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Rhode Island Issue Brief

Women's Health Screening and Referral Program Evaluation

Background

A recent evaluation of the Rhode Island Women's Health Screening and Referral Program (WHSRP) underscores how early detection of prenatal risks can support improvements in pregnancy outcomes. Rhode Island Title X Family Planning agencies started offering the WHSRP in 1998 as a no-cost pregnancy testing and health risk management strategy for women who believe they may be pregnant.

Women complete a questionnaire while they wait for the result of their pregnancy tests. Their responses help Title X staff assess their health risks to link them with appropriate services before or early in pregnancy, when preventing and treating potential health problems provides greater benefits to the mother and child.

The Rhode Island Department of Health conducted this evaluation to see whether the program has influenced birth weight and gestational age and if evidence exists to support funding continuation. Funding for this program ended in November of 2010. This study looked at birth outcomes for pregnant women with a live birth. A separate study will analyze preconception care/counseling provided to non-pregnant women through the WHSRP.

Methods

This study compared the pregnancy outcomes of WHSRP participants with those of two similar groups not receiving screening/referral. Birth information came from the Rhode Island Birth File and consisted of 31,979 women with a live birth during 2004-2006. Birth records determined whether each woman had a baby with low birth weight (less than 2500 grams), high birth

Key Findings

- Women in the WHSRP were less likely to have low-weight births and premature deliveries than other women.
- The greatest benefits occurred among women age 21-34.
- Women age 21-34 with more than a high school education who did not participate in the WHSRP were almost 12 times more likely to deliver a low birth weight baby than their WHSRP peers.
- Women age 21-34 with less education not participating in the WHSRP were about 1.6 times more likely to deliver prematurely than WHSRP women.
- Less-educated Hispanic women age 21-34 not participating in the WHSRP were almost 3 times more likely to have a low birth weight baby and 2.3 times more likely to deliver prematurely than their WHSRP counterparts.
- Hispanic participants age 21-34 with more than a high school education were 80% more likely to have a high birth weight baby than their counterparts who received no services.

More Information

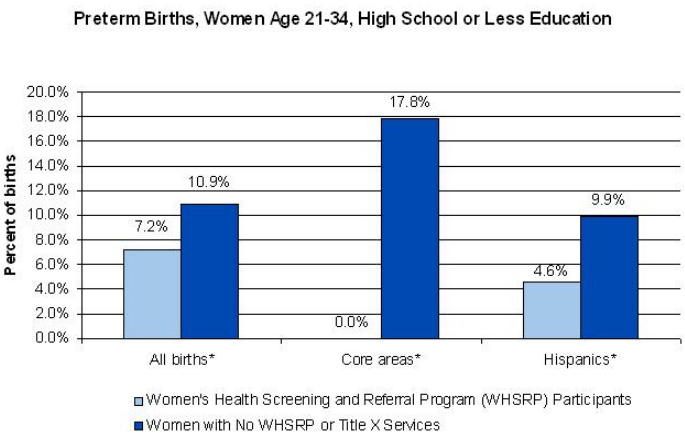
For detailed information on study design, methods, and results, visit www.health.ri.gov/publications/reports/2011WHSRPEvaluation.pdf

weight (more than 4,250 grams), and/or preterm delivery (a gestation of less than 37 weeks at delivery). These records were linked with the Title X and WHSRP databases to see whether, before starting prenatal care, each woman a) participated in the WHSRP (N=708), b) visited a Title X agency but did not participate in the WHSRP (N=477), or c) received no WHSRP or Title X services (N=30,794).

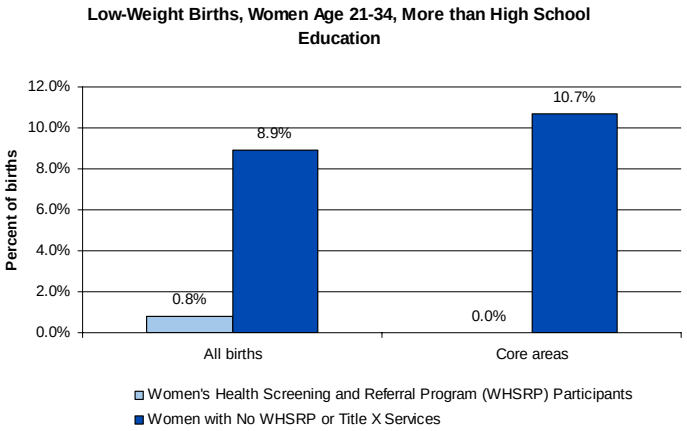
Stratified analyses determined if there were differences in pregnancy outcomes between models of care for women of specific age groups (21 or younger, 21-34, and 35 or older) and educational levels (high school not completed, more than high school completed) at delivery. All information including that used for data linkages excluded personal identifiers. The Rhode Island Department of Health Institutional Review Board approved this project.

Results

Overall, women who participated in the WHSRP were less likely to have low-weight births and premature deliveries than women who received no program or Title X-only services. The greatest benefits occurred among women in the 21-34 age group.



Source: Office of Vital Records, Rhode Island Department of Health



Source: Office of Vital Records, Rhode Island Department of Health

Early pregnancy risk screening/referral provided by the WHSRP benefited women in different ways, depending on their level of education. For example, women age 21-34 with more than a high school education who did not participate in the WHSRP were almost 12 times more likely to deliver a low birth weight baby than their WHSRP peers. Women age 21-34 with less education not participating in the WHSRP were about 1.6 times more likely to deliver prematurely than WHSRP women. Similar findings were observed among women living in core areas* of the state but not for those in non-core areas.

Hispanic women benefited the most from early pregnancy risk assessment/referral, particularly those with less education. For example, less-educated Hispanic women age 21-34 not participating in the WHSRP were almost 3 times more likely to have a low birth weight baby and 2.3 times more likely to deliver prematurely compared to their WHSRP counterparts. Hispanic women also had the highest rates of WHSRP

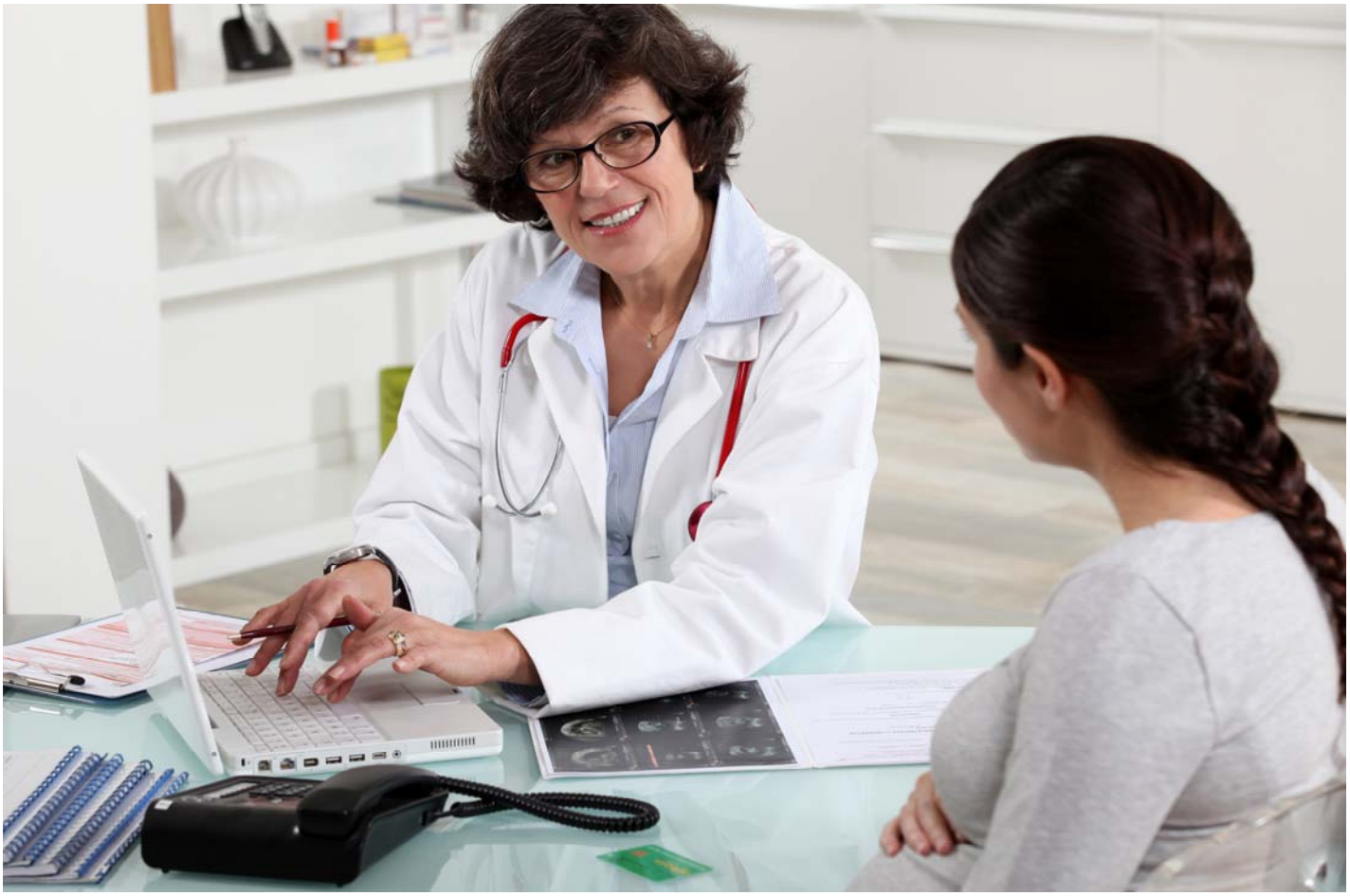
* Core cities are those with more than 15% of children in families living below the federal poverty level, according to US Census data. In 2000, Rhode Island core cities included: Providence, Pawtucket, Central Falls, Woonsocket, West Warwick, and Newport.

participation, representing almost 50% of participants both statewide and in core areas.

Findings for Hispanic women suggest similar program benefits for women in other racial/ethnic groups. Statistics for some of these groups could not be calculated, however, due to the insufficient information available for analysis for women under the WHSRP and Title X models of care.

While most analyses specific to race/ethnicity showed better pregnancy outcomes associated with WHSRP participation, one exception exists. Hispanic participants age 21-34 with more than a high school education were 80% more likely to have a high birth weight baby than their counterparts who received no services. This occurred for the entire Hispanic population and for Hispanics in core areas. This finding may represent a potential risk for other program participants, especially for minorities with sample sizes too small for analysis.

Pregnancy outcomes for women who received only Title X services did not differ significantly from those for women who received neither Title X nor WHSRP services. This suggests that, for pregnant women with a live birth, lower risks for WHSRP participants stemmed mainly from early screening, referral, and follow-up care, rather than from other Title X services. As the analysis found no significant differences in pregnancy outcomes between women who received WHSRP versus Title X-only services, this indirect evidence is inconclusive.



Discussion

Findings from this evaluation suggest that for the WHSRP, health risk assessments/referrals prior to the onset of prenatal care result in improved birth weight and gestational age. About 1 in 12 infants born in Rhode Island during 2004-2006 were low birth weight, and nearly 1 in 10 were premature.[1] These conditions greatly increase the risk not only of infant mortality, but also of poor health and disability across the life course.

The Institute of Medicine estimates that in 2005, preterm birth cost US society more than $26 billion.[2] In 2008, two-thirds of all low-weight births in the US were premature.[3] To prevent perinatal complications and reduce healthcare costs from high-risk pregnancies, Rhode Island should reconsider funding for initiatives that address social and medical risks before or early in pregnancy.

Pregnancy testing is often the first point of access to care. Removing financial barriers by offering free pregnancy tests, risk screening, and referral to Title X clients before prenatal care begins can help link them with needed care and give their babies a healthier start in life.

Health risk screening/referral may be especially important for women with unintended pregnancies. In Rhode Island, these women are significantly more likely than those with intended pregnancies to report having delayed or no prenatal care (24.5% versus 9.3%). They are also more likely to report other pregnancy risks, such as smoking or experiencing intimate partner violence during pregnancy.[4]

Despite evidence supporting WHSRP benefits, this evaluation has several limitations. First, study methodology is not appropriate for exploring causality between early pregnancy intervention and birth outcomes. This would require a longitudinal study design with cohort follow-up. In addition, the sample size of some racial/ethnic groups was insufficient for analysis. This suggests the need for additional outreach to Rhode Island non-Hispanic minorities, especially Southeast Asians, Native Americans / American Indians, and African Americans.

References

[1] Office of Vital Records, Rhode Island Department of Health

[2] Preterm Birth: Causes, Consequences, and Prevention. Behrman RE and Butler AS Eds. Committee on Understanding Premature Birth and Assuring Healthy Outcomes. Institute of Medicine. The National Academies Press. 2007

[3] Martin JA, Hamilton BE, Sutton PD et al. Births: Final data for 2008. *National Vital Statistics Reports 59*(1). National Center for Health Statistics. 2010

[4] Kim H, Cain R, & Viner-Brown S. 2012 Rhode Island Pregnancy Risk Assessment Monitoring System Data Book. Rhode Island Department of Health. 2012