



None of the MCH research questions identified by WPHRN in 2011 have been fully addressed in literature.

WIC and PNCC services are effective in improving birth-outcomes in low-income women.

This literature review revealed a lack of MCH public health services and systems research published in the last decade.

Lack of research and dissemination of evidence for practice is a limiting factor in local health department service improvement efforts .

Do the WPHRN Priority Research Questions Already Have Answers? Assessing the Literature about the MCH Priority Research Questions

Wisconsin Public Health Research Network (WPHRN) is dedicated to linking public health practitioners and academicians and to promoting public health systems and service research (PHSSR). With the goal of improving public health practice in the state of Wisconsin, WPHRN created a list of priority research questions (PRQ) in 2011 that were of importance to public health practitioners. Seventy-five PRQ were identified and grouped into the following seven categories: public health services and interventions, organization and structure of public health departments, finance, workforce, laws and policies, partnership strategies for health improvement, and public health and related systems. As part of an ongoing improvement process, the WPHRN updated the list of PRQ in 2015 to reflect the changing needs of local health departments. A literature review was conducted to identify which of the maternal and child health (MCH) PRQ in the public health services and interventions category have been addressed. The results of this review were shared with the WPHRN and used to make recommendations for future PHSSR and practice. Primary research articles, literature reviews, and reports published between January 1, 1990 through February 28, 2015 were searched in the following databases: Cochrane library, CINAHL Plus, Pub Med, and Web of Science. The results of the review are outlined as follows.

Q1. Does participating in prenatal care coordination and/ or WIC reduce rates of very premature birth?

Thirteen out of seventeen research articles reported a positive effect of WIC and PNCC on birth outcomes such as low-birth-weight (LBW), very-low-birth weight (VLBW), and preterm delivery¹. A debate exists in the research community questioning the selection methods used in research studies. Only seven of the seventeen research articles found in this review were published in the last 10 years¹.

Q2. Does providing “wrap-around” services at WIC clinics result in improved birth outcomes compared to WIC only services?

Wraparound services, an individualized, family centered, case management program for youth with complex needs, serves over 100,000 participants yearly. There were no research articles found in this review that specifically addressed “wrap-around” services.

Q3. What components (services) within PNCC are associated with positive birth outcomes (e.g., greater gestational age)?

Five research articles found in this review revealed that the duration of participation and a therapeutic nurse-client relationship were the two PNCC components positively associated with improved birth outcomes (LBW, VLBW, and preterm)¹.

Q4. Does integrating additional services with WIC programs (i.e. PNCC, Health Check, immunization) result in better program outcomes for WIC and/ or integrated services?

All eight research articles found in this review concluded that the integration of immunizations at WIC clinics was shown to significantly improve the rates of up-to-date vaccinations among WIC eligible infants¹.

Q5. Does decreasing the number of WIC clinics decrease the no-show rate?

The literature search yielded no peer reviewed research articles that studied missed appointment rates in WIC clinics. Other strategies such as taxi vouchers, or financial incentives to decrease no show rates at high-risk obstetric clinics are inconclusive in their efficacy¹.

Q6. What outreach strategies are most effective in increasing participation in PNCC?

No research studies examined PNCC outreach strategies. One study found that conducting focus groups and surveys to understand perceived barriers of the target population and creating an individualized social marketing campaign led to an increase in WIC program participation¹. Person to person contact, home-visits, and utilizing schools and churches for referrals also showed improvements in enrollment.

Conclusions

Low-income Medicaid-eligible prenatal women participating in WIC and PNCC experienced improved birth outcomes (low-birth-weight, very-low-birthweight, and premature birth). Integration of immunization programs with WIC improved immunization rates among WIC-eligible children. There is a lack of recently published

MCH PHSSR and a debate in the research community on the validity of previous research conducted on WIC and PNCC programs. Due to these reasons it is concluded that none of the PRQ have been completely addressed.

Recommendations

Practice and Policy

- ◆ Continue funding for WIC and PNCC programs because they improve birth outcomes for low-income women.
- ◆ Encourage collaborations between public health practitioners and researchers to conduct public health services and systems research in order to identify informed evidence-base practice.

Research

- ◆ Conduct further research to identify evidence-based strategies to improve program outreach, outcomes, and delivery. Conduct research and disseminate results periodically to reflect the changing needs of local health departments (LHDs).
- ◆ Conduct qualitative research that identifies a core set of confounders and selection bias factors.
- ◆ Outline program eligibility criteria, program services, and state welfare spending per capita in all subsequent published research. This will help readers compare and contrast WIC and PNCC programs across different states.
- ◆ National Coordination Center for Public Health Systems and Service Research and Practice-Based Research Networks should incentivize MCH services research by providing funding or functional support.
- ◆ The Community Preventive Services Taskforce should conduct a systematic review of the MCH service and disseminate evidence-based findings and recommendations.