Home visit program for at-risk first-time mothers associated with delaying their next pregnancy

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After a three-year implementation period, home visits by nurses to high-risk mothers appear to increase their likelihood of waiting at least two years to have a second child, according to a report posted online today that will appear in the March 2011 print issue of *Archives of Pediatrics & Adolescent Medicine*.

"The Nurse-Family Partnership, a program of prenatal, infancy and toddler home vistitation by nurses for low-income mothers bearing their first children, is designed to improve the outcomes of pregnancy, children's health and development and parents' economic self-sufficiency," the authors write as background information in the article. "The latter goal is accomplished by helping parents plan the timing of subsequent pregnancies through the first child's second birthday." The Nurse-Family Partnership has expanded from its 1978 inception in Elmira, New York, to serve more than 20,000 families per year in 31 states.

To help assess whether such widespread dissemination of the program can replicate the success it demonstrated in earlier clinical trials, David M. Rubin, M.D., M.S.C.E., of the Children's Hospital of Philadelphia, and colleagues looked at the timing of second pregnancy among 3,844 Nurse-Family Partnership clients as the program rolled out in Pennsylvania between 2000 and 2007. These clients were compared with 10,938 non-participating mothers who also delivered a first-born infant

during the same time period, were enrolled in welfare and were from the same region as participating mothers.

During the first three years of the program, Nurse-Family Partnership participants and control mothers did not appear to differ in the time to second pregnancy. However, Nurse-Family Partnership clients whose first infant was born after 2003 had a 13 percent reduction in second pregnancies occurring within two years compared with control mothers (16.8 percent vs. 19 percent). The reduction primarily occurred among mothers age 18 and younger (17.9 percent of participating mothers in this age group had second pregnancies within two years, compared with 23.3 percent of controls, a 27 percent relative reduction).

The benefit was also stronger among participating mothers in rural areas compared with those from urban locations. There are likely to be several reasons for this difference, the authors note. "For example, rural locations might have been better suited to meet community need (through smaller caseloads and greater community penetration) and also avoided the overwhelming caseloads (in need and volume) that often challenge urban practice settings," they write. "Nurses might have been aided by more informal family and community networks in rural locations that could have potentiated their benefit." Rural sites may have also had fewer other community-based services available for low-income mothers, magnifying the effects of the Nurse-Family Partnership.

The results "provide evidence that the Nurse-Family Partnership continues to be successful after statewide implementation," the authors conclude. "The finding of potentiated benefit in rural locations seems to justify implementation in such locations in addition to urban areas, greatly expanding the reach of the program. As that expansion occurs, investments in infrastructure to measure fidelity and ensure that outcomes continue to improve across time and sites will be critical to the development of better programs and even better outcomes for women

and children over time."

More information: *Arch Pediatr Adolesc Med*. Published online November 1, 2010. doi:10.1001/archpediatrics.2010.221

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