	-0.071	0.049	0.151	-2.767	1.108	0.013
Hispanic, other	-0.098	0.046	0.033	-0.085	0.057	0.136	-3.002	1.273	0.019
Other/multiracial	-0.024	0.052	0.641	-0.043	0.054	0.420	-0.773	0.784	0.325
Child's biological father lives in the home	-0.067	0.026	0.011	-0.100	0.034	0.004	-2.200	0.645	0.001
Mother is in a relationship	0.003	0.031	0.926	0.038	0.036	0.292	1.007	0.569	0.078
Maternal and household risk factors									
Mother's health self-rated as "poor" or "fair" or limits activities	0.033	0.029	0.245	0.050	0.030	0.105	1.027	0.513	0.046
Mother's depression symptoms score at or above cutoff ^a	0.024	0.027	0.380	0.002	0.033	0.948	0.023	0.528	0.965
Mother's abstract verbal reasoning score ^b	-0.012	0.014	0.391	-0.003	0.016	0.839	-0.159	0.277	0.567
Mother's relationship anxiety score ^c	0.008	0.013	0.542	0.002	0.016	0.913	-0.031	0.289	0.914

(continued)

Table TA.45 Ever Received a Referral for Substance Use (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Mother's relationship avoidance score ^c	-0.012	0.013	0.370	-0.037	0.017	0.029	-0.796	0.333	0.018
Smoking is permitted in the home	0.013	0.032	0.699	-0.024	0.036	0.509	-0.651	0.571	0.256
Baseline risk presence in substance use ^d	0.084	0.026	0.001	0.067	0.029	0.022	1.637	0.558	0.004
Maternal and household economic self-sufficiency									
Mother's highest level of education									
High school diploma	-0.018	0.030	0.557	-0.020	0.031	0.528	-0.141	0.495	0.776
At least some college	-0.038	0.033	0.245	-0.032	0.038	0.394	-0.761	0.671	0.257
Household experiences food insecurity ^e	0.023	0.026	0.385	0.029	0.029	0.307	0.991	0.529	0.062
Mother has moved more than once in the past year	0.033	0.031	0.288	0.018	0.032	0.577	0.008	0.524	0.988
Received help or treatment for alcohol or substance use in the past year	0.078	0.038	0.040	0.047	0.041	0.250	0.811	0.588	0.169
<u>Home visitor characteristics</u>									
Education and work experience									
Home visitor's experience									
1 to 2 years experience as a home visitor	0.004	0.042	0.915	-0.005	0.047	0.917	-0.513	0.747	0.493
3 or more years experience as a home visitor	0.029	0.041	0.483	0.024	0.050	0.638	0.370	0.792	0.641
Earned a bachelor's degree or higher	-0.031	0.038	0.410	-0.005	0.047	0.922	0.274	0.752	0.716
Home visitor perceptions									
Home visitor feels they are comfortable and effective working to address substance use ^f	0.012	0.031	0.694	-0.015	0.044	0.736	-0.955	0.745	0.201

(continued)

Table TA.45 Ever Received a Referral for Substance Use (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Home visitor feels they are comfortable and effective working to reduce tobacco use ^f	-0.006	0.032	0.852	-0.012	0.050	0.814	-0.007	0.795	0.993
Home visitor feels they are supported by the local implementation system to address substance use ^g	-0.003	0.030	0.912	0.009	0.051	0.855	0.405	0.913	0.658
Home visitor feels they are supported by the local implementation system to reduce tobacco use ^g	-0.017	0.031	0.590	-0.013	0.049	0.786	-0.258	0.815	0.752
Home visitor ratings of confidence, when faced with a challenging situation, to address substance use ^h	0.005	0.006	0.439	0.006	0.009	0.468	0.047	0.134	0.725
Intended service plan									
Home visitor rates mental health and substance use as high priority ⁱ	-0.032	0.036	0.376	-0.050	0.046	0.280	-0.919	0.750	0.221
Home visitor rates tobacco use as high priority ⁱ	0.006	0.030	0.845	0.039	0.039	0.318	0.515	0.696	0.460
Well-being									
Home visitor's depression symptoms score at or above cutoff ^a	0.000	0.045	0.996	0.017	0.054	0.752	0.346	0.919	0.707
Home visitor's relationship anxiety score ^c	-0.003	0.015	0.839	-0.008	0.023	0.709	-0.018	0.346	0.959
Home visitor's relationship avoidance score ^c	-0.001	0.015	0.941	0.014	0.021	0.522	0.300	0.338	0.376
Training and supervision									
Percent of supervision sessions devoted to client-specific issues	0.001	0.001	0.389	0.001	0.001	0.076	0.015	0.014	0.275

(continued)

Table TA.45 Ever Received a Referral for Substance Use (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Time spent in individual supervision per week (minutes)	0.001	0.001	0.439	0.000	0.001	0.950	-0.005	0.023	0.823
Average number of training hours per month	0.001	0.003	0.821	-0.001	0.003	0.856	-0.007	0.053	0.895
Ever attended training in substance use	0.063	0.030	0.038	0.066	0.033	0.046	1.068	0.542	0.050
Work attitudes									
Organizational work attitudes—morale ^j	0.010	0.015	0.516	0.014	0.021	0.508	0.380	0.317	0.232
Intent to leave position in next 12 months	0.034	0.046	0.464	0.031	0.056	0.580	0.792	0.780	0.311
<u>Local program characteristics</u>									
Community characteristics									
Index of neighborhood socioeconomic disadvantage ^k	-0.049	0.021	0.027	-0.055	0.028	0.048	-1.718	0.604	0.005
Has MOU and designated point of contact with community service provider in substance use and mental health treatment ^l	0.092	0.035	0.012	0.068	0.046	0.144	0.073	0.883	0.934
Has service provider that is available, accessible, and effective in substance use and mental health treatment ^l	0.049	0.032	0.136	0.028	0.039	0.479	1.270	0.785	0.107
Organizational culture^l									
Rigidity	-0.009	0.017	0.592	-0.003	0.031	0.926	0.819	0.516	0.114
Proficiency	0.019	0.018	0.298	0.007	0.023	0.772	0.731	0.496	0.142
Resistance	0.002	0.016	0.897	0.030	0.028	0.283	0.148	0.458	0.748

(continued)

Table TA.45 Ever Received a Referral for Substance Use (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Staffing									
Difficult to recruit qualified home visitor candidates	-0.016	0.033	0.630	-0.015	0.041	0.718	-0.059	0.647	0.928
At least one staff person with dedicated time to support CQI activities	0.084	0.032	0.013	0.094	0.040	0.019	2.925	0.938	0.002
Average number of families in home visitors' caseloads	0.002	0.004	0.598	0.004	0.006	0.460	0.079	0.130	0.543
Access to professional consultants in substance use ^m	0.050	0.036	0.175	0.084	0.039	0.035	2.282	0.895	0.011
Service priorities									
Program rates mental health and substance use as "high priority" ⁱ	-0.032	0.044	0.460	0.008	0.068	0.908	1.728	1.135	0.129
Program rates tobacco use as "high priority" ⁱ	-0.019	0.036	0.598	-0.037	0.052	0.476	-1.145	0.920	0.214
Program raised priority of mental health and substance use as a result of receipt of MIECHV funding	0.050	0.036	0.169	-0.004	0.047	0.931	-0.713	1.046	0.496
Program raised priority of tobacco use as a result of receipt of MIECHV funding	0.046	0.037	0.218	0.053	0.057	0.355	2.509	1.271	0.049
Organizational structure and policies									
Processes for formal screening and internal monitoring									
Program requires formal substance use screening tool at a certain time and has internal monitoring procedures regarding screening	0.003	0.040	0.948	0.063	0.049	0.201	2.112	1.185	0.076
Program requires formal substance use screening tool at a certain time and does not have internal monitoring procedures regarding screening	-0.018	0.048	0.708	0.024	0.053	0.655	0.535	1.154	0.643

(continued)

Table TA.45 Ever Received a Referral for Substance Use (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Evidence-based model									
Early Head Start Home-based option	-0.040	0.051	0.431	-0.124	0.102	0.225	-3.260	1.854	0.080
Nurse-Family Partnership	-0.041	0.039	0.296	-0.064	0.072	0.379	-1.587	1.320	0.230
Parents as Teachers	0.025	0.054	0.639	0.042	0.086	0.624	-0.646	1.729	0.709

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: 497 families, 212 home visitors, and 67 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" for processes for formal screening and internal monitoring it is "program does not require formal substance use screening tool at a certain time;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzias, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

(continued)

Table TA.45 Ever Received a Referral for Substance Use (cont.)

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.46

Model Results for Number of Visits Discussing Mental Health

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	-2.461	0.512	0.000
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Mother was pregnant at study entry	0.208	0.064	0.001	0.142	0.062	0.023
Maternal age (years)	0.002	0.005	0.626	0.010	0.005	0.053
First-time mother	0.104	0.061	0.086	0.023	0.063	0.712
Language other than English spoken in the home	-0.062	0.057	0.276	-0.047	0.069	0.494
Mother's race or ethnicity						
Black, non-Hispanic	-0.254	0.070	0.000	-0.297	0.074	0.000
Hispanic, Mexican	-0.247	0.073	0.001	-0.200	0.083	0.016
Hispanic, other	-0.021	0.092	0.821	-0.062	0.097	0.521
Other/multiracial	0.048	0.091	0.601	-0.007	0.087	0.938
Child's biological father lives in the home	-0.042	0.049	0.385	-0.026	0.056	0.649
Mother is in a relationship	-0.112	0.054	0.037	-0.068	0.059	0.250
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	0.081	0.052	0.121	0.042	0.050	0.409
Mother's abstract verbal reasoning score ^a	0.067	0.024	0.006	0.045	0.025	0.069
Mother's relationship anxiety score ^b	0.079	0.022	0.000	-0.013	0.027	0.632
Mother's relationship avoidance score ^b	0.093	0.023	0.000	0.078	0.028	0.005
Baseline risk presence in mental health ^c	0.190	0.046	0.000	0.084	0.052	0.110
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	-0.002	0.054	0.975	0.030	0.052	0.565
At least some college	0.044	0.063	0.480	0.008	0.063	0.897
Household experiences food insecurity ^d	0.102	0.048	0.035	0.042	0.047	0.372
Mother has moved more than once in the past year	0.250	0.056	0.000	0.181	0.054	0.001

(continued)

Table TA.46 Number of Visits Discussing Mental Health (cont.)

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Received help or treatment for mental health in the past year	0.263	0.056	0.000	0.139	0.057	0.016
<u>Home visitor characteristics</u>						
Education and work experience						
Home visitor's experience						
1 to 2 years experience as a home visitor	-0.017	0.142	0.907	-0.106	0.131	0.421
3 or more years experience as a home visitor	-0.110	0.139	0.426	-0.186	0.132	0.160
Earned a bachelor's degree or higher	0.422	0.127	0.001	0.298	0.119	0.012
Home visitor perceptions						
Home visitor feels they are comfortable and effective working to address mental health ^e	-0.009	0.107	0.933	-0.091	0.113	0.424
Home visitor feels they are supported by the local implementation system to address mental health ^f	0.073	0.100	0.466	0.104	0.110	0.344
Home visitor ratings of confidence, when faced with a challenging situation, to address mental health ^g	-0.002	0.022	0.941	0.023	0.023	0.327
Intended service plan						
Home visitor rates mental health and substance use as high priority ⁱ	0.087	0.110	0.432	0.090	0.108	0.406
Well-being						
Home visitor's depression symptoms score at or above cutoff ⁱ	0.005	0.147	0.975	0.023	0.153	0.883
Home visitor's relationship anxiety score ^b	0.026	0.047	0.585	-0.027	0.056	0.628
Home visitor's relationship avoidance score ^b	-0.038	0.048	0.430	-0.015	0.055	0.787

(continued)

Table TA.46 Number of Visits Discussing Mental Health (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Training and supervision						
Percent of supervision sessions devoted to client-specific issues	0.004	0.002	0.079	0.003	0.002	0.186
Time spent in individual supervision per week (minutes)	-0.002	0.003	0.436	-0.002	0.004	0.535
Average number of training hours per month	-0.002	0.009	0.852	-0.007	0.009	0.451
Ever attended training in mental health	0.305	0.127	0.016	0.242	0.123	0.050
Work attitudes						
Organizational work attitudes—morale ^l	-0.028	0.050	0.581	-0.058	0.058	0.313
Intent to leave position in next 12 months	0.189	0.144	0.189	0.227	0.148	0.125
<u>Local program characteristics</u>						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^k	-0.217	0.088	0.014	-0.156	0.070	0.025
Has MOU and designated point of contact with community service provider in substance use and mental health treatment ^l	0.222	0.154	0.151	0.128	0.116	0.273
Has service provider that is available, accessible, and effective in substance use and mental health treatment ^l	0.132	0.136	0.332	0.082	0.096	0.393
Organizational culture^l						
Rigidity	-0.277	0.064	0.000	0.003	0.084	0.971
Proficiency	-0.015	0.073	0.843	0.042	0.059	0.471
Resistance	-0.243	0.062	0.000	-0.119	0.075	0.114
Staffing						
Difficult to recruit qualified home visitor candidates	0.222	0.134	0.098	0.195	0.112	0.082
At least one staff person with dedicated time to support CQI activities	0.291	0.135	0.032	0.157	0.108	0.147
Average number of families in home visitors' caseloads	0.004	0.015	0.771	-0.005	0.015	0.762

(continued)

Table TA.46 Number of Visits Discussing Mental Health (cont.)

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Access to professional consultants in mental health ^m	0.077	0.155	0.619	0.009	0.112	0.937
Service priorities						
Program rates mental health and substance use as "high priority" ^h	0.017	0.173	0.922	-0.002	0.127	0.987
Program raised priority of mental health and substance use as a result of receipt of MIECHV funding	-0.311	0.144	0.031	0.062	0.114	0.586
Organizational structure and policies						
Processes for formal screening and internal monitoring						
Program requires formal mental health screening tool at a certain time and has internal monitoring procedures regarding screening	0.244	0.277	0.378	0.195	0.213	0.361
Program requires formal mental health screening tool at a certain time and does not have internal monitoring procedures regarding screening	-0.133	0.315	0.672	0.168	0.246	0.495
Evidence-based model						
Early Head Start Home-based option	0.189	0.172	0.271	-0.023	0.241	0.925
Nurse-Family Partnership	0.580	0.150	0.000	0.458	0.187	0.015
Parents as Teachers	-0.063	0.184	0.731	0.016	0.211	0.939

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 996 families, 288 home visitors, and 74 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" for processes for formal screening and internal monitoring it is "program does not require formal mental health screening tool at a certain time;" and for evidence-based model it is Healthy Families America.

^aMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^bMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

(continued)

Table TA.46 Number of Visits Discussing Mental Health (cont.)

^cSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^dRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^eCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^fCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^gReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^hHigh priority defined as a score of 8 or higher on a 10-point scale.

ⁱA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.47

Model Results for Ever Received a Referral for Mental Health

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	0.042	0.240	0.860	-2.650	1.330	0.051
Family characteristics									
Maternal sociodemographic characteristics									
Mother was pregnant at study entry	0.044	0.036	0.225	0.012	0.041	0.772	0.168	0.248	0.499
Maternal age (years)	-0.005	0.003	0.070	-0.002	0.003	0.539	-0.013	0.021	0.540
First-time mother	0.036	0.035	0.303	0.000	0.042	0.991	0.040	0.253	0.876
Language other than English spoken in the home	-0.071	0.034	0.036	-0.034	0.048	0.482	-0.184	0.285	0.518
Mother's race or ethnicity									
Black, non-Hispanic	-0.069	0.043	0.106	-0.065	0.049	0.189	-0.359	0.295	0.224
Hispanic, Mexican	-0.122	0.044	0.006	-0.078	0.057	0.169	-0.485	0.336	0.149
Hispanic, other	-0.031	0.055	0.581	0.006	0.066	0.932	0.088	0.382	0.817
Other/multiracial	-0.003	0.061	0.956	-0.029	0.062	0.639	-0.191	0.359	0.594
Child's biological father lives in the home	-0.018	0.031	0.572	0.020	0.039	0.611	0.111	0.235	0.638
Mother is in a relationship	-0.015	0.035	0.673	0.009	0.040	0.832	0.070	0.240	0.772
Maternal and household risk factors									
Mother's health self-rated as "poor" or "fair" or limits activities	0.076	0.033	0.022	0.041	0.034	0.231	0.259	0.200	0.195
Mother's abstract verbal reasoning score ^a	0.023	0.016	0.154	0.016	0.017	0.364	0.098	0.106	0.355
Mother's relationship anxiety score ^b	0.067	0.014	0.000	0.022	0.018	0.239	0.128	0.112	0.254
Mother's relationship avoidance score ^b	0.057	0.015	0.000	0.020	0.019	0.293	0.124	0.117	0.290
Baseline risk presence in mental health ^c	0.147	0.030	0.000	0.083	0.036	0.021	0.505	0.216	0.020

(continued)

Table TA.47 Ever Received a Referral for Mental Health (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Maternal and household economic self-sufficiency									
Mother's highest level of education									
High school diploma	-0.058	0.035	0.100	-0.038	0.036	0.285	-0.216	0.215	0.316
At least some college	-0.064	0.039	0.100	-0.031	0.042	0.471	-0.144	0.257	0.575
Household experiences food insecurity ^d	0.010	0.031	0.737	-0.032	0.032	0.318	-0.251	0.195	0.197
Mother has moved more than once in the past year	0.083	0.037	0.023	0.034	0.037	0.355	0.201	0.215	0.351
Received help or treatment for mental health in the past year	0.215	0.038	0.000	0.145	0.041	0.000	0.750	0.232	0.001
<u>Home visitor characteristics</u>									
Education and work experience									
Home visitor's experience									
1 to 2 years experience as a home visitor	0.028	0.052	0.597	0.003	0.056	0.963	-0.027	0.306	0.931
3 or more years experience as a home visitor	0.013	0.050	0.793	-0.008	0.057	0.886	-0.149	0.319	0.640
Earned a bachelor's degree or higher	0.002	0.045	0.956	-0.003	0.052	0.957	-0.017	0.283	0.953
Home visitor perceptions									
Home visitor feels they are comfortable and effective working to address mental health ^e	0.085	0.040	0.036	0.062	0.049	0.205	0.309	0.281	0.273
Home visitor feels they are supported by the local implementation system to address mental health ^f	0.019	0.037	0.608	-0.020	0.047	0.671	-0.102	0.260	0.696

(continued)

Table TA.47 Ever Received a Referral for Mental Health (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Home visitor ratings of confidence, when faced with a challenging situation, to address mental health ^g	0.007	0.008	0.411	0.009	0.010	0.384	0.046	0.056	0.406
Intended service plan									
Home visitor rates mental health and substance use as high priority ⁱ	-0.020	0.043	0.633	-0.036	0.047	0.437	-0.161	0.261	0.538
Well-being									
Home visitor's depression symptoms score at or above cutoff ^d	-0.003	0.059	0.962	-0.001	0.067	0.990	-0.072	0.381	0.850
Home visitor's relationship anxiety score ^b	0.022	0.018	0.244	0.029	0.024	0.232	0.174	0.134	0.196
Home visitor's relationship avoidance score ^b	-0.008	0.019	0.666	0.000	0.023	0.997	-0.002	0.129	0.988
Training and supervision									
Percent of supervision sessions devoted to client-specific issues	0.001	0.001	0.446	0.000	0.001	0.687	0.003	0.005	0.546
Time spent in individual supervision per week (minutes)	0.000	0.001	0.693	-0.001	0.002	0.487	-0.006	0.008	0.490
Average number of training hours per month	0.003	0.003	0.376	0.003	0.004	0.502	0.018	0.021	0.391
Ever attended training in mental health	0.031	0.047	0.503	0.022	0.053	0.672	0.128	0.294	0.663
Work attitudes									
Organizational work attitudes—morale ^j	0.011	0.018	0.567	0.016	0.025	0.511	0.116	0.136	0.394
Intent to leave position in next 12 months	-0.068	0.058	0.240	-0.038	0.065	0.555	-0.168	0.377	0.656

(continued)

Table TA.47 Ever Received a Referral for Mental Health (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
<u>Local program characteristics</u>									
Community characteristics									
Index of neighborhood socioeconomic disadvantage ^k	-0.057	0.027	0.038	-0.039	0.033	0.253	-0.231	0.175	0.186
Has MOU and designated point of contact with community service provider in substance use and mental health treatment ^l	0.040	0.047	0.395	0.060	0.056	0.293	0.387	0.279	0.167
Has service provider that is available, accessible, and effective in substance use and mental health treatment ^l	-0.036	0.040	0.375	-0.055	0.045	0.228	-0.364	0.231	0.115
Organizational culture ^j									
Rigidity	-0.036	0.021	0.094	-0.012	0.038	0.763	-0.014	0.192	0.941
Proficiency	-0.028	0.022	0.211	-0.045	0.027	0.106	-0.291	0.144	0.044
Resistance	-0.019	0.020	0.363	0.015	0.034	0.655	0.080	0.175	0.649
Staffing									
Difficult to recruit qualified home visitor candidates	0.007	0.040	0.856	0.025	0.051	0.626	0.078	0.265	0.769
At least one staff person with dedicated time to support CQI activities	0.078	0.041	0.066	0.043	0.051	0.402	0.293	0.265	0.269
Average number of families in home visitors' caseloads	0.004	0.004	0.431	0.009	0.007	0.208	0.064	0.036	0.075
Access to professional consultants in mental health ^m	0.069	0.045	0.136	0.035	0.051	0.493	0.149	0.262	0.568

(continued)

Table TA.47 Ever Received a Referral for Mental Health (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Service priorities									
Program rates mental health and substance use as high priority ^h	0.092	0.049	0.063	0.108	0.060	0.082	0.618	0.313	0.049
Program raised priority of mental health and substance use as a result of receipt of MIECHV funding	0.040	0.043	0.355	0.058	0.052	0.272	0.372	0.265	0.162
Organizational structure and policies									
Processes for formal screening and internal monitoring									
Program requires formal mental health screening tool at a certain time and has internal monitoring procedures regarding screening	-0.030	0.089	0.739	0.000	0.098	0.998	-0.066	0.487	0.892
Program requires formal mental health screening tool at a certain time and does not have internal monitoring procedures regarding screening	-0.112	0.101	0.270	-0.107	0.113	0.349	-0.722	0.580	0.213
Evidence-based model									
Early Head Start Home-based option	-0.013	0.061	0.836	-0.052	0.112	0.645	-0.366	0.583	0.530
Nurse-Family Partnership	0.012	0.051	0.816	-0.052	0.089	0.565	-0.346	0.456	0.448
Parents as Teachers	-0.046	0.063	0.463	-0.016	0.095	0.864	-0.006	0.500	0.990

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 832 families, 276 home visitors, and 73 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" for processes for formal screening and internal monitoring it is "program does not require formal mental health screening tool at a certain time;" and for evidence-based model it is Healthy Families America.

(continued)

Table TA.47 Ever Received a Referral for Mental Health (cont.)

^aMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^bMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^cSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^dRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^eCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^fCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^gReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^hHigh priority defined as a score of 8 or higher on a 10-point scale.

ⁱA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.48

Model Results for Ever Discussed Intimate Partner Violence

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	0.188	0.261	0.471	-1.779	1.194	0.141
Family characteristics									
Maternal sociodemographic characteristics									
Mother was pregnant at study entry	0.005	0.036	0.891	-0.003	0.040	0.936	-0.058	0.207	0.779
Maternal age (years)	-0.001	0.003	0.855	0.003	0.003	0.411	0.011	0.018	0.561
First-time mother	0.021	0.035	0.542	0.011	0.041	0.779	0.039	0.214	0.854
Language other than English spoken in the home	-0.020	0.035	0.574	-0.037	0.049	0.452	-0.150	0.259	0.562
Mother's race or ethnicity									
Black, non-Hispanic	-0.072	0.044	0.100	-0.059	0.049	0.233	-0.359	0.257	0.162
Hispanic, Mexican	-0.026	0.046	0.570	-0.004	0.058	0.945	-0.088	0.303	0.773
Hispanic, other	-0.054	0.058	0.351	-0.038	0.068	0.579	-0.273	0.354	0.441
Other/multiracial	0.007	0.063	0.909	-0.026	0.065	0.684	-0.173	0.340	0.610
Child's biological father lives in the home	0.029	0.031	0.346	0.028	0.039	0.464	0.160	0.203	0.430
Mother is in a relationship	0.037	0.035	0.285	-0.004	0.042	0.928	-0.035	0.221	0.875
Maternal and household risk factors									
Mother's health self-rated as "poor" or "fair" or limits activities	-0.041	0.033	0.217	-0.056	0.034	0.102	-0.328	0.185	0.077
Mother's depression symptoms score at or above cutoff ^a	0.042	0.031	0.175	0.016	0.036	0.655	0.090	0.192	0.641
Mother's abstract verbal reasoning score ^b	0.003	0.016	0.844	0.004	0.017	0.793	0.022	0.087	0.801
Mother's relationship anxiety score ^c	0.018	0.015	0.204	0.007	0.018	0.714	0.042	0.096	0.659

(continued)

Table TA.48 Ever Discussed Intimate Partner Violence (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Mother's relationship avoidance score ^c	0.006	0.015	0.674	-0.005	0.019	0.783	-0.037	0.101	0.714
Arrested in the past year	0.134	0.055	0.015	0.095	0.058	0.099	0.483	0.301	0.110
Baseline risk presence in intimate partner violence ^d	0.102	0.036	0.004	0.084	0.040	0.034	0.466	0.208	0.025
Maternal and household economic self-sufficiency									
Mother's highest level of education									
High school diploma	0.008	0.035	0.827	0.005	0.036	0.887	-0.027	0.189	0.885
At least some college	-0.038	0.039	0.325	-0.042	0.042	0.321	-0.310	0.227	0.172
Household experiences food insecurity ^e	0.018	0.030	0.548	0.007	0.032	0.826	0.006	0.171	0.971
Mother has moved more than once in the past year	0.050	0.037	0.177	0.002	0.039	0.964	0.023	0.201	0.909
Received help or treatment for intimate partner violence or anger management in the past year									
	0.324	0.075	0.000	0.307	0.078	0.000	1.687	0.445	0.000
<u>Home visitor characteristics</u>									
Education and work experience									
Home visitor's experience									
1 to 2 years experience as a home visitor	-0.018	0.060	0.763	0.005	0.064	0.938	0.028	0.308	0.928
3 or more years experience as a home visitor	-0.042	0.058	0.470	-0.014	0.066	0.832	-0.142	0.323	0.661
Earned a bachelor's degree or higher	0.057	0.049	0.244	0.028	0.057	0.623	0.197	0.271	0.467
Home visitor perceptions									
Home visitor feels they are comfortable and effective working to address intimate partner violence ^f									
	-0.069	0.044	0.115	-0.150	0.053	0.005	-0.849	0.265	0.001

(continued)

Table TA.48 Ever Discussed Intimate Partner Violence (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Home visitor feels they are supported by the local implementation system to address intimate partner violence ^g	0.055	0.042	0.189	0.078	0.055	0.157	0.374	0.272	0.170
Home visitor ratings of confidence, when faced with a challenging situation, to address intimate partner violence ^h	0.008	0.009	0.412	0.007	0.011	0.523	0.026	0.057	0.647
Intended service plan									
Home visitor rates intimate partner violence as high priority ^j	0.022	0.049	0.656	0.009	0.058	0.876	0.213	0.306	0.487
Well-being									
Home visitor's depression symptoms score at or above cutoff ^a	0.004	0.059	0.944	0.067	0.069	0.333	0.397	0.345	0.250
Home visitor's relationship anxiety score ^c	-0.013	0.020	0.510	-0.019	0.027	0.480	-0.076	0.139	0.582
Home visitor's relationship avoidance score ^c	-0.014	0.020	0.487	-0.004	0.026	0.892	-0.044	0.128	0.731
Training and supervision									
Percent of supervision sessions devoted to client-specific issues	0.002	0.001	0.045	0.001	0.001	0.167	0.007	0.005	0.135
Time spent in individual supervision per week (minutes)	0.002	0.001	0.065	0.000	0.002	0.972	0.006	0.008	0.482
Average number of training hours per month	0.004	0.004	0.268	-0.001	0.005	0.892	-0.012	0.023	0.607
Ever attended training in intimate partner violence	0.075	0.044	0.088	0.084	0.050	0.093	0.447	0.241	0.064

(continued)

Table TA.48 Ever Discussed Intimate Partner Violence (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Work attitudes									
Organizational work attitudes—morale ^j	0.013	0.021	0.518	-0.020	0.028	0.458	-0.039	0.138	0.780
Intent to leave position in next 12 months	-0.093	0.064	0.147	-0.115	0.074	0.122	-0.309	0.399	0.439
<u>Local program characteristics</u>									
Community characteristics									
Index of neighborhood socioeconomic disadvantage ^k	-0.023	0.032	0.464	0.009	0.039	0.821	0.082	0.164	0.620
Has MOU and designated point of contact with community service provider in intimate partner violence services ^l	0.047	0.058	0.415	0.063	0.072	0.384	0.290	0.295	0.326
Has service provider that is available, accessible, and effective in intimate partner violence services ^l	0.023	0.055	0.679	-0.033	0.063	0.605	-0.230	0.260	0.377
Organizational culture^l									
Rigidity	-0.020	0.026	0.430	0.011	0.049	0.828	0.062	0.202	0.758
Proficiency	0.011	0.026	0.674	-0.005	0.036	0.890	0.008	0.150	0.956
Resistance	-0.024	0.024	0.321	-0.017	0.044	0.694	-0.083	0.182	0.649
Staffing									
Difficult to recruit qualified home visitor candidates	-0.058	0.048	0.230	-0.059	0.060	0.334	-0.341	0.254	0.179
At least one staff person with dedicated time to support CQI activities	0.031	0.049	0.537	0.037	0.065	0.579	0.267	0.269	0.322
Average number of families in home visitors' caseloads	0.000	0.005	0.958	-0.003	0.009	0.750	-0.012	0.039	0.752

(continued)

Table TA.48 Ever Discussed Intimate Partner Violence (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Access to professional consultants in intimate partner violence ^m	0.012	0.052	0.813	-0.043	0.061	0.488	-0.141	0.253	0.577
Service priorities									
Program rates intimate partner violence as “high priority” ⁱ	0.090	0.062	0.150	0.018	0.090	0.842	-0.028	0.388	0.943
Program raised priority of intimate partner violence as a result of receipt of MIECHV funding	-0.012	0.050	0.813	-0.013	0.064	0.836	-0.043	0.258	0.867
Organizational structure and policies									
Processes for formal screening and internal monitoring									
Program requires formal intimate partner violence screening tool at a certain time and has internal monitoring procedures regarding screening	0.162	0.054	0.004	0.185	0.076	0.018	0.946	0.313	0.003
Program requires formal intimate partner violence screening tool at a certain time and does not have internal monitoring procedures regarding screening	0.069	0.065	0.290	0.113	0.082	0.175	0.645	0.340	0.058
Evidence-based model									
Early Head Start Home-based option	-0.080	0.069	0.250	-0.040	0.135	0.768	0.096	0.581	0.869
Nurse-Family Partnership	-0.019	0.059	0.743	-0.065	0.106	0.539	-0.217	0.435	0.618
Parents as Teachers	-0.150	0.068	0.031	-0.093	0.109	0.396	-0.362	0.462	0.434

(continued)

Table TA.48 Ever Discussed Intimate Partner Violence (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 990 families, 292 home visitors, and 76 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" for processes for formal screening and internal monitoring it is "program does not require formal intimate partner violence screening tool at a certain time;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lIncludes shelter for intimate partner violence and intimate partner violence counseling or anger management. Respondents answering "don't know" were treated as non-yes responses along with responses of "no."

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.49

Model Results for Number of Visits Discussing Intimate Partner Violence

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	-3.382	0.852	0.000
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Mother was pregnant at study entry	0.041	0.137	0.766	-0.077	0.140	0.584
Maternal age (years)	-0.018	0.011	0.099	-0.009	0.013	0.493
First-time mother	0.005	0.130	0.971	-0.155	0.146	0.286
Language other than English spoken in the home	-0.140	0.128	0.275	-0.131	0.168	0.435
Mother's race or ethnicity						
Black, non-Hispanic	0.055	0.163	0.738	-0.074	0.176	0.673
Hispanic, Mexican	-0.016	0.164	0.920	0.079	0.196	0.687
Hispanic, other	-0.186	0.217	0.391	-0.179	0.236	0.447
Other/multiracial	0.198	0.222	0.373	-0.029	0.216	0.893
Child's biological father lives in the home	-0.226	0.115	0.050	-0.125	0.137	0.361
Mother is in a relationship	-0.112	0.127	0.377	-0.057	0.148	0.703
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	0.041	0.124	0.738	-0.052	0.124	0.673
Mother's depression symptoms score at or above cutoff ^a	0.322	0.109	0.003	0.098	0.130	0.449
Mother's abstract verbal reasoning score ^b	-0.048	0.058	0.405	-0.004	0.059	0.945
Mother's relationship anxiety score ^c	0.127	0.051	0.013	-0.015	0.062	0.813
Mother's relationship avoidance score ^c	0.196	0.053	0.000	0.098	0.067	0.145
Arrested in the past year	0.615	0.191	0.001	0.354	0.188	0.060
Baseline risk presence in intimate partner violence ^d	0.531	0.123	0.000	0.408	0.131	0.002
Maternal and household economic self sufficiency						
Mother's highest level of education						
High school diploma	-0.161	0.123	0.192	-0.100	0.123	0.414
At least some college	-0.350	0.149	0.019	-0.275	0.155	0.077
Household experiences food insecurity ^e	0.106	0.114	0.352	-0.037	0.115	0.748

(continued)

Table TA.49 Number of Visits Discussing Intimate Partner Violence (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Mother has moved more than once in the past year	0.315	0.130	0.015	0.158	0.130	0.224
Received help or treatment for intimate partner violence or anger management in the past year	1.066	0.233	0.000	0.888	0.228	0.000
<u>Home visitor characteristics</u>						
Education and work experience						
Home visitor's experience						
1 to 2 years experience as a home visitor	0.081	0.229	0.725	0.095	0.218	0.664
3 or more years experience as a home visitor	-0.022	0.226	0.922	-0.081	0.227	0.722
Earned a bachelor's degree or higher	0.242	0.189	0.202	0.149	0.197	0.450
Home visitor perceptions						
Home visitor feels they are comfortable and effective working to address intimate partner violence ^f	-0.292	0.166	0.078	-0.678	0.184	0.000
Home visitor feels they are supported by the local implementation system to address intimate partner violence ^g	0.151	0.161	0.349	0.301	0.192	0.118
Home visitor ratings of confidence, when faced with a challenging situation, to address intimate partner violence ^h	0.008	0.035	0.817	0.023	0.040	0.553
Intended service plan						
Home visitor rates intimate partner violence as high priority ⁱ	-0.007	0.192	0.971	0.182	0.201	0.365
Well-being						
Home visitor's depression symptoms score at or above cutoff ^a	0.078	0.228	0.733	0.267	0.246	0.278
Home visitor's relationship anxiety score ^c	0.020	0.076	0.795	-0.027	0.098	0.782
Home visitor's relationship avoidance score ^c	-0.014	0.078	0.857	-0.007	0.093	0.938

(continued)

Table TA.49 Number of Visits Discussing Intimate Partner Violence (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Training and supervision						
Percent of supervision sessions devoted to client-specific issues	0.004	0.003	0.170	0.005	0.003	0.127
Time spent in individual supervision per week (minutes)	0.004	0.004	0.336	0.000	0.006	0.941
Average number of training hours per month	0.001	0.015	0.971	-0.018	0.016	0.274
Ever attended training in intimate partner violence	0.325	0.171	0.058	0.470	0.171	0.006
Work attitudes						
Organizational work attitudes—morale ^j	-0.011	0.081	0.892	-0.049	0.095	0.605
Intent to leave position in next 12 months	-0.144	0.256	0.574	-0.110	0.266	0.679
<u>Local program characteristics</u>						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^k	-0.162	0.122	0.183	-0.070	0.116	0.546
Has MOU and designated point of contact with community service provider in intimate partner violence services ^l	0.219	0.213	0.304	0.119	0.203	0.558
Has service provider that is available, accessible, and effective in intimate partner violence services ^l	0.091	0.207	0.661	-0.070	0.182	0.699
Organizational culture^l						
Rigidity	-0.116	0.096	0.226	0.105	0.142	0.459
Proficiency	0.047	0.098	0.628	0.075	0.104	0.471
Resistance	-0.098	0.090	0.275	-0.048	0.126	0.705
Staffing						
Difficult to recruit qualified home visitor candidates	-0.298	0.182	0.101	-0.338	0.180	0.060
At least one staff person with dedicated time to support CQI activities	0.146	0.188	0.439	0.277	0.192	0.151
Average number of families in home visitors' caseloads	0.009	0.021	0.667	-0.003	0.027	0.917

(continued)

Table TA.49 Number of Visits Discussing Intimate Partner Violence (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Access to professional consultants in intimate partner violence ^m	0.155	0.197	0.431	-0.049	0.174	0.777
Service priorities						
Program rates intimate partner violence as "high priority"	0.124	0.240	0.607	-0.271	0.266	0.308
Program raised priority of intimate partner violence as a result of receipt of MIECHV funding	-0.131	0.189	0.489	-0.005	0.182	0.980
Organizational structure and policies						
Processes for formal screening and internal monitoring						
Program requires formal intimate partner violence screening tool at a certain time and has internal monitoring procedures regarding screening	0.521	0.206	0.011	0.522	0.217	0.016
Program requires formal intimate partner violence screening tool at a certain time and does not have internal monitoring procedures regarding screening	-0.028	0.249	0.911	0.197	0.241	0.414
Evidence-based model						
Early Head Start Home-based option	-0.342	0.266	0.198	-0.214	0.404	0.597
Nurse-Family Partnership	0.059	0.224	0.792	0.025	0.304	0.934
Parents as Teachers	-0.263	0.267	0.326	-0.103	0.334	0.758

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 990 families, 292 home visitors, and 76 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" for processes for formal screening and internal monitoring it is "program does not require formal intimate partner violence screening tool at a certain time;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

(continued)

Table TA.49 Number of Visits Discussing Intimate Partner Violence (cont.)

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage aged 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lIncludes shelter for intimate partner violence and intimate partner violence counseling or anger management. Respondents answering "don't know" were treated as non-yes responses along with responses of "no."

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.50

Model Results for Ever Received a Referral for Intimate Partner Violence

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	0.410	0.298	0.171	-1.235	1.906	0.520
<u>Family characteristics</u>									
Maternal sociodemographic characteristics									
Mother was pregnant at study entry	-0.067	0.045	0.136	-0.094	0.054	0.082	-0.472	0.354	0.184
Maternal age (years)	0.002	0.004	0.578	-0.006	0.005	0.240	-0.035	0.033	0.285
First-time mother	-0.056	0.044	0.205	-0.099	0.056	0.080	-0.617	0.375	0.101
Language other than English spoken in the home	0.010	0.043	0.813	0.033	0.062	0.593	0.382	0.433	0.379
Mother's race or ethnicity									
Black, non-Hispanic	0.078	0.056	0.167	0.106	0.068	0.120	0.621	0.472	0.190
Hispanic, Mexican	0.034	0.056	0.545	0.096	0.078	0.217	0.579	0.555	0.298
Hispanic, other	0.100	0.071	0.164	0.144	0.088	0.102	0.901	0.601	0.135
Other/multiracial	0.129	0.080	0.109	0.149	0.087	0.088	0.828	0.589	0.162
Child's biological father lives in the home	-0.036	0.041	0.377	0.014	0.054	0.799	0.144	0.376	0.701
Mother is in a relationship	-0.085	0.047	0.072	-0.109	0.059	0.067	-0.733	0.408	0.074
Maternal and household risk factors									
Mother's health self-rated as "poor" or "fair" or limits activities	0.087	0.045	0.056	0.062	0.050	0.216	0.457	0.333	0.172
Mother's depression symptoms score at or above cutoff ^a	0.115	0.040	0.004	0.064	0.051	0.207	0.320	0.354	0.368
Mother's abstract verbal reasoning score ^b	0.004	0.021	0.847	0.015	0.024	0.540	0.082	0.177	0.644
Mother's relationship anxiety score ^c	0.036	0.018	0.047	0.024	0.023	0.295	0.161	0.166	0.334

(continued)

Table TA.50 Ever Received a Referral for Intimate Partner Violence (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Mother's relationship avoidance score ^c	0.037	0.019	0.056	-0.012	0.026	0.650	-0.013	0.180	0.941
Arrested in the past year	0.116	0.065	0.073	0.106	0.071	0.136	0.656	0.467	0.162
Baseline risk presence in intimate partner violence ^d	0.087	0.044	0.049	0.060	0.051	0.240	0.299	0.348	0.392
Maternal and household economic self-sufficiency									
Mother's highest level of education									
High school diploma	0.053	0.045	0.241	0.071	0.048	0.141	0.581	0.333	0.083
At least some college	-0.036	0.052	0.495	0.016	0.060	0.788	0.087	0.442	0.845
Household experiences food insecurity ^e	0.020	0.040	0.616	-0.040	0.045	0.376	-0.226	0.317	0.477
Mother has moved more than once in the past year	0.097	0.047	0.038	0.094	0.051	0.067	0.639	0.339	0.061
Received help or treatment for intimate partner violence or anger management in the past year									
	0.106	0.078	0.172	0.063	0.086	0.461	0.514	0.545	0.347
<u>Home visitor characteristics</u>									
Education and work experience									
Home visitor's experience									
1 to 2 years experience as a home visitor	-0.040	0.063	0.522	-0.032	0.074	0.665	-0.200	0.445	0.653
3 or more years experience as a home visitor	-0.050	0.061	0.416	-0.114	0.078	0.145	-0.814	0.467	0.083
Earned a bachelor's degree or higher	-0.111	0.053	0.037	-0.125	0.074	0.095	-0.752	0.445	0.093
Home visitor perceptions									
Home visitor feels they are comfortable and effective working to address intimate partner violence ^f									
	0.023	0.048	0.631	0.019	0.062	0.753	0.138	0.390	0.724

(continued)

Table TA.50 Ever Received a Referral for Intimate Partner Violence (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Home visitor feels they are supported by the local implementation system to address intimate partner violence ^g	0.014	0.047	0.763	-0.012	0.067	0.852	0.032	0.418	0.938
Home visitor ratings of confidence, when faced with a challenging situation, to address intimate partner violence ^h	0.007	0.010	0.467	0.008	0.013	0.550	0.047	0.084	0.576
Intended service plan									
Home visitor rates intimate partner violence as high priority ⁱ	-0.008	0.056	0.889	-0.053	0.069	0.441	-0.182	0.436	0.676
Well-being									
Home visitor's depression symptoms score at or above cutoff ^a	-0.001	0.066	0.982	0.010	0.085	0.905	0.005	0.531	0.992
Home visitor's relationship anxiety score ^c	0.021	0.022	0.335	0.036	0.034	0.289	0.320	0.211	0.131
Home visitor's relationship avoidance score ^c	-0.001	0.023	0.963	-0.033	0.032	0.306	-0.266	0.199	0.183
Training and supervision									
Percent of supervision sessions devoted to client-specific issues	0.000	0.001	0.841	0.000	0.001	0.747	-0.003	0.008	0.713
Time spent in individual supervision per week (minutes)	0.001	0.001	0.547	0.000	0.002	0.938	0.002	0.013	0.869
Average number of training hours per month	0.002	0.004	0.566	0.006	0.006	0.286	0.048	0.036	0.184
Ever attended training in intimate partner violence	0.040	0.049	0.409	0.033	0.060	0.586	0.172	0.363	0.636

(continued)

Table TA.50 Ever Received a Referral for Intimate Partner Violence (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Work attitudes									
Organizational work attitudes—morale ^j	0.018	0.023	0.434	0.026	0.032	0.416	0.155	0.200	0.439
Intent to leave position in next 12 months	-0.101	0.078	0.196	-0.006	0.095	0.951	-0.142	0.706	0.841
<u>Local program characteristics</u>									
Community characteristics									
Index of neighborhood socioeconomic disadvantage ^k	-0.024	0.030	0.428	-0.033	0.044	0.457	-0.206	0.257	0.423
Has MOU and designated point of contact with community service provider in intimate partner violence services ^l	0.034	0.053	0.524	-0.053	0.079	0.507	-0.469	0.466	0.315
Has service provider that is available, accessible, and effective in intimate partner violence services ^l	0.036	0.052	0.494	0.048	0.069	0.491	0.420	0.399	0.294
Organizational culture^l									
Rigidity	0.023	0.024	0.345	0.023	0.053	0.669	0.065	0.307	0.831
Proficiency	0.023	0.024	0.350	0.000	0.037	0.998	-0.075	0.214	0.726
Resistance	0.038	0.022	0.093	0.033	0.047	0.486	0.274	0.278	0.327
Staffing									
Difficult to recruit qualified home visitor candidates	-0.068	0.044	0.130	-0.142	0.071	0.050	-1.123	0.433	0.010
At least one staff person with dedicated time to support CQI activities	0.042	0.048	0.381	0.037	0.073	0.618	0.219	0.446	0.624
Average number of families in home visitors' caseloads	-0.003	0.005	0.580	0.001	0.010	0.891	0.036	0.057	0.534

(continued)

Table TA.50 Ever Received a Referral for Intimate Partner Violence (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Access to professional consultants in intimate partner violence ^m	0.038	0.049	0.440	0.017	0.066	0.797	0.152	0.366	0.678
Service priorities									
Program rates intimate partner violence as “high priority” ⁱ	0.084	0.063	0.188	0.172	0.104	0.103	1.075	0.620	0.085
Program raised priority of intimate partner violence as a result of receipt of MIECHV funding	0.012	0.047	0.794	0.025	0.069	0.716	0.257	0.404	0.526
Organizational structure and policies									
Processes for formal screening and internal monitoring									
Program requires formal intimate partner violence screening tool at a certain time and has internal monitoring procedures regarding screening	-0.099	0.057	0.088	-0.132	0.080	0.106	-0.909	0.437	0.039
Program requires formal intimate partner violence screening tool at a certain time and does not have internal monitoring procedures regarding screening	-0.098	0.069	0.165	-0.122	0.094	0.202	-1.022	0.554	0.067
Evidence-based model									
Early Head Start Home-based option	-0.016	0.071	0.820	-0.005	0.155	0.974	0.268	0.901	0.766
Nurse-Family Partnership	-0.084	0.057	0.149	0.035	0.115	0.762	0.176	0.666	0.792
Parents as Teachers	0.000	0.072	0.995	0.060	0.125	0.632	0.443	0.697	0.525

(continued)

Table TA.50 Ever Received a Referral for Intimate Partner Violence (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 412 families, 199 home visitors, and 71 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" for processes for formal screening and internal monitoring it is "program does not require formal intimate partner violence screening tool at a certain time;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lIncludes shelter for intimate partner violence and intimate partner violence counseling or anger management. Respondents answering "don't know" were treated as non-yes responses along with responses of "no."

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.51

Model Results for Number of Visits Discussing Economic Self-Sufficiency

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	-1.154	0.480	0.019
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Mother was pregnant at study entry	-0.158	0.056	0.005	-0.272	0.055	0.000
Maternal age (years)	-0.024	0.004	0.000	-0.022	0.005	0.000
First-time mother	0.071	0.054	0.189	-0.075	0.057	0.186
Language other than English spoken in the home	-0.084	0.055	0.125	0.042	0.066	0.519
Mother's race or ethnicity						
Black, non-Hispanic	0.090	0.065	0.169	0.105	0.066	0.114
Hispanic, Mexican	-0.061	0.069	0.377	-0.030	0.075	0.687
Hispanic, other	0.044	0.092	0.631	0.048	0.093	0.608
Other/multiracial	0.010	0.087	0.911	-0.004	0.082	0.960
Child's biological father lives in the home	-0.150	0.043	0.001	-0.034	0.050	0.499
Mother is in a relationship	-0.093	0.049	0.060	-0.034	0.052	0.516
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	-0.013	0.048	0.787	-0.034	0.046	0.459
Mother's depression symptoms score at or above cutoff ^a	0.028	0.044	0.518	0.048	0.047	0.310
Mother's abstract verbal reasoning score ^b	0.052	0.022	0.019	0.058	0.022	0.008
Mother's relationship anxiety score ^c	-0.021	0.020	0.298	-0.012	0.024	0.610
Mother's relationship avoidance score ^c	0.014	0.021	0.516	-0.006	0.025	0.805
Baseline risk presence in economic self-sufficiency ^d	0.006	0.044	0.899	0.039	0.043	0.364
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	-0.028	0.049	0.566	-0.018	0.048	0.712
At least some college	-0.057	0.057	0.314	-0.053	0.059	0.365
Mother has moved more than once in the past year	0.019	0.056	0.736	-0.003	0.052	0.955

(continued)

Table TA.51 Number of Visits Discussing Economic Self-Sufficiency (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Mother ever employed during the past three years	0.051	0.057	0.368	0.020	0.058	0.739
Any earnings in the last month	0.028	0.044	0.532	0.033	0.047	0.475
Currently taking education or training classes or planning to take education or training classes	0.186	0.047	0.000	0.086	0.048	0.070
Currently working or planning to work in the next year	0.285	0.054	0.000	0.194	0.056	0.001
Sources of household income or benefits						
Temporary Assistance for Needy Families	0.076	0.053	0.153	-0.008	0.052	0.880
Food stamps/Supplemental Nutrition Assistance Program	0.061	0.045	0.177	0.037	0.047	0.430
Disability insurance	0.000	0.054	0.993	-0.033	0.051	0.523
Earnings from other household members	0.038	0.043	0.374	0.024	0.040	0.548
Women, Infants, and Children	-0.009	0.051	0.859	-0.006	0.049	0.907
<u>Home visitor characteristics</u>						
Education and work experience						
Home visitor's experience						
1 to 2 years experience as a home visitor	-0.162	0.121	0.182	-0.113	0.119	0.343
3 or more years experience as a home visitor	-0.290	0.118	0.015	-0.200	0.124	0.108
Earned a bachelor's degree or higher	0.276	0.106	0.009	0.164	0.105	0.117
Home visitor perceptions						
Home visitor feels they are comfortable and effective working to improve economic self-sufficiency ^e	-0.015	0.093	0.869	-0.050	0.105	0.638
Home visitor feels they are supported by the local implementation system to improve economic self-sufficiency ^f	-0.023	0.088	0.794	-0.159	0.107	0.138
Home visitor ratings of confidence, when faced with a challenging situation, to improve economic self-sufficiency ^g	0.016	0.021	0.467	0.023	0.024	0.333
Intended service plan						
Home visitor rates economic self-sufficiency as high priority ^h	0.030	0.110	0.783	-0.084	0.109	0.441

(continued)

Table TA.51 Number of Visits Discussing Economic Self-Sufficiency (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Well-being						
Home visitor's depression symptoms score at or above cutoff ^a	-0.054	0.127	0.668	0.059	0.139	0.673
Home visitor's relationship anxiety score ^c	-0.029	0.041	0.474	0.027	0.052	0.602
Home visitor's relationship avoidance score ^c	-0.084	0.043	0.052	-0.072	0.051	0.157
Training and supervision						
Percent of supervision sessions devoted to client-specific issues	0.001	0.002	0.524	0.002	0.002	0.202
Time spent in individual supervision per week (minutes)	0.000	0.002	0.991	-0.001	0.003	0.688
Average number of training hours per month	0.020	0.008	0.013	0.015	0.008	0.066
Ever attended training in economic self-sufficiency	0.097	0.086	0.261	0.082	0.087	0.347
Work attitudes						
Organizational work attitudes—morale ⁱ	0.071	0.044	0.106	0.095	0.054	0.083
Intent to leave position in next 12 months	-0.095	0.129	0.463	-0.026	0.139	0.849
<u>Local program characteristics</u>						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^j	-0.023	0.078	0.765	-0.139	0.074	0.062
Has MOU and designated point of contact with community service provider in adult education or employment services ^k	0.195	0.136	0.154	0.235	0.135	0.082
Has service provider that is available, accessible, and effective in adult education or employment services ^k	0.059	0.119	0.623	0.094	0.101	0.355
Organizational cultureⁱ						
Rigidity	0.026	0.061	0.670	0.012	0.083	0.883
Proficiency	0.098	0.058	0.095	0.017	0.057	0.772
Resistance	0.051	0.058	0.379	0.100	0.074	0.175

(continued)

Table TA.51 Number of Visits Discussing Economic Self-Sufficiency (cont.)

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Staffing						
Difficult to recruit qualified home visitor candidates	-0.012	0.116	0.917	0.007	0.107	0.950
At least one staff person with dedicated time to support CQI activities	0.092	0.118	0.439	0.065	0.108	0.548
Average number of families in home visitors' caseloads	0.016	0.013	0.238	0.024	0.017	0.150
Access to professional consultants in economic self-sufficiency ^l	0.048	0.122	0.694	0.030	0.107	0.777
Service priorities						
Program rates economic self-sufficiency as "high priority" ^h	0.083	0.154	0.592	0.048	0.143	0.736
Program raised priority of economic self-sufficiency as a result of receipt of MIECHV funding	-0.484	0.169	0.004	-0.364	0.155	0.019
Evidence-based model						
Early Head Start Home-based option	0.025	0.163	0.877	-0.105	0.230	0.649
Nurse-Family Partnership	0.267	0.143	0.061	0.245	0.185	0.186
Parents as Teachers	-0.117	0.161	0.467	-0.092	0.197	0.640

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 821 families, 277 home visitors, and 78 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of home visiting experience;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

(continued)

Table TA.51 Number of Visits Discussing Economic Self-Sufficiency (cont.)

^fCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^gReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^hHigh priority defined as a score of 8 or higher on a 10-point scale.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^jThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^kRespondents answering “don’t know” were treated as non-yes responses along with responses of “no.”

^lIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.52

Model Results for Ever Received a Referral for Economic Self-Sufficiency

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	-0.181	0.308	0.558	-3.669	1.493	0.017
Family characteristics									
Maternal sociodemographic characteristics									
Mother was pregnant at study entry	-0.039	0.042	0.356	-0.019	0.047	0.685	-0.120	0.248	0.629
Maternal age (years)	-0.002	0.003	0.483	-0.006	0.004	0.143	-0.035	0.022	0.121
First-time mother	-0.021	0.040	0.597	0.032	0.048	0.507	0.239	0.262	0.361
Language other than English spoken in the home	0.041	0.041	0.317	0.081	0.058	0.165	0.527	0.318	0.098
Mother's race or ethnicity									
Black, non-Hispanic	0.044	0.051	0.391	0.096	0.057	0.093	0.545	0.311	0.080
Hispanic, Mexican	0.074	0.052	0.149	0.060	0.066	0.361	0.237	0.362	0.512
Hispanic, other	-0.058	0.070	0.406	-0.073	0.082	0.374	-0.440	0.444	0.322
Other/multiracial	-0.051	0.072	0.485	-0.082	0.075	0.274	-0.537	0.420	0.202
Child's biological father lives in the home	0.055	0.035	0.116	0.061	0.046	0.180	0.329	0.250	0.189
Mother is in a relationship	0.110	0.040	0.006	0.093	0.047	0.050	0.512	0.265	0.054
Maternal and household risk factors									
Mother's health self-rated as "poor" or "fair" or limits activities	-0.007	0.039	0.858	-0.018	0.040	0.660	-0.040	0.221	0.857
Mother's depression symptoms score at or above cutoff ^a	0.022	0.036	0.537	0.026	0.042	0.542	0.154	0.229	0.501
Mother's abstract verbal reasoning score ^b	-0.028	0.018	0.122	-0.015	0.020	0.454	-0.089	0.108	0.409
Mother's relationship anxiety score ^c	0.009	0.017	0.610	0.022	0.021	0.314	0.128	0.117	0.274

(continued)

Table TA.52 Ever Received a Referral for Economic Self-Sufficiency (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Mother's relationship avoidance score ^c	-0.023	0.017	0.183	-0.062	0.022	0.005	-0.353	0.124	0.005
Baseline risk presence in economic self-sufficiency ^d	0.073	0.035	0.040	0.048	0.037	0.199	0.233	0.205	0.255
Maternal and household economic self-sufficiency									
Mother's highest level of education									
High school diploma	-0.071	0.040	0.078	-0.066	0.043	0.128	-0.358	0.233	0.125
At least some college	-0.118	0.045	0.008	-0.067	0.052	0.196	-0.354	0.280	0.207
Mother has moved more than once in the past year	0.005	0.044	0.913	0.021	0.045	0.631	0.078	0.244	0.749
Mother ever employed during the past three years	-0.056	0.047	0.240	0.018	0.055	0.746	0.153	0.297	0.606
Any earnings in the last month	-0.041	0.035	0.251	0.020	0.041	0.628	0.094	0.224	0.673
Currently taking education or training classes or planning to take education or training classes	0.034	0.038	0.382	0.035	0.043	0.418	0.167	0.230	0.470
Currently working or planning to work in the next year	0.009	0.046	0.841	0.043	0.051	0.400	0.244	0.280	0.384
Sources of household income or benefits									
Temporary Assistance for Needy Families	0.032	0.043	0.459	0.010	0.047	0.837	0.070	0.259	0.786
Food stamps/Supplemental Nutrition Assistance Program	0.065	0.036	0.073	0.046	0.042	0.272	0.215	0.229	0.348
Disability insurance	0.105	0.044	0.018	0.108	0.047	0.023	0.611	0.259	0.019
Earnings from other household members	0.012	0.035	0.737	-0.016	0.036	0.668	-0.116	0.200	0.562
Women, Infants, and Children	0.070	0.041	0.087	0.040	0.043	0.356	0.243	0.239	0.311

(continued)

Table TA.52 Ever Received a Referral for Economic Self-Sufficiency (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
<u>Home visitor characteristics</u>									
Education and work experience									
Home visitor's experience									
1 to 2 years experience as a home visitor	0.042	0.065	0.524	0.054	0.067	0.425	0.172	0.336	0.609
3 or more years experience as a home visitor	0.088	0.064	0.175	0.178	0.072	0.014	0.796	0.371	0.033
Earned a bachelor's degree or higher	-0.158	0.056	0.005	-0.076	0.062	0.219	-0.336	0.295	0.256
Home visitor perceptions									
Home visitor feels they are comfortable and effective working to improve economic self-sufficiency ^e									
	0.101	0.051	0.049	0.086	0.061	0.159	0.528	0.313	0.092
Home visitor feels they are supported by the local implementation system to improve economic self-sufficiency ^f									
	0.031	0.048	0.520	-0.050	0.062	0.422	-0.242	0.306	0.429
Home visitor ratings of confidence, when faced with a challenging situation, to improve economic self-sufficiency ^g									
	0.021	0.012	0.080	0.011	0.014	0.439	0.074	0.071	0.297
Intended service plan									
Home visitor rates economic self-sufficiency as high priority ^h									
	-0.002	0.061	0.976	0.008	0.065	0.898	0.109	0.323	0.735
Well-being									
Home visitor's depression symptoms score at or above cutoff ^a									
	-0.033	0.072	0.650	-0.093	0.083	0.259	-0.629	0.422	0.137

(continued)

Table TA.52 Ever Received a Referral for Economic Self-Sufficiency (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Home visitor's relationship anxiety score ^c	0.000	0.023	0.985	0.055	0.030	0.067	0.328	0.150	0.029
Home visitor's relationship avoidance score ^c	-0.009	0.024	0.714	-0.034	0.030	0.261	-0.169	0.148	0.253
Training and supervision									
Percent of supervision sessions devoted to client-specific issues	0.000	0.001	0.620	0.000	0.001	0.664	0.002	0.005	0.705
Time spent in individual supervision per week (minutes)	0.002	0.001	0.159	0.002	0.002	0.407	0.008	0.009	0.380
Average number of training hours per month	0.009	0.004	0.030	0.012	0.005	0.019	0.062	0.024	0.011
Ever attended training in economic self-sufficiency	0.065	0.047	0.168	0.017	0.051	0.736	0.030	0.251	0.904
Work attitudes									
Organizational work attitudes—morale ⁱ	0.019	0.024	0.444	0.014	0.031	0.663	0.067	0.155	0.666
Intent to leave position in next 12 months	-0.048	0.072	0.506	0.021	0.080	0.790	0.194	0.419	0.644
Local program characteristics									
Community characteristics									
Index of neighborhood socioeconomic disadvantage ^j	0.020	0.039	0.608	-0.010	0.045	0.833	-0.072	0.204	0.726
Has MOU and designated point of contact with community service provider in adult education or employment services ^k	0.058	0.070	0.411	0.030	0.086	0.730	0.172	0.377	0.647
Has service provider that is available, accessible, and effective in adult education or employment services ^k	0.090	0.059	0.133	0.062	0.063	0.332	0.328	0.274	0.231

(continued)

Table TA.52 Ever Received a Referral for Economic Self-Sufficiency (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Organizational culture ⁱ									
Rigidity	0.040	0.030	0.184	-0.062	0.051	0.226	-0.289	0.224	0.198
Proficiency	0.009	0.030	0.761	-0.020	0.036	0.587	-0.155	0.165	0.346
Resistance	0.049	0.028	0.084	0.098	0.045	0.034	0.533	0.205	0.010
Staffing									
Difficult to recruit qualified home visitor candidates	-0.017	0.058	0.774	-0.022	0.067	0.748	-0.161	0.293	0.583
At least one staff person with dedicated time to support CQI activities	0.026	0.060	0.668	0.045	0.068	0.508	0.253	0.302	0.403
Average number of families in home visitors' caseloads	-0.012	0.006	0.061	0.003	0.010	0.786	0.015	0.046	0.744
Access to professional consultants in economic self-sufficiency ^j	0.101	0.060	0.099	0.169	0.067	0.014	0.913	0.293	0.002
Service priorities									
Program rates economic self-sufficiency as "high priority" ^h	-0.064	0.075	0.398	-0.083	0.087	0.344	-0.440	0.373	0.239
Program raised priority of economic self-sufficiency as a result of receipt of MIECHV funding	0.037	0.087	0.675	-0.084	0.096	0.385	-0.539	0.422	0.202
Evidence-based model									
Early Head Start Home-based option	-0.063	0.081	0.439	-0.026	0.144	0.859	-0.204	0.654	0.755
Nurse-Family Partnership	-0.227	0.068	0.001	-0.197	0.118	0.100	-1.070	0.531	0.044
Parents as Teachers	-0.021	0.077	0.785	0.040	0.120	0.736	0.255	0.551	0.644

(continued)

Table TA.52 Ever Received a Referral for Economic Self-Sufficiency (cont.)

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 730 families, 264 home visitors, and 75 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of home visiting experience;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzias, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^fCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^gReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

^hHigh priority defined as a score of 8 or higher on a 10-point scale.

ⁱMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^jThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^kRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^lIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.53

Model Results for Number of Visits Discussing Child Preventive Care

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	-1.740	0.848	0.047
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Maternal age (years)	0.006	0.003	0.098	0.009	0.004	0.050
First-time mother	0.016	0.041	0.697	0.030	0.051	0.554
Language other than English spoken in the home	0.062	0.051	0.229	-0.006	0.076	0.937
Mother's race or ethnicity						
Black, non-Hispanic	-0.089	0.065	0.173	-0.279	0.081	0.001
Hispanic, Mexican	0.118	0.065	0.070	0.028	0.085	0.741
Hispanic, other	0.081	0.085	0.341	-0.085	0.104	0.418
Other/multiracial	-0.425	0.103	0.000	-0.467	0.112	0.000
Child's biological father lives in the home	-0.019	0.043	0.665	-0.199	0.066	0.003
Mother is in a relationship	0.023	0.053	0.658	0.097	0.070	0.170
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	0.058	0.049	0.233	0.118	0.059	0.047
Mother's depression symptoms score at or above cutoff ^a	0.006	0.044	0.898	0.007	0.060	0.911
Mother's abstract verbal reasoning score ^b	-0.019	0.019	0.324	-0.022	0.023	0.356
Mother's relationship anxiety score ^c	0.052	0.021	0.015	0.065	0.029	0.025
Mother's relationship avoidance score ^c	0.004	0.019	0.848	-0.046	0.028	0.103
Baseline risk presence in child preventive care ^d	0.084	0.062	0.176	0.192	0.068	0.006
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	-0.138	0.050	0.006	-0.026	0.058	0.658
At least some college	-0.169	0.059	0.004	-0.101	0.068	0.140
Household experiences food insecurity ^e	0.006	0.045	0.887	-0.014	0.054	0.801
Mother has moved more than once in the past year	0.021	0.056	0.711	0.086	0.060	0.156

(continued)

Table TA.53 Number of Visits Discussing Child Preventive Care (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Child characteristics						
Child's age in months	-0.009	0.016	0.599	-0.026	0.019	0.169
Child's sex is female	-0.034	0.043	0.434	-0.056	0.048	0.249
Child health care access and insurance						
Child is uninsured	0.089	0.064	0.167	0.015	0.074	0.838
Mother's primary reason for enrolling						
Get help getting insurance	0.451	0.212	0.035	0.257	0.239	0.283
<u>Home visitor characteristics</u>						
Education and work experience						
Home visitor's experience						
1 to 2 years experience as a home visitor	-0.060	0.086	0.488	-0.194	0.138	0.161
3 or more years experience as a home visitor	0.061	0.082	0.457	-0.126	0.139	0.367
Earned a bachelor's degree or higher	-0.214	0.092	0.022	-0.376	0.112	0.001
Home visitor perceptions						
Home visitor feels they are comfortable and effective working to improve child preventive care ^f	0.368	0.132	0.006	0.260	0.184	0.159
Home visitor feels they are supported by the local implementation system to improve child preventive care ^g	0.167	0.104	0.109	-0.010	0.133	0.940
Home visitor ratings of confidence, when faced with a challenging situation, to improve child preventive care ^h	0.079	0.027	0.003	0.063	0.035	0.074
Intended service plan						
Home visitor rates child preventive care as high priority ⁱ	-0.142	0.184	0.444	-0.028	0.226	0.903
Well-being						
Home visitor's depression symptoms score at or above cutoff ^a	-0.036	0.122	0.772	0.020	0.170	0.908
Home visitor's relationship anxiety score ^c	0.017	0.039	0.659	0.025	0.058	0.662
Home visitor's relationship avoidance score ^c	0.013	0.041	0.754	-0.001	0.060	0.980

(continued)

Table TA.53 Number of Visits Discussing Child Preventive Care (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Training and supervision						
Percent of supervision sessions devoted to client-specific issues	0.001	0.002	0.689	0.001	0.002	0.719
Time spent in individual supervision per week (minutes)	0.000	0.002	0.955	-0.006	0.003	0.065
Average number of training hours per month	-0.027	0.008	0.001	-0.021	0.010	0.050
Ever attended training in child preventive care	-0.104	0.118	0.382	-0.271	0.143	0.060
Work attitudes						
Organizational work attitudes—morale ^j	0.014	0.040	0.730	-0.042	0.060	0.482
Intent to leave position in next 12 months	-0.017	0.134	0.897	-0.012	0.180	0.949
<u>Local program characteristics</u>						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^k	0.037	0.063	0.558	0.091	0.081	0.264
Has MOU and designated point of contact with community service provider in pediatric primary care ^l	0.039	0.100	0.698	0.022	0.127	0.861
Has service provider that is available, accessible, and effective in pediatric primary care ^l	0.316	0.096	0.001	0.180	0.128	0.163
Organizational culture^l						
Rigidity	0.012	0.053	0.816	-0.089	0.098	0.368
Proficiency	0.063	0.040	0.120	0.080	0.059	0.181
Resistance	-0.022	0.046	0.636	-0.036	0.086	0.672
Staffing						
Difficult to recruit qualified home visitor candidates	-0.074	0.080	0.357	0.298	0.123	0.017
At least one staff person with dedicated time to support CQI activities	0.046	0.087	0.598	-0.213	0.133	0.112
Average number of families in home visitors' caseloads	0.001	0.010	0.910	0.036	0.019	0.053

(continued)

Table TA.53 Number of Visits Discussing Child Preventive Care (cont.)

Characteristic	Negative Binomial			Negative Binomial		
	Bivariate Model			Multiple Regression Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Access to professional consultants in child preventive care ^m	-0.097	0.089	0.281	-0.028	0.121	0.815
Service priorities						
Program rates child preventive care as "high priority" ⁱ	0.810	0.592	0.174	1.030	0.727	0.159
Program raised priority of child preventive care as a result of receipt of MIECHV funding	0.030	0.113	0.793	0.031	0.133	0.817
Evidence-based model						
Early Head Start Home-based option	-0.121	0.104	0.245	-0.157	0.214	0.465
Parents as Teachers	-0.219	0.110	0.048	-0.695	0.222	0.002

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 295 families, 141 home visitors, and 55 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

(continued)

Table TA.53 Number of Visits Discussing Child Preventive Care (cont.)

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lRespondents answering “don’t know” were treated as non-yes responses along with responses of “no.”

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.54

Model Results for Ever Received a Referral for Child Preventive Care

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	0.753	0.672	0.264	12.272	2051.738	0.995
Family characteristics									
Maternal sociodemographic characteristics									
Maternal age (years)	0.002	0.005	0.631	-0.006	0.006	0.299	-0.032	0.000	0.000
First-time mother	-0.025	0.057	0.659	-0.077	0.069	0.265	-0.356	0.386	0.358
Language other than English spoken in the home	0.009	0.062	0.887	0.063	0.095	0.508	0.485	0.524	0.356
Mother's race or ethnicity									
Black, non-Hispanic	-0.032	0.079	0.685	0.006	0.093	0.945	-0.101	0.520	0.847
Hispanic, Mexican	-0.020	0.078	0.797	-0.050	0.105	0.635	-0.269	0.562	0.633
Hispanic, other	-0.001	0.104	0.990	-0.170	0.128	0.185	-1.439	0.714	0.046
Other/multiracial	-0.146	0.123	0.237	-0.166	0.131	0.205	-1.097	0.779	0.162
Child's biological father lives in the home	0.032	0.056	0.568	0.027	0.082	0.742	0.247	0.449	0.584
Mother is in a relationship	0.036	0.068	0.597	-0.043	0.091	0.637	-0.302	0.516	0.559
Maternal and household risk factors									
Mother's health self-rated as "poor" or "fair" or limits activities	0.088	0.063	0.161	0.062	0.071	0.383	0.382	0.401	0.343
Mother's depression symptoms score at or above cutoff ^a	0.053	0.059	0.364	0.046	0.074	0.538	0.074	0.415	0.858
Mother's abstract verbal reasoning score ^b	0.019	0.026	0.449	-0.007	0.030	0.818	-0.023	0.000	0.000
Mother's relationship anxiety score ^c	0.039	0.027	0.154	0.061	0.036	0.089	0.390	0.000	0.000
Mother's relationship avoidance score ^c	-0.006	0.026	0.821	-0.022	0.035	0.529	-0.110	0.211	0.604

(continued)

Table TA.54 Ever Received a Referral for Child Preventive Care (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Baseline risk presence in child preventive care ^d	-0.056	0.082	0.498	-0.051	0.091	0.581	-0.340	0.520	0.515
Maternal and household economic self-sufficiency									
Mother's highest level of education									
High school diploma	0.088	0.067	0.190	0.186	0.076	0.015	1.210	0.435	0.006
At least some college	0.163	0.072	0.024	0.240	0.083	0.004	1.522	0.477	0.002
Household experiences food insecurity ^e	0.029	0.056	0.603	0.037	0.064	0.563	0.348	0.363	0.340
Mother has moved more than once in the past year	-0.097	0.072	0.181	-0.062	0.078	0.429	-0.508	0.468	0.279
Child characteristics									
Child's age in months	0.022	0.019	0.246	0.033	0.021	0.113	0.149	0.000	0.000
Child's sex is female	-0.011	0.055	0.841	0.024	0.060	0.695	0.135	0.340	0.692
Child health care access and insurance									
Child is uninsured	0.150	0.090	0.097	0.152	0.100	0.132	0.963	0.551	0.083
Mother's primary reason for enrolling									
Get help getting insurance	-0.218	0.453	0.630	-0.218	0.474	0.646	-13.259	1463.601	0.993
<u>Home visitor characteristics</u>									
Education and work experience									
Home visitor's experience									
1 to 2 years experience as a home visitor	0.062	0.069	0.372	0.117	0.103	0.261	0.722	0.552	0.194
3 or more years experience as a home visitor	-0.025	0.069	0.715	0.041	0.106	0.702	0.435	0.577	0.452
Earned a bachelor's degree or higher	-0.108	0.078	0.171	-0.169	0.087	0.057	-0.849	0.444	0.058

(continued)

Table TA.54 Ever Received a Referral for Child Preventive Care (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Home visitor perceptions									
Home visitor feels they are comfortable and effective working to improve child preventive care ^f	0.008	0.108	0.939	0.149	0.141	0.294	1.100	0.740	0.140
Home visitor feels they are supported by the local implementation system to improve child preventive care ^g	0.006	0.075	0.932	-0.087	0.098	0.379	-0.622	0.507	0.223
Home visitor ratings of confidence, when faced with a challenging situation, to improve child preventive care ^h	0.024	0.021	0.254	0.031	0.027	0.258	0.187	0.000	0.000
Intended service plan									
Home visitor rates child preventive care as high priority ⁱ	-0.129	0.134	0.339	-0.252	0.157	0.114	-1.221	0.772	0.116
Well-being									
Home visitor's depression symptoms score at or above cutoff ^a	-0.124	0.098	0.210	-0.017	0.129	0.895	-0.253	0.754	0.737
Home visitor's relationship anxiety score ^c	0.007	0.031	0.812	0.036	0.044	0.415	0.316	0.228	0.169
Home visitor's relationship avoidance score ^c	-0.029	0.034	0.404	-0.004	0.046	0.928	-0.038	0.247	0.879
Training and supervision									
Percent of supervision sessions devoted to client-specific specific issues	0.000	0.001	0.965	0.000	0.002	0.878	-0.001	0.000	0.000
Time spent in individual supervision per week (minutes)	0.002	0.001	0.111	0.000	0.003	0.921	-0.004	0.000	0.000

(continued)

Table TA.54 Ever Received a Referral for Child Preventive Care (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Average number of training hours per month	0.001	0.006	0.895	0.003	0.008	0.666	0.022	0.000	0.000
Ever attended training in child preventive care	-0.003	0.099	0.974	-0.088	0.113	0.440	-0.419	0.624	0.503
Work attitudes									
Organizational work attitudes—morale ^j	-0.001	0.032	0.983	0.011	0.045	0.800	0.055	0.238	0.817
Intent to leave position in next 12 months	-0.037	0.104	0.726	-0.062	0.141	0.664	-0.345	0.749	0.646
<u>Local program characteristics</u>									
Community characteristics									
Index of neighborhood socioeconomic disadvantage ^k	-0.036	0.057	0.530	0.001	0.066	0.988	-0.053	0.325	0.871
Has MOU and designated point of contact with community service provider in pediatric primary care ^l	-0.095	0.099	0.342	-0.168	0.104	0.117	-1.104	0.544	0.045
Has service provider that is available, accessible, and effective in pediatric primary care ^l	0.110	0.092	0.239	0.207	0.105	0.055	1.578	0.563	0.006
Organizational culture^l									
Rigidity	0.052	0.048	0.286	-0.026	0.077	0.739	-0.204	0.412	0.622
Proficiency	0.028	0.038	0.465	-0.006	0.047	0.895	0.055	0.230	0.811
Resistance	0.032	0.043	0.456	0.088	0.066	0.187	0.644	0.332	0.055
Staffing									
Difficult to recruit qualified home visitor candidates	0.056	0.080	0.488	0.256	0.094	0.010	1.974	0.573	0.001
At least one staff person with dedicated time to support CQI activities	-0.097	0.081	0.236	-0.303	0.108	0.008	-2.138	0.639	0.001

(continued)

Table TA.54 Ever Received a Referral for Child Preventive Care (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Average number of families in home visitors' caseloads	0.002	0.010	0.814	0.026	0.014	0.075	0.221	0.000	0.000
Access to professional consultants in child preventive care ^m	-0.045	0.086	0.608	0.105	0.097	0.288	0.949	0.512	0.066
Service priorities									
Program rates child preventive care as "high priority" ⁱ	-0.637	0.485	0.190	-0.853	0.576	0.141	-17.352	2051.709	0.993
Program raised priority of child preventive care as a result of receipt of MIECHV funding	0.185	0.108	0.092	0.256	0.111	0.030	1.664	0.541	0.003
Evidence-based model									
Early Head Start Home-based option	-0.069	0.094	0.466	0.062	0.179	0.730	0.389	0.927	0.676
Parents as Teachers	-0.215	0.094	0.027	-0.380	0.162	0.022	-2.876	0.978	0.004

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 280 families, 136 home visitors, and 55 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

(continued)

Table TA.54 Ever Received a Referral for Child Preventive Care (cont.)

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hReflects home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.55

Model Results for Number of Visits Discussing Child Development

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient Estimate	Standard Error	P- Value	Coefficient Estimate	Standard Error	P- Value
Intercept	NA	NA	NA	-0.332	0.342	0.337
<u>Family characteristics</u>						
Maternal sociodemographic characteristics						
Maternal age (years)	0.003	0.003	0.296	0.001	0.003	0.710
First-time mother	-0.001	0.033	0.970	0.005	0.040	0.900
Language other than English spoken in the home	0.020	0.037	0.592	-0.031	0.061	0.615
Mother's race or ethnicity						
Black, non-Hispanic	-0.109	0.046	0.018	-0.115	0.059	0.051
Hispanic, Mexican	0.001	0.044	0.984	-0.027	0.068	0.692
Hispanic, other	-0.078	0.060	0.197	-0.139	0.081	0.088
Other/multiracial	-0.278	0.076	0.000	-0.258	0.083	0.002
Child's biological father lives in the home	0.024	0.033	0.464	-0.084	0.049	0.086
Mother is in a relationship	0.058	0.042	0.168	0.078	0.055	0.156
Maternal and household risk factors						
Mother's health self-rated as "poor" or "fair" or limits activities	-0.029	0.038	0.449	-0.031	0.043	0.467
Mother's depression symptoms score at or above cutoff ^a	-0.042	0.034	0.220	-0.015	0.045	0.732
Mother's abstract verbal reasoning score ^b	0.018	0.015	0.247	0.017	0.018	0.353
Mother's relationship anxiety score ^c	-0.004	0.016	0.806	0.035	0.021	0.097
Mother's relationship avoidance score ^c	-0.035	0.015	0.026	-0.028	0.023	0.213
Baseline risk presence in child development ^d	0.012	0.032	0.702	-0.008	0.037	0.831
Maternal and household economic self-sufficiency						
Mother's highest level of education						
High school diploma	0.004	0.039	0.928	0.010	0.044	0.817
At least some college	0.006	0.043	0.881	-0.039	0.050	0.439
Household experiences food insecurity ^e	-0.019	0.033	0.577	-0.017	0.039	0.670
Mother has moved more than once in the past year	0.042	0.044	0.335	0.062	0.048	0.201

(continued)

Table TA.55 Number of Visits Discussing Child Development (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient Estimate	Standard Error	P- Value	Coefficient Estimate	Standard Error	P- Value
Child characteristics						
Child's age in months	-0.003	0.012	0.785	-0.011	0.013	0.410
Child's sex is female	0.083	0.033	0.013	0.034	0.036	0.354
<u>Home visitor characteristics</u>						
Education and work experience						
Home visitor's experience						
1 to 2 years experience as a home visitor	0.055	0.046	0.231	-0.075	0.075	0.316
3 or more years experience as a home visitor	-0.044	0.045	0.327	-0.112	0.078	0.152
Earned a bachelor's degree or higher	-0.054	0.048	0.260	-0.108	0.059	0.066
Home visitor perceptions						
Home visitor feels they are comfortable and effective working to promote child development ^f	0.098	0.109	0.367	0.098	0.143	0.492
Home visitor feels they are supported by the local implementation system to promote child development ^g	0.106	0.059	0.075	0.075	0.081	0.354
Overall score of self-efficacy ^h	0.044	0.015	0.003	0.016	0.020	0.417
Intended service plan						
Home visitor rates child development as high priority ⁱ	0.038	0.086	0.663	0.047	0.104	0.651
Well-being						
Home visitor's depression symptoms score at or above cutoff ^a	-0.231	0.073	0.002	-0.088	0.091	0.332
Home visitor's relationship anxiety score ^c	0.001	0.020	0.952	0.000	0.032	0.998
Home visitor's relationship avoidance score ^c	0.001	0.021	0.964	0.018	0.032	0.577
Training and supervision						
Percent of supervision sessions devoted to client-specific issues	0.001	0.001	0.213	-0.001	0.001	0.468
Time spent in individual supervision per week (minutes)	0.001	0.001	0.173	-0.002	0.002	0.339
Average number of training hours per month	-0.011	0.004	0.012	-0.018	0.006	0.003

(continued)

Table TA.55 Number of Visits Discussing Child Development (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Ever attended training in child development	0.006	0.088	0.943	0.200	0.121	0.099
Work attitudes						
Organizational work attitudes—morale ^j	-0.011	0.021	0.586	-0.065	0.033	0.048
Intent to leave position in next 12 months	-0.051	0.072	0.483	0.064	0.106	0.550
Local program characteristics						
Community characteristics						
Index of neighborhood socioeconomic disadvantage ^k	-0.073	0.039	0.064	0.004	0.050	0.931
Has MOU and designated point of contact with community service provider in early intervention services ^l	0.048	0.052	0.353	0.061	0.091	0.507
Has service provider that is available, accessible, and effective in early intervention services ^l	-0.076	0.053	0.156	-0.017	0.075	0.822
Organizational culture^j						
Rigidity	-0.054	0.033	0.111	-0.076	0.058	0.190
Proficiency	0.005	0.025	0.828	0.061	0.033	0.067
Resistance	-0.057	0.029	0.048	-0.041	0.050	0.413
Staffing						
Difficult to recruit qualified home visitor candidates	-0.027	0.053	0.609	0.120	0.080	0.135
At least one staff person with dedicated time to support CQI activities	-0.065	0.054	0.228	-0.207	0.088	0.020
Average number of families in home visitors' caseloads	0.001	0.006	0.911	0.019	0.011	0.098
Access to professional consultants in child development ^m	-0.021	0.053	0.687	0.078	0.071	0.272
Service priorities						
Program raised priority of child development as a result of receipt of MIECHV funding	0.082	0.072	0.257	0.062	0.089	0.485

(continued)

Table TA.55 Number of Visits Discussing Child Development (cont.)

Characteristic	Negative Binomial Bivariate Model			Negative Binomial Multiple Regression Model		
	Coefficient	Standard	P-	Coefficient	Standard	P-
	Estimate	Error	Value	Estimate	Error	Value
Evidence-based model						
Early Head Start Home-based option	-0.020	0.059	0.738	-0.031	0.149	0.835
Parents as Teachers	-0.111	0.063	0.079	-0.348	0.124	0.006

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 306 families, 143 home visitors, and 55 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley, 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hThis measure reflects the mean score of home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lRespondents answering "don't know" were treated as non-yes responses along with responses of "no."

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.56

Model Results for Ever Received a Referral for Child Development

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Intercept	NA	NA	NA	-0.254	0.408	0.536	-6.987	3.557	0.056
Family characteristics									
Maternal sociodemographic characteristics									
Maternal age (years)	0.003	0.004	0.380	0.001	0.004	0.795	0.018	0.039	0.642
First-time mother	-0.010	0.043	0.816	-0.046	0.052	0.377	-0.177	0.501	0.725
Language other than English spoken in the home	-0.009	0.046	0.849	0.038	0.074	0.606	0.660	0.725	0.364
Mother's race or ethnicity									
Black, non-Hispanic	-0.043	0.060	0.477	-0.042	0.073	0.562	-0.377	0.665	0.572
Hispanic, Mexican	0.000	0.060	0.997	-0.010	0.083	0.908	-0.081	0.773	0.916
Hispanic, other	-0.122	0.075	0.104	-0.131	0.097	0.179	-1.294	0.959	0.179
Other/multiracial	-0.139	0.092	0.134	-0.137	0.099	0.170	-2.458	1.569	0.120
Child's biological father lives in the home	0.022	0.043	0.605	0.044	0.059	0.460	0.762	0.629	0.228
Mother is in a relationship	-0.049	0.051	0.334	-0.113	0.066	0.087	-1.160	0.668	0.085
Maternal and household risk factors									
Mother's health self-rated as "poor" or "fair" or limits activities	0.072	0.048	0.134	0.088	0.054	0.102	0.963	0.490	0.051
Mother's depression symptoms score at or above cutoff ^a	0.028	0.044	0.524	0.024	0.054	0.665	0.199	0.517	0.701
Mother's abstract verbal reasoning score ^b	0.000	0.020	1.000	0.006	0.023	0.784	-0.008	0.219	0.971
Mother's relationship anxiety score ^c	0.033	0.020	0.102	0.031	0.027	0.242	0.368	0.266	0.170
Mother's relationship avoidance score ^c	0.017	0.020	0.375	-0.002	0.027	0.953	-0.101	0.268	0.707

(continued)

Table TA.56 Ever Received a Referral for Child Development (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Baseline risk presence in child development ^d	-0.019	0.041	0.639	-0.039	0.046	0.393	-0.395	0.453	0.385
Maternal and household economic self-sufficiency									
Mother's highest level of education									
High school diploma	0.041	0.050	0.416	0.063	0.057	0.264	0.399	0.573	0.488
At least some college	0.044	0.053	0.410	0.096	0.063	0.129	0.793	0.609	0.195
Household experiences food insecurity ^e	-0.025	0.043	0.560	-0.039	0.048	0.418	-0.592	0.450	0.190
Mother has moved more than once in the past year	0.070	0.055	0.204	0.094	0.059	0.113	0.944	0.548	0.087
Child characteristics									
Child's age in months	0.016	0.014	0.251	0.025	0.016	0.131	0.148	0.160	0.355
Child's sex is female	0.008	0.041	0.843	-0.007	0.045	0.871	-0.168	0.432	0.699
<u>Home visitor characteristics</u>									
Education and work experience									
Home visitor's experience									
1 to 2 years experience as a home visitor	-0.019	0.052	0.718	-0.048	0.087	0.586	-0.668	0.753	0.377
3 or more years experience as a home visitor	-0.011	0.053	0.831	-0.047	0.092	0.610	-0.620	0.724	0.393
Earned a bachelor's degree or higher	0.009	0.058	0.878	-0.043	0.073	0.556	-0.411	0.582	0.482
Home visitor perceptions									
Home visitor feels they are comfortable and effective working to promote child development ^f	-0.125	0.125	0.318	-0.036	0.166	0.830	0.105	1.255	0.934
Home visitor feels they are supported by the local implementation system to promote child development ^g	0.071	0.060	0.243	0.086	0.090	0.343	0.557	0.805	0.490

(continued)

Table TA.56 Ever Received a Referral for Child Development (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Overall score of self-efficacy ^h	0.014	0.015	0.354	0.037	0.023	0.114	0.408	0.234	0.084
Intended service plan									
Home visitor rates child development as high priority ⁱ	-0.077	0.086	0.374	-0.138	0.114	0.233	-1.634	0.908	0.074
Well-being									
Home visitor's depression symptoms score at or above cutoff ^a	0.093	0.072	0.198	0.140	0.101	0.169	1.296	0.897	0.151
Home visitor's relationship anxiety score ^c	0.016	0.022	0.466	0.011	0.039	0.785	0.260	0.326	0.427
Home visitor's relationship avoidance score ^c	0.004	0.025	0.884	-0.017	0.039	0.657	-0.136	0.327	0.679
Training and supervision									
Percent of supervision sessions devoted to client-specific issues	0.002	0.001	0.025	0.002	0.001	0.285	0.015	0.012	0.237
Time spent in individual supervision per week (minutes)	0.000	0.001	0.938	-0.002	0.003	0.443	-0.018	0.018	0.319
Average number of training hours per month	0.005	0.005	0.266	0.009	0.006	0.143	0.057	0.046	0.215
Ever attended training in child development	0.069	0.089	0.438	0.078	0.134	0.561	0.955	1.251	0.447
Work attitudes									
Organizational work attitudes—morale ^j	0.000	0.024	0.984	-0.001	0.037	0.981	0.286	0.297	0.339
Intent to leave position in next 12 months	-0.015	0.076	0.838	0.111	0.120	0.358	1.953	1.242	0.118
<u>Local program characteristics</u>									
Community characteristics									
Index of neighborhood socioeconomic disadvantage ^k	-0.040	0.048	0.413	-0.044	0.067	0.510	-0.316	0.470	0.502

(continued)

Table TA.56 Ever Received a Referral for Child Development (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Has MOU and designated point of contact with community service provider in early intervention services ^l	0.038	0.073	0.610	0.032	0.126	0.801	0.617	0.899	0.493
Has service provider that is available, accessible, and effective in early intervention services ^l	0.184	0.074	0.017	0.140	0.106	0.192	0.993	0.813	0.224
Organizational culture ^j									
Rigidity	-0.050	0.042	0.244	-0.031	0.081	0.701	-0.499	0.598	0.405
Proficiency	-0.066	0.033	0.054	-0.060	0.048	0.215	-0.591	0.379	0.121
Resistance	-0.051	0.037	0.175	-0.030	0.065	0.646	0.071	0.519	0.892
Staffing									
Difficult to recruit qualified home visitor candidates	0.071	0.071	0.322	0.031	0.103	0.764	0.279	0.745	0.708
At least one staff person with dedicated time to support CQI activities	0.057	0.073	0.435	0.001	0.109	0.991	0.273	0.799	0.733
Average number of families in home visitors' caseloads	-0.008	0.009	0.369	0.011	0.015	0.443	0.079	0.101	0.436
Access to professional consultants in child development ^m	0.053	0.076	0.489	0.015	0.105	0.883	0.835	0.717	0.246
Service priorities									
Program raised priority of child development as a result of receipt of MIECHV funding	-0.150	0.100	0.142	-0.128	0.132	0.338	-1.454	0.994	0.146

(continued)

Table TA.56 Ever Received a Referral for Child Development (cont.)

Characteristic	Bivariate Linear Model			Multiple Regression Linear Model			Multiple Regression Logit Model		
	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value	Coefficient Estimate	Standard Error	P-Value
Evidence-based model									
Early Head Start Home-based option	-0.038	0.088	0.672	-0.165	0.203	0.418	-2.195	1.390	0.117
Parents as Teachers	-0.004	0.088	0.964	-0.064	0.150	0.673	-0.785	1.076	0.467

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: Sample sizes: 296 families, 139 home visitors, and 55 local programs.

NA = not applicable. MOU = memorandum of understanding. CQI = continuous quality improvement.

The reference categories for categorical variables with more than two categories are as follows: for mother's race and ethnicity it is "white, non-Hispanic;" for mother's highest level of education it is "did not graduate from high school," which includes receipt of a General Educational Development certificate; for home visitor experience it is "less than one year of experience;" and for evidence-based model it is Healthy Families America.

^aA score of 8 or higher on the Center for the Epidemiological Studies-Depression 10-item scale (CES-D; Kohout, Berkman, Evans, and Cornoni-Huntley 1993) indicates clinically significant symptoms of depression.

^bMeasured using the similarities subscale of the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). Respondents who took the Spanish version of the survey took the equivalent subscale of the Escala de Inteligencia de Wechsler-Tercera Edición (EIWA-III; Wechsler, 2008).

^cMeasured using the Attachment Style Questionnaire-Short Form (ASQ-SF; Karantzas, Feeney, and Wilkinson, 2010). Anxiety is measured using 13 items, and avoidance is measured using 16 items.

^dSee Table 5.5 in the MIHOPE implementation research report for definitions of baseline risk.

^eRespondents were asked two screening items from the United States Department of Agriculture's U.S. Household Food Security Survey Module and are classified as food insecure if they indicated any experience with food not lasting or worry about food running out in the past year.

^fCombines home visitor ratings on how comfortable they feel talking with mothers and how effective they are in helping mothers in this area.

^gCombines home visitor ratings on the adequacy of their training, the availability of useful tools and strategies, and the receipt of positive and constructive supervisory feedback.

^hThis measure reflects the mean score of home visitor ratings of their confidence in carrying out activities with families in challenging situations. Scores can range from 0 to 10, with higher scores representing greater confidence.

ⁱHigh priority defined as a score of 8 or higher on a 10-point scale.

^jMeasured using the Organizational Social Context measurement system (Glisson et al., 2008). Morale combines home visitor job satisfaction and organizational commitment. Resistance refers to service providers showing little interest in change or new innovations in service provision and suppressing efforts for change through criticism and apathy. Proficiency refers to service providers being expected to place the well-being of clients first and service providers being competent and having up-to-date knowledge and skills. Rigidity refers to service providers having little discretion and flexibility, limited input into management decisions, and operating under controlled rules and regulations.

(continued)

Table TA.56 Ever Received a Referral for Child Development (cont.)

^kThe neighborhood socioeconomic disadvantage index is based on the composite measure of socioeconomic disadvantage using four American Community Survey variables: (1) percentage age 25 years and over without a high school degree, (2) percentage unemployed, (3) percentage of families living in poverty, and (4) percentage of families receiving public assistance (Turney and Harknett, 2010). The index was normed to the population-weighted national averages.

^lRespondents answering “don’t know” were treated as non-yes responses along with responses of “no.”

^mIncludes external and internal consultants who provide advice to the home visitor, direct services to families, or both.

Table TA.57

**Variation Across Families, Home Visitors, and Local Programs:
Family Ever Discussed Topic, by Outcome-Specific Category**

Outcome-Specific Category	Families with Whom Topic Was Ever Discussed (%)	Sample Size			Proportion of Variance at Each Level		
		Family	Home	Local	Family	Home	Local
			Visitor	Program		Visitor	Program
<u>Maternal and newborn health and well-being</u>							
Family planning and birth spacing	70.2	916	292	78	0.83	0.10	0.08
Substance use	52.8	937	272	72	0.69	0.23	0.08
Mental health	83.3	996	288	74	0.84	0.12	0.04
Intimate partner violence	40.5	990	292	76	0.80	0.14	0.06
<u>Family economic self-sufficiency</u>							
Economic self-sufficiency	87.8	821	277	78	0.82	0.17	0.00
<u>Child health and development^a</u>							
Child preventive care	94.9	295	141	55	0.86	0.00	0.14
Child development	96.7	306	143	55	0.91	0.00	0.09

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: All outcomes were modeled only for families who ever received a home visit.

Proportions may not sum to 1.00 because of rounding.

^aThe samples for these outcomes were further restricted to include only families in which the mother was not pregnant at study entry. These outcomes were analyzed during the postnatal period only.

Table TA.58

**Variation Across Families, Home Visitors, and Local Programs:
Number of Visits in Which Family Discussed Topic, by Outcome-Specific Category**

Outcome-Specific Category	Average Number of Visits in Which Topic Was Discussed	Sample Size			Proportion of Variance at Each Level		
		Family	Home	Local	Family	Home	Local
			Visitor	Program		Visitor	Program
<u>Maternal and newborn health and well-being</u>							
Family planning and birth spacing	3.6	916	292	78	0.66	0.23	0.10
Substance use	1.6	937	272	72	0.72	0.25	0.04
Mental health	6.6	996	288	74	0.56	0.28	0.16
Intimate partner violence	0.9	990	292	76	0.71	0.26	0.04
<u>Family economic self-sufficiency</u>							
Economic self-sufficiency	8.3	821	277	78	0.72	0.13	0.15
<u>Child health and development^a</u>							
Child preventive care	13.5	295	141	55	0.59	0.17	0.25
Child development	18.7	306	143	55	0.76	0.04	0.20

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: All outcomes were modeled only for families who ever received a home visit.

Proportions may not sum to 1.00 because of rounding.

^aThe samples for these outcomes were further restricted to include only families in which the mother was not pregnant at study entry. These outcomes were analyzed during the postnatal period only.

Table TA.59

**Variation Across Families, Home Visitors, and Local Programs:
Family Received at Least One Referral, by Outcome-Specific Category**

Outcome-Specific Category	Families Who Ever Received a Referral (%)	Sample Size			Proportion of Variance at Each Level		
		Family	Home	Local	Family	Home	Local
			Visitor	Program		Visitor	Program
<u>Maternal and newborn health and well-being</u>							
Family planning and birth spacing	33.6	652	259	74	0.80	0.15	0.05
Substance use	9.3	497	212	67	0.87	0.09	0.04
Mental health	26.9	832	276	73	0.88	0.09	0.03
Intimate partner violence	20.9	412	199	71	0.89	0.10	0.01
<u>Family economic self-sufficiency</u>							
Economic self-sufficiency	44.7	730	264	75	0.74	0.16	0.11
<u>Child health and development^a</u>							
Child preventive care	37.1	280	136	55	0.77	0.09	0.13
Child development	17.9	296	139	55	0.74	0.00	0.26

SOURCES: The MIHOPE family baseline survey, the MIHOPE family service logs, the MIHOPE home visitor survey, the MIHOPE weekly supervision logs, the MIHOPE home visitor monthly training logs, the MIHOPE program manager survey, the MIHOPE community services inventory completed by program managers, and the U.S. Census Bureau, 2014 American Community Survey five-year estimates.

NOTES: All outcomes were modeled only for families who ever received a home visit.

Proportions may not sum to 1.00 because of rounding.

^aThe samples for these outcomes were further restricted to include only families in which the mother was not pregnant at study entry. These outcomes were analyzed during the postnatal period only.

References

- Duggan, Anne, Ximena A. Portilla, Jill H. Filene, Sarah Shea Crowne, Carolyn J. Hill, Helen Lee, and Virginia Knox. 2018. *Implementation of Evidence-Based Early Childhood Home Visiting: Results from the Mother and Infant Home Visiting Program Evaluation*. OPRE Report 2018-76A. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Enders, Craig K., and Davood Tofighi. 2007. "Centering Predictor Variables in Cross-Sectional Multilevel Models: A New Look at an Old Issue." *Psychological Methods* 12, 2: 121-138.
- Glisson, Charles, John Landsverk, Sonja Schoenwald, Kelly Kelleher, Kimberly Eaton Hoagwood, Stephen Mayberg, and Philip Green. 2008. "Assessing the Organizational Social Context (OSC) of Mental Health Services: Implications for Research and Practice." *Administration of Policy in Mental Health* 35, 1-2: 98-113.
- Hilbe, Joseph M. 2011. *Negative Binomial Regression: Second Edition*. Cambridge, UK: Cambridge University Press.
- Jones, Bobby L. 2017. "Traj: Group-Based Modeling of Longitudinal Data." Website: www.andrew.cmu.edu/user/bjones/index.htm.
- Karantzas, Gery C., Judith A. Feeney, and Ross Wilkinson. 2010. "Is Less More? Confirmatory Factor Analysis of the Attachment Style Questionnaires." *Journal of Social and Personal Relationships* 27, 6: 749-780.
- Kohout, Frank J., Lisa F. Berkman, Denis A. Evans, and Joan Cornoni-Huntley. 1993. "Two Shorter Forms of the CES-D Depression Symptoms Index." *Journal of Aging and Health* 5, 2: 179-193.
- Nagin, Daniel S. 2005. *Group-Based Modeling of Development*. Cambridge, MA: Harvard University Press.
- Nagin, Daniel S., and Candice L. Odgers. 2010. "Group-Based Trajectory Modeling in Clinical Research." *Annual Review of Clinical Psychology* 6, 1: 109-138.
- Raudenbush, Stephen W., and Anthony S. Bryk. 2002. *Hierarchical Linear Models: Applications and Data Analysis Methods: Second Edition*. Thousand Oaks, CA: SAGE Publications.
- Turney, Kristin, and Kristen Harknett. 2010. "Neighborhood Disadvantage, Residential Stability, and Perceptions of Instrumental Support Among New Mothers." *Journal of Family Issues* 31, 4: 499-524.
- Wechsler, David. 1997. *Wechsler Adult Intelligence Scale: Third Edition (WAIS-III)*. San Antonio, TX: The Psychological Corporation.
- Wechsler, David. 2008. *Escala de Inteligencia de Wechsler para Adultos: Tercera Edición (EIWA-III)*. San Antonio, TX: The Psychological Corporation.