
**Supporting New Families and Investing in the Newest Texans
Texas Nurse-Family Partnership
Statewide Grant Program Evaluation Report
Fiscal Year 2016**

As Required by §265.101 - §265.110

**Texas Department of Family and Protective Services
Prevention and Early Intervention
December 2016**

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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 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 FY2016. The information included in this report is drawn from DFPS contracts with TNFP sites, community level reports to DFPS, 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 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 15 state-funded sites serving low-income first time mothers in 24 counties across the state. In FY2016, these sites served 2,765 clients, enrolled 1,283 new clients, and had an average monthly caseload of 1,813 clients. These clients were served with equal or greater fidelity to each of the model elements than NFP sites nationally, which led to healthier pregnancies, increased vaccination rates, and lower preterm birth rates than Texas as a whole; and saw rates of initial breastfeeding exceeding the Healthy People 2020 goals.

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 FY2016, 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 FY2016. The information included in this report is drawn from DFPS contracts with TNFP sites, community level reports to DFPS, and the NFP data reporting system Efforts to Outcomes.

This report includes six sections of interest to legislators and the general public. The sections include:

1. an introduction that includes background information about the Nurse Family Partnership (NFP) nationally, and in Texas;
2. a description of TNFP program sites, including their location, funding, capacity, and staffing;
3. an overview of demographic information on the clients served by TNFP;
4. information on model adherence by TNFP
5. an overview of key outcomes achieved by TNFP sites in 2016; and
6. a summary of the findings of this report and discussion of the activities and goals of TNFP in FY2017 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.ⁱ Since then, NFP programs have expanded to 43 states and the U.S. Virgin Islands and have served approximately 224,799 families nationally.ⁱⁱ 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.

The Evidence Base of NFP

NFP is an evidence-based program, meaning that randomized control trials with diverse populations have been conducted on the NFP. 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

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.

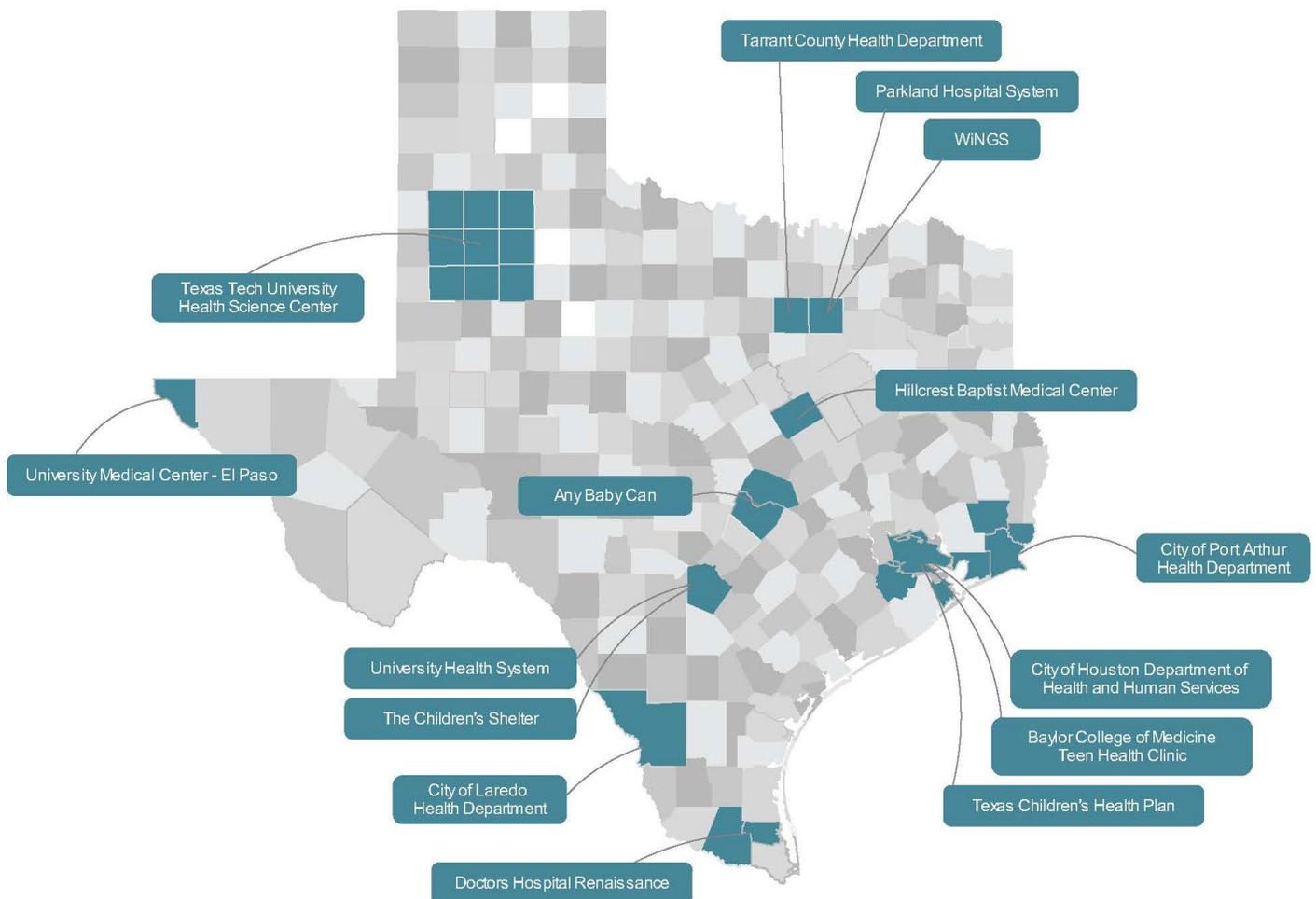
Several studies have been completed on NFP's impact on families and the communities they serve. A study completed in 2013^{iv} by the Pacific Institute for Research and Evaluation (PIRE) found that for every 1,000 low-income families served by NFP, they anticipate preventing an estimated:

- 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 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.

TNFP Sites

In FY2016, PEI awarded over \$11.4 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. Two sites were awarded TNFP programs for the first time in fiscal year 2016. Hillcrest Baptist Medical Center in Waco was a new grantee to the program, and is entirely funded by state supervised funds. Doctors Hospital Renaissance in McAllen/Edinburg was previously receiving federal funding from the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program to run its NFP program, but TNFP funds allowed them to add another nurse home visitor to better serve their clients. Table 1 shows the list of funded sites for FY2016 along with their locations, counties served, total FY2016 grant award, and funded capacity.

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.

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

Location	Organization	Counties Served	FY2016 Grant Amount	Program Capacity*
Austin	Any Baby Can	Travis	\$820,311	200
Houston	Baylor College of Medicine	Fort Bend, Harris	\$739,982	125
Houston	City of Houston	Fort Bend, Harris	\$728,016	100
Laredo	City of Laredo	Webb	\$521,159	100
Port Arthur	City of Port Arthur Doctors Hospital	Chambers, Hardin, Jefferson, Orange	\$580,633	100
McAllen/Edinburg	Renaissance** Hillcrest Baptist	Hidalgo, Willacy	\$99,143	25
Waco	Medical Center	McLennan	\$718,931	150
Dallas	Parkland Hospital	Dallas, Tarrant	\$933,563	150
Ft. Worth	Tarrant County Texas Children's	Dallas, Tarrant	\$865,037	175
Houston	Health Plan	Harris	\$700,876	125
Lubbock	Texas Tech Health Science Center The Children's	Crosby, Floyd, Garza, Hale, Hockley, Lamb, Lubbock, Lynn, Terry	\$937,307	200
San Antonio	Shelter University Health	Bexar	\$944,239	200
San Antonio	System University Medical	Bexar	\$1,006,404	200
El Paso	Center El Paso WiNGS (previously	El Paso	\$547,079	125
Dallas	YWCA Dallas)	Dallas, Tarrant	\$1,300,000	300
TOTAL			\$11,442,680	2,275

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

** Site also receives federal funding for their home visiting program. Data is related to funding from Texas sources only.

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 FY2016, TNFP funded 89 home visitor positions and 15 nurse supervisor positions 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 carry a caseload of between 23 and 25 clients at a time.^v In exceptional circumstances such as staff leave, vacancies, and client transition periods leading up to program graduation; home visitors may exceed the maximum caseload of 25 clients, 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 FY2016 there were five nurse home visitor vacancies (two of these positions were filled starting in September 2016), and one supervisor vacancy. Sixteen new home visitors have been hired in the past nine months and had capped caseloads as they become fully trained throughout their first year. NFP program best practice requires nurse home visitors with less than 6 months experience to carry a reduced caseload and build up to a full caseload within their first year of service.

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 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 provide a maximum of 65 visits to clients enrolled in the program from the second trimester until the child's second birthday. Clients are 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.

During this process, the nurse home visitor also builds a strong and supportive relationship with the family.

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.

Clients Served in FY2016

In FY2016, TNFP sites served 2,765 clients, 78 percent of whom had an infant. The average monthly client load by site ranged from 56 percent to 95 percent of total capacity for sites in existence for at least one year. The average monthly caseload for the two new sites were 26 percent of capacity at Hillcrest Baptist Medical Center and 37 percent of capacity at Doctor's Hospital Renaissance. These average caseloads are to be expected given the newness of these sites and are expected to increase as their new staff become fully trained in FY2017. Table 2 shows program capacity, total clients served, average monthly caseload, and the number of newly enrolled clients at each site for FY2016.

Table 2. Clients Served and Enrolled by Site in FY 2016

Location	Organization	Program Capacity	Total Clients Served	Avg. Monthly Caseload	Newly Enrolled Clients
Austin	Any Baby Can	200	275	168	167
Houston	Baylor College of Medicine	125	115	76	25
Houston	City of Houston	100	127	81	66
Laredo	City of Laredo	100	95	56	40
Port Arthur	City of Port Arthur	100	151	95	47
McAllen/Edinburg	Doctors Hospital				
	Renaissance*	25	10	9	88
	Hillcrest Baptist				
Waco	Medical Center	150	91	39	95
Dallas	Parkland Hospital	150	183	122	98
Dallas	Tarrant County	175	211	156	73
	Texas Children's				
Houston	Health Plan	125	150	104	57
	Texas Tech Health				
Lubbock	Science Center	200	235	156	89
	The Children's				
San Antonio	Shelter	200	271	185	94
	University Health				
San Antonio	System	200	268	186	90
	University Medical				
El Paso	Center El Paso	125	157	102	67
	WiNGS (previously				
Dallas	YWCA Dallas)	300	426	265	187
	Total	2,275	2,765	1,813	1,283

* Only includes TNFP funded clients

Source: Location, program capacity and average monthly caseload data from monthly reports to DFPS. Total clients served and newly enrolled clients retrieved from ETO in September 2016.

Clients Enrolled in FY2016

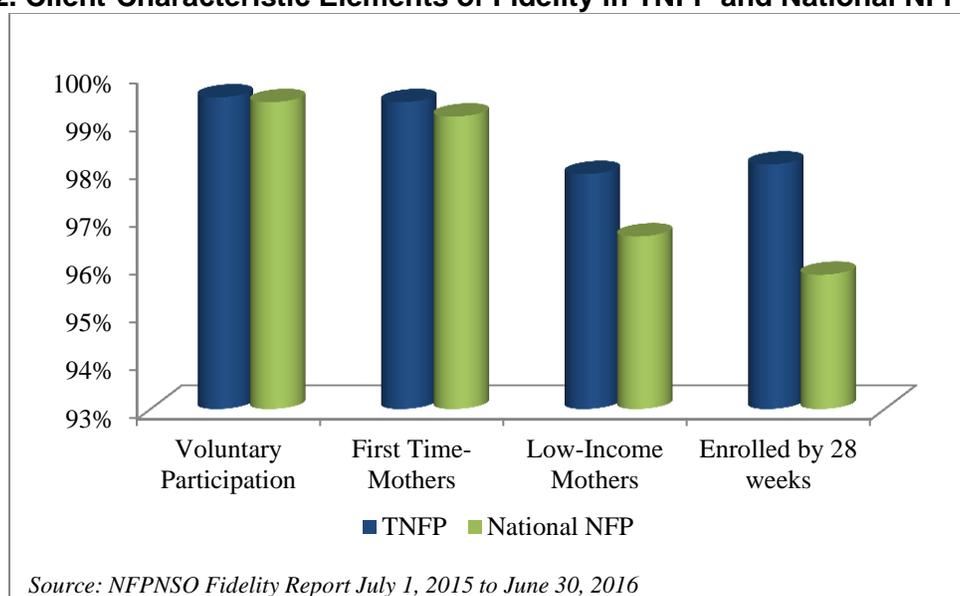
To determine whether National Nurse-Family Partnership programs are operating with fidelity to the model, NFPNSO issues quarterly fidelity reports that show whether each site adheres to the measurable model elements. The most recent fidelity report covered program year 2016 (July 1, 2015 to June 30, 2016).

In program year 2016:

- 99 percent of newly enrolled TNFP clients were first-time mothers,
- 98 percent had income below 185 percent of the poverty level, and
- 98 percent were enrolled before their 28th week of pregnancy.

All clients resided in Texas and 100 percent agreed to participate voluntarily. In each case, TNFP fared better than the nation as a whole, as illustrated in figure 1, below.

Figure 2. Client-Characteristic Elements of Fidelity in TNFP and National NFP, PY 2016



In FY 2016, TNFP enrolled 1,283 participants. Clients came to TNFP in FY2016 through referrals from various sources, including:

- Women, Infants, and Children (WIC) (22%),
- healthcare providers and clinics (18%),
- schools (14%), and
- pregnancy testing clinics (11%).

The clients enrolled by TNFP in FY2016 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.

The majority of clients that TNFP enrolled in FY2016 are young mothers. The median age of clients served was 20 years old and the most frequently reported age range was 20 to 24 (33 percent). There were a number of enrolled clients who fell into higher risk groups based on age:

- 22 percent were under age 18,
- 2 percent were very young teens (under age 15).

Nationally, 19 percent of newly enrolled clients were under age 18. 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, 58 percent identified as White, the largest racial group, and 26 percent identified as Black or African American. In FY2016, 60 percent of clients identified as Hispanic or Latino, but there was wide variation in race and ethnicity served by site. 100 percent of clients who enrolled at Doctor's Hospital Renaissance and the City of Laredo identified as White and Hispanic or Latino, while only 23 percent of the mothers who enrolled with the City of Port Arthur's NFP program identified as Hispanic and Latino, and 52 percent of clients who enrolled at the Houston Department of Health and Human Services identified as Black or African American.

This diversity was also reflected in the primary language spoken. Overall, 81 percent of newly enrolled TNFP clients spoke English as their primary language. While 98 percent of newly enrolled clients spoke English as their primary language at the Port Arthur site, the majority of clients enrolled at the City of Laredo (53 percent) spoke Spanish as their primary language. Only 2.5 percent of newly enrolled TNFP clients identified a language other than English or Spanish as their primary language in FY2016. 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, FY2016

Characteristic	Texas Nurse-Family Partnership (FY2016)*	National Nurse-Family Partnership (PY2016)**
Age	(n=1,280)	(n=21,849)
Under 15	1.8%	1.6%
15 to 17	20.5%	17.3%
18 to 19	22.6%	20.8%
20 to 24	32.9%	35.3%
25 to 29	13.4%	15.6%
30+	8.9%	9.3%
Ethnicity	(n=1,255)	(n=20,587)
Hispanic	60.2%	33.0%
Not Hispanic	36.7%	62.8%
Declined to Self-Identify	3.1%	4.1%
Race	(n=1,255)	(n=20,590)
Black or African American	25.8%	28.6%
White	58.4%	48.2%
Multiracial	2.3%	5.1%
Other	3.1%	5.8%
Declined to Self-identify	10.4%	12.3%
Primary Language	(n=1,255)	(n=20,592)
English	80.6%	84.0%
Spanish	16.9%	12.3%
Other	2.5%	3.7%

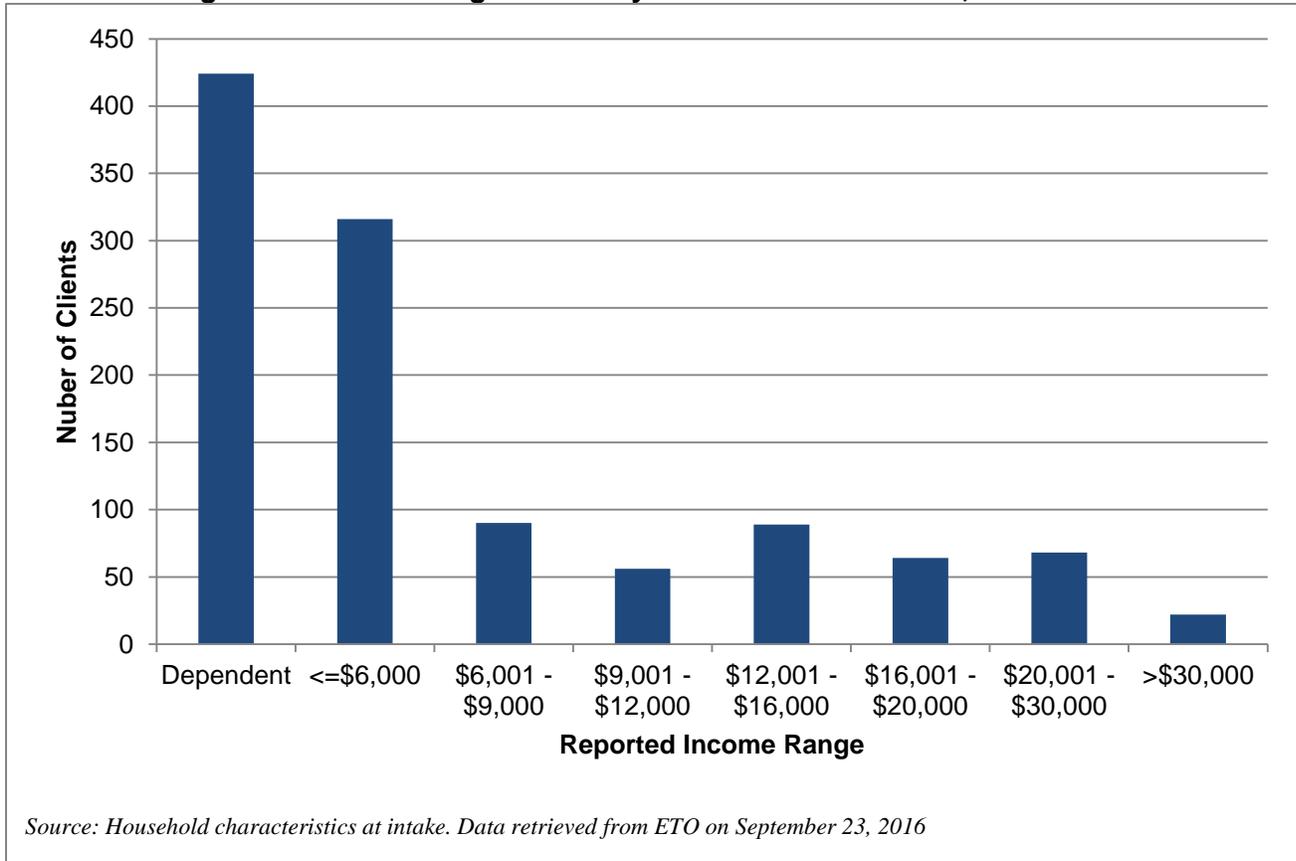
* A total of 1,283 new clients enrolled in TNFP fiscal year 2016, across all sites, not including clients who re-enrolled or clients who transferred between home visiting teams at the same site. Some clients had missing data for one or all of the demographic categories, but missing data were not included in the calculations.

** Data for TX FY2016 are not available at the national level. Data for program year 2016, which spans July 1, 2015 to June 30, 2016 are provided as a point of comparison. A total of 21,879 new clients enrolled in national NFP sites in program year 2016.

Source: DFPS analysis of data TNFP site data from Efforts to Outcomes, retrieved September 27, 2016 and National statistics from PY2016 Quarterly reports

Figure 2, shows the income distribution of clients enrolled in the TNFP program in fiscal year 2016. While all TNFP clients were required to be low-income, the data shows that TNFP program sites are serving a large number of participants who are very low-income. Of the 1,129 enrolled clients who reported income information, 38 percent of clients reported that they were financially dependent on their parents or guardians. Among those who were not dependents (705 clients), 45 percent reported that they had income of \$6,000 or less per year, or 20 percent of the federal poverty level for a household of two and 58 percent reported making less than \$9,000 per year, approximately 30 percent of the federal poverty level for a household of two.

Figure 3. Income Ranges of Newly Enrolled TNFP Clients, FY2016



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 NFP National Service Office (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 2016 (July 1, 2015 to June 30, 2016), all TNFP sites were in compliance with the 18 model elements.

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 were two additional types of elements that were 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.

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 her individual client's needs and empowering the client 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 followed NFPNSO guidelines pertaining to home visits. Overall, 98 percent of all TNFP visits in program year 2016 were one-on-one with clients. This is nearly identical to the percent of NFP visits done one-on-one at the national level. While all TNFP sites had at least some group visits, no site had more than 3.2 percent of visits being conducted in a group setting.

Element 6. *The program is delivered in the client's home.* 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.

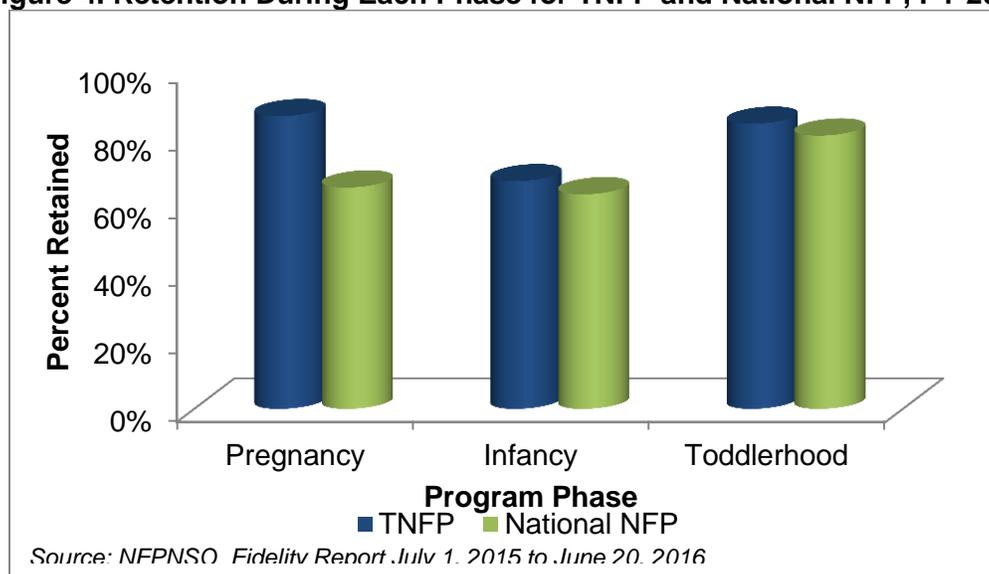
Overall, 89 percent of TNFP visits took place in the home and 97 percent of clients received at least one home visit in program year 2016.^{vii} TNFP performed better than the nation on these measures. Nationally, 87 percent of visits occurred in the home and 95 percent of clients received at least one home visit.

Element 7. *Client is visited throughout her pregnancy and the first two years of her child's life in accordance with the current NFPNSO guidelines.* 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 can be and 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 national NFP for all three phases. Figure 3, below shows the differences between TNFP and national NFP. The greatest difference was during the pregnancy period, where TNFP retained 86 percent of clients while national NFP retained only 65 percent of clients. 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.

Figure 4. Retention During Each Phase for TNFP and National NFP, PY 2016



Element 10. Nurse home visitors, using professional knowledge, judgment, and skill, apply the Nurse-Family Partnership Visit-to-Visit Guidelines, individualizing them to the strengths and challenges of each family and apportioning time across 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

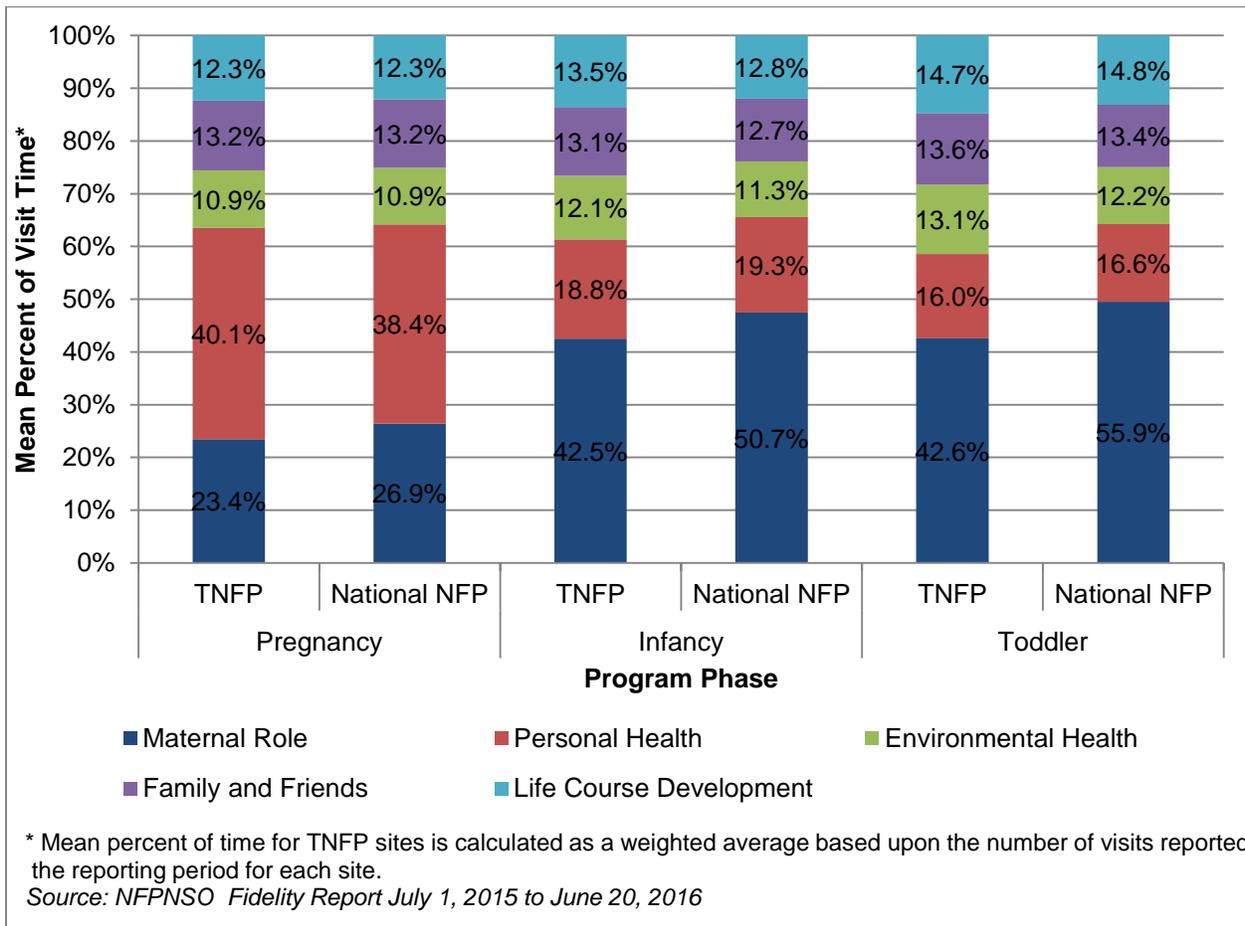
Domain	Issues Addressed
Personal Health	Health maintenance practices, nutrition and exercise, substance abuse, and mental health functioning
Environmental Health	The adequacy of home, work, school, and neighborhood for maternal and infant health
Life Course Development	Client goals related to childbirth planning and economic self-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 Health and Human Services	Helping clients deal with relationship issues, and enhance their own goals and management of child care
	Linking families with needed community resources

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.

TNFP home visitors met the expectations of NFPNSO on the proportion of time spent at each home visit devoted to the five domains on which there is guidance. 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.

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. Overall, TNFP sites spent less time discussing the maternal role than national NFP, but were only below the NFP Objective for discussion of the maternal role during the infancy period (42.5 percent compared to minimum of 45 percent). TNFP met the objectives for all other domains in each phase.

Figure 5. Average Time Spent Per Visit on Each Domain for TNFP and National NFP, Program Year 2016



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 well-being; 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 their state nurse consultant and NFPNSO on the hire.

At the end of program year 2016, all TNFP program sites were in adherence with this program element. 97 percent of TNFP nurse home visitors have a Bachelor's degree or higher in nursing, as compared to 87 percent nationally. Of those, 12 percent of nurse home visitors have a master's degree in a relevant field, which is on par with nurse home visitors 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 2016, 91 percent of nurse home visitors at TNFP sites had completed their initial NFPNSO educational training sessions. Of the remaining 9 percent who had not completed their initial training, just over half had been employed with TNFP less than 9 months.

Sufficiently educated and thoroughly trained nurse home visitors are a necessary component to the accurate and regular assessment of the maternal and child health and well-being of their clients. TNFP meets model standards on both elements related to nurse home visitor's assessment ability. The expectation is that the intervention provided by nurse home visitors *improves* the health and well-being of families, as measured by those assessments over time. To improve family health and well-being nurse home visitors made over 11,000 referrals to other services in fiscal year 2016. Of those:

- 26 percent were to healthcare services;
- 18 percent were to government assistance programs like WIC, CHIP, and Medicaid;
- 6 percent were to mental health and substance abuse services;
- 5 percent were to education services;
- 1 percent were to crisis intervention services; and
- 52 percent were to other services, which include transportation, housing, job training, charitable services, paternity services, legal services, dental care, injury prevention, childbirth and lactation classes.

The goal is that these referrals stem from assessments and will ultimately lead to positive outcomes for the families served by TNFP. The outcomes related to those assessments are discussed in the next section of the report.

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 FY2016, 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 FY2016, 96 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 at this time. Future data matching may include this variable.

It should be noted that six percent of newly enrolled NFP clients screened positive on an Intimate Partner Violence screener, given at program enrollment. Mothers experiencing intimate

partner violence are less likely to establish paternity prior to or at birth due to safety concerns for themselves and their child.^{viii}

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 FY2016 data, TNFP programs appear to be associated with improved short-term outcomes that have an impact on long-term health and well-being.

Healthy Pregnancies

TNFP clients enroll in the program early, 98 percent are enrolled by 28 weeks gestation. Early enrollment in the program allows nurse home visitors to intervene in maternal health during the course of pregnancy and help mothers access support services that meet her needs. Early intervention has the potential to reduce risk factors for preterm birth and other maternal and child health problems. For those clients who enrolled and gave birth in fiscal year 2016, 3 percent reported smoking, 1.5 percent reported using alcohol, 1.5 percent reported using marijuana, and less than 1 percent reported using cocaine or other drugs at intake. By the end of the pregnancy (36 weeks), marijuana and alcohol use had both decreased by 87.5 percent and no clients reported using cocaine or other drugs. While the number of clients who smoked had not decreased, the smoking frequency of those who continued to smoke heavily during pregnancy (4 or more cigarettes in a 48 hour period) decreased by an average of 4.75 cigarettes per person between intake and 36 weeks gestation. While these numbers may seem small, substance abuse and use during pregnancy increases the risk of preterm birth, infant mortality, and health problems such as heart defects, birth defects, neonatal abstinence syndrome, infections, learning and behavior problems, delayed growth, and sudden infant death syndrome. Reducing the incidence of these behaviors is important for improving family and child health and well-being.^{ix}

Nurse home visitors also screen for intimate partner violence (IPV) at intake and the end of pregnancy. A 2010 NIH study found that IPV during pregnancy was associated with lower birth weights, suggesting a link between IPV and fetal health.^x IPV has also been linked to future child maltreatment after the baby is born.^{xi} Of the clients who enrolled in TNFP and gave birth in FY2016, 553 were screened for IPV. Of those, two percent screened positive for IPV at intake, and only 0.5 percent screened positive at 36 weeks gestation, a seven percent decrease.

Preterm 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.^{xii} 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.^{xiii} Of the babies born to clients who enrolled in TNFP in Fiscal Year 2016, 9.9 percent were born preterm.

Despite the many risk factors faced by teen moms, even fewer of the 173 births to teen moms were preterm (8.1 percent). The most recent data from the Centers for Disease Control (CDC) on preterm births in Texas estimates the overall preterm birth rate at 10.3 percent and the preterm rate to teen mothers at 10.8 percent.^{xiv} Given that TNFP serves first-time mothers with multiple risk factors for preterm birth, a preterm birth rate better than the state average suggests

that the interventions provided by the program in the pregnancy phase are reducing this risk factor.

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.^{xv}

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 655 infants whose mothers enrolled in TNFP in FY2016, 91 percent received some breast milk. This exceeds the Healthy People 2020 Target (82 percent) and the most recent overall rate for Texas (83 percent in 2012).^{xvi}

Child Immunizations

Ensuring that children receive their recommended immunizations is an important goal of NFP nationally. Immunizing children protects them from communicable diseases, but also helps create herd immunity to protect those too young, immune-compromised, or otherwise unable to receive vaccinations against disease. For those children whose mothers enrolled in TNFP in FY2016, 94 percent were current with their vaccinations at six months and 100 percent were current at 12, 18, and 24 months. This exceeds the NFP objective of 90 percent of eligible infants immunized at each stage.

TNFP FY 2016 Outcomes by the Numbers

- 96% of clients completed an Acknowledgement of Paternity (AOP) with TNFP staff prior to delivery
- 87.5% decrease in clients who used marijuana or alcohol from intake to the end of pregnancy for clients who enrolled in FY 2016
- 91% of babies born to clients who enrolled in FY 2016 received some breast milk
- 100% of babies born to clients enrolled in FY 2016 were current with their vaccinations at one year

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 FY2016 is predicted to have positive impacts on the lives of families served by the program and their communities for years to come.

TNFP's work will continue into FY2017 and beyond. Now that TNFP has fully merged into DFPS Prevention and Early Intervention Division, communities can leverage the efforts of TNFP along with other early childhood programs such as Texas Home Visiting (THV), Safe Babies, and Healthy Outcomes through Prevention and Early Support (HOPES). With all of these programs working together, communities can increase capacity to serve families and create pathways of service across all stages of early childhood.

In FY2017, TNFP will also be partnering with the Department of State Health Services (DSHS) and the March of Dimes on the Smoking Cessation and Reduction in Pregnancy Treatment (SCRIPT) program to try to improve outcomes around smoking cessation during pregnancy. The DFPS and DSHS *Strategic Plan to Reduce Child Abuse and Neglect Fatalities* found that smoking during pregnancy not only affects fetal and maternal health, but is a risk factor for child maltreatment after birth.^{xvii} With a combination of breathalyzer screening that visually depicts the impact of smoking on the fetus and practical quitting tools, SCRIPT is an award-winning evidence-based program shown to be effective in helping pregnant women quit smoking. We are excited by the potential of this partnership to help improve smoking cessation outcomes during pregnancy among the mothers we serve and will analyze the effectiveness of this pilot program in reducing this important risk factor during the coming fiscal year.

FY2018 and FY2019 will also see new attempts at data collection, management, and analysis. As part of the merger, the research and outcomes team at PEI is working 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. We also hope to work with the Attorney General's Office to better track establishment of paternity among participating families. These new data collection efforts will be tracked and monitored in the new PEI-R data system, currently in development. The new system will allow PEI and TNFP sites to collect and use data on a daily basis and become truly data informed in the work they do for communities. PEI's research and outcomes team will continue to work with TNFP sites and NFPNSO to reduce the data collection burden, improve data collection and coding procedures, and monitor data quality using these new tools so that TNFP can analyze, report, and support positive program outcomes through rigorous measures.

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.
- **Element 7:** Client is visited throughout her pregnancy and the first two years of her child's life in accordance with the current Nurse-Family Partnership guidelines.

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 complete core educational sessions required by the Nurse-Family Partnership National Service Office and deliver the intervention with fidelity to the Nurse-Family Partnership model.
- Application of the Intervention
- **Element 10:** Nurse home visitors, using professional knowledge, judgment, and skill, apply the Nurse-Family Partnership visit guidelines, individualizing them to the strengths and challenges of each family and apportioning time across defined program domains.
- **Element 11:** Nurse home visitors apply 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 no more than 25 active clients.

Reflection and Clinical Supervision

- **Element 13:** A full-time nurse supervisor provides supervision to no more than eight individual nurse home visitors.
- **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 use Nurse-Family Partnership reports to guide their practice, assess and guide program implementation, inform clinical supervision, enhance program quality, and demonstrate program fidelity.

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 long-term community advisory board that meets at least quarterly to promote 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, New York in 1978. NFP mothers from Elmira and their children have been followed since 1978.

ⁱⁱ Nurse Family Partnership. (2015). Nurse Family Partnership Snapshot. Retrieved July 31, 2015 from http://www.nursefamilypartnership.org/assets/PDF/Fact-sheets/NFP_July_2015_Snapshot.aspx.

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>. In 2016, 185 percent of the federal poverty guideline for a household of two is \$29,637. Pregnant women enrolling in the program are considered two individuals for eligibility purposes.

^{vii} One site, Doctor's Hospital Renaissance, was excluded from the analysis on this element. There were data collection and coding issues on this measure. This is currently being addressing through NFPNSO staff.

^{viii} Child and Family Research Partnership (2014). *Relationship Violence and Paternity Establishment: Mapping the Policy Implications*. Retrieved September 13, 2016 from http://childandfamilyresearch.org/content/uploads/CFRPBrief_B0111014_RelationshipViolencePaternity.pdf.

^{ix} March of Dimes. *Street drugs and pregnancy*. White Plains (NY), 2013. Available from <http://www.marchofdimes.org/pregnancy/street-drugs-and-pregnancy.aspx>

^x Aizer A. Poverty, Violence and Health: The Impact of Domestic Violence During Pregnancy on Newborn Health. *The Journal of human resources*. 2011;46(3):518-538. doi:10.1353/jhr.2011.0024.

^{xi} Casanueva, Cecilia E., and Sandra L. Martin. "Intimate partner violence during pregnancy and mothers' child abuse potential." *Journal of interpersonal violence* 22.5 (2007): 603-622.

^{xii} 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

^{xiii} 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

^{xiv}

^{xv} 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

^{xvi} CDC Division of Nutrition, Physical Activity and Obesity: Data, Trends and Maps. 2012: Percent of infants who were ever breastfed. Atlanta (GA). Available at https://nccd.cdc.gov/NPAO_DTM/IndicatorSummary.aspx?category=8&indicator=48

^{xvii} 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