

Evidentiary Foundations of Nurse-Family Partnership

Nurse-Family Partnership (NFP) is a program of prenatal and infancy home visiting for low-income, first-time mothers and their children. Nurses begin visiting families as early as possible during pregnancy and continue visiting until the child's second birthday.

NFP Nurse Home Visitors have three major goals:

- Improve pregnancy outcomes by helping women engage in good preventive health practices, including obtaining thorough prenatal care from their healthcare providers, improving their diet, and reducing their use of cigarettes, alcohol and illegal substances;
- Improve child health and development by helping parents provide responsible and competent care for their children; and
- Improve 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.

Leadership of Nurse-Family Partnership chose to offer the program for public investment only after they had:

- replicated evidence of program impact from at least two randomized controlled trials;
- evidence that the program improved outcomes of public health importance;
- evidence of enduring program impact;
- evidence of cost-savings;
- confidence that the essential elements of the program could be reliably reproduced; and
- a web-based information system that could help ensure quality program implementation, accountability, and continuous program improvement.²

These kinds of evidentiary and replication standards are advocated by the Coalition for Evidence-Based Policy,³ Blueprints for Violence Prevention,⁴ and the Society for Prevention Research.⁵ They also are consistent with those required by the Food and Drug Administration before pharmaceutical companies are allowed to market new drugs.⁶ They are founded on the conviction that scarce public dollars ought to be invested in programs that work and that have the infrastructure to ensure high quality implementation and on-going monitoring of performance.

Nurse-Family Partnership has consistent evidence, based upon replicated randomized controlled trials with different populations living in different contexts, that it:

- improves prenatal health⁷⁻⁹
- reduces childhood injuries^{7, 10, 11}
- reduces the rates of subsequent pregnancies and births^{7, 9, 12-14}
- increases the intervals between first and second pregnancies and births^{7, 9, 12-14}
- increases maternal employment^{7, 9, 14}
- reduces women's use of welfare^{12-14, 25}
- reduces children's mental health problems^{15, 16, 24}
- increases children's school readiness and academic achievement^{9, 16, 17}
- reduces costs to government and society^{18, 19, 25}
- is most effective for those most susceptible to the problems examined¹

Relative to Nurse-Family Partnership's program goals, the following outcomes have been observed among program participants compared to their counterparts assigned to the control group in at least one randomized trial:

Improved pregnancy outcomes

- 35% fewer cases of pregnancy-induced hypertension ⁷
- 79% reduction in preterm delivery among women who smoke cigarettes ⁸
- 31% reduction in very closely spaced (<6 months) subsequent pregnancies ¹²

Improved child health and development

- 39% fewer healthcare encounters for injuries or ingestions in the first two years of life among children born to mothers with low psychological resources ²²
- 56% reduction in emergency room visits for accidents and poisonings in the second year of the child's life ¹¹
- 48% reduction in state-verified reports of child abuse and neglect by child age 15 ²⁰
- 50% reduction in language delays by child age 21 months ⁹
- 5 point increase in language scores on a test with a mean of 100 and standard deviation of 15 among 4-year-old children born to mothers with low psychological resources ¹⁷
- 3.95 point increase in receptive language (when averaged across age 2, 4, and 6) among children born to mothers with low psychological resources ²⁷
- 1.03 point increase in sustained attention when averaged across age 4, 6, and 9 among children born to mothers with low psychological resources ²⁷
- 67% reduction in behavioral and emotional problems at child age 6 ¹⁶
- 9 percentile increase in math and reading achievement test scores in grades 1-3 among children born to mothers with low psychological resources ²³
- 67% reduction in 12-year-old children's use of cigarettes, alcohol, or marijuana ²⁴
- 28% reduction in 12-year olds' mental health problems (depression and anxiety) ²⁴
- 3 point increase in 12-year-old children's reading and math achievement test scores on a test with a mean of 100 and standard deviation of 15 among those born to mothers with low psychological resources ²⁴
- 6 percentile increase in group-based reading and math achievement test scores in grades 1-6 among children born to mothers with low psychological resources ²⁴
- 59% reduction in arrests by child age 15 ²¹
- 90% reduction in adjudication as PINS (person in need of supervision) for incorrigible behavior ²¹
- 33% fewer arrests among female children at age 19 ²⁶
- 80% fewer convictions among female children at age 19 ²⁶
- 73% increase in age at 1st arrest among female children at age 19 ²⁶
- 82% fewer current arrests (in the past year) among female children at age 19 ²⁶
- 89% fewer current convictions (in the past year) among female children at age 19 ²⁶
- Reduced childhood mortality from preventable causes at age 20 ²⁷

Increased self-sufficiency of the family

- 1 month increase in labor force participation during second year of child's life ⁹
- 46% increase in father presence in household by child age 4 ¹²

- 30-month reduction in use of AFDC-TANF among mothers who were poor and unmarried at registration¹³
- 7 month (or 82%) increase in labor force participation 4 years after delivery of first child among low-income unmarried mothers¹⁴
- 1.75 month reduction in use of AFDC-TANF between child age 5 and age 6¹⁶
- 1.83 month reduction in use of Food Stamps between child age 5 and 6¹⁶
- 61% fewer arrests of mothers by child age 15²⁰
- 72% fewer convictions of mothers by child age 15²⁰
- \$12,300 discounted savings (2006 dollars) in Food Stamps, Medicaid, and AFDC-TANF from child age 0-12 compared to program cost of \$11,511 (2006 dollars)²⁵
- 13% increase in duration of mothers' relationships with current partners by child age 12²⁵
- Reduced all-cause maternal mortality rate when comparing control group participants with combined treatment groups of participants receiving pre-natal and 2 post-partum home visits and participants who received pre-natal, post-partum, and infancy/toddler home visitation²⁷. Note: This finding is not significant when comparing the control group with participants who received the NFP intervention (i.e., prenatal, infancy, and toddler home visits), but it is observed in the expected direction ($P = .19$)²⁷

The Nurse-Family Partnership National Service Office is responsible for helping agencies implement the program in their community. Learn more at: www.nursefamilypartnership.org.

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