

Evaluation Following Large-Scale Dissemination: The Pennsylvania Nurse-Family Partnership

WHAT WE ASKED:

Do evidence-based home visitation programs remain effective following large-scale dissemination?

Home visitation programs have gained popularity nationally as a tool to improve the health of vulnerable families. Recently, the *Patient Protection and Affordable Care Act* funded the expansion of evidence-based programs nationally. **Pennsylvania**, a state in which home visitation has been implemented widely, was an opportune state to evaluate how well these programs have worked in practice over time.

WHAT WE DID:

We evaluated the **Pennsylvania Nurse-Family Partnership (PA NFP)**, the largest **evidence-based prenatal and postpartum** home visitation program in PA. We followed **over 3,000 NFP mothers** across **24 urban and rural sites** who were enrolled in the program at some point between **2000 and 2007** and compared them to over 10,000 non-NFP mothers with similar characteristics.

We measured **second pregnancies** within 24 months of a first birth, **prenatal smoking**, and **injury-related hospitalizations or Emergency Department (ED) visits** for children. We also looked at differences in the effect of NFP between **early (2000-2004)** and **late implementation (2005-2007)** periods.*

WHAT WE FOUND:

- During the period 2000-2003, NFP and non-NFP mothers experienced the same rates of second pregnancies within 24 months. Later in the program's implementation (2004-2005), NFP mothers experienced fewer rapid second births. This effect was most pronounced for young, rural mothers.
- Between 2003 and 2007, NFP mothers were more likely than non-NFP mothers to stop smoking during pregnancy. The longer the program had been in place, the stronger the impact.
- In the first two years of life, the NFP program had no effect on rates of injury-related ED visits or hospitalizations among children born to NFP mothers.
- There was significant variation in study outcomes among provider agencies. Community characteristics appear to be a significant contributor to this variation.



WHAT IT MEANS:

- Newly implemented evidence-based programs may experience an initial “start up” period before showing expected results.
- The variation in outcomes from agency to agency suggests the important influence that community norms and health and social service infrastructure have on program effectiveness.
- The Pennsylvania NFP program benefits the communities it serves. Ongoing program evaluation is an important tool to ensure continued program success and to identify target areas for quality improvement.

*For detailed study methods, see the back of this sheet.

STUDY METHODS: A retrospective cohort design was used to match Nurse-Family Partnership (NFP) clients and local area matched comparison women. To identify a comparison group from among the women who were eligible but unexposed to NFP, a propensity score analysis used data from birth certificates and welfare eligibility files to model factors associated with participation in NFP and match NFP clients to unexposed women living in the same agency catchment area. Statistical analyses varied by outcome.

PUBLICATION: Matone M, O'Reilly ALR, Luan X, Localio AR, Rubin DM. Emergency Department Visits and Hospitalizations for Injuries Among Infants and Children Following Statewide Implementation of a Home Visitation Model. *Maternal and Child Health Journal*. Published online December 2, 2011. DOI 10.1007/s10995-011-0921-7.

Rubin DM, O'Reilly ALR, Luan X, Dai D, Localio AR, and Christian CW. Variation in Pregnancy Outcomes Following Statewide Implementation of a Prenatal Home Visitation Program. *Archives of Pediatric and Adolescent Medicine*. Published online November 1, 2010. DOI 10.1001/archpediatrics.2010.221.

Further research forthcoming.

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