Nurse Family Partnership

Goals

The goals of Nurse-Family Partnership (NFP) are the following: 1) to improve pregnancy outcomes, 2) to improve child health and development, and 3) to improve the economic self-sufficiency of the family (Nurse-Family Partnership website).

Program Features

Providing mothers with education about and support during their pregnancy and childbirth experiences are strategies that reduce the likelihood of pregnancy and birth complications. Children from low income families who experience fewer complications during pregnancy and birth begin life with fewer challenges to overcome. Helping first-time mothers learn good techniques for providing children responsible and competent care helps to shape positive parent-child interactions. Positive parent-child interactions set children on a path toward optimal social-emotional development and positive cognitive outcomes.

In Nurse-Family Partnership, nurses conduct home visits beginning at pregnancy and continuing until the child is 2 years old (Nurse-Family Partnership website). The home-visiting nurse must be trained in how to develop therapeutic relationships and in the content of the home visits. The program is built around 64 home visits, each lasting between 60 and 90 minutes. The mothers are enrolled as early as possible, ideally by the 16th week of pregnancy. Nurses begin weekly home visits as soon as the mother is enrolled and continue for the first six weeks after delivery. Home visits are reduced to every other week until the child is 21 months old and then occur monthly until the child's second birthday.

Nurse Family Partnership Snapshot

- **EC Profile Indicator:** FS30 - Percent of children age 0-5 with an investigated report of child abuse/neglect
- **Clearinghouse Rating:**
  - California Evidence-Based Clearinghouse rating of Well-Supported by Research Evidence
  - Home Visiting Evidence of Effectiveness
  - Promising Practices Network rating of Proven
- **Research supports** use with low income, first-time mothers who enroll early in their pregnancy
- **Related Smart Start outcomes:**
  - Increase in parent knowledge
  - Increase in positive parenting practices
  - Parents increase use of services referred to in the community
- **Purveyor training required:** Yes
- **Staff qualifications:** Registered nurse
- **Frequency:** Every week until six weeks after delivery and then every other week until the child is 21 months of age. Then, monthly until child's second birthday.
- **Dosage:** 60-90 minutes per visits
- **Minimal service threshold:** From the time of enrollment through the child's second birthday
- **Suggested Assessments:** Varies
- **Implementation Guidance:** http://www.nursefamilypartnership.org

The focus of the home-visiting content changes over time. During pregnancy, the nurse focuses on helping pregnant women find prenatal care, improve their diet, and reduce the use of cigarettes, alcohol, and illegal substances. Nurses also help the mother prepare emotionally for the arrival of the baby by educating her on the birth process and the immediate challenges of the first few weeks after delivery. They provide individualized parent coaching aimed at

increasing awareness of specific child development milestones and behaviors, and encourage parents to use praise and other nonviolent techniques. Another focus is the promotion of economic self-sufficiency among mothers by encouraging them to develop a vision for their future, stay in school, find employment, and plan future pregnancies.

For more information regarding Nurse-Family Partnership use this link: http://www.nursefamilypartnership.org.

Target Audience

Low income, first-time mothers who enroll early in their pregnancy

Documented Outcomes

	Type of Study	Improved parenting behaviors*	Maternal all-cause mortality rate improved	Fewer visits to emergency department for injuries	Reduced emergency visits for accidents and poisonings	Reduced risk or reports of maltreatment, abuse, and neglect *	Delayed second pregnancy	Reduced preterm births	Increased birth weight	Child preventable-cause mortality rate improved	Improved child development
Olds et al. (2014)	Clinical trial with random assignment to groups		✓							✓	
Olds et al. (1986a)	Experimental, with random assignment to groups							✓	✓		
Olds et al. (1986b)	Experimental, with random assignment to groups	✓		✓	✓	✓					
Zielinski et al. (2009)	Experimental, with random assignment to groups					✓					
Yun et al. (2014)	Quasi-experimental						✓				
Miller (2015)	Meta-analysis			✓	✓	✓	✓	✓	✓	✓	✓

This table contains outcomes found to be associated with the program or approach. Individual studies may contain additional outcomes that were tested and not found to be associated with the program or approach.

*Aligned with Smart Start outcomes *Increase in positive parenting practices*

Research Evidence for Nurse Family Partnership

- Nurse Family Partnership program shown sizeable and sustained, though not always replicable, effects on important mother and child outcomes.[i, ii, iii]
- Specific effects replicated in two or more studies included: 1) reduction in measures of child abuse and neglect (including injuries and accidents), 2) reduction in mothers' subsequent births, 3) reduction in prenatal smoking among mothers who smoked at the start of the study, and 4) improvement in cognitive and/or academic outcomes for children born to mothers with low psychological resources (i.e., intelligence, mental health, self-confidence).[iv]
- The program benefitted the neediest families (low-income, unmarried women) by helping to reduce rates of childhood injuries that may be associated with child abuse and neglect and defer subsequent pregnancies and move into the work force.[i, iii]

Review of Experimental and Quasi-Experimental Studies

Citation	**Olds, D. L., Kitzman, H., Knudtson, M. D., Anson, E., Smith, J. A., & Cole, R. (2014). Effect of home visiting by nurses on maternal and child mortality: Results of a 2-decade follow-up of a randomized clinical trial. Pediatrics, 168(9), pp. 800-806.**
Population and Sample	1138 primarily low-income (85.1%) African American (92.1%) women at less than 29 weeks of gestation and with no previous births were randomized to one of 4 groups: • Group 1 (n=166) received transportation for regular prenatal care • Group 2 (n=514) received transportation plus developmental screening for infants and toddlers • Group 3 (n=230) received transportation plus prenatal/postpartum home visiting • Group 4 (n=228) received transportation, screening, and prenatal, postpartum, and infant/toddler home visiting Participants had at least 2 of the following sociodemographic risk characteristics: unmarried, having less than 12 years of education, and unemployed.
Methodology	Clinical trial, with random assignment to groups
Purpose	To determine the effect of prenatal and infant/toddler nurse home visiting on maternal and child mortality during a 2-decade period (1990-2011).
Measures & Assessments	• National Death Index • NFP Enrollment Records
Study Implementation	• Nurse Family Partnership (NF) nurses visited women as follows: a) women in treatment groups 3 and 4 received a mean of 7 prenatal visits, and b) women in treatment 4 received a mean of 26 visits after delivery. The NFP nurses provided information and activities that would improve mothers' prenatal health and help them provide more competent care of their babies after birth. In addition, they worked to help mothers to develop better self-care practices, plan subsequent pregnancies, complete their educations, and find employment. • Outcomes of mother's in the four treatment groups were compared with data from the National Death Index (NDI). • The program provided specific guidelines and activities.
Staff Qualifications	• Nurses
Key Findings	• During the 21-year study, the mean maternal all-cause mortality rate for treatment groups 1 and 2 combined was 3.7%. The mean rate was .4% for treatment group 3 and 2.2 % for treatment group 4. The survival contrast between groups 1 and 2 combined and group 3 was significant (p=.007) but not significant between groups 1 and 2 combined and group 4. • By the time children reached age 20, the child preventable-cause mortality rate for treatment group 2 was 1.6% and for treatment group 4 0.0%. The survival contrast was significant at p=.04.

Citation	**Olds, D. L., Henderson Jr., C. R., Tatelbaum, R., & Chamberlin, R. (1986a). Improving the delivery of prenatal care and outcomes of pregnancy: A randomized trial of nurse home visitation. Pediatrics, 77, pp. 16-28**
Population and	400 women enrolled prior to the 30th week of pregnancy were stratified by marital status, race, and

Sample	geographic region and randomly assigned to 4 groups: • Group 1 (n=90) received no services (control group) • Group 2 (n=94) received free transportation for regular prenatal and well-child care at local clinics and physicians' offices • Group 3 (n=100) received same services as group 2 as well as nurse home visitation during pregnancy • Group 4 (n=116) received the same services as group 3 with continued visits until babies were 2 years old
Methodology	Experimental, with random assignment to groups
Purpose	This article reported prenatal outcomes as part of an evaluation of a nurse home visitation program for first-time mothers in the Appalachian region of New York State. Participants in the study were either teenagers, unmarried, or low-income.
Measures & Assessments	• Interviews • Medical Records • Serum cotinine assays
Study Implementation	• During their visits, the nurses provided the following activities: 1) parent education, 2) enhancement of mothers' informal support systems during pregnancy and delivery, and 3) linkage of the mothers with community health and human services (e.g., nutritional supplementation program). An average of 83% of nurses' time was spent on education. • Prenatal education, tailored to families' individual needs, included information about fetal and infant development, diet, signs of pregnancy complications, rest, exercise, personal hygiene related to obstetrical health, and preparation for labor, delivery, and early care of the newborn. Nurses also monitored weight gain and helped to stop the use of cigarettes, alcohol, and drugs. • Interviews were conducted and dietary intake (using 24-hour diet records and 24-hour recalls) was measured prior to group assignment and at 32 weeks of pregnancy. Medical records were reviewed and coded by two trained registered nurses. Serum cotinine assays at 36 weeks of pregnancy for a subsample of 116 women who received care at the health department clinic were done to validate mothers' reports of smoking. • Nurses in the labor and delivery room completed forms indicating whether mothers were accompanied by a support person. • Detailed record-keeping systems and regular case reviews were used to monitor implementation of the home visit protocol.
Staff Qualifications	• Nurses
Key Findings	• Compared with the control group, nurse visited women experienced the following significant outcomes: ○ became aware of more community services; ○ attended childbirth classes more frequently; ○ made more extensive use of WIC; ○ made greater dietary improvements; ○ reported that their babies' fathers became more interested in their pregnancies; ○ were accompanied to the hospital by a support person during labor more frequently; ○ reported talking more frequently to family members, friends, and service providers about their pregnancies and personal problems; and ○ had fewer kidney infections. • Young adolescent mothers in the nurse-visited groups gave birth to newborns that were an average of 395 grams heavier than newborns of adolescent mothers in the control group (p=.02) • There was significant and positive difference in preterm delivery for women who smoked in the nurse-visited groups compared with smokers in the control group. • There was no difference between smokers who enrolled in the program early. However, there was a significant and positive difference in birth weight for adolescent mothers who enrolled early in the program when compared with those who enrolled later.

Citation	**Olds, D. L., Henderson Jr., C. R., Chamberlin, R. , & Tatelbaum, R. (1986b). Preventing child abuse and neglect: A randomized trial of nurse home visitation. Pediatrics, 78, pp. 65-78.**
Population and Sample	400 women enrolled prior to the 30th week of pregnancy were stratified by marital status, race, and geographic region and randomly assigned to 4 groups: • Group 1 (n=90) received no services • Group 2 (n=94) received free transportation for regular prenatal and well-child care at local clinics and physicians' offices • Group 3 (n=100) received same services as group 2 as well as nurse home visitation during pregnancy • Group 4 (n=116) received the same services as group 3 with continued visits until babies were 2

	years old
Methodology	Experimental, with random assignment to groups
Purpose	This article reported the effects on child abuse and neglect of a nurse home visitation program for first-time mothers in the Appalachian region of New York State. Participants in the study were either teenagers, unmarried, or low-income.
Measures & Assessments	• Rotter's Locus of Control (variant) • Abuse and Neglect Registries • Caldwell Home Observation checklist and interview • Bayley Mental Development Index • Cattell Scales • Medical Records
Study Implementation	• During prenatal visits, the nurses provided the following activities: 1) parent education, 2) enhancement of mothers' informal support systems in caring for the child, and 3) linkage of the families with community health and human services (e.g., nutritional supplementation program, vocational training, mental health counseling, legal aid, Planned Parenthood). An average of 83% of nurses' time was spent on education. • Nurses sent two reports of their observations of medical, social, and emotional conditions to the children's pediatric health care provider. They also clarified and reinforced physicians' recommendations during home visits with the families. • Home-based education focused on infant development including information about infants' temperament (especially crying behavior), socioemotional and cognitive needs (including responsive care giving and more complex motor, social, and intellectual experiences), and physical health care (including diet and bathing, managing common health problems, routine health care and immunizations). • Babies were brought by their mothers to the project office at ages 6, 12, and 24 months to check their weights and physical measurements. Developmental tests also were administered at 12 and 24 months. • Mothers were interviewed at the time of infant assessments about common difficulties such as feeding and crying and their responses to these problems. At babies' 6-month visits, mothers were administered an infant temperament Q-sort procedures. • Mothers were interviewed in their homes when babies were 10 and 22 months of age and the Caldwell Home Observation checklist and interview procedure were completed. • Workers with the NY State Department of Social Service reviewed records for verified cases of abuse or neglect. With one exception, state social services departments where 15 mothers and children had relocated reviewed their records for abuse and neglect information. One nurse-visited non-risk family with no indication of maltreatment in the local records was omitted due to incomplete data. • Detailed record-keeping systems and regular case reviews were used to monitor implementation of the home visit protocol. • Inter-observer agreement for the Caldwell procedure on individual items was measured and ranged from 82% to 100%.
Staff Qualifications	• Nurses

Key Findings	• <u>Abuse/Neglect:</u>
	  ○ During children's first 2 years, 4% (n=1, abuse/neglect combination) of highest risk (poor, unmarried teenagers) nurse-visited study participants abused or neglected their children compared with 19% (n=8:neglect=4, neglect/abuse=4) of those in the control group. However, these results were not statistically significance.
	  ○ The incidence of abuse and neglect increased as risk factors accumulated for the control group but remained relatively low for the nurse-visited group even with higher levels of risk.
	  ○ Nurse-visited women reported significantly more positive moods for their babies but more frequent occurrences of resisting eating and greater concern in mothers' responses to 6-month olds' behavioral problems. Though not statistically significant, nurse-visited poor unmarried teens tended to report less conflict with and scolding of their babies and less frequent crying that those in the control group.
	• <u>Play Materials and Parenting Behaviors:</u>
	  ○ For the group at greatest risk, nurse-visited mothers were observed in their homes to punish and restrict their 10- and 22-month-old children significantly less frequently and provided more appropriate play materials than those in the control group.
	• <u>Developmental Quotients:</u>
	  ○ Though not statistically significant, there was trend for 12- and 24-month-old children of highest risk nurse-visited mothers to have higher developmental quotients than those in the control group.
	• <u>Emergency Room Visits:</u>
	  ○ During babies' first year, the children of nurse-visited women, especially poor unmarried teens,

	were seen in the emergency room significantly fewer times than those in the control group. A detailed review of medical records showed that the differences were explained by fewer visits for upper respiratory tract infections. ○ During babies' second year, the children of nurse-visited mothers were seen in the emergency room significantly fewer times and had fewer accidents and poisonings than those in the control group. • <u>Maternal Sense of Control:</u> ○ Treatment differences in child abuse and neglect was greater at lower levels of maternal sense of control, for poor unmarried nurse-visited teens. ○ The incidence for maltreatment increased significantly as maternal sense of control declined for the control group but did not lead to an increase for nurse-visited women (but the results for these women were not significant).

Citation	**Zielinski, D. S., Eckenrode, J., & Olds, D. L. (2009). Nurse home visitation and the prevention of child maltreatment: Impact on the timing of official reports. Development and Psychopathology, 21, pp. 441-453.**
Population and Sample	• 400 families randomly assigned to 4 groups: ○ Comparison Group 1 (n=90) children at ages 12 and 24 months received developmental and sensory screening, with referrals for evaluation or treatment if indicated ○ Comparison Group 2 (n=94) received the same services as Group 1 with the addition of free transportation for regular prenatal and well-child care through age 2 at local clinics and physicians' offices ○ Intervention Group 3 (n=100) received same services as group 2 as well as nurse home visitation during pregnancy ○ Intervention Group 4 (n=116) received the same services as group 3 with continued visits until babies were 2 years old • Study groups included women who had no previous live births, were less than 25 weeks into gestation, and had at least one of the following characteristics: (a) <19 years at registration, (b) single parent, or (c) low socioeconomic status. The final sample was 11% African American and 89% European American.
Methodology	Experimental, with random assignment to groups
Purpose	To examine the effects of the Nurse Family Partnership (NFP) program on the timing of verified reports of child maltreatment.
Measures & Assessments	• Child Protective Services (CPS) Records
Study Implementation	• Because there were no differences between Treatments I and II in their use of prenatal and well-child care (both groups had high rates of completed appointments), these two groups were combined to form a single comparison group. • The study examined differences between the full intervention (Treatment IV) and the combined comparison group (Treatment Groups I and II). Treatment Group III (prenatal home-visiting only) was not included in the analyses because few and inconsistent effects were found in previous studies. • Nurses were scheduled to visit Intervention Group 4 women once every other week during pregnancy, once a week for the first 6 weeks postpartum, and less often after that until the children reached the age of 2 years. The nurses completed an average of 9 visits during pregnancy and 23 visits between the child's birth until age 2. • During home visits, nurses worked with mothers to a) improve prenatal health; b) improve parents; competence in providing early care for their children; and c) help them plan future pregnancies, complete their educations, and find work.
Staff Qualifications	• Nurses
Key Findings	• 76% of NFP children survived to age 15 with no CPS report compared with 68% of the children in the comparison group. • 83% of NFP children had no initial reports of neglect by age 15 compared with 73% of comparison children. • NFP children showed significantly less risk for initial reports of neglect than comparison children between the ages of 5 and 15, with no more initial reports of neglect after age 8 for the NFP group. • Cox models showed that the treatment by time period interaction model and the interaction model with continuous time were both significant. First time reports of neglect for the highest risk NFP children stopped at age 3 but continued for the highest risk comparison children through age 12. • 81% of NFP children had no report of any maltreatment by the age of 15 compared with 58% of comparison children and 87% of NFP children had no report of neglect compared with 63% of comparison children.

Citation	**Matone, M., O'Reilly, A., Luan, X. Localio, A. R., & Rubin, D. M. (2012). Emergency department visits and hospitalizations for injuries among infants and children following statewide implementation of a home visitation model. Maternal and Child Health Journal, 16, pp. 1754-1761.**
Population and Sample	• 5,909 women in the Nurse Family Partnership (NFP) group who were received services from 24 NFP sites in Pennsylvania between 2003 and 2007. • 16,794 women in a match (using propensity scores) comparison who did not receive NFP services. • The majority of study participants were white (>75%), unmarried (>=90%), and from urban areas of the state 82%); 42% were 18 years of age or younger.
Methodology	Quasi-experimental
Purpose	To compare the utilization of hospital or emergency rooms for childhood injuries during the first two years of life between Nurse Family Partnership (NFP) program participants and comparison families.
Measures & Assessments	• NFP Enrollment History • Pennsylvania State Birth Records • Pennsylvania State Death Records • Welfare Records and Medicaid Claims
Study Implementation	• The retrospective NFP cohort were selected based on (1) delivery of a first-born infant who was not medically high-risk (i.e., born prior to 25 weeks' gestation, died at birth or within 14 days of birth, infants died from a congenital or perinatal condition); (2) successful linkage to the Medicaid claims of their children following birth; (3) receipt of welfare assistance from the Commonwealth of Pennsylvania within 12 months prior to the birth of their first-born infant. • The matched non-NFP comparison group, identified through birth and death certificate and welfare eligibility data, included women residing in NFP communities and meeting the same inclusion criteria as the NFP cohort. Propensity score analysis was used for matching groups based on baseline characteristics including maternal education and race, marital status, history of gestational diabetes and history of smoking, TANF and food stamp receipt prior to and/or during the first trimester. • Models were stratified based on age (18 years or younger and over 18) and birth cohort (2003-05 and 2006-07). • Medicaid claims for injuries examinations that occurred in hospital or emergency room settings were used as the source of outcome data. • NFP uses a formal protocol for site-level implementation support (e.g., supervisory staff, annual regional and state meetings, continuing education), but evaluation of fidelity has not been incorporated into those protocols.
Staff Qualifications	• Nurses
Key Findings	• Of 6,129 emergency department (ED)injury visits identified for both groups, 1,613 (26%) were for NFP children. The frequency of injury visits per child ranged from 0 to 13. • Compared with the non-NFP group, NFP children were more likely to have at least 1 ED injury visit (NFP=32% vs non-NFP=27%). • Compared with the non-NFP group, NFP children were less likely to have 5 or more ED injury visits (NFP=.1% vs non-NFP=1.0%). • NFP children were significantly more likely to have higher rates of ED injury visits in the first 2 years of life than the comparison group children. However, the difference was largely explained by the significantly higher rate of visits by NFP children for superficial injuries. The visit rates for increasingly serious injuries and suspected child abuse were similar for both groups. • Significant site variation occurred in ED injury visit rates (14.5% to 42.5%) across NFP agencies.

Citation	**Yun, K., Chesnokova, A., Matone, M., Luan, X., Localio, A. R., & Rubin, D. M. (2014). Effect of maternal-child home visitation on pregnancy spacing for first-time Latina mothers. American Journal of Public Health, 104(S1), pp. S152-S158.**

Population and Sample	• NFP group included 1,000 Latina women who:
	  ○ delivered a first-born, singleton infant from January 1, 2003, through December 31, 2007;
	  ○ received any form of welfare assistance in the 12 months before and including birth; and
	  ○ were clients of 1 of 15 Pennsylvania NFP agencies that had served 15 or more Latina women during the study period.
	• Comparison group included 3,385 Latina women, matched using propensity scores who:
	  ○ delivered a first-born, singleton infant from January 1, 2003, through December 31, 2007;
	  ○ received any form of Pennsylvania welfare assistance in the 12 months before and including birth; and
	  ○ had not participated in Pennsylvania NFP but resided within the service area of a Pennsylvania NFP agency

Methodology	Quasi-experimental
Purpose	This study examined the time to second pregnancy of first-time Latina mothers after participating in

	a Nurse Family Partnership (NFP) home visitation program.
Measures & Assessments	• NFP client data • State Welfare Eligibility Files • State Birth Certificate Files
Study Implementation	• Data were extracted from NFP client data, welfare eligibility files from the Pennsylvania Department of Public Welfare, and birth certificates from the Pennsylvania Department to Public Health. • Nurses visited the NFP group beginning no later than the end of the 28th week of pregnancy and continuing for up to 2 years postpartum.
Staff Qualifications	• Trained registered nurses
Key Findings	• NFP women experienced a 22.9% cumulative incidence of second conception by 18 months compared with non-NFP women who experienced a 25.8% cumulative incidence. The results were not statistically significant. • Program effects appeared largest for women of Mexican heritage and adolescents. Women of Mexican heritage in the NFP group had a 26% decreased risk of second conception at 18 months following their first birth and NFP adolescents had a 20% decreased risk of second conception at 18 months The absolute difference between NFP and and adolescents at 18 months was 4.6%. These results were not statistically significant. • The cumulative incidence of second conception was approximately 45% at 36 months for both groups.

Review of Meta-Analyses

Citation	**Miller, T. R. (2015). Projected outcomes of Nurse-Family Partnership home visitation during 1996–2013, USA. Prevention Science, 16, pp. 765-777.**
Population and Sample	Total participants across all studies: • Nurse-visited prenatal = 1491 • Nurse-visited postnatal = 922 • Comparison group prenatal = 1580 • Comparison group postnatal = 1293
Methodology	Meta-study
Purpose	This article addresses how pre- and post-natal home visits by registered nurses as part of Nurse Family Partnership (NFP) programs may affect the lives of low-income, first-time mothers and their babies. NFP has been evaluated in six randomized trials as well as several limited analyses, with findings on 21 outcomes reviewed and effects calculated on three others. This article also reports outcome data from the NFP national data system and communications to fill data gaps on some trials.
Measures & Assessments	Varied across studies
Study Implementation	• Thirty-nine evaluation reports were identified, including 23 on three randomized trials by the NFP model developers. Studies conducted by program developers used experimental designs and replication studies used quasi-experimental designs with imperfect comparison group matching. • Effectiveness estimates for 21 outcomes were extracted from the reports and the NFP National Service Office's reporting system. • Methods used for estimating program effectiveness were mixed.
Staff Qualifications	Varied across studies

Key Findings	• <u>Prenatal Health</u>
	  ○ Cotinine levels in the blood indicated that NFP mothers smoked 24.2% less tobacco during their pregnancy.
	  ○ Pregnancy-Induced hypertension declined by 31.3% for treatment groups.
	• <u>Pregnancy Outcomes</u>
	  ○ Preterm births (less than 37 weeks) were reduced by 14.7% for treatment groups.
	  ○ 0.035 fewer subsequent preterm births for treatment groups.
	  ○ Reduced infant deaths by 45.4% for treatment groups.
	• <u>Parent Health Behaviors</u>
	  ○ 31.2% fewer closely spaced second births within 24 months for treatment groups; in years 3–12 post-partum, birth rate unchanged.
	  ○ 30.7% reduction in abortions through child age 3 for treatment groups.
	  ○ 11.2% (7.6 percentage point) increase in mothers who tried breast-feeding for treatment groups.
	• <u>Violence, Abuse, and Neglect</u>
	  ○ 16.1% reduction in intimate partner violence through child age 4 for treatment groups.
	  ○ Estimated reduction in child maltreatment by 31.0% at ages 4 through 15 for treatment groups.

- Child Health and Safety
  - Estimated reduction in language delay by 39.1%, reducing need for preschool or school-based remedial services for treatment groups.
  - Through age 2, NFP babies have 32.6% fewer injuries treated in emergency departments (EDs) or admitted to hospital.
  - NFP participation is associated with a 13.0% (9.1 percentage point) increase in probability that children covered by Medicaid will have complete immunizations at age 2.
  - Estimated reduction in youth arrests by 44.6% at ages 11 through 19, with reduced arrests of girls predominating and arrest probabilities equalizing by age 19 for treatment groups.
  - Estimated reduction in alcohol, tobacco, and marijuana use by 53.2% at age 12 until at least age 15 for treatment groups.
- Socio-Economic
  - Estimated reduction in TANF payments by 5.6% for 12 years post-partum. Savings result from reduced subsequent births and altered earning patterns that reduce TANF eligibility and payments per eligible family for treatment groups.
  - Estimated reduction in food stamp payments by 9.6% for at least 12 years post-partum. Savings result from reduced subsequent births and altered earning patterns that reduce food stamp eligibility and payments per eligible family for treatment groups.
  - Estimated reduction in person-months on Medicaid by 7.6% for at least 15 years post-partum due to reduced second births and fewer subsequent children for treatment groups.
  - Estimated reduction in the present value of Medicaid spending per child recipient by 8.5% from birth through age 18 (bootstrap-estimated 95% CI 4.5%, 12.5%) through health improvements for treatment groups.
- An estimated 4.85% of the second babies who would have been born within two years of the first birth would have used subsidized child care funded by the Child Care Development Block Grant for treatment groups.

Review of Descriptive and Non-Experimental Studies

None

End Notes

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[i] Olds, D. L. (1999). The nurse home visitation program. Future of Children, 9(1), 190-191.

[ii] Olds, D. (2010). The Nurse Family Partnership: From trials to practice. In A. J. Reynolds, A. J. Rolnick, M. M. Englund & J. A. Temple (Eds.), Childhood Programs and Practices in the First Decade of Life. New York: Cambridge University Press.

[iii] Miller, T. R. (2015). Projected outcomes of Nurse-Family Partnership home visitation during 1996–2013, USA. Prevention Science, 16, pp. 765-777.

[iv] Advisory Panel. (2008). Evidence Summary for the Nurse Family Partnership. Department of Education. Coalition for Evidence Based Policy: Washington, DC. Updated March 2012.

Note: Research summaries could include verbiage directly reproduced from the research literature. Quotes and italics may be used to show a direct quote but not always.

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