

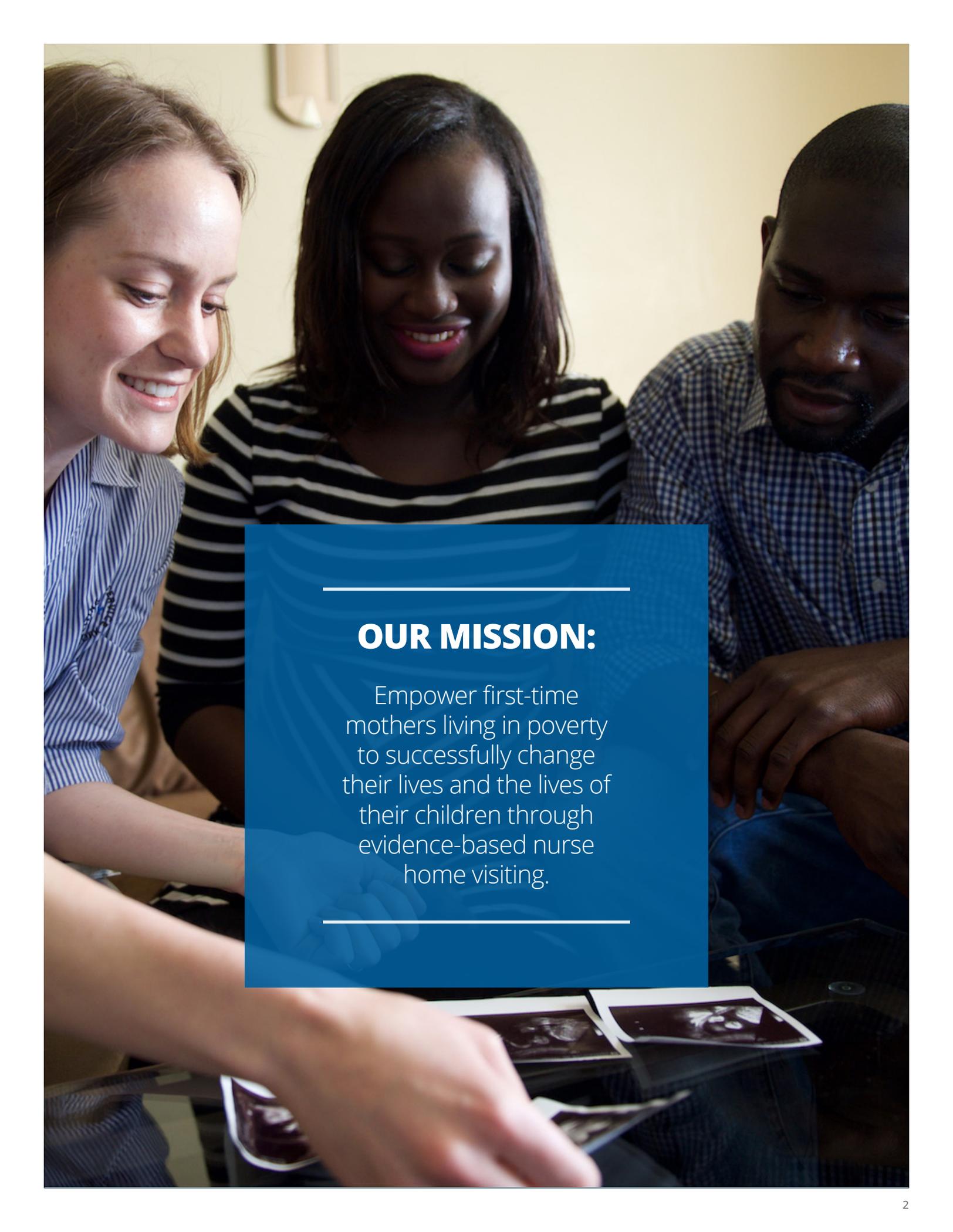


**NURSE-FAMILY PARTNERSHIP SUCCESSFULLY MEETS
ALL PROGRAM BENCHMARKS FROM 2012 TO 2014**



NURSE-FAMILY PARTNERSHIP'S
**National Results of the
Maternal, Infant, and
Early Childhood Home
Visiting Program**

OCTOBER 2015
NURSE-FAMILY PARTNERSHIP NATIONAL SERVICE OFFICE



OUR MISSION:

Empower first-time mothers living in poverty to successfully change their lives and the lives of their children through evidence-based nurse home visiting.



EXECUTIVE SUMMARY

Nurse-Family Partnership’s National Results of the Maternal, Infant, and Early Childhood Home Visiting Program

Nurse-Family Partnership Successfully Meets All Program Benchmarks from 2012 to 2014

The Nurse-Family Partnership® program (NFP) is an evidence-based community health program that partners registered nurses with first-time mothers beginning early in pregnancy and continuing until the child is 2-years old. According to the Coalition for Evidence-Based Policy, Nurse-Family Partnership has been shown in three randomized, controlled trials to achieve “sizable, sustained effects on important child and maternal outcomes.”¹

In 2010, NFP was one of the initial seven evidence-based home visiting programs approved by the U.S. Department of Health and Human Services (HHS) to provide services to low-income families with federal funding through the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program.

Funding for the MIECHV program was authorized by the U.S. Congress to support evidence-based home visiting services for high-risk families in all states, territories and tribal nations. HHS administers the program through formula and competitive grants.

Congress outlined accountability measures for the MIECHV program including needs assessments, demonstrations of improvement across six outcome or “benchmark” areas, ongoing data collection, quality improvement and program evaluation.

The NFP National Service Office has published this report that provides the national results of NFP implementation of the MIECHV program, comparing the findings from fiscal year 2012 to fiscal year 2014. The NFP National Service Office report includes information about NFP clients served and the ability of NFP agencies receiving MIECHV funding to successfully meet the federally-required benchmarks.

A comparison of results for MIECHV-funded NFP clients and recent implementation studies of the NFP program is also included in this report and shows that outcomes achieved are consistent with NFP’s original randomized, controlled trials.

Nurse-Family Partnership's National Results of the Maternal, Infant, and Early Childhood Home Visiting Program

Nurse-Family Partnership Successfully Meets All Program Benchmarks from 2012 to 2014

BENCHMARK 1:

IMPROVED MATERNAL & NEWBORN HEALTH

Nationally, NFP met the desired change in 8/8 constructs collected by NFP.

BENCHMARK 2:

CHILD INJURIES, CHILD ABUSE, NEGLECT OR MALTREATMENT & EMERGENCY DEPARTMENT VISITS

Nationally, NFP met the desired change in 5/5 constructs collected by NFP.

BENCHMARK III:

IMPROVEMENTS IN SCHOOL READINESS & ACHIEVEMENT

Nationally, NFP met the desired change in 6/6 constructs collected by NFP.

BENCHMARK IV:

CRIME & DOMESTIC VIOLENCE

Nationally, NFP met the desired change in 3/3 constructs collected by NFP.

BENCHMARK V:

FAMILY ECONOMIC SELF-SUFFICIENCY

Nationally, NFP met the desired change in 3/3 constructs collected by NFP.

BENCHMARK VI:

COORDINATION & REFERRAL FOR OTHER COMMUNITY RESOURCES & SUPPORTS.

Nationally, NFP met 3/3 constructs collected by NFP.

At the initiation of the MIECHV program, the NFP National Service Office developed a plan to collect measures and compare information on attainment of the federally-required benchmarks for NFP clients. Data are collected by each nurse at each implementing agency and maintained in the NFP National Service Office data warehouse. Reports are available to states and agencies.

The benchmark regulations identify multiple constructs under each benchmark. Nationally, NFP successfully met all of the required benchmarks from fiscal year 2012 to fiscal year 2014. Since 2010, 39 states, six tribal organizations and one territory have utilized MIECHV funding to deliver NFP services.

- *Nationally, NFP agencies have served over 19,540 clients (a client is a low-income, first-time mother) at the agency level with MIECHV funding.*
- *NFP nurse home visitors deliver services primarily in the clients' homes. Since the MIECHV funding began, a total of 322,390 home visits occurred with NFP clients. Based on the recent program brief from HHS,² NFP delivered 23% of all home visits provided to MIECHV-funded clients by all evidence-based programs combined.*
- *The NFP model and its fidelity requirements are consistently implemented regardless of whether the agency received MIECHV funding. All NFP agencies collected data throughout the client's tenure in NFP to track improvement and progress.*
- *Approximately 600 NFP registered nurses have been employed part-time or full-time with MIECHV funding by local agencies across the country. Many NFP agencies were launched or expanded with MIECHV funding during the recent recession.*
- *In addition to reviewing the implementation of MIECHV-funded NFP services, this report provides a comparison of MIECHV-funded results with a contemporary evaluation of NFP implementation by the NFP National Service Office³ and a recently published meta-analysis across six NFP randomized, controlled trials.⁴ The results of this comparison indicate that regardless of funding, agencies implementing the NFP program as designed will have consistent results that align with the randomized, controlled trials.*



The demographic characteristics of MIECHV-funded NFP clients at enrollment are similar to all clients enrolled in NFP. On average from FY2011 through FY2014, at the time of enrollment, the majority of MIECHV-funded NFP clients were low-income (93%); adolescents (46% were under 19-years old); and were in high school (23%) or had a GED or high school diploma (49%). Nearly two-thirds of clients were not Hispanic or Latina (64%) and were either white (37%) or Black or African-American (35%). Most clients were unemployed (62%) and most received Title XIX (Medicaid) or Title XXI (SCHIP) support (68%).

The majority of children born to NFP MIECHV-funded clients were primarily exposed to English (82%); and 12% were primarily exposed to Spanish.

SAMPLE OF SUCCESSFUL NFP OUTCOMES MET WITHIN BENCHMARK GOALS:

- From FY2012 through FY2014, over 79% of MIECHV-funded NFP clients received prenatal care during their first trimester.
 - In FY2014, 82% of actively enrolled MIECHV-funded NFP clients took their children to all five expected well-child visits before the child turned 6 months.⁵
 - In FY2014, 78% of MIECHV-funded NFP clients and 86% of their babies had health insurance.
 - In FY2012 and FY2014, over 31% of clients without a high school diploma or GED at intake attained their high school diploma or GED by the time the infant turned 12-months old.
-

NFP looks forward to continuing to work with agencies, states, territories, tribal organizations and HHS staff to continue the successful implementation of the MIECHV program. With the results achieved from the MIECHV program, NFP encourages Congress to continue funding the MIECHV program to enable NFP to serve more at-risk families and change the future for more babies born into poverty.

¹Nurse-Family Partnership. Coalition for Evidence-Based Policy. <http://toptierevidence.org/programs-reviewed/interventions-for-children-age-0-6/nurse-family-partnership>

²The Maternal, Infant, and Early Childhood Home Visiting Program, Partnering with Parents to help Children Succeed. Health Resources and Services Administration and Administration for Children and Families. <http://mchb.hrsa.gov/programs/homevisiting/programbrief.pdf>

³Thorland, W. & Currie, D. (2015). Report on the Status of Birth, Child Development, and Maternal Life Course Outcomes in Clients of the Nurse-Family Partnership. Nurse-Family Partnership National Service Office.

⁴Miller, T. (2015). Projected Outcomes of Nurse-Family Partnership Home Visitation During 1996-2013, USA. *Prev Sci.* 16: 765-777.

⁵Adherence rates according to the American Academy of Pediatrics standards.



NURSE-FAMILY PARTNERSHIP'S NATIONAL RESULTS OF THE MATERNAL, INFANT & EARLY CHILDHOOD HOME VISITING PROGRAM

The MIECHV program has provided the mechanism to begin a statewide implementation of an evidence-based, nurse-home visiting program for the first time in Indiana, and this has attracted additional, sustainable funding for Nurse-Family Partnership, allowing us to support first-time mothers and families as they work to improve their lives.

Kent Kramer,
President & CEO
Goodwill Industries of Central Indiana

Federal MIECHV Program is Established to Improve Outcomes for At-Risk Families

In 2010, the United States Congress passed the **Maternal, Infant, and Early Childhood Home Visiting (MIECHV)** program, as a part of the Affordable Care Act, to increase availability to evidence-based home visiting services for at-risk families (from pregnancy to age 5) with goals of improving maternal, newborn and child health, childhood development, positive parenting skills, school readiness, community linkages, as well as reducing child maltreatment, domestic violence and crime.

The program is administered jointly by the Health Resources and Services Administration (HRSA) and the Administration for Children and Families (ACF) under the U.S. Department of Health and Human Services.



STATES, TERRITORIES, AND TRIBAL ORGANIZATIONS RECEIVE MIECHV FUNDING

States, territories and tribal organizations are the grantees that receive funding from HRSA or ACF to implement evidence-based home visiting in needed communities.¹ Funding is based on community needs assessments completed by the grantee and is awarded through a formula and/or a competitive process.

Grantees selected evidence-based home visiting (EBHV) models to provide direct services from an approved list that meet the evidentiary standards. The list of approved models continues to develop through a process called the Home Visiting Evidence of Effectiveness Review (HomVee)². In 2010, there were seven original EBHV models approved through the HomVee process, of which NFP was listed. Currently, the approved HomVee list has expanded to 17 models.

The MIECHV program has provided a unique opportunity for the grantees to collaborate with evidence-based programs to provide services to families. This collaboration has included the shared design of performance indicators to measure success, implementation of the programs in the numerous communities with fidelity to each model and ongoing interaction with model developers and the grantees to problem solve and celebrate successes.

Each grantee implementing the MIECHV program is required to report data on demographics, as well as performance indicators. The performance indicators include both process and outcomes measures. The data are collected at the local implementing agency by the home visitor. Data from the agency level are then provided to the state for aggregation and ultimately reported annually to HRSA or ACF. Grantees are required to demonstrate change in several performance measures over time.

Grantees submit applications annually to continue funding. Formula allocations are based on population and targeted at-risk communities. Grantees may also apply for competitive grants that are awarded annually or on a multi-year basis. Currently, competitive awards are made based on grantee performance, outcome achievement and demonstrated efficiency of implementation.

THE MIECHV PROGRAM PROVIDES OPPORTUNITY FOR NURSE-FAMILY PARTNERSHIP EXPANSION

The Nurse-Family Partnership National Service Office (NSO) is a nonprofit organization that provides implementing agencies with the specialized expertise and support needed to deliver NFP with fidelity to the model – so that each community demonstrates comparable outcomes. The NFP nurse home visitor at the agency level provides the direct services to the mother (i.e. NFP client) and her child.

Nurse-Family Partnership has been involved with the federal adoption of evidence-based home visiting since the early 2000s. In 2008, 10 NFP agencies were funded through ACF to participate in a national program of evidenced-based home visiting program and evaluation.³ The EBHV initiative was designed to support implementation of new agencies, scalability and sustainability.

NFP has been and continues to be involved in the National Home Visiting Coalition. The membership of this broad-based group includes several models as well as other organizations that are supportive of utilizing home visiting to improve maternal and child health and school readiness outcomes for families. The coalition works together to articulate the effectiveness of home visiting to a range of policymakers and stakeholders in the prenatal, maternal child health, early childhood and education fields.

Since 2010, 39 states, one territory and four tribal organizations have included NFP in their MIECHV program implementation. This funding has enabled communities to launch new NFP agencies and/or expand agencies that were operating before 2010 (see map on page 26).

The number of NFP clients funded by the MIECHV

program has grown each year as more agencies were established or expanded. NFP nurse home visitors collect data to record interventions and outcomes. These data are collected nationally at all implementing agencies and at every home visit. All data are maintained at a centralized data warehouse at the NFP National Service Office.

After reviewing the Supplemental Information Request (SIR)⁴ in 2010, the NFP National Service Office developed a form to identify clients as funded by the MIECHV program. Two reports were developed to provide required demographic information and data on each of the six benchmark areas. In addition, the NFP National Service Office, as per the SIR, developed a method to define improvement in each benchmark area and a plan for analysis. Later sections in the report provide the results.

NFP service delivery is the same with MIECHV-funded NFP clients as those not funded by the MIECHV program. Consultation, education, support, monitoring and fees from the NFP National Service Office are the same for agencies funded by the MIECHV program as those funded by other sources.

While the NFP National Service Office did not modify the program model, many states added assessments, trainings and evaluations to NFP implementation at the agency level. Currently, 29 NFP agencies are also enrolled in the national evaluation or the Mother and Infant Home Visiting Program Evaluation (MIHOPE) and MIHOPE-Strong Start. The evaluation includes additional data collection by the nurse home visitor as well as interviews and videotaping.

NFP ENROLLMENT FROM MIECHV FUNDING FROM OCTOBER 2010 TO SEPTEMBER 2014⁵



+19K

More than 19,540 NFP clients and their children have been enrolled.*



46%

46% of NFP clients were less than 19-years old at enrollment.



92%

From FY2011 through FY2014, over 92% of clients were legislatively-defined as low-income.



+322K

There have been over 322,390 home visits to clients enrolled in NFP.⁶



600

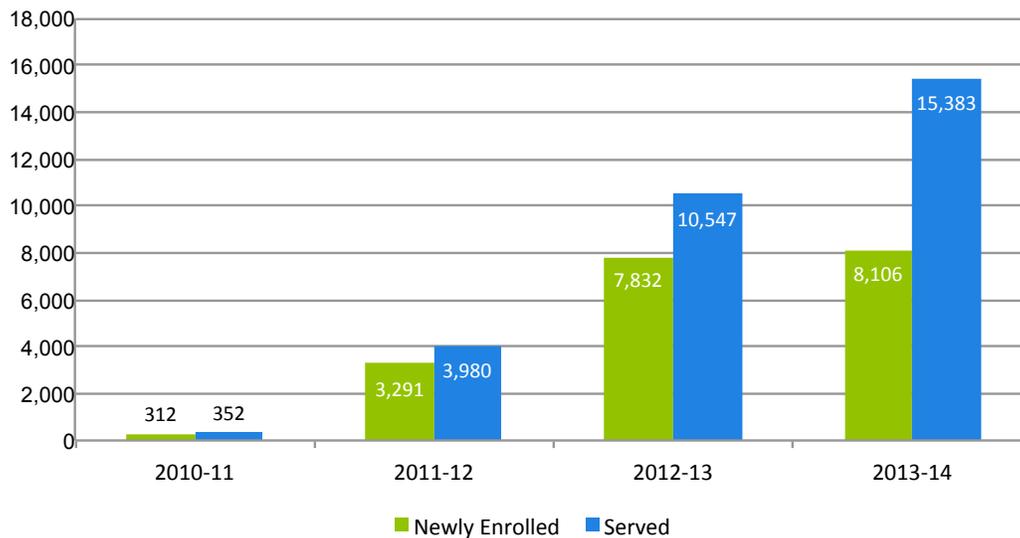
Approximately 600 nurse home visitors have been hired.

DEMOGRAPHIC DATA FOR MIECHV-FUNDED NFP CLIENTS

The demographic characteristics of the NFP clients funded by the MIECHV program since 2010 are comparable to all enrolled NFP clients during the same timeframe. The figures here illustrate the self-reported demographic characteristics for all NFP MIECHV-funded NFP clients. Data are aligned with the requirements of HRSA Form-1.

Oklahoma data are not included in any of the figures due to availability of the data at the time of the report. Data from New Jersey are included for FY2012 through FY2014 in the number of newly enrolled and served figure and the number of home visits figure. For all other figures, only FY2014 data are included for New Jersey.

FY2011-FY2014: Number of Newly Enrolled and Served NFP MIECHV-Funded Clients



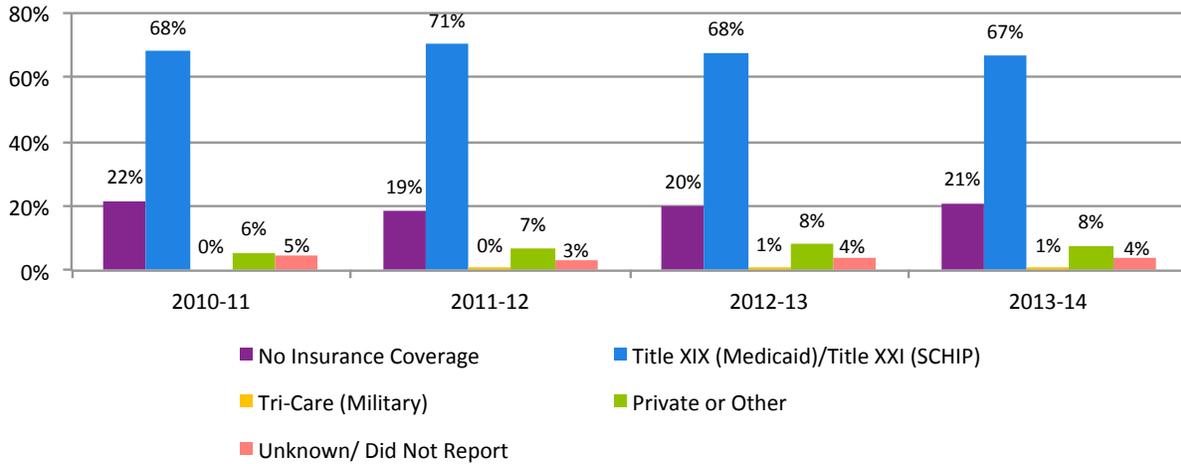
Newly Enrolled: Clients who have a program start date during the period.

Served: Clients who have a completed home visit during the period. Clients served may also include newly-enrolled clients.

* a client is a low-income, first-time mother

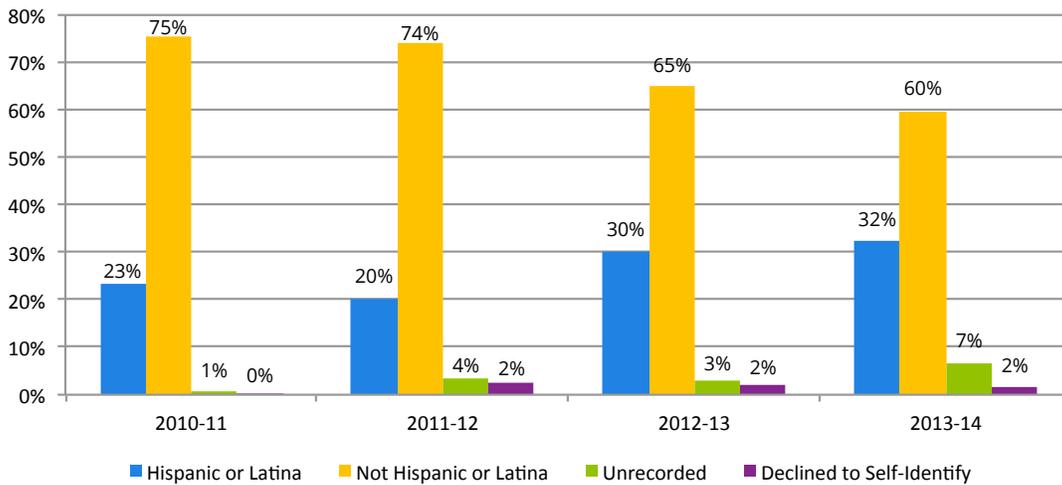
INSURANCE STATUS

FY2011-FY2014: Insurance Status of NFP MIECHV-Funded Clients at Enrollment



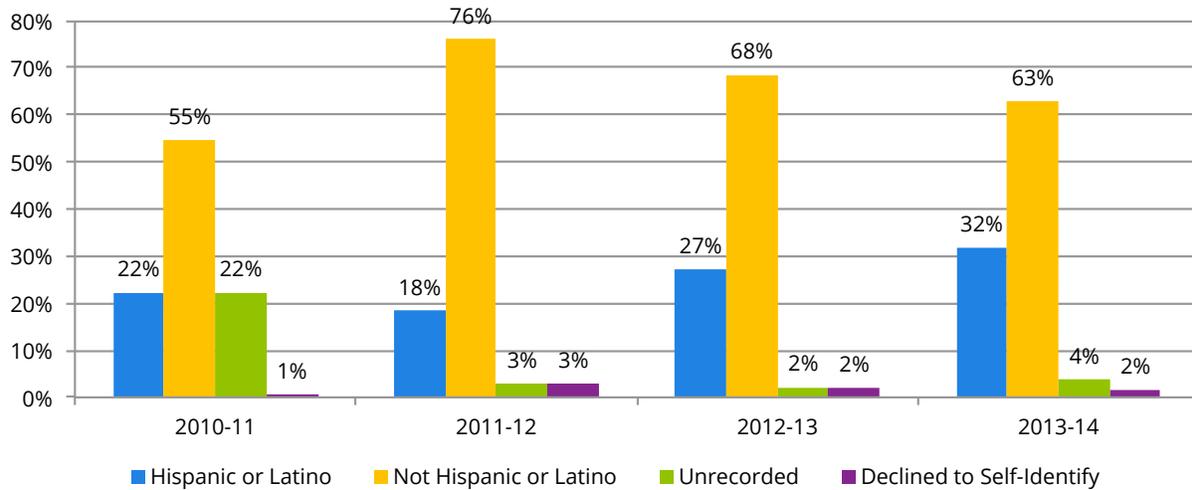
CLIENTS' ETHNICITY

FY2011-FY2014: Ethnicity of NFP MIECHV-Funded Clients



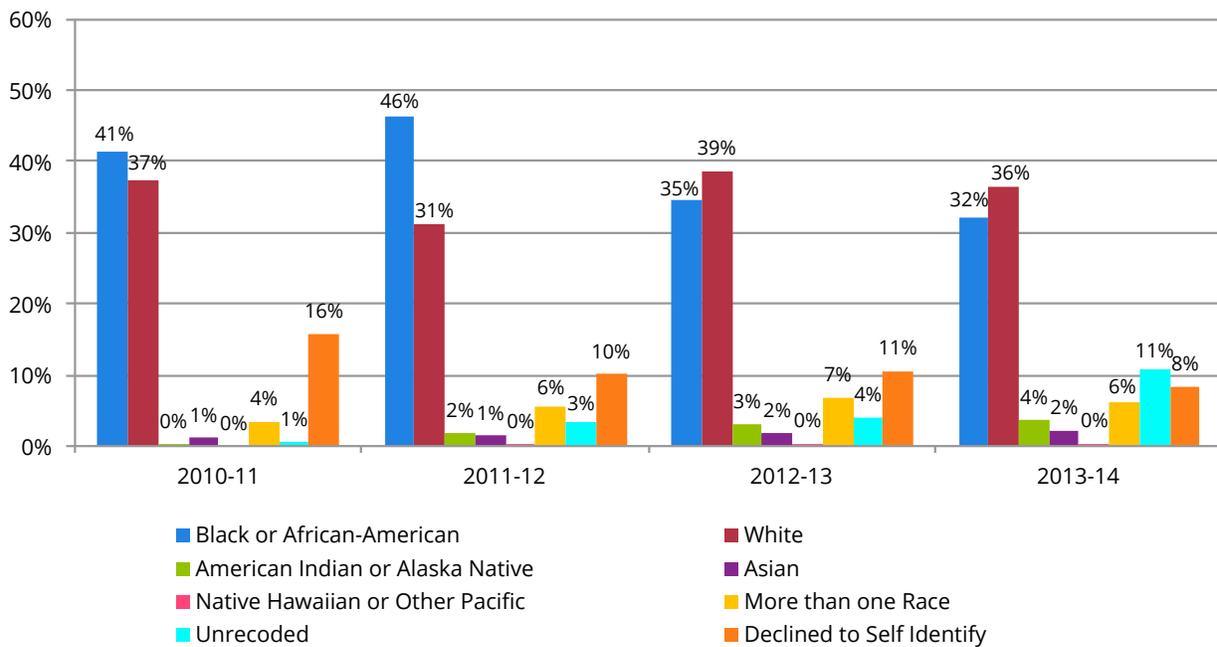
CHILDREN'S ETHNICITY

FY2011-FY2014: Ethnicity of NFP MIECHV-Funded Children



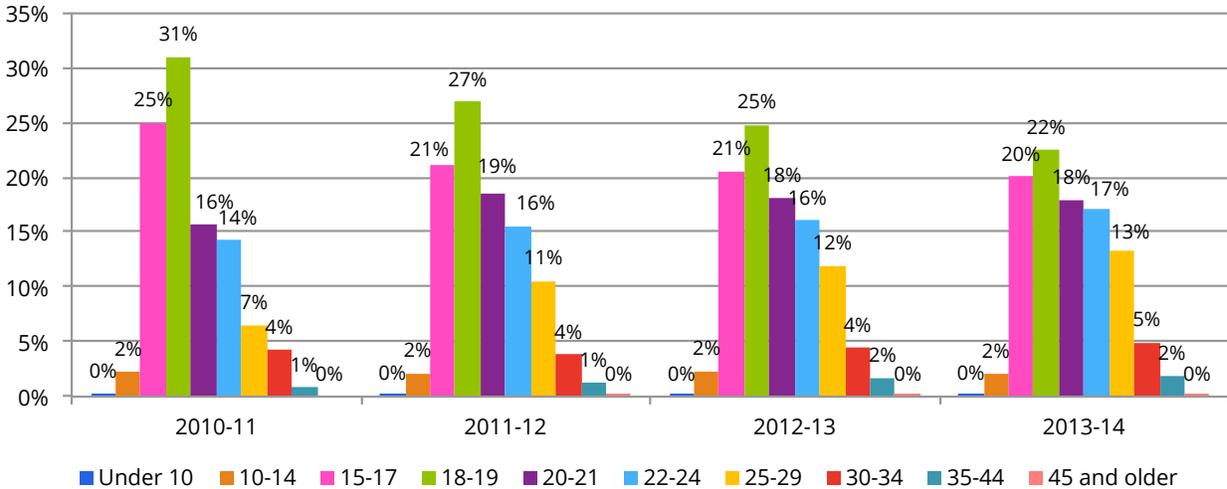
CLIENTS' RACE

FY2011-FY2014: Race of NFP MIECHV-Funded Clients



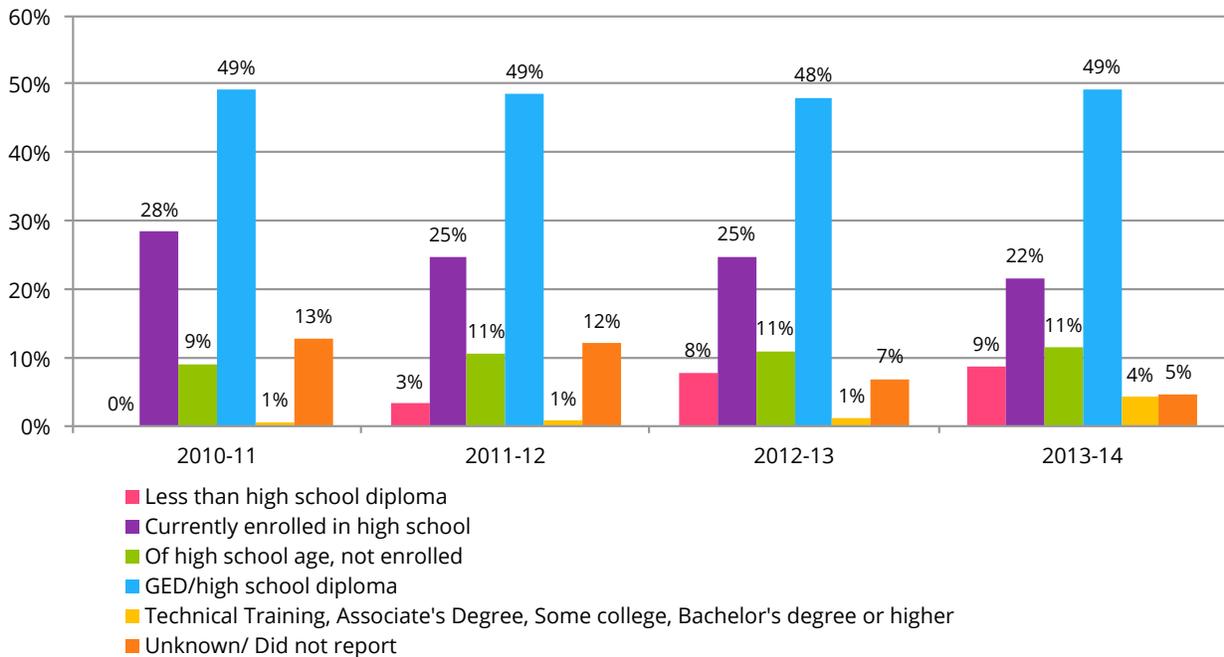
AGE RANGE

FY2011-FY2014: Age of NFP MIECHV-Funded Clients at Enrollment



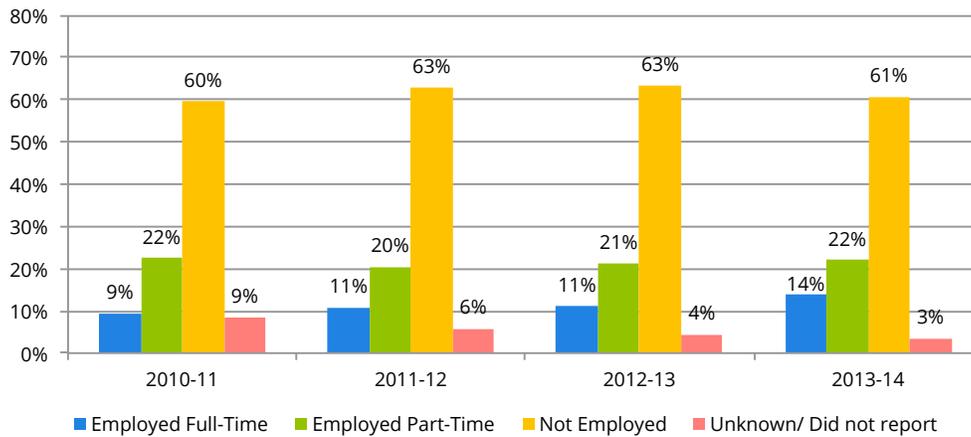
EDUCATION

FY2011-FY2014: Education Attainment Among NFP MIECHV-Funded Clients at Enrollment



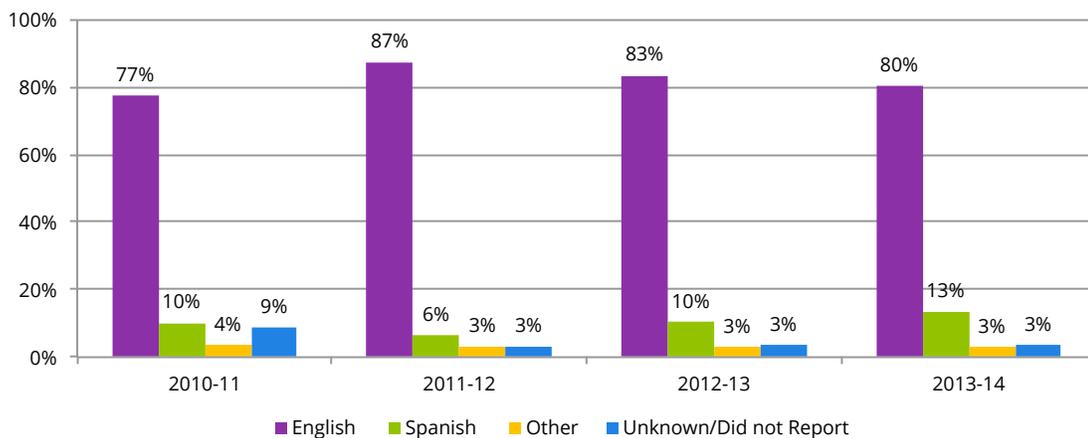
EMPLOYMENT

FY2011-FY2014: Employment Status of NFP MIECHV-Funded Clients at Enrollment



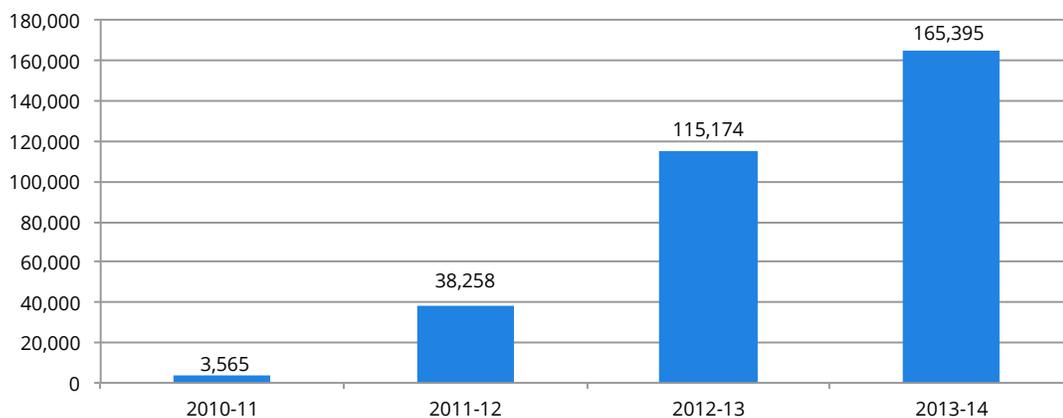
LANGUAGE

FY2011-FY2014: Primary Language Exposure of NFP MIECHV-Funded Children



HOME VISITS

FY2011-FY2014: Number of Home Visits that Occurred During the Fiscal Year among Nurse Home Visitors and NFP MIECHV-Funded Clients





MIECHV PROGRAM FEDERAL REQUIREMENTS

The MIECHV statute requires grantees to measure the effectiveness of the program over time and demonstrate outcomes by reporting on several performance measures in six benchmark areas.

THE BENCHMARKS ARE:

- I. IMPROVED MATERNAL AND NEWBORN HEALTH
- II. CHILDHOOD INJURIES, CHILD ABUSE, NEGLECT OR MALTREATMENT AND REDUCTION IN EMERGENCY DEPARTMENT VISITS
- III. IMPROVEMENTS IN SCHOOL READINESS AND ACHIEVEMENT
- IV. CRIME OR DOMESTIC VIOLENCE
- V. FAMILY ECONOMIC SELF-SUFFICIENCY
- VI. COORDINATION AND REFERRAL FOR OTHER COMMUNITY RESOURCES AND SUPPORTS

- » Across the six benchmark areas, there are 35 individual constructs that must be measured. Constructs include process and outcomes measures.

FOR EXAMPLE: *Benchmark I: Improved maternal and newborn health includes eight constructs: 1) prenatal care, 2) prenatal use of alcohol, tobacco or illicit drugs, 3) preconception care, 4) inter-birth intervals, 5) screening for maternal depressive symptoms, 6) breastfeeding, and 7) well-child visits and 8) maternal and child health insurance status.*

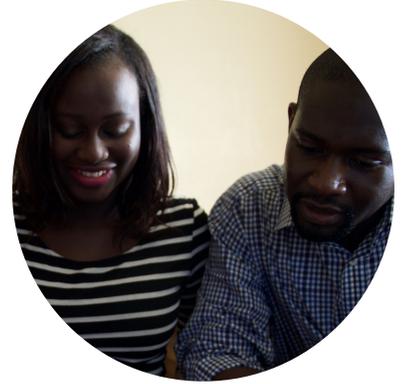
- » The desired change(s) occurs at the construct level. A desired change may be to increase, decrease or maintain, depending on the construct being measured.

FOR EXAMPLE: *The goal of construct 1.2 is to increase or maintain the number of women screened for maternal depression at various critical points in time. The grantee (state, territory or tribe) lists the desired change in their benchmark plan and the time point. A state may identify the desired change as an annual increase or maintenance in the number of women screened for depression at four weeks after delivery.*

- » The legislation requires grantees to report to HRSA and ACF annually and to demonstrate the desired change in four out of six benchmarks during the first three years of the program. After five years, the grantees must demonstrate outcomes in all six benchmarks.
- » To successfully attain the desired change in each benchmark, at least one-half of the construct goals must be accomplished.

"MIECHV has enabled Florida to provide **vital education and support** to vulnerable families in 21 high-need communities. These communities are using Nurse-Family Partnership and two other evidence-based models to help families succeed in their most important job – raising healthy and safe children who enter school ready to learn. MIECHV has raised the bar on quality and effectiveness of all early childhood programs in Florida."

Carol Brady, Project Director, Florida MIECHV Initiative, Florida Association of Healthy Start Coalitions, Inc.



NATIONAL NFP RESULTS FOR THE MIECHV PROGRAM: NFP MEETS ALL SIX BENCHMARKS

This section provides an analysis of the national outcomes of NFP clients enrolled in the MIECHV program in relation to the required benchmarks. In 2011, the NFP National Service Office reviewed the MIECHV requirements for the benchmarks and constructs. A guidance document was developed by the NFP National Service Office for grantees to use to measure each construct using NFP data.⁷

The guidance was produced and shared with states, territories, tribal organizations, as well as HRSA and ACF staff. During this time, NFP National Service Office staff provided technical assistance to state leads and other stakeholders about the NFP variables and their applicability of the individual state, tribe and territory benchmark plans.

The NFP National Service Office also reviewed each required construct and developed suggested definitions of measurement, analysis, comparison and desired change for each construct that would

enable analysis of national implementation of the MIECHV program at NFP agencies. As per the federal requirements, the desired changes would be whether a specific construct is expected to increase, decrease or maintain over time.

In 2015, NFP conducted a national review of the benchmark results for NFP clients funded by the MIECHV program during the first three years of the program (10/1/11-9/30/14).

Based on the review and analysis, the national results indicate that NFP met all six of the required benchmarks.

"Our decision to implement the well-researched Nurse-Family Partnership model with its demonstrated outcomes through the MIECHV program enabled a new way of thinking for how Vermont can deliver preventive MCH services to families through evidence-based home visiting."

Breana Holmes, MD, Director, Division of Maternal and Child Health, Vermont Department of Health



NFP OVERALL RESULTS BY CONSTRUCT IN THE FIRST THREE YEARS OF MIECHV IMPLEMENTATION

The following tables provide a summary of the national NFP data on the performance measures across the six benchmarks and 28 constructs (some with more than one construct identified) based on analysis of national NFP data from clients that were identified as funded by the MIECHV program during FY2012 compared to FY2014. The MIECHV Supplemental Information Request lists 35 constructs within the six benchmarks. Several of the constructs have more than one variable (e.g., maternal and child health insurance status).

The NFP National Service Office may have identified multiple variables for a construct. Therefore, those variables are listed separately. In addition, some of the construct data is not available to the NFP National Service Office. Therefore, it is not included in the table (e.g., the NFP National Service Office and local agencies do not have access to child welfare data to determine if a child abuse report was substantiated).

Please note the following considerations were applied in the national NFP data assessment:

The desired change is calculated at the construct level:

- To meet the desired change, each construct measurement has to be analyzed as outlined in the NFP MIECHV Program Benchmark Interpretation Guidance 2013.
- A desired change was determined based on the federal guidelines as increased, decreased or maintained depending on the construct.
- Unless otherwise noted, all findings compare FY2011-12 data to FY2013-14 data.
- Data from Oklahoma and New Jersey were not available at the time of reporting and are therefore not included in the construct tables and calculations.

HOW NFP DETERMINES IF BENCHMARK WAS MET:

To successfully meet the federally-required expectations there must be quantifiable and measureable improvement noted in each of the six benchmarks. To demonstrate improvement, at least one-half of the constructs in each benchmark must have demonstrated the desired change of increased, decreased or maintained. To determine if the desired change was achieved, each construct measurement was analyzed. If the change was statistically significant, the change was listed as either decreased or increased. If a change occurred and it was not statistically significant, the outcome was considered to be maintained.

TABLE 1. BENCHMARK I: IMPROVED MATERNAL AND NEWBORN HEALTH
RESULTS: Nationally, NFP met the desired changes in 8/8 constructs

Constructs		2011-2012	2013-2014	Desired Change	Results % Change	Desired Change: Met or Not Met
1.1	Entered prenatal care in the second trimester	14.09%	14.01%	Increase or maintain	Maintain (-1%) [£]	Met
1.2a	Parental use of alcohol, tobacco or illicit drugs- Change in alcohol use from intake to 36 weeks gestation	-100.00%	-87.14%	Decrease or maintain	Maintain (-13%) [£]	Met
1.2b	Parental use of alcohol, tobacco or illicit drugs- Change in tobacco use from intake to 36 weeks gestation	-36.27%	-28.74%	Decrease or maintain	Maintain (-21%) [£]	Met
1.3	Preconception care for subsequent pregnancy when the first child is 24 months	75.00%	63.33%	Increase or maintain	Maintain (-16%) [£]	Met
1.4	Interbirth interval at 24 months after birth of the first child	26.67%	28.41%	Increase or maintain	Maintain (7%) [£]	Met
1.5	Screening for maternal depression 4-6 months after delivery	55.06%	79.70%	Increase or maintain	Increase (45%)*	Met
1.6	Breastfeeding initiation	75.36%	85.75%	Increase or maintain	Increase (14%)*	Met
1.7	Completed to expected well-child visits prior to 6 months	24.94%	82.15%	Increase or maintain	Increase (229%)*	Met
1.8a	Maternal health insurance 6 months postpartum	76.19%	77.98%	Increase or maintain	Maintain (2%) [£]	Met
1.8b	Child's health insurance at 6 months	86.77%	85.94%	Increase or maintain	Maintain (-1%) [£]	Met

* Indicates change was statistically significant at the $p < .05$ level.

[£] If the change was statistically significant, the change was listed as either decreased or increased. If a change occurred and it was not statistically significant, the outcome was considered to be maintained.

“The MIECHV data and outcomes prove what the research of Nurse-Family Partnership and other evidence-based home visiting models has shown us: trained professionals such as nurses and paraprofessionals working alongside families in the home make a tremendous, positive difference for those families and for a child who might be at risk of neglect and abuse.”

Sue Williams, Chief Executive Officer, Children's Trust of South Carolina

TABLE 2. BENCHMARK II: CHILD INJURIES, CHILD ABUSE, NEGLECT OR MALTREATMENT AND EMERGENCY DEPARTMENT VISITS

RESULTS: Nationally, NFP met the desired change in 5/5 constructs.

Constructs		2011-2012	2013-2014	Desired Change	Results % Change	Desired Change: Met or Not Met
2.1a	Visits for children to the emergency department for injury or ingestion at 18 months [§]	6.29%	4.28%	Decrease or maintain	Maintain (-32%) [£]	Met
2.1b	Visits for children to the emergency department for all other causes at 18 months [§]	23.27%	20.17%	Decrease or maintain	Maintain (-13%) [£]	Met
2.2	Visits of mothers to emergency department from all causes during pregnancy	41.64%	42.11%	Decrease or maintain	Maintain (1%) [£]	Met
2.3	Information provided or training of adult participants on prevention of child injuries including topics such as safe sleeping, shaken baby syndrome or traumatic brain injury, child passenger safety, poisoning, fire safety (including scalds), water safety (e.g., drowning; unsafe levels of lead in tap water), and playground safety when the child was 18 months old	67.80%	85.43%	Increase or maintain	Increase (26%)*	Met
2.4	Incidence of child injuries requiring medical treatment at 18 months	5.00%	2.75%	Decrease or maintain	Maintain (-45%) [£]	Met
2.5	Reported suspected maltreatment for children in the program (allegations that were screened in by the child protective service agency but not necessarily substantiated) at 18 months	20.00%	5.69%	Decrease or maintain	Decrease (-72%)*	Met
2.6	Reported substantiated maltreatment (substantiated/indicated/ alternative response victim) for children in the program [^]	N/A	N/A	Measured locally	N/A	N/A
2.7	First-time victims of maltreatment for children in the program [^]	N/A	N/A	Measured locally	N/A	N/A

* Indicates change was statistically significant at the p<.05 level.

[§] Analysis was completed on 2012-2013 and 2013-2014 data for this construct.

[^] This construct requires data from individual state databases and is not available to the NFP National Service Office.

[£] If the change was statistically significant, the change was listed as either decreased or increased. If a change occurred and it was not statistically significant, the outcome was considered to be maintained.

TABLE 3. BENCHMARK III: IMPROVEMENTS IN SCHOOL READINESS AND ACHIEVEMENT RESULTS: Nationally, NFP met the desired change in 6/6 constructs collected by NFP.

Constructs		2011-2012	2013-2014	Desired Change	Results % Change	Desired Change: Met or Not Met
3.1	Parent support for children's learning and development (e.g., having appropriate toys available, talking and reading with their children)	N/A	N/A	Increase or maintain	Data not available for comparison due to data collection timeframe [^]	N/A
3.2	Parent knowledge of child development and of their child's developmental progress	N/A	N/A	Increase or maintain	Data not available for comparison due to data collection timeframe [^]	N/A
3.3	Parenting behaviors and parent-child relationship (e.g., discipline strategies, play interactions)	N/A	N/A	Increase or maintain	Data not available for comparison due to data collection timeframe [^]	N/A
3.4	Screening for parent emotional well-being or parenting stress when the child is 12 months using the Edinburgh or PHQ-9	43.86%	86.11%	Increase or maintain	Increase (96%)*	Met
3.5	Child's communication, language, and emergent literacy at 10 months	100.00%	99.57%	Increase or maintain	Maintain (-.43%) [£]	Met
3.6	Child's general cognitive skills at 10 months	100.00%	99.57%	Increase or maintain	Maintain (-.43%) [£]	Met
3.7	Child's positive approaches to learning including attention at 10 months	100.00%	99.57%	Increase or maintain	Maintain (-.43%) [£]	Met
3.8	Screening for the child's social behavior, emotion regulation and emotional well-being at 6 month of age	82.49%	91.08%	Increase or maintain	Increase (10%)*	Met
3.9	Child's physical health and development <i>Note: Physical screening data are cumulative over all comparison years.</i>					
	Aggregate weight screening at 6 months	83.50%	92.35%	Increase or maintain	Maintain (N/A) [£]	Met
	Aggregate height screening at 6 months	93.20%	95.88%	Increase or maintain	Maintain (N/A) [£]	Met
	Aggregate head circumference screening at 6 months	75.73%	87.13%	Increase or maintain	Maintain (N/A) [£]	Met

* Indicates change was statistically significant at the p<.05 level.

[^] There were no NFP MIECHV-funded clients that reached both data collection time-periods during the FY2012 reporting period. Therefore, data are not available for FY2012 and they are not reported for FY2014, because there was no comparison-reporting period.

[£] If the change was statistically significant, the change was listed as either decreased or increased. If a change occurred and it was not statistically significant, the outcome was considered to be maintained.

TABLE 4. BENCHMARK IV: CRIME AND DOMESTIC VIOLENCE

RESULTS: Nationally, NFP met the desired change in 3/3 constructs collected by NFP.

Constructs		2011-2012	2013-2014	Desired Change	Results % Change	Desired Change: Met or Not Met
4.1	Crime reduction	N/A	N/A	Not collected by NFP	N/A	N/A
4.2	Screening for domestic violence during pregnancy	80.38%	84.51%	Increase or maintain	Increase (5%)*	Met
4.3	Of families identified for the presence of domestic violence, number of referrals made to relevant domestic violence services (e.g., shelters)	8.33%	11.76%	Increase or maintain	Maintain (41%) [£]	Met
4.4	Of families identified for the presence of domestic violence, number of families for which a safety plan was completed	832	4,317	Increase or maintain	Maintain (N/A) ^{^£}	Met

* Indicates change was statistically significant at the p<.05 level.

[^] The way in which data were collected and calculated did not provide a way to calculate a percentage. Therefore, a statistical test was not performed to assess the desired change, and the desired change was “maintained” and “met”. In addition, the sample size of NFP MIECHV-funded clients in FY2012 was much lower than the sample size in FY2014, which is reflected in the numbers provided.[£] If the change was statistically significant, the change was listed as either decreased or increased. If a change occurred and it was not statistically significant, the outcome was considered to be maintained.**TABLE 5. BENCHMARK V: FAMILY ECONOMIC SELF-SUFFICIENCY**

RESULTS: Nationally, NFP met the desired change in 3/3 constructs collected by NFP.

Constructs		2011-2012	2013-2014	Desired Change	Results % Change	Desired Change: Met or Not Met
5.1	Household income (including earnings, cash benefits, and in-kind and non-cash benefits) NFP Measure: Change in average household income (in \$) from intake to 12 months postpartum	\$1,500	\$3,000	Increase or maintain	Maintain (N/A) ^{^£}	Met
5.2a	Employment of adult member of the household- change in usual number of hours worked for those over 18 years old from intake to 12 months postpartum	153	4,829	Increase or maintain	Maintain (N/A) ^{^£}	Met
5.2b	Education of adult member of the household- change in completion of HS diploma or GED from intake to 12 months postpartum	33.33%	31.74%	Increase or maintain	Maintain (N/A) ^{^£}	Met
5.3a	Maternal health insurance 6 months postpartum	76.19%	77.98%	Increase or maintain	Maintain (2%) [£]	Met
5.3b	Child's health insurance at 6 months	86.77%	85.94%	Increase or maintain	Maintain (-1%) [£]	Met

* Indicates change was statistically significant at the p<.05 level.

[^] The way in which data were collected and calculated did not provide a way to calculate a percentage. Therefore, a statistical test was not performed to assess the desired change, and the desired change was “maintained” and “met”. In addition, the sample size of NFP MIECHV-funded clients in FY2012 was much lower than the sample size in FY2014, which is reflected in the numbers provided.[£] If the change was statistically significant, the change was listed as either decreased or increased. If a change occurred and it was not statistically significant, the outcome was considered to be maintained.

TABLE 6. BENCHMARK VI: COORDINATION AND REFERRAL FOR OTHER COMMUNITY RESOURCES AND SUPPORTS
 RESULTS: Nationally, NFP met the desired change in 3/3 constructs collect by NFP.

Constructs		2011-2012	2013-2014	Desired Change	Results % Change	Desired Change: Met or Not Met
6.1	Families identified for necessary services	94.57%	98.59%	Increase or maintain	Increase (4%)*	Met
6.2	Families that required services and received a referral to available community resources Community Services Applicable to MIECHV Benchmarks: » Early Childhood Intervention	0.92%	3.77%	Increase or maintain	Maintain (310%) [£]	Met
	» Intimate Partner Violence	2.58%	3.73%		Maintain (45%) [£]	
	» Mental Health	16.67%	18.99%		Maintain (14%) [£]	
	» Injury Prevention	11.50%	14.68%		Maintain (28%) [£]	
	» Dental	18.88%	17.96%		Maintain (-5%) [£]	
6.3	MOUs: Number of Memoranda of Understanding or other formal agreements with other social service agencies in the community [^]	N/A	N/A	Not collected by NFP	N/A	N/A
6.4	Number of agencies with which the home visiting provider has a clear point of contact in the collaborating community agency that includes regular sharing of information between agencies [^]	N/A	N/A	Not collected by NFP	N/A	N/A
6.5	Number of completed referrals (i.e., home visiting provider is able to track individual family referrals and assess their completion, e.g., by obtaining a report of the service provided) Community Services Applicable to MIECHV Benchmarks: » Early Childhood Intervention	14.29%	30.45%	Increase or maintain	Maintain (113%) [£]	Met
	» Intimate Partner Violence	12.50%	11.69%		Maintain (-6%) [£]	
	» Mental Health	20.43%	24.10%		Maintain (18%) [£]	
	» Injury Prevention	12.12%	28.05%		Increase (131%)*	
	» Dental	14.93%	31.06%		Increase (108%)*	

* Indicates change was statistically significant at the p<.05 level.

[^]This construct requires data from individual state databases and is not available to the NFP National Service Office.

[£] If the change was statistically significant, the change was listed as either decreased or increased. If a change occurred and it was not statistically significant, the outcome was considered to be maintained.

DISCUSSION

The MIECHV benchmark areas are closely aligned with NFP’s overall program goals, data collection, continuous quality improvement and fidelity requirements. NFP nurse home visitors use the NFP interventions to impact the desired change in the entire NFP population, not just those clients who are funded by the MIECHV program. Nationally, NFP continuously measures and monitors outcome achievement in the core program areas of improved birth outcomes, improved child health and development and improved maternal life course. Many of the required constructs in the MIECHV program have been part of the NFP national measurement for several years.

In some cases, the measure has been collected since replication began. NFP continues to consistently achieve outcomes in implementation that were demonstrated in the randomized, controlled trials (RCTs) (see the next section). Continuous quality improvement strategies are employed to support improvement at the agency and national levels. Therefore, the changes from FY2012 - FY2014 may not appear as large in construct that was already traditionally collected (pre-MIECHV program) as compared with those where the construct measure is newly required for the MIECHV program.

FOR EXAMPLE:

- » *Screening for maternal depression soon after delivery has traditionally been part of the NFP practice; however, screening four to six months after delivery prior to the MIECHV program was optional. The decision to screen the client for depression at four to six months after delivery was based on the client’s need and the nurse’s judgment. In 2011, this additional screening became required to support the data collection for the MIECHV program.*
- » *When comparing change overtime for these constructs the data indicates a 0.2% increase in the number of clients screened for depression soon after birth and a 45% increase for screening at the additional time point (child aged 4-6 months). This demonstrates that the NFP nurse home visitors sustained their assessment process with all clients who recently delivered and adapted their practice to incorporate new data collection time point.*

MIECHV-FUNDED NFP CLIENTS: Highlights of Data Collection on Selected Process Measures

Clients who entered prenatal care in the second trimester	From FY2012 - FY2014, over 79% of MIECHV-funded NFP clients entered prenatal care during their first trimester, and 14% (across years) entered prenatal care during their second trimester.
Children that went to their well-child visits	In FY2014, 82% of actively enrolled MIECHV-funded NFP clients took their infant to all five expected well-child visits prior to when the infant turned 6-months old.
Clients and children with health insurance	In FY2014, 78% of MIECHV-funded NFP clients and 86% of their babies had insurance, including Medicaid, SCHIP, private insurance, military and Indian health insurance.
Children screened for communication, language and emergent literacy; cognitive skills; and positive approaches to learning including attention	From FY2012 - FY2014, over 96% of MIECHV-funded NFP children were screened with the ASQ tool at 4-, 10-, 14- and 20-months old for communication, language and emergent literacy (communication subscale); general cognitive skills (problem solving subscale); and positive approaches to learning, including attention (personal-social subscale).
Children screened for social behavior, emotional regulation and well-being	From FY2012 - FY2014, over 81% of MIECHV-funded NFP children were screened with the ASQ-SE tool at 6-, 12- and 18-months old for social behavior, emotional regulation and well-being.
Clients screened for domestic violence during pregnancy	From FY2012 - FY2014, over 80% of MIECHV-funded NFP clients were screened for intimate partner violence at pregnancy intake.
Referrals to necessary resources	In FY2014, 31% of clients completed referrals (were screened for potential need, referred and received services) for dentistry; 30% completed referrals to early childhood interventions; 28% completed referrals to injury prevention; and 24% completed referrals to mental health services.

IMPACTS OVER TIME: COMPARING NFP'S RESULTS OF THE MIECHV PROGRAM AND CONTEMPORARY OUTCOME STUDIES

In addition to reviewing the effect of NFP on clients enrolled in the MIECHV program during FY2012 compared to FY2014, NFP has other recent evaluations and studies that identify contemporary findings in replication and projected outcomes. Below is a description of these studies followed by highlighted comparisons (see Table 7 on page 24) between the NFP MIECHV findings and broader NFP outcome studies.

NFP MIECHV BENCHMARK FINDINGS:

The NFP MIECHV Benchmark Findings column presents outcomes over a distinct time period for those clients who were identified at enrollment as funded by the MIECHV program at the agency level. The purpose of this type of reporting is to demonstrate change over time and to use the information for quality improvement at the agency, state and national levels.

RESULTS FROM QUASI-EXPERIMENTAL OUTCOME STUDIES:

A series of quasi-experimental studies⁸ was recently completed by the NFP National Service Office to evaluate the effectiveness of NFP in achieving outcomes for families served in implementation, or non-research settings. Over 36,000 clients who were initially enrolled in NFP from 2008-2010 were included in this evaluation. The studies followed clients across the span of their program participation and compared client and child outcomes to those who did not receive NFP services.

The evaluation approach used propensity score matching or multiple logistic regressions to adjust for such baseline variations as maternal age, race-ethnicity, income, education level and marital status. The reference sample was drawn from other national surveys such as the National Survey of Children's Health and the National Center for Health Statistics.

RESULTS FROM META-ANALYSIS ACROSS SIX RANDOMIZED, CONTROLLED TRIALS:

In August 2015, a study⁹ was published in *Prevention Science* that shows the projected, long-term effects of NFP. The study, conducted by Ted Miller, PhD, Pacific Institute for Research and Evaluation, completed a meta-analysis across six randomized, controlled trials (RCTs) of NFP conducted in a variety of locations throughout the country.

Miller reviewed the evaluation findings on select outcomes across the RCTs and operational programs to determine estimates of the measured outcomes of 177,517 NFP clients enrolled from 1996-2013. Miller estimated changes in the incidence as well as the corresponding costs saved by participation of these individuals in the program.



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TABLE 7. Comparison between the national NFP MIECHV-funded benchmark results, the recent quasi-experimental studies and the meta-analysis across six randomized controlled trials

Outcome Measurement	NFP MIECHV Benchmark Findings	Results from the Quasi-Experimental Outcome Studies (retrospective analysis of implementation data)	Results from the Meta-Analysis across Six Randomized Controlled Trials (projected results from the analysis)
<p><i>Data were calculated to compare years or across years, depending on the construct.</i></p> <p><i>Findings below represent the estimated percentage of NFP clients who have improved on the specified outcome measure as compared to the general population.</i></p>			
<p>MATERNAL AND NEWBORN HEALTH</p>			
<p>Smoking tobacco during pregnancy</p>	<p>From FY2012 to FY2014, over 25% of MIECHV-funded clients who indicated using tobacco at pregnancy reduced their use at 36 weeks.</p>	<p><i>Construct not analyzed as an outcome measure</i></p>	<p>NFP clients smoke 24% less tobacco during pregnancy</p>
<p>Preterm births (less than 37 weeks)</p>	<p>Not a required construct or benchmark</p>	<p>2% reduction in preterm births among NFP clients</p>	<p>15% reduction in preterm births among NFP clients</p>
<p>Initiation of breastfeeding</p>	<p>Increased from 75% in FY2012 to 86% in FY2014</p>	<p>13% more NFP infants were breastfed</p>	<p>11% more NFP infants will be breastfed</p>
<p>INFANT AND TODDLER HEALTH</p>			
<p>Up-to-date immunizations at 24 months</p>	<p>Not a required construct or benchmark</p>	<p>12% more NFP infants were up-to-date with their immunizations at 24-months</p>	<p>13% increase in probability that children covered by Medicaid will have complete immunizations at age 2</p>
<p>Childhood injuries</p>	<p>The percentage of children who went to the Emergency Department for injuries was maintained from FY2013 to FY2014; in both years, more than 94% of youth were not treated for injuries in the ER at 6, 12, 18 and 24 months.</p>	<p><i>Construct not analyzed</i></p>	<p>33% reduction in injuries treated in emergency departments for ages 0-2 years</p>
<p>FAMILY ECONOMIC SELF-SUFFICIENCY</p>			
<p>Change in education attainment</p>	<p>In FY2012 and FY2014, over 31% of clients without a high school diploma or GED at intake attained their high school diploma or GED by the time the infant turned 12 months.</p>	<p>2% more moms became high school graduates</p>	<p><i>Construct not analyzed</i></p>
<p>Change in employment and/or household income</p>	<p>In FY2012 and FY2014, client's average household income increased over \$1,500 between program enrollment to the time the infant turned 12-months.</p>	<p>29% more moms were employed when they exited the program</p>	<p><i>Construct not analyzed</i></p>

NURSE-FAMILY PARTNERSHIP MONITORS PROGRAM FIDELITY TO ACHIEVE SUCCESSFUL OUTCOMES

The MIECHV Supplemental Information Request (SIR) regulations indicate that grantees must utilize 75% of service delivery funds on evidence-based home visiting models approved by HomVee. The regulations (Section 2a) further indicate that grantees submit a plan for ensuring implementation, with fidelity to the model, and include a description of the following: the state's overall approach to home visiting quality assurance; the state's approach to program assessment and support of model fidelity; anticipated challenges and risks to maintaining quality and fidelity, and the proposed response to the issues identified.

Nurse-Family Partnership has identified 18 model elements that are designed to ensure successful implementation of the program and to maximize the agencies' ability to achieve outcomes comparable to those obtained in the clinical trials. The model elements are supported by evidence of effectiveness based on research, expert opinion, field lessons and/or theoretical rationales. During the ramp up of the MIECHV program, NFP National Service Office staff worked closely with grantees to explain model fidelity, monitoring and consultation to facilitate the grantee's ability to meet the regulations.

NFP National Service Office routinely monitors model fidelity at the agency level with reports, site visits and in consultation. In 2012, the NFP National Service Office developed a report on 14 of 18 model elements. The Fidelity Report is provided to all agencies quarterly. Grantees may also have access to the Fidelity Report. This report provides a comparison of the most recent 12 months with the previous 12 months. This report is used by the agency and the NFP National Service Office nurse consultant to identify areas of strength and opportunities for quality improvement.

Currently, if an agency is not meeting one of the model elements, a plan is developed, implemented and monitored for improvement. The NFP National Service Office is in the process of completing a full review and analysis of cumulative results of the Fidelity Report for the purpose of benchmarking and to further standardize fidelity monitoring, measuring, and a formal performance improvement process.

Below are selected highlights from the NFP National Service Office's assessment of the model elements during FY2014. The highlights include data on all NFP clients (i.e., is not limited to those funded by the MIECHV program).

- Most clients (96.3%) were enrolled in NFP early in her pregnancy and received her first home visit by no later than the 28th week of pregnancy.
- Most clients (98.4%) were visited individually by her nurse home visitor (i.e., one nurse home visitor to one first-time mother/family).
- About three-quarters of clients (76.9%) stayed in the program during the pregnancy phase; about two-thirds of clients (67.5%) were retained during the infancy phase; and nearly three-quarters of clients (72.9%) were retained during the toddlerhood phase.
- Nurse home visitors appropriately applied the Nurse-Family Partnership Visit-to-Visit Guidelines and spent the suggested amount of time working with clients on the five NFP domains during each of the three phases; specifically, they were "in" or "above" the time-range targets for 13 of 15 (87%) domains across all phases.
- A full-time nurse home visitor should carry a caseload of up to 25 clients; nurse home visitors carried an average caseload of 20.7 clients during FY2014.
- There was an average of 6.7 nurse home visitors per nursing supervisor, which was in-range of the goal of four to eight nurse home visitors per nursing supervisor.



CONCLUSION: LOOKING AHEAD TO THE NEXT PHASE OF THE MIECHV PROGRAM

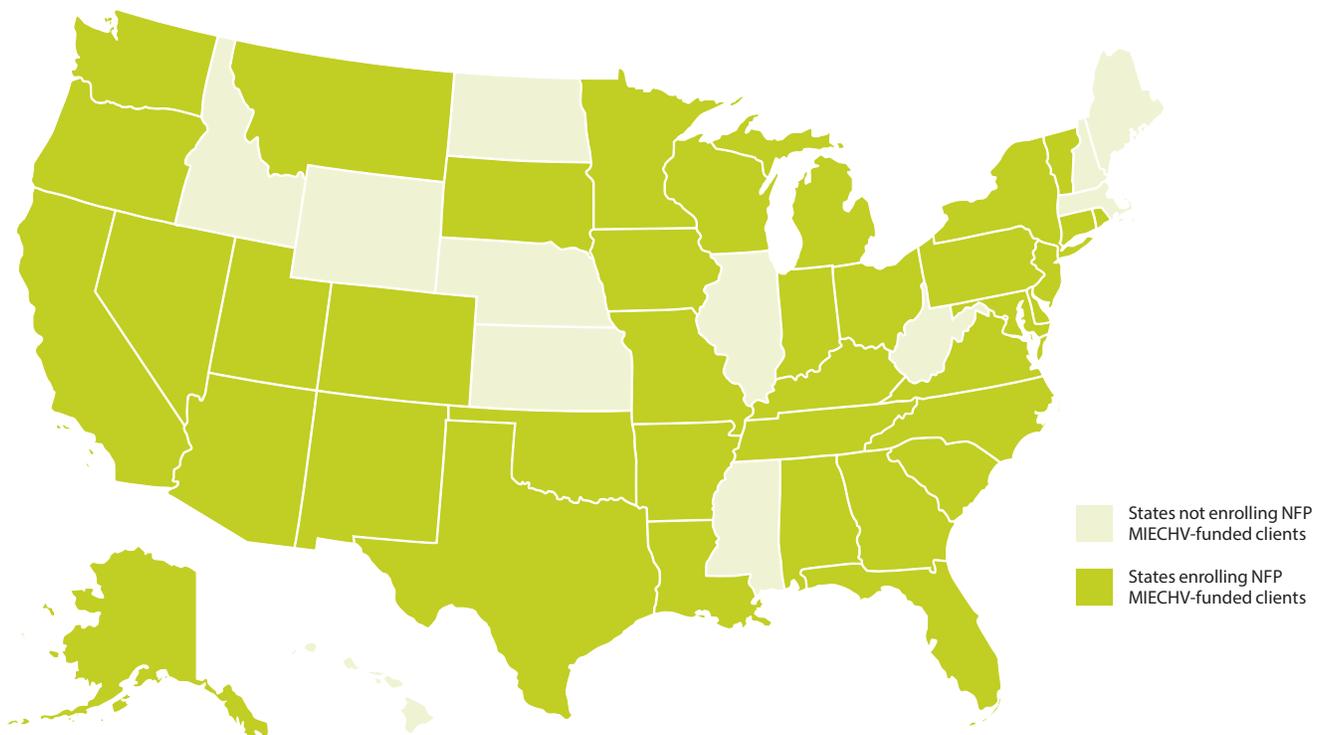
This report has provided a summary of the effectiveness of NFP to implement the program with fidelity to the model using federal funding provided through the MIECHV program. At the beginning of the MIECHV program, NFP identified a methodology to measure the required benchmarks and collected the necessary data to measure these benchmarks in each agency implementing the MIECHV program (the exception is the state of Oklahoma where the data for analysis was not available). All agencies that implemented NFP with MIECHV funding implemented the model as designed.

The NFP National Service Office provided the same consultation, data collection, reporting and quality improvement at the NFP agencies funded by the MIECHV program as is provided to agencies funded by other sources. The results indicated that NFP agencies provided consistent implementation to the clients funded by the MIECHV program with fidelity to the model. The clients served with MIECHV funding are similar to other clients funded by other sources; young, low-income, with limited resources at intake.

From FY2012 - FY2014, NFP nationally met all six of the federally required benchmarks that can be collected at the agency level. This report also compares, where possible, MIECHV benchmark attainment with a recently published meta-analysis of six randomized controlled trials of NFP and contemporary evaluation by the NFP National Service Office of NFP implementation since 2008. The results indicate no difference in outcomes with clients funded by the MIECHV program and the results align with outcomes shown in the NFP randomized, controlled trials.

NFP looks forward to continuing to work with agencies, states, territories, tribal organizations and HHS staff to continue the successful implementation of the MIECHV program. With the results achieved from the MIECHV program, NFP encourages Congress to continue funding the MIECHV program to enable NFP to serve more at-risk families and change the future for more babies born into poverty.

STATES ENROLLING NFP MIECHV-FUNDED CLIENTS FROM FY2011-FY2014



CITATIONS

- ¹ Statewide nonprofit organizations serve as the grantees in Florida, North Dakota and Wyoming as these states chose not to apply for MIECHV grants.
- ² Avellar, S., Paulsell, D., Sama-Miller, E. & Del Grosso, P. (2013). Home Visiting Evidence of Effectiveness Review: Executive Summary. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families; U.S. Department of Health and Human Services. Available at [<http://homvee.acf.hhs.gov/>]. Accessed December 19, 2013.
- ³ Boller, K., Daro, D., Del Grosso, P., Cole, R., Paulsell, D., Hart, B., ... Hargreaves, M. (2013). Making Replication Work: Building Infrastructure to Implement, Scale-up, and Sustain Evidence-Based Early Childhood Home Visiting Programs with Fidelity. Children's Bureau, Administration for Children and Families, U.S. Department of Health and Human Services. Contract No.: GS-10F-0050L/ HHSP233201200516G. Available from Mathematica Policy Research, Princeton, NJ.
- ⁴ Supplemental Information Request for the Submission of the Updated State Plan for a State Home Visiting Program. Affordable Care Act Maternal, Infant and Early Home Visiting Program. OMB Control No. 0915-0336.
- ⁵ To be included, the client was enrolled between October 2010 and September 2014 and has been identified by grantees as funded by the MIECHV program using the NFP Client Funding Source form. Data for clients in Oklahoma were not available at the time of this report, and data for clients in New Jersey were only available for FY2012 through FY2014 for number enrolled and home visits.
- ⁶ NFP home visits through 2014 represent 23% of all home visits reported by HRSA source: <http://mchb.hrsa.gov/programs/homevisiting/programbrief.pdf>
- ⁷ Nurse-Family Partnership. (2013). MIECHV program Benchmark Report; Interpretation Guidance.
- ⁸ Thorland, W. & Currie, D. (2015). Report on the Status of Birth, Child Development, and Maternal Life Course Outcomes in Clients of the Nurse-Family Partnership. Nurse-Family Partnership National Service Office.
- ⁹ Miller, Ted. (2015). Projected Outcomes of Nurse-Family Partnership Home Visitation During 1996-2013, USA. *Prev Sci.* 16: 765-777.

