# Nurse-Family Partnership Literature Review

## What is Nurse-Family Partnership?

Nurse-Family Partnership® (NFP) is an evidence-based nurse home visiting program that serves low-income first-time mothers and their children from pregnancy to their child's second birthday. The NFP model aims to improve outcomes related to child health and development, maternal health and life course and family economic self-sufficiency.[1]

## NFP History and Research

The NFP model was developed in the 1970s to improve the lives of low-income mothers and their children.[2] It has been extensively studied through three randomized controlled trials (RCTs) that are still active. Numerous follow-up studies have been conducted, with the current maximum length of follow-up 21 years postpartum. The New York City (NYC) Health Department began implementing NFP in 2003 and its citywide program, NYC NFP, is the largest urban NFP program in the country.

## NFP RCTs

1. **Elmira, NY (1977) (E):** Population: N=400; low-income white women; semi-rural area
2. **Memphis, TN (1990) (M):** Population: N=1,138; low-income black women; urban area
3. **Denver, CO (1994) (D):** Population: N=735; large proportion of Hispanic women[3]

## Selection of Significant Findings from NFP RCTs

The following is a sample of the observed outcomes from one or more of the three NFP RCTs. Trial location is denoted by a superscript ***E, M or D***. Categories that saw positive outcomes in two or more trial locations are represented with an asterisk (*). Please note that not every category was studied in every trial. Independent reviewers at Mathematica Policy Research rated the studies included in this review as being of high or moderate quality.

***Child Health, Development and School Readiness***

- **Social-Emotional Development:** At 6 months of age, there was a 59.4% relative reduction in exhibiting low emotional vitality in response to anger stimuli among NFP children, compared to non-NFP children (13.0% vs. 32.0%, respectively).[4-D]
- **Language Development:*** At 21 months of age, there was a 50.0% relative reduction in language delays among NFP children, compared to non-NFP children (6.0% vs. 12.0%, respectively). During the same time period, there was a 61.1% relative reduction in language delays in children born to the most at-risk[i] NFP mothers, compared to children born to the most at-risk[i] non-NFP mothers (7.0% vs. 18.0%, respectively).[4-D]
- **Breastfeeding:** At two years postpartum, there was a 62.5% relative increase in attempting breastfeeding among NFP mothers, compared to non-NFP mothers (26.0% vs. 16.0%, respectively).[5-M]
- **ER Visits:** Between birth and age 4, NFP children had, on average, fewer emergency department visits than non-NFP children, with increasing differences over time (between 0 and 12 months, 0.7 vs. 1.0 visits, respectively; between 13 and 24 months, 0.7 vs. 1.1 visits, respectively,[6-E] and between 25 and 50 months, 1.0 vs. 1.5 visits, respectively).[7-E]
- **Cognitive Development:** At age 4, children born to the most at-risk[i] NFP mothers scored higher, on average, on a cognitive tasks assessment than children born to the most at-risk[i] non-NFP mothers (100.2 vs. 95.5, respectively).[8-D]
- **Participation in Early Childhood Education:** Between 24 and 54 months of age, there was a 9.5% relative increase in attending preschool, day care, Head Start or early intervention programs among NFP children, compared to non-NFP children (82.0% vs. 74.9%, respectively).[9-M]
- **Behavioral Problems:*** At age 6, there was a 66.7% relative reduction in behavioral and emotional problems among NFP children, compared to non-NFP children (1.8% vs. 5.4%, respectively).[9-M]
- **Substance Use:** At age 12, there was a 66.7% relative reduction in the use of cigarettes, alcohol or marijuana in the past 30 days among NFP children, compared to non-NFP children (1.7% vs. 5.1%, respectively).[10-M]
- **Academic Achievement**: At age 12, children born to the most at-risk[i] NFP mothers scored higher, on average, on standardized academic tests[ii] than children born to the most at-risk[i] non-NFP mothers (88.8 vs. 85.7 points, respectively).[10-M]

- **Adolescent Involvement with the Legal System:** At age 19, there was a 66.7% relative reduction in having ever been arrested among female NFP children, compared to female non-NFP children (10.0% vs. 30.0%, respectively). Additionally, there was an 80.0% relative reduction in having ever been convicted of a crime among female NFP children, compared to female non-NFP children (4.0% vs. 20.0%, respectively).[11-E]

***Maternal Health and Life Course***

- **Prenatal Health:*** At the 36th week of pregnancy, there was a 35.5% relative reduction in pregnancy-induced hypertension among NFP mothers, compared to non-NFP mothers (13.0% vs. 20.0%, respectively).[5-M]
- **Psychiatric Health:** At two years postpartum, NFP mothers scored higher, on average, on a validated assessment of one's sense of mastery and control over their life[iii] than non-NFP mothers (101.6 vs. 99.4, respectively).[5-M] Similar results were also found, using the same measures, between six months and 12 years postpartum (101.0 vs. 99.6, respectively).[12-M]
- **Subsequent Pregnancies:*** At two years postpartum, there was a 23.4% relative reduction in subsequent pregnancies among NFP mothers, compared to non-NFP mothers (36.0% vs. 47.0%, respectively).[5-M] At nine years postpartum, the time between the birth of their first and second child was 6.6 months longer, on average, among NFP mothers, compared to non-NFP mothers (40.7 vs. 34.1, respectively).[13-M]
- **Intimate Partner Violence:** At four years postpartum, there was a 49.3% relative reduction in any domestic violence experienced in the past six months among NFP mothers, compared to non-NFP mothers (6.9% vs. 13.6%, respectively).[8-D]
- **Substance Use:** At 12 years postpartum, 0.0% of NFP mothers reported role impairment (with family, friends or work) due to alcohol or drug use, compared to 2.5% of non-NFP mothers.[12-M]
- **Mortality:** At 21 years postpartum, there was a 64.9% relative reduction in all-cause mortality among NFP mothers, compared to non-NFP mothers (1.3% vs. 3.7%, respectively).[14-M]

***Parenting Practices and Child Maltreatment***

- **Positive Parenting Behaviors and Interaction with Infant:*** At six months postpartum, NFP mothers had a higher number of total positive responses to behavioral problems (e.g., feeding difficulties, crying) than non-NFP mothers (0.8 vs. 0.5, respectively).[6-E]
- **Home Safety:** At 46 months postpartum, NFP families' mean score on a checklist of hazardous exposures in their home (e.g., chipped or flaking paint, sharp objects, risks of burns or falling objects) was lower than non-NFP families' mean score (0.2 vs. 0.5, respectively).[7-E]
- **Injuries and Ingestions:*** Between 25 and 50 months of age, NFP children had fewer injuries and ingestions in their physician record, on average, than non-NFP children (0.3 vs. 0.6, respectively).[7-E]
- **Child Abuse and Neglect:** At 15 years postpartum, NFP mothers had fewer substantiated reports of child abuse and neglect, on average, than non-NFP mothers (0.3 vs. 0.5, respectively).[15-E]

***Economic Self-Sufficiency***

- **Employment:** Between 13 and 24 months postpartum, NFP mothers were employed longer, on average, than non-NFP mothers (6.9 vs. 5.7 months, respectively).[4-D]
- **Use of Benefits:*** Between giving birth and 60 months postpartum, NFP mothers received food stamps for 3.5 fewer months, on average, than non-NFP mothers (41.6 vs. 45.0 months, respectively).[16-M]

## Conclusion

These findings confirm that the NFP model improves outcomes related to child health, development and academic success; maternal health and life course; parenting practices; and economic self-sufficiency. Positive effects were found in different time periods and geographic locations, with participants from various racial and ethnic backgrounds, and have been demonstrated up to 21 years postpartum.[3] As a result, we can infer that NFP is an effective public health intervention for low-income and at-risk communities.

To learn more about the Nurse-Family Partnership model or RCTs, please visit nursefamilypartnership.org.
To contact the NYC NFP program, please call 347-396-4200 or email nycnfp@health.nyc.gov.
For more information on NYC NFP, please visit nyc.gov/health/nfp.

## References


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[i] "Most at-risk" refers to having "low psychological resources," defined by the researchers as having limited intellectual functioning, mental health and sense of control over life circumstances.

[ii] The Peabody Individual Achievement Test (PIAT), which assesses reading and math achievement

[iii] The Pearlin Mastery Scale, which assesses the degree to which a person has a sense of mastery or control over their life

# New York City Nurse-Family Partnership

## Program Referral Information

To refer a first-time mother, download the referral form at **nyc.gov/health/nfp** and send it via email (secure or encrypted only) to **nycnfp@health.nyc.gov** or fax it to the NYC NFP program site nearest the client. Clients who are homeless, in foster care or involved in the criminal or juvenile justice system should be referred to NYC NFP's Targeted Citywide Initiative.

### NYC Nurse-Family Partnership Program Sites

#### Bronx

**Bronx NFP (Visiting Nurse Service of New York)**
Tel 718-536-3789 • Fax 718-678-8424
Email NFPReferrals@vnsny.org

#### Brooklyn

**Central Brooklyn NFP (SCO Family of Services)**
Tel 718-257-7208 • Fax 718-566-7045
Email nycnfp@health.nyc.gov

**Woodhull Hospital NFP (NYC DOHMH)**
Tel 646-937-4131 • Fax 718-291-1974
Email nfpwoodhull@health.nyc.gov

#### Manhattan

**Manhattan NFP (NYC DOHMH)**

Harlem Hospital Team
Tel 917-612-9427 • Fax 646-364-0782
Email nfpharlem@health.nyc.gov

Metropolitan Hospital Team
Tel 646-306-4857 • Fax 212-771-0267
Email nfpmetro@health.nyc.gov

#### Queens

**Jamaica NFP (NYC DOHMH)**
Tel 718-553-3900 • Fax 718-553-3999
Email nfpjamaica@health.nyc.gov

**Northern Queens NFP (Public Health Solutions)**
Tel 347-571-2792 • Fax 347-571-2797
Email nfp-referrals@healthsolutions.org

#### Staten Island

**Staten Island NFP (Public Health Solutions)**
Tel 718-313-1800 • Fax 718-816-5121
Email nfp-referrals@healthsolutions.org

#### Foster Care • Homeless • Criminal Justice • Juvenile Justice

**NYC NFP Targeted Citywide Initiative (NYC DOHMH)**
Serves anyone in New York City having their first baby who is homeless, in foster care or involved in the criminal or juvenile justice system.
Tel 646-364-0726 • Fax 646-364-0781
Email nfptci@health.nyc.gov

For more information, visit **nyc.gov/health/nfp,** email **nycnfp@health.nyc.gov** or call 311 and ask for **Nurse-Family Partnership.**

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