

Prevention and Early Intervention Supporting New Families and Investing in the Newest Texans

Texas Nurse-Family Partnership
Statewide Grant Program Evaluation Report
Fiscal Year 2018

As Required by §265.101 - §265.110

December 1, 2018

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Executive Summary

The Texas Nurse-Family Partnership (TNFP) competitive grant program was established by S.B. 156, 80th Legislature, Regular Session, 2007. The Department of Family and Protective Services (DFPS) leverages funds from the TNFP competitive grant program to award grants to community based organizations for the implementation and operation of Nurse Family Partnership (NFP) programs. In Fiscal Year 2016, oversight of TNFP was transferred to the DFPS Prevention and Early Intervention Division (PEI) by the Health and Human Services Consolidation Bill, S.B. 200, 84th Legislature, Regular Session, 2015. As such, §265.109 of the Texas Family Code requires PEI to submit an annual report to the Senate Health and Human Services Committee and the House Human Services Committee on the performance of each grant recipient during the preceding fiscal year. To fulfill this requirement, this report includes information on TNFP inputs, outputs, and outcomes in Fiscal Year 2018. The information included in this report is drawn from DFPS contracts with TNFP sites, community level reports to DFPS, the Texas Home Visiting (THV) data system, and the NFP data reporting system, Efforts to Outcomes.

The NFP program is a voluntary, evidence-based program that helps transform the lives of vulnerable first-time mothers and their babies through regular home visitation by specially trained registered nurses. NFP's mission is to empower first-time mothers living in poverty to successfully change their lives and the lives of their children through evidence-based nurse home visiting. To achieve their mission, NFP provides vital services to the families it serves. NFP improves pregnancy outcomes by helping women engage in good preventive health practices, including getting prenatal care from their healthcare providers, improving their diet, and reducing their use of cigarettes, alcohol, and illegal substances. NFP improves child health and development by helping parents provide responsible, protective and competent care. NFP improves the economic self-sufficiency of the family by helping parents develop a vision for their own future, plan future pregnancies, continue their education, and find work.

Since the initial Request for Proposals in 2008, TNFP has grown from 1 site in Dallas to 14 state-funded sites serving low-income first time mothers in 22 counties across the state. In Fiscal Year 2018:

- these sites served 3,293 clients;
- enrolled 1,459 new clients; and
- had an average monthly caseload of 2,134 clients.

These clients were served with equal or greater fidelity to each of the model elements than NFP sites nationally, leading to better outcomes for NFP mothers and children. Clients see value in the services NFP provides, as illustrated by the 89 percent of clients who remained enrolled in the program on their one-year anniversary in Fiscal Year 2018.

TNFP was met PEI's Fiscal Year 2018 goal for full-term births and exceeded the goal for breastfeeding rates at six-months after birth and children receiving well-child visits. TNFP also improved over Fiscal Year 2017 performance on caregiver self-sufficiency and early language and literacy activities. PEI will be engaging with TNFP on continuous quality improvement efforts throughout Fiscal Year 2018 and beyond to ensure that the program continues to provide the highest quality services that improve outcomes for TNFP clients.

Introduction

The Texas Nurse-Family Partnership (TNFP) competitive grant program was established by S.B. 156, 80th Legislature, Regular Session, 2008. The Department of Family and Protective Services (DFPS) leverages funds from the TNFP competitive grant program to award two-year grants to community based organizations for the implementation and operation of Nurse Family Partnership (NFP) programs. In Fiscal Year 2016, oversight of TNFP was transferred to the DFPS Prevention and Early Intervention Division (PEI) by the Health and Human Services Consolidation Bill, S.B. 200, 84th Legislature, Regular Session, 2015. As such, §265.109 of the Texas Family Code requires PEI to submit an annual report to the Senate Health and Human Services Committee and the House Human Services Committee on the performance of each grant recipient during the preceding fiscal year. To fulfill this requirement, this report includes information on TNFP inputs, outputs, and outcomes in Fiscal Year 2018. The information included in this report is drawn from DFPS contracts with TNFP sites, community level reports submitted to DFPS, and the NFP data reporting system Efforts to Outcomes.

This report includes six sections including:

- an introduction that includes background information about the Nurse Family Partnership (NFP) nationally, and in Texas;
- a description of TNFP program sites, including their location, funding, capacity, and staffing;
- an overview of demographic information on the clients served by TNFP;
- information on model adherence by TNFP;
- an overview of key outcomes achieved by TNFP sites in Fiscal Year 2018; and
- a summary of the findings of this report and discussion of the activities and goals of TNFP in Fiscal Year 2019 and beyond.

Background of NFP

The Nurse-Family Partnership (NFP) program is a voluntary, evidence-based program that helps transform the lives of vulnerable first-time moms and their babies through regular home visitation by specially trained registered nurses. NFP's mission is to empower first-time mothers living in poverty to successfully change their lives and the lives of their children through evidence-based nurse home visiting. To achieve their mission, NFP provides vital services to the families it serves. NFP improves pregnancy outcomes by helping women engage in good preventive health practices, including getting prenatal care from their healthcare providers, improving their diet, and

reducing their use of cigarettes, alcohol, and illegal substances. NFP improves child health and development by helping parents provide responsible and competent care. NFP improves the economic self-sufficiency of the family by helping parents develop a vision for their own future, plan future pregnancies, continue their education, and find employment.

The first NFP pilot program was implemented in 1978 in Elmira, New York. Since then, NFP programs have expanded to 42 states, five Tribal communities, and the U.S. Virgin Islands and have served over 286,000 families nationally. Organizations implementing NFP programs receive professional guidance from the Nurse-Family Partnership National Service Office (NFPNSO), and programs are required to provide extensive data to NFPNSO, which are used to monitor fidelity to the NFP model, improve service delivery and outcomes, and expand research on the model.

NFP's Return on Investment

An independent analysis conducted by the RAND Corporation found a more than 500 percent return on investment for dollars spent on high-risk populations and a nearly 300 percent return for dollars spent on all individuals served, by the time the child turned 15. Returns came from four types of government savings:

- Increased tax revenues due to increased earnings from employment;
- Child welfare systems savings due to reduced rates of child maltreatment;
- Decreased need for public assistance; and
- Decreased involvement in the criminal justice system.

NFP Model Elements

Key to NFP's success is the requirement that all NFP programs implemented across the United States adopt and adhere to the 18 elements of the NFP model.ⁱⁱⁱ The elements address program characteristics, such as:

- client demographics and participation;
- the form, frequency, and extent of visitation;
- the qualifications of nurse home visitors and supervisors;
- the collection of data;
- organizational attributes; and
- community collaboration.

The elements are based on research, expert opinion, field lessons, and theoretical rationales. Adherence to all of the elements is predicted by NFPNSO to lead to results

similar to those found in randomized clinical trials. A detailed description of each of the elements is included in the Appendix.

Several studies have been completed on NFP's impact on families and the communities they serve. A study completed in 2013^{iv} by the Pacific Institute for Research and Evaluation (PIRE) found that for every 1,000 low-income families served by NFP, they anticipate preventing an estimated:

- 78 preterm births;
- 73 second births to young mothers;
- 240 child maltreatment incidents;
- 350 violent crimes by youth;
- 2,300 property and public order crimes (e.g., vandalism, loitering);
- 180 youth arrests;
- 230 person-years of youth substance abuse; and
- 3.4 infant deaths.

NFP in Texas

The first Nurse Family Partnership (NFP) program in Texas was established in 2006 by

The Evidence Base of Nurse Family Partnership

Nurse Family Partnership (NFP) is an evidence-based program, supported by randomized control trials with diverse populations. These studies have found a variety of both short- and long-term benefits to participation. Program effects found in two or more of the NFP trials¹ or other methodologically rigorous studies include:

- Improved prenatal health
- Decreased smoking during pregnancy
- Fewer childhood injuries and/or instances of abuse and neglect
- Fewer subsequent pregnancies within two years of birth
- Increased intervals between births
- Increased maternal employment
- Improved school readiness
- Reduction in the use of public programs

the YWCA of Dallas, Texas. Thanks in part to the success of that program, the Legislature unanimously passed S.B. 156, 80th Legislature, 2007, which created a Texas Nurse Family Partnership (TNFP) competitive grant program to fund NFP programs

across the state. TNFP follows the national NFP model, but also incorporates the goal of reducing the incidence of child abuse and neglect. TNFP sites are funded by two state supervised funds: Temporary Assistance for Needy Families (TANF) Block Grant and Texas General Revenue (GR). PEI also supervises eight Texas NFP sites that are funded primarily through federal Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program funds supervised by the Health Resource and Service Administration of the Administration of Children and Families. This report is focused solely on the NFP sites funded, at least in part, by state supervised funding streams.

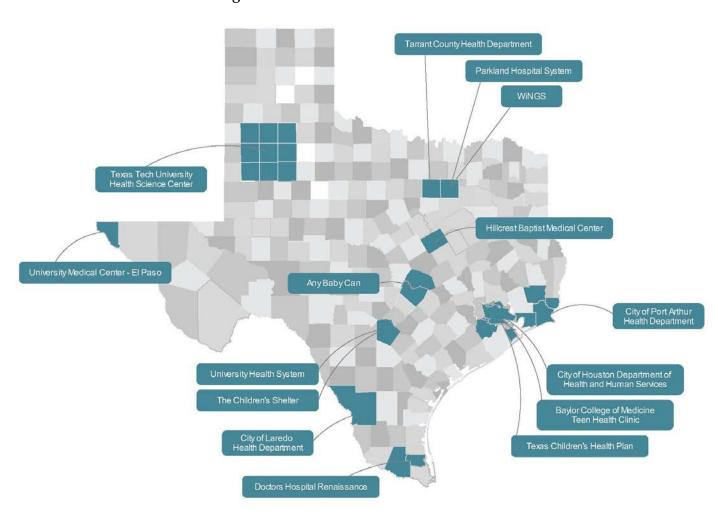


Figure 1. TNFP Sites and Counties Served

TNFP Funding, Sites, and Staffing

The Texas Nurse Family Partnership (TNFP) competitive grant program authorizes the DFPS Prevention and Early Intervention Division (PEI) to award grants for the

implementation or expansion of Nurse Family Partnership (NFP) programs across the state.

In Fiscal Year 2018, PEI awarded over \$13 million to 15 organizations to provide NFP programs in their area. The grantees included city and county health departments, hospitals, and community-based organizations based in 11 different cities, and serving 24 counties across the state. **Table 1** shows the list of funded sites for Fiscal Year 2018 along with their locations, counties served, funding source, total Fiscal Year 2018 grant award, and funded capacity.

Table 1. TNFP Program Sites: Location, Funding, and Capacity

LOCATION	ORGANIZATION	COUNTIES	FUNDING	FY2018	FY2018
		SERVED	SOURCE	GRANT	PROGRAM
				AMOUNT	CAPACITY*
AUSTIN	Any Baby Can	Travis	GR	\$1,254,711	240
DALLAS	Parkland Hospital	Dallas, Tarrant	TANF	\$933,564	150
DALLAS	WiNGS (previously YWCA Dallas)	Dallas, Tarrant	TANF/GR	\$1,500,000	300
EL PASO	University Medical Center El Paso	El Paso	GR	\$607,079	125
FT. WORTH	Tarrant County	Dallas, Tarrant	TANF	\$864,640	175
HOUSTON	Baylor College of Medicine	Fort Bend, Harris	GR	\$739,982	125
HOUSTON	City of Houston	Fort Bend, Harris	TANF	\$728,016	100
HOUSTON	Texas Children's Health Plan	Harris	TANF	\$740,877	125
LAREDO	City of Laredo	Webb	GR	\$590,159	100
LUBBOCK	Texas Tech Health Science Center	Crosby, Floyd, Garza, Hale, Hockley, Lamb, Lubbock, Lynn, Terry	TANF	\$937,307	200
MCALLEN/ EDINBURG	Doctors Hospital Renaissance	Hidalgo, Willacy	GR	\$775,849	175
PORT ARTHUR	City of Port Arthur	Chambers, Hardin, Jefferson, Orange	GR	\$688,122	125
SAN ANTONIO	The Children's Shelter	Bexar	GR	\$944,239	275
SAN ANTONIO	University Health System	Bexar	TANF	\$1,106,404	200
WACO	Hillcrest Baptist Medical Center	McLennan	GR	\$952,690	200
TOTAL				\$13,363,640	2,565

^{*} Program Capacity is the maximum number of clients the program can serve.

TNFP Staff

A unique aspect of TNFP is the high-level of training and expertise required of nurse home visitors and supervisors. Each nurse home visitor is required to be a trained registered nurse with a bachelor's degree in nursing. Additionally, once hired as a home visitor, nurses are required to undergo initial specialized training in topics essential to serving low-income, first time mothers and to continue their specialized training throughout their career. In Fiscal Year 2018, Texas Home Visiting funded 97 nurse home visitor positions and 17 nurse supervisor positions through General Revenue (GR) and Temporary Assistance to Needy Families (TANF) funds in communities across Texas. Additionally, PEI blends federal and state funds to provide a staffing infrastructure to help ensure success of TNFP. This includes programmatic staff who provide project implementation support, contract staff who oversee financial matters, including contracts, invoices, receipts, and payments; and specialized support to meet data management and training needs. PEI also contracts with NFPNSO to provide nurse consultation to each TNFP site as well as to provide guidance around model fidelity.

Experienced NFP home visitors are expected to carry a caseload of approximately 25 to 30 clients at a time. In exceptional circumstances such as staff leave, vacancies, and client transition periods leading up to program graduation; home visitors may exceed the maximum caseload, but otherwise, caseloads are capped to ensure that clients receive the recommended frequency, duration, and quality of visits. For these reasons, vacancies and staff turnover have a large impact on sites' ability to serve their funded client capacity. As of the end of Fiscal Year 2018 there were five nurse home visitor vacancies and no supervisor vacancies. Several new home visitors were also hired during the year and had limited caseloads while in training.

TNFP Visits

In addition to the rigorous qualifications required of TNFP nurse home visitors, NFP requires an extensive visitation process. Typically, TNFP clients enroll early in their pregnancy and home visits begin between the 16th and 28th week of pregnancy. Visits continue up to the child's second birthday on the following recommended schedule:

- weekly for the first four weeks of participation;
- biweekly from the fifth week through delivery;
- weekly from delivery to six weeks postpartum;
- biweekly from week 7 until the baby is 21 months old; and
- monthly for the last three months of program participation.

In total, nurse home visitors typically provide a maximum of 65 visits to clients enrolled in the program from the second trimester until the child's second birthday. Clients that

are assessed as lower risk may be on a reduced schedule, if the nurse, supervisor and client determine that a varied schedule best meets the needs of the client. This is often as clients are approaching the end of the program, or where the clients have met their goals and are on track for positive long-term outcomes. Clients are also permitted to take a short break from the program or reduce the visiting schedule for a limited time if their schedule requires it.

Most visits conducted by TNFP nurse home visitors occur at the client's home. The Nurse-Family Partnership National Service Office also allows for flexibility on certain visits in terms of location and format. Visits may take place in a public location of convenience to the client, such as a school or library, or they may even occur over the phone in special circumstances. These accommodations help TNFP clients stay enrolled in the program while still meeting their employment, education, and family needs.

During visits, nurse home visitors provide:

- ongoing family, parent, and child assessments;
- extensive education in parenting and child development;
- health literacy support; and
- assistance in accessing health care, employment, and other resources.

Through this process, the nurse home visitor builds a strong and supportive relationship with the families.

Texas Nurse-Family Partnership Clients

In order to enroll in the TNFP program, clients must meet certain eligibility requirements. TNFP clients should:

- have no previous live birth;
- have an income at or below 185 percent of the federal poverty level;vi
- be a Texas resident;
- be enrolled before the end of the 28th week of pregnancy; and
- agree to participate voluntarily.

In some special cases, exceptions are made to the eligibility criteria, but any exceptions have to be approved in consultation with TNFP and Nurse-Family Partnership National Service Office staff.

Spotlight on TNFP Expansion

NFP expansion funding was allocated to nine NFP programs in Fiscal Year 2018. Six NFP communities utilized expansion funds to hire new Nurse Home Visitors and expand their programming. This expansion included the hiring of 12 new Nurse Home Visitors and two new Nurse Supervisors. Funding was also utilized to enhance the current infrastructure of two additional teams allowing them to increase wages and support current staff. Additionally, funding was used to maintain current staffing levels of two programs that would have otherwise had to reduce their NFP program in Fiscal Year 2018.

Fiscal Year 2018 expansion funds allowed NFP programs to serve an additional 300 new families in Texas and maintain 200 families in total the new funds will provide services 500 families. Expansion funds also incentivized grant matching that supported the hiring of an additional three Nurse Home Visitors, growing the total impact of Fiscal Year 2018 expansion funds to 575 new families in Texas.

Clients Served in Fiscal Year 2018

In Fiscal Year 2018, TNFP served 3,293 clients and over 2,500 infants. The average monthly client load by site ranged from 70 percent to 99 percent of total capacity. **Table 2** shows program capacity, total clients served, average monthly caseload, and the number of newly enrolled clients at each site for Fiscal Year 2018.

	Table 2. Clients Served by Site in Fiscal Year 2018						
Location	Organization	Program Capacity	Total Clients Served	Avg. Monthly Caseload	Avg. Monthly Capacity Percent	Avg. Monthly Staff Vacancies	# of Clients with an Infant*
Austin	Any Baby Can	240	260	194	81%	1.33	223
Dallas	Parkland Hospital	150	266	124	83%	0.08	191
Dallas	WiNGS (previously YWCA Dallas)	300	403	257	86%	0.63	127
El Paso	University Medical Center El Paso	125	160	95	76%	0.67	190
Ft. Worth	Tarrant County	175	244	173	99%	1.08	313
Houston	Baylor College of Medicine	125	160	100	80%	0.79	108
Houston	City of Houston	100	110	73	73%	1.33	96
Houston	Texas Children's Health Plan	125	163	104	83%	1.67	133
Laredo	City of Laredo	100	98	70	70%	0.25	82
Lubbock	Texas Tech Health Science Center	200	281	186	93%	0.00	222
McAllen/ Edinburg	Doctor's Hospital Renaissance	175	200	141	81%	0.00	165
Port Arthur	City of Port Arthur	125	147	84	84%	0.17	106
San Antonio	The Children's Shelter	275	288	202	73%	0.17	232
San Antonio	University Health System	200	275	183	91%	0.33	234
Waco	Hillcrest Baptist Medical Center	150	238	150	86%	1.46	164
Total		2,565	3,293	2,134	83%	8.04	2,586

Source: Location, program capacity and average monthly caseload data from monthly reports to DFPS. Total clients served retrieved from ETO in October 2018. Clients with an infant include those with only an attempted or phone call in Fiscal Year 2018. Served clients include only those with a completed home visit.

Clients Enrolled in Fiscal Year 2018

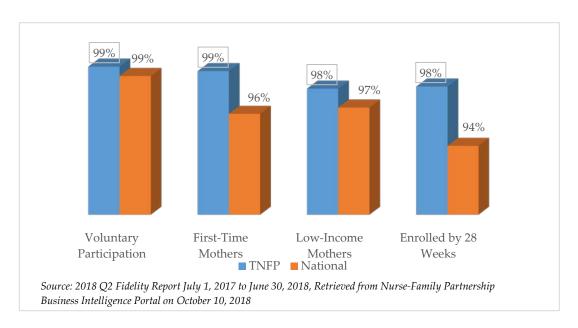
To determine whether National Nurse-Family Partnership programs are operating with fidelity to the model, NFP National Service Office issues quarterly fidelity reports that show whether each site adheres to the measurable model elements. The most recent fidelity report covered program year 2018 (July 1, 2017 to June 30, 2018).

In program year 2018:

- 99.0 percent of newly enrolled TNFP clients were first-time mothers;
- 97.8 percent had income below 185 percent of the poverty level; and
- 98.0 percent were enrolled before their 28th week of pregnancy.

All clients resided in Texas and 99.3 percent agreed to participate voluntarily. In each case, TNFP fared equivalent to or better than the nation as a whole, as illustrated in **Figure 2**, below.

Figure 2 Client-Characteristic Elements of Fidelity in TNFP and National NFP, Program Year 2018



In Fiscal Year 2018, TNFP enrolled 1,459 new participants. Clients came to TNFP through referrals from various sources, including:

- Clinics (21 percent);
- Women, Infants, and Children (WIC) (13.4 percent);
- pregnancy testing clinics (11 percent); and
- schools (6 percent).

The clients enrolled by TNFP in Fiscal Year 2018 were diverse in terms of their age, race and ethnicity, and primary language spoken. The demographic characteristics of newly enrolled TNFP clients and national NFP clients are presented in **Table 3**, below.

With a median age at enrollment of 20, the majority of clients that TNFP enrolled in Fiscal Year 2018 are young mothers. There were also a number of enrolled clients who fell into higher risk groups based on age:

- 42 percent were under age 20; and
- 2 percent were very young teens (under age 15).

Nationally, 34 percent of newly enrolled clients were under age 20. This difference suggests that the clients served by TNFP face a greater risk of poor pregnancy, child, and family outcomes than those served by NFP nationally.

TNFP mothers are also diverse in terms of their race and ethnicity. Overall, 59 percent identified as White, the largest racial group, and 25 percent identified as Black or African American. In Fiscal Year 2018, 57 percent of clients identified as Hispanic or Latino, but there was wide geographic variation in client race and ethnicity by site.

Anna's NFP Success Story

Texas NFP helped one first-time mother move from homelessness to self-sufficiency.

When Anna came to the program, she was homeless and 20 weeks pregnant with twins. With two years of support from the NFP program, she rode the bus daily with her twins for a year until she was able to save enough money for a vehicle, successfully breastfed her twins to two years of age, has held a job, and now has stable housing.

This diversity was also reflected in the primary language spoken. Overall, 84 percent of newly enrolled TNFP clients spoke English as their primary language and 15 percent spoke Spanish as their primary language. Only two percent of newly enrolled TNFP clients identified a language other than English or Spanish as their primary language in Fiscal Year 2018. To accommodate the diversity of primary languages, most TNFP sites have at least one bilingual nurse, and all efforts were made to provide interpreters and translators to clients whose first language was not English or Spanish.

Table 3. Demographic Characteristics of Newly Enrolled TNFP Clients, Fiscal Year 2018

Characteristic		Texas Nurse-Family Partnership (FY2018)*	National Nurse- Family Partnership (PY2018)**
Age		(n=1,454)	(n=23,060)
	Under 15	1.7%	1.1%
	15 to 17	18.4%	13.7%
	18 to 19	21.9%	19.2%
	20 to 24	33.5%	36.0%
	25 to 29	15.0%	18.6%
	30+	9.5%	11.4%
Ethnicity		(n=1,367)	(n=21,146)
-	Hispanic	57.0%	30.6%
	Not Hispanic	37.2%	65.9%
	Declined to Self-		
	Identify	5.8%	3.5%
Race	·	(n=1,367)	(n=21,030)
	Black or African		
	American	25.4%	32.7%
	White	59.2%	45.8%
	Multiracial	2.9%	4.9%
	Other	2.9%	5.6%
	Declined to Self-		
	identify	9.6%	11.0%
Primary Langua	-	(n=1,367)	(n=21,264)
, 0	English	83.6%	85.0%
	Spanish	14.6%	11.0%
	Other	1.8%	4.1%

^{*} A total of 1,459 new clients enrolled in TNFP fiscal year 2018, across all sites. Some clients had missing data for one or all of the demographic categories. Missing data are not included in the calculations.

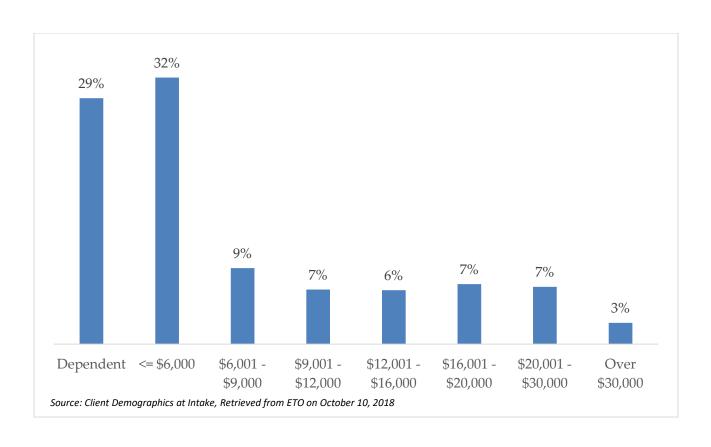
Source: DFPS analysis of TNFP site data from Efforts to Outcomes, retrieved October 9, 2018 and National statistics from program year 2018 quarterly reports

Figure 3, shows the income distribution of clients enrolled in the TNFP program in fiscal year 2018. While all TNFP clients were required to be low-income, the data shows

^{**} Data for TX Fiscal Year 2018 are not available at the national level. Data for program year 2018, which spans July 1, 2017 to June 30, 2018 are provided as a point of comparison. A total of 23,095 new clients enrolled in national NFP sites in program year 2018.

that TNFP program sites are serving a large number of participants who are very low-income. Of the 1,254 newly enrolled clients who reported income information, 29 percent of clients reported that they were financially dependent on their parents or guardians. Among those who were not dependents (885 clients), 32 percent reported that they had income of \$6,000 or less per year, or 36 percent of the federal poverty level for a household of two and 58 percent reported making less than \$9,000 per year, approximately 55 percent of the federal poverty level for a household of two.

Figure 3. Income Ranges of Newly Enrolled TNFP Clients, Fiscal Year 2018



Adherence to NFP Model Elements

There are 18 elements to the Nurse-Family Partnership model, which, if implemented correctly are expected to result in outcomes similar to those achieved in the randomized control trials. The Texas Nurse Family Partnership competitive grant program works closely with NFPNSO to ensure that all sites are in compliance with the model elements. When a new site is created, NFPNSO provides information on how to hire, budget, and train with fidelity to the model elements. Once sites are fully operational, NFPNSO also helps them run and interpret annual fidelity reports for the previous program year. In program year 2018 (July 1, 2017 to June 30, 2018), all TNFP sites were in compliance with the 18 model elements, with an average fidelity index of 87 out of 100.

Of the 18 model elements, three were previously discussed in the clients served section of the report (voluntary participation, first-time motherhood, and low-income status). There are two additional types of elements that are of particular interest:

- adherence to the recommended frequency, duration, and content of visits; and
- the regular assessment of mother and child health and well-being.

These two types of elements are discussed in greater detail below. More information about the remaining model elements is provided in the appendix to this report.

TNFP Sites in their Communities

Doctors Hospital Renaissance (McAllen/Edinburg) partnered with the UT RGV mobile health clinic to better serve women in the RGV and empowered clients to participate in Healthy Families Initiative Discussions of healthcare needs, barriers, and concerns of Mexican

Americans in the RGV.

The Children's Shelter (San Antonio) partnered with Latched and WIC to provide in home lactation visits and group supports for clients

Hillcrest Medical Center Staff completed 75 hours of community service at food pantries, WIC, pregnancy centers and car seat safety events.

City of Port Arthur partnered with TXDOT to provide free car seats to local families and install seats along with educating the public at community events

WiNGS partnered with the Akola Project to offer income opportunities to clients through jewelry creation and sales at Neiman Marcus

Parkland partnered with seven community based clinics on a new referral process to actively refer clients to NFP

Visit Frequency, Duration, and Content

Model elements five, six, seven and ten address the characteristics of nurse home visits. These elements are meant to ensure that the interventions provided by the nurse home visitors are consistent with the visits that were provided in the randomized control trials. As mentioned previously, they allow some flexibility within these standards to address client needs.

Element 5. Client is visited one-to-one, one nurse home visitor to one first-time mother. NFP clients are visited by one home visitor to every first-time mother. If the client would like to include other family members or her significant other in the visit, they may attend. Fathers are particularly encouraged to attend visits when possible and appropriate. The nurse home visitor engages in a therapeutic relationship with the client that is focused on meeting the individual client's needs and empowering her to promote her own health and the health and well-being of her child. In some circumstances, the nurse home visitor may bring another home visitor or supervisor for the purposes of peer consultation. This often helps the client learn that the nurse home visitors work as a team to help support their clients and can reduce attrition if the home visitor goes on leave or if there is agency turnover.

The TNFP program closely follows NFPNSO guidelines pertaining to home visits. Overall, 99 percent of all TNFP visits in program year 2018 were one-on-one with clients. This is on par with the 99 percent of NFP visits done one-on-one at the national level.

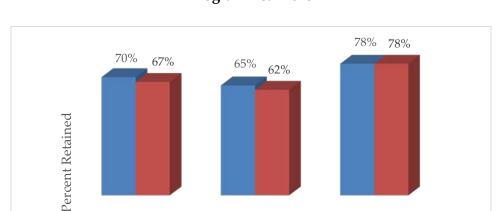
Element 6. Client is visited in her home as defined by the client, or in a location of the client's choice. NFPNSO defines the client's home as the place where she is currently residing for the majority of time. This could include a shelter, friend's home, or temporary living situation for some of the most at-risk clients. Visiting the client in her home allows the nurse home visitor a better opportunity to observe, assess, and understand the client's and child's living context and challenges. More specifically, home visits allow the nurse to assess client safety, social dynamics, ability to provide basic needs, and the mother-child interaction. As mentioned previously, NFPNSO does allow some home visits to take place in other settings such as libraries, schools, or places of employment due to issues with the client's schedule or living situation. These visits are the exception rather than the rule and scheduled based solely on the client's need for accommodation.

Overall, 83 percent of TNFP visits took place in the home and 94 percent of clients received at least one home visit in program year 2018. On both measures, Baylor Health Teen Clinic was significantly lower than all others, predominantly due to the

population served by the site. Even with this outlier, TNFP performed slightly lower than the national average on these measures. Nationally, 86 percent of visits occurred in the home and 96 percent of clients received at least one home visit.

Element 7. Client is visited throughout her pregnancy and the first two years of her life in accordance with the NFP visit schedule or an alternative schedule agreed upon between the client and nurse. The frequency of home visits may influence the effectiveness of the NFP programs. Even if clients do not use the home visitor to the maximum level recommended, the regular contact from the nurse home visitor over a long period of time is a powerful tool for change for the mother and the family. The high frequency of home visits early in the pregnancy and throughout the first two years of the child's life may have the greatest impact on maternal behavior, and thereby the highest probability of improving outcomes. For example, substance abuse, smoking, and nutrition greatly influence fetal development. By addressing these issues early with the client, the risks for adverse outcomes for the mother and child can be reduced.

NFPNSO measures adherence to element seven through client retention rates in each phase of the program. TNFP clients were retained in the program at rates greater than or equal to national NFP for all three phases. **Figure 4**, below shows the differences between TNFP and national NFP. It should be noted that the retention rates are calculated based on the potential completers of each phase, so greater retention in the pregnancy phase means more potential completers at each stage of the program.



Infancy

Program Phase

■ TNFP ■ National

Toddlerhood

Pregnancy

Source: NFPNSO Fidelity Report July 1, 2017 to June 30, 2018

Figure 4. Retention During Each Phase for TNFP and National NFP, Program Year 2018

Additionally, PEI tracks adherence to element seven by tracking family engagement in the program for at least one year. In Fiscal Year 2018, 89 percent of families who had enrolled a year ago were still enrolled in the program. Long-term enrollment in TNFP ensures that families receive the full benefits of the program.

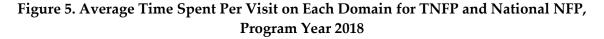
Element 10. Nurse home visitors, use professional knowledge, nursing judgment, nursing skills, screening tools and assessments, frameworks, guidance and the NFP Visit-to-Visit Guidelines to individualize the program to the strengths and risks of each family and apportion time across the defined program domains. Nurse home visitors use strength-based approaches to working with families and individualize the guidelines to meet clients' needs. These approaches fall under six life domains. Nurse home visitors are encouraged to include information about all of the domains in each visit. **Table 4** shows the six life domains and the types of issues addressed under each domain.

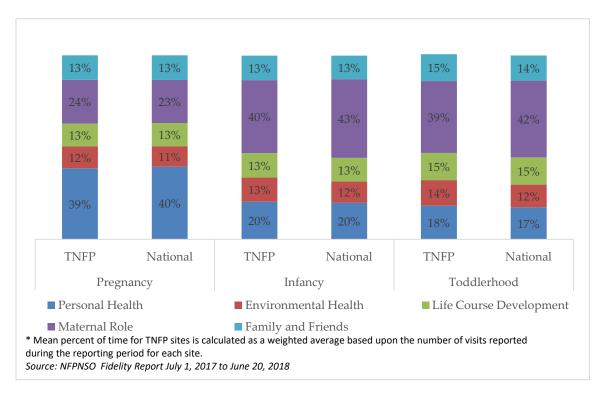
Table 4. NFPNSO Life Domains

Domain	Issues Addressed	
Personal Health	Health maintenance practices, nutrition and exercise, substance	
	abuse, and mental health functioning	
Environmental	The adequacy of home, work, school, and neighborhood for	
Health	maternal and infant health	
Life Course	Client goals related to childbirth planning and economic self-	
Development	sufficiency	
Maternal Role	Client's acceptance of the mothering role; knowledge and skills	
	to promote the physical, behavioral, and emotional health of a	
	child	
Friends and Family	Helping clients deal with relationship issues, and enhance their	
	own goals and management of child care	
Health and Human	Linking families with needed community resources	
Services		

It should be noted that there is significant flexibility within the guidelines to address the strengths and challenges faced by each family. Nurse home visitors are expected to individualize visit content to meet the client's needs rather than adhering to a predetermined schedule. This may mean that as certain challenges occur in the lives' of clients and their families that one or more life domains may not be covered in a given visit. This is consistent with the expectations of NFPNSO.

Figure 5 shows the weighted average percent of time spent on each domain per visit in each phase for TNFP sites as compared to the national average. TNFP home visitors were in-line with NFP sites nationally on the proportion of time spent at each home visit devoted to the five domains. According to NFP standards, TNFP and national NFP sites were in or above range on discussions of all domains in the pregnancy phase and in most domains in the infancy and toddlerhood phases that are measured using the time spent metric. Sites were slightly below standard for discussion of the maternal role in infancy and toddlerhood (45 to 50 percent) and slightly below the range for life course development in toddlerhood (18 to 20 percent), both nationally and in Texas. The final domain--health and human services--is measured primarily through referrals rather than time spent, and is discussed further in the assessment of health and well-being section of this report.





Assessment of Health and Well-Being

One of the key services provided by nurse home visitors in the NFP program is to regularly assess the health and well-being of mothers and children participating in the program. To accurately and regularly conduct those assessments, nurse home visitors must:

- follow the visiting guidelines discussed in the previous section;
- enter the program with sufficient education to adequately assess health and wellbeing; and
- receive adequate training on the NFP model, theories, and structure to deliver the program in a way that facilitates formal and informal assessments of health and well-being.

Model elements eight, nine, and eleven address the education and training required of nurse home visitors to be able to adequately and regularly assess maternal and child health and well-being.

Element 8. Nurse home visitors and nurse supervisors are registered professional nurses with a minimum of a Baccalaureate degree in nursing (BSN). When new nurse home visitors are hired into the program, supervisors are expected to evaluate their background, levels of knowledge, skill and abilities in relation to the services provided by the NFP program. A Bachelor of Science in Nursing (BSN) degree is the standard educational background for entry into public health, and the model expects that all nurse home visitors will be licensed registered nurses with at least a BSN. For supervisors, a master's degree in nursing is preferred. In circumstances where agencies struggle to hire nurses with a BSN, NFPNSO does allow for agencies to hire experienced nurses without a BSN. When agencies do so, they are expected to support professional development and encourage the nurse to complete a BSN. Sites seeking to hire non-BSN nurses are expected to consult with the state and NFPNSO on the hire.

At the end of program year 2018, all TNFP program sites were in adherence with this program element. 98 percent of TNFP nurse home visitors have a Bachelor's degree or higher in nursing, as compared to 88 percent nationally.

Element 9. Nurse home visitors and nurse supervisors complete core educational sessions required by Nurse-Family Partnership National Service Office and deliver the intervention with fidelity to the Nurse-Family Partnership Model. The specialized nature of the NFP program requires extensive training on the model, theories and structure to deliver the program effectively, even among the highly trained group of nurses hired to work for NFP programs. NFPNSO requires that all nursing staff complete all NFP education sessions in a timely manner, the first two of which must be complete before nurse home visitors can start visiting clients. The additional training sessions offered by NFPNSO are listed below. Two of the training sessions deal with the administration of formal assessments of child and maternal well-being, but all of the trainings feature skills and knowledge that are essential for the informal assessment of family well-being.

Examples of NFPNSO Training Sessions

- Instruction on motivational interviewing
- Partners in Parenting Education (PIPE)
- Ages and Stages Questionnaire (ASQ), and Ages and Stages Questionnaire, Social Emotional Screening (ASQ-SE)
- Assessment of child health and development
- Positive parenting and care giving
- Infant cues and behaviors (Keys to Caregiving)
- Texas Health Steps modules (optional)
- The Office of the Attorney General Paternity Opportunity Program
- Identification of complications during pregnancy
- Didactic Assessment of Naturalistic Caregiver-child Experience (DANCE)

By the end of program year 2018, 83 percent of nurse home visitors at TNFP sites had completed their initial NFPNSO educational training sessions. Of the remaining 17 percent, two-thirds had been employed with TNFP less than nine months.

Making a Difference for Families

The overarching goal of Nurse-Family Partnership (NFP) programs is to intervene early in life to improve the lives of low-income children in a way that will benefit them and their communities across the life course. The introduction chapter of this report highlighted research into the long-term impacts of Nurse-Family Partnership programs. While the Texas Nurse-Family Partnership competitive grant program (TNFP) has not been in existence long enough to evaluate these long-term impacts, and such an analysis would be beyond the scope of this report, there are some short-term outcomes that can be assessed for Fiscal Year 2018, many of which have been associated with the positive long-term impacts that TNFP seeks to improve.

Establishment of Paternity

Section 265.103, Texas Family Code requires TNFP program sites to assist clients in establishing paternity of their babies through an Acknowledgement of Paternity (AOP) form. To fulfill this requirement, TNFP helps clients understand paternity and child support services, and information on paternity establishment is provided to all clients. As mentioned in the previous section, all nurse home visitors complete the training in the Office of the Attorney General Paternity Opportunity Program as a part of their initial training. Nurse home visitors also complete an annual refresher course offered through the Office of the Attorney General and are able to complete AOP documentation should a client desire to complete it prior to their delivery.

In Fiscal Year 2018, 58 TNFP clients completed AOP documentation with their nurse home visitor prior to delivery. The number of clients who completed AOP documentation during their hospital stay following the birth of their child, or at a later time is not independently tracked by the TNFP program. PEI is working with the Child and Family Research Partnership in Fiscal Year 2019 to facilitate a data matching agreement with the Office of the Attorney General to match this client AOP data with their records.

Improving Pregnancy and Maternal Outcomes

Intervening in the lives of new families at the very beginning, prior to birth can have long-lasting impacts on the health, well-being, and long-term success of children. Based on analysis of Fiscal Year 2018 data, TNFP programs appear to be associated with improved short-term outcomes that have an impact on long-term health and well-being.

Full-Term Births

Preterm births are an important risk factor for future child health and well-being and family well-being across the life course. Babies born preterm have greater mortality rates than full term infants and are at a higher risk for a number of health problems at birth and later in life. Preterm births add an economic and emotional burden on families, and families with preterm babies are at a higher risk for child maltreatment. Preterm birth is also costly to society—the Institute of Medicine estimates that the cost of preterm births to the United States was over \$26 billion annually. He babies born to clients who enrolled in TNFP in Fiscal Year 2018, 88 percent were born full-term, meeting PEI's goal of at least 87 percent. It should be noted that there was wide variation across sites on this outcome, with sites ranging from 74 percent to 99 percent full-term births, with the data driven mostly by the demographic characteristics of clients and number of multiple births served by each site.

Breastfeeding

TNFP sites not only work to reduce risk factors for child maltreatment and poor overall health and well-being, they also seek to increase protective factors that help families thrive. Breastfeeding is an important protective factor. Breastfeeding has been associated with decreased risk of infections, asthma, and other health conditions for children and decreased risks of breast cancer in mothers. It's also associated with increased parental bonding and decreased risk of child maltreatment.^{ix}

Increasing breastfeeding rates among clients is a key goal of TNFP for ensuring positive family health and well-being far into the future. Of the 736 children who were between 6 and 12 months old in fiscal year 2018, 36 percent were still receiving breastmilk at sixmonths, exceeding PEI's goal of 15 percent and the 12.4 percent of mothers in the reference group, unmarried mothers from the Texas subset of the Fragile Families study.* Additionally, this represents a marked improvement over Fiscal Year 2017 rates, when 27 percent of 6 to 12 month-olds were still receiving breastmilk at six months.

Well-Child Visits

Annually, the American Academy of Pediatrics publishes a recommended schedule of well-child visits for children from newborn to 21 years old. This periodicity schedule is meant to serve as a minimum for each age group, assuming children are "receiving competent parenting, have no manifestations of any important health problems, and are growing and developing in a satisfactory fashion." Well-child visits are meant to establish a child with a medical home, assess child physical, mental, social, and behavioral development, and provide screenings and preventive medicine.

In Fiscal Year 2018, 88 percent of TNFP children received their last recommended well-child visit, exceeding PEI's goal of 80 percent of children receiving their last well-child visit, and improving over Fiscal Year 2017 where only 59 percent of children received their last recommended well-child visit. There was some variation across sites, ranging from 76 percent at one site to 93 percent at another, but all sites except one met PEI's goal on this measure.

Early Language and Literacy

Significant variation exists in the amount and duration of early literacy activities across home environments. By age three, children in the lowest income families hear about 30 million fewer words than children in the highest income families. xii xiiiBy the time low-income children enter kindergarten, they are already behind the learning curve. Research on NFP has shown that participation in the program can positively impact early childhood literacy, with effects lasting into third gradexiv

One way that NFP can increase early language and literacy is by encouraging families to read to, sing songs, or tell stories to their children. PEI set an ambitious goal of 80 percent of families engaged in the above activities with their child seven days a week, six months after birth (or after enrollment for programs that enroll children after birth). In Fiscal Year 2018, 69 percent of NFP children met that goal, fewer than the 80 percent target, but a marked increase over Fiscal Year 2017 when only 52 percent of families engaged in language and literacy activities seven days a week. There was significant variation on this measure across sites with 48 percent of families engaging in activities seven days a week at one site and 85 percent engaging in activities seven days a week at another site. PEI will continue to work with sites to improve performance on that indicator, including facilitating peer-learning across sites, to encourage more families to engage in literacy activities with their children daily.

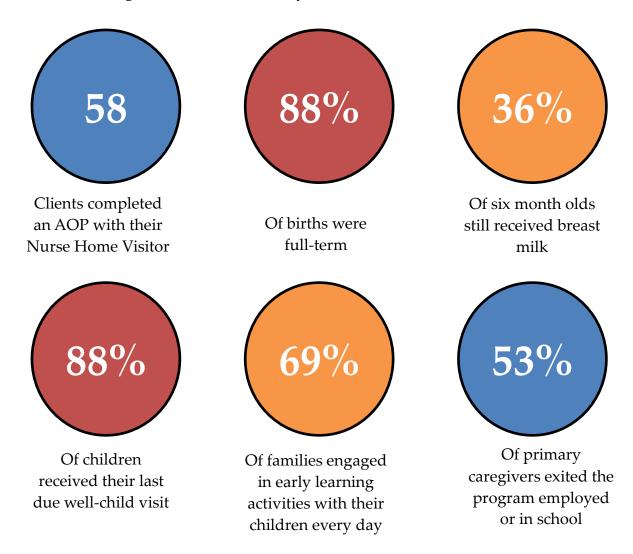
Caregiver Self-Sufficiency

Children who grow up in poverty face challenges across the life course. While the primary function of NFP is to improve health incomes for prenatal mothers and young children, family self-sufficiency is important for children's long-term development. Research from the field of developmental neurobiology suggests that the most important time to increase family income and improve self-sufficiency to improve child development is during early childhood.xv

In Fiscal Year 2018, 53 percent of primary caregivers exited NFP either working or in school, a slight improvement from Fiscal Year 2017, when 51 percent of caregivers exited working or in school. PEI set an ambitious goal of 60 percent for this outcome,

and seven sites met or exceeded the goal. PEI will continue to work with TNFP sites to build connections with employment and education resources to help our clients exit the program self-sufficient.

Figure 5: TNFP Outcomes by the Numbers, Fiscal Year 2018



The Future of TNFP

This report highlights how the Texas Nurse Family Partnership program (TNFP) is working in at-risk communities across the state to increase the health and well-being of low-income, first time mothers and their children. TNFP sites serve a diverse population across the state of Texas, are implementing the NFP model with fidelity across all elements, and continue to improve outcomes for mothers, families, and

children. The work done by TNFP in Fiscal Year 2018 is predicted to have positive impacts on the lives of families served by the program and their communities for years to come.

PEI continues to demonstrate its commitment to TNFP by providing funding, support, technical assistance, and learning opportunities to nurse supervisors and nurse home visitors. The Fiscal Year 2018 and Fiscal Year 2019 Partners in Prevention Conferences included sessions that qualified for Continuing Nursing Education Credits. This helped ensure that the attendees from our Nurse Family Partnership programs received professional development that served their unique needs. PEI will strive to continue to offer training opportunities that support nurse home visitors in serving Texas mothers and families.

The TNFP application, an electronic charting application created by PEI, was maintained and expanded in Fiscal Year 2018. For communities that lack their own electronic charting application, the TNFP app was designed to streamline the charting process, reduce the paperwork burden, and allow the nurse home visitor to optimize their time spent with clients.

Fiscal Year 2019 and Fiscal Year 2020 will also see new attempts at data collection, management, and analysis at NFP and at PEI. As part of the merger, the research and evaluation team at PEI is continuing work with our evaluators to pilot new outcomes survey tools with the federally funded and HOPES program home visiting sites. These tools are designed to better capture data related to family and child outcomes that are impacted by participation in TNFP. Final results from these evaluations are anticipated for release in late Fiscal Year 2019, early Fiscal Year 2020. PEI is also working with TNFP and other Texas Home Visiting programs to expand the PEI Reporting System (PEIRS) and integrate their data needs with the unique requirements they bring into the system, allowing communities to track home visit schedules and requirements, staff caseload and retention, and client referrals to other services. This will finalize the merger between PEI and THV and give us the ability to talk about NFP across funding streams for the first time. This project is scheduled for completion in early Fiscal Year 2020.

Data collection and management changes are coming to NFP, as well. In 2019, NFP's National Service Office is switching from Efforts to Outcomes to a custom designed system. The new system will provide additional functionality to assume that the data collected by NFP is valid and reliable. As part of the transition, NFP will be auditing and quality checking all of their data to ensure that the data moving into the new

system is accurate. TNFP and PEI will be supporting this transition by serving as pilot testers and providing feedback.

The multiple data transitions that TNFP will be engaging in during Fiscal Year 2019 provide a unique opportunity to emphasize continuous quality improvement with our sites and build a culture of data-informed learning and action. The Texas Home Visiting application has been updated to include state funded THV programs in Fiscal Year 2018, allowing PEI and TNFP staff to work together to continuously review outcomes, promote interventions that work to improve outcomes, and explore root causes when they fall short. This increased capacity, along with the increases in resources and data system capability will ensure that TNFP can continue to serve Texas mothers and children with quality and fidelity into Fiscal Year 2018 and beyond.

Appendix: NFP Model Elements

Clients

- **Element 1:** Client participates voluntarily in the Nurse-Family Partnership program.
- **Element 2:** Client is a first-time mother.
- **Element 3:** Client meets low-income criteria at intake.
- **Element 4:** Client is enrolled in the program early in her pregnancy and receives her first home visit by no later than the end of week 28 of pregnancy.

Intervention Context

- **Element 5:** Client is visited one-to-one, one nurse home visitor to one first-time mother or family.
- **Element 6:** Client is visited in her home as defined by the client, or in a location of the client's choice.
- **Element 7:** Client is visited throughout her pregnancy and the first two years of her child's life in accordance with the standard NFP visit schedule or an alternative visit schedule agreed upon between the client and nurse.

Expectations of Nurses and Supervisors

- **Element 8:** Nurse home visitors and nurse supervisors are registered professional nurses with a minimum of a baccalaureate degree in nursing.
- Element 9: Nurse home visitors, and nurse supervisors participate in and complete
 all education required by the NFP NSO. In addition, a minimum of one current NFP
 administrator participates in and completes the Administration Orientation required
 by NFP NSO.

Application of the Intervention

- Element 10: Nurse home visitors, use professional knowledge, nursing judgment, nursing skills, screening tools and assessments, frameworks, guidance and the NFP Visit-to-Visit Guidelines to individualize the program to the strengths and risks of each family and apportion time across the defined program domains.
- **Element 11:** Nurse home visitors and supervisors apply nursing theory, nursing process and nursing standards of practice to their clinical practice and the theoretical framework that underpins the program, emphasizing Self-Efficacy, Human Ecology and Attachment theories, through current clinical methods.

• **Element 12:** A full-time nurse home visitor carries a caseload of 25 or more active clients.

Reflection and Clinical Supervision

- **Element 13:** NFP agencies are required to employ at all times a NFP nurse supervisor.
- Element 14: Nurse supervisors provide nurse home visitors clinical supervision with reflection, demonstrate integration of the theories, and facilitate professional development essential to the nurse home visitor role through specific supervisory activities including one-to-one clinical supervision, case conferences, team meetings, and field supervision.

Program Monitoring and Use of Data

• Element 15: Nurse home visitors and nurse supervisors collect data as specified by the Nurse-Family Partnership National Service Office and ensure that it is accurately entered into the NFP data collection system in a timely manner. Element 15a: NFP nurse home visitors and supervisors use data and NFP reports to assess and guide program Implementation, enhance program quality and demonstrate program fidelity and inform clinical practice and supervision.

Agency

- **Element 16:** A Nurse-Family Partnership Implementing Agency is located in and operated by an organization known in the community for being a successful provider of prevention services to low-income families.
- Element 17: A Nurse-Family Partnership Implementing Agency convenes a longterm community advisory board that meets at least quarterly to implement a community support system to the program and to promote program quality and sustainability.
- **Element 18:** Adequate support and structure shall be in place to support nurse home visitors and nurse supervisors to implement the program and to assure that data are accurately entered into the database in a timely manner.

Endnotes

ⁱ The first pilot of the program was a randomized, controlled NFP trial in Elmira,

ⁱ The first pilot of the program was a randomized, controlled NFP trial in Elmira, New York in 1978. NFP mothers from Elmira and their children have been followed since 1978.

ⁱⁱ Nurse Family Partnership. (2018). Nurse-Family Partnership National Snapshot: Families Served. Retrieved October 8,, 2018 from https://www.nursefamilypartnership.org/wp-content/uploads/2018/07/NFP_Snapshot_NewBrand_20180630-1.pdf.

- ⁱⁱⁱ The model elements were previously referred to as standards, but NFPNSO has changed their language and now use the term elements to describe them.
- ^{iv} Miller, T R., Nurse-Family Partnership Home Visitation: Costs, Outcomes, and Return on Investment. 2013. Pacific Institute for Research and Evaluation.
- v New nurse home visitors are given a year to gradually increase their client load while they complete initial training and gain on the job training and experience.
- vi Based on the U.S. Department of Health and Human Services published poverty guidelines, available at https://aspe.hhs.gov/poverty-guidelines. Pregnant women enrolling in the program are considered two individuals for eligibility purposes.
- vii Institute of Medicine (US) Committee on Understanding Premature Birth and Assuring Healthy Outcomes; Behrman RE, Butler AS, editors. Preterm Birth: Causes, Consequences, and Prevention. Washington (DC): National Academies Press (US); 2007. Available from:

https://www.ncbi.nlm.nih.gov/books/NBK11362/ doi: 10.17226/11622

viii Institute of Medicine (US) Committee on Understanding Premature Birth and Assuring Healthy Outcomes; Behrman RE, Butler AS, editors. Preterm Birth: Causes, Consequences, and Prevention. Washington (DC): National Academies Press (US); 2007. Available from:

https://www.ncbi.nlm.nih.gov/books/NBK11362/ doi: 10.17226/11622

- ix Department of Family Protective Services and Department of State Health Services. Strategic Plan to Reduce Child Abuse and Neglect Fatalities. Austin(TX). March 2015. Available at http://www.dfps.state.tx.us/About_DFPS/Reports_and_Presentations/CPS/documents/2015/2015-03-16_DFPS_DSHS_Strategic_Plan.pdf
- ^x McLanahan, S., Garfinkel, I., & Waller, M. (2000). Fragile families and child wellbeing study. Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD).
- xi American Academy of Pediatrics and Bright Futures. Recommendations for Preventive Pediatric Health Care. February 2017. Available at https://www.aap.org/en-us/Documents/periodicity_schedule.pdf
- xii Fernald, A., V.A. Marchman, & A. Weisleder. 2013. "SES Differences in Language Processing Skill and Vocabulary Are Evident at 18 Months." Developmental Science 16 (2): 234–48.
- xiii Hart, B., & T.R. Risley. 1995. Meaningful Differences in the Everyday Experience of Young American Children. Baltimore: Brookes.
- xiv David Olds, John Eckenrode, Charles Henderson and others, "LongTerm Effects of Home Visitation on Maternal Life Course and Child Abuse," JAMA 278 (1997): 637-643
- xv Duncan, G. J. & Magnuson, K. & Votruba-Drzal, E. "Boosting Family Income to Promote Child Development." The Future of Children, vol. 24 no. 1, 2014, pp. 99-120. Project MUSE, doi:10.1353/foc.2014.0008