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Preconception Women's Health and Pediatrics: An Opportunity to Address Infant Mortality and Family Health

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The U.S. infant mortality rate remains unacceptably high, with large disparities found by race.^{1,2} Increasingly, research has demonstrated that interventions must go beyond ensuring access to care and prenatal focus to address the preconception health of women.^{3,4} Critical fetal development occurs in the earliest weeks after conception, often before a woman is aware of her pregnancy. The Maternal Child Health Bureau's life course initiatives⁵ and the Centers for Disease Control's preconception health initiatives⁵ are placing infant mortality and child health in a life course context, that is, uniting the reproductive health and pediatric longitudinal perspectives. In the recent report "Clinical Preventive Services for Women", the Institute of Medicine recommended annual well-women visits incorporating preconception care,⁶ and Healthy People 2020 includes a section of objectives on preconception health and behaviors.⁷ With growing scientific recognition that early antecedents of child and adult health start prenatally and even preconceptionally, women's health is key.

Pediatric clinicians have been leaders in the efforts to reduce infant mortality and in family-centered care, but how can pediatrics further contribute? A golden opportunity exists to serve as preconception care (PCC) clinicians for preconceptional adolescents and interconceptional mothers seen in practice.

Why Be Involved in Women's Health?

First, healthy women make healthy mothers. Maternal depression, substance use, and physical health—topics routinely addressed in pediatrics—have a major impact on a child's health.⁸

Second, preconceptional maternal health directly influences infant, child, and adult health. Considerable evidence demonstrates the impact of baseline maternal health (eg, diabetes, cardiovascular diseases, depression) and behaviors (eg, smoking, drug use, nutrition) on child and adult outcomes.^{9–14} The story of folic acid supplementation is a powerful example of how a preconception intervention influences child health. The educational campaign and fortification of grains led to a 26% decrease in the rate of neural tube defects.^{15, 16}

Third, preventing unwanted pregnancies improves child and family well-being. A principal risk factor for late prenatal care is the “wantedness” of the pregnancy,¹⁷ which is associated with subsequent child well-being.^{18,19} Research demonstrates that rapid repeat pregnancy and short interpregnancy intervals entail risks to the mother and her family.²⁰ With 50% of U.S. pregnancies unwanted or mistimed,²¹ the discussion of desired family size and reproductive awareness can impact family health.

Finally, pediatric clinicians have access to women of child-bearing age, possibly more contact than other clinicians.^{22, 23} A survey of women ages 18 to 44 years found that only 55% had seen an obstetrician—gynecologist in the previous year; low-income women and women in poor health were less likely to have had a visit.²⁴ By contrast, virtually all young children have had a well visit in the past year (96.8% of children 0—4 years),²⁵ often accompanied by their mother, and large percentages of teens have had an annual check-up. Recommendations include 10 primary care well visits in the first 2 years of life and annual adolescent visits,²⁶ making pediatrics a logical contact point for PCC.

How Could Pediatrics Impact Women's Health?

The American Academy of Pediatrics and the American College of Obstetricians and Gynecologists have outlined the areas of history-taking and risk assessment for PCC (Table 1).²⁷ Figure 1 outlines pediatric clinician contributions:

- Reproductive awareness: Clinicians should discuss desired family size and reproductive planning with all adolescents and with parents that come with their children. If childbearing is not desired, discussion of family planning methods and/or referral makes sense.
- Risk screening and counseling: Clinicians should screen mothers for PCC issues, many already recommended by the American Academy of Pediatrics for child health. For instance, assessing maternal smoking and smoke exposure, drug and alcohol use, depression, intimate partner violence, and family psychosocial needs are currently recommended for child health.^{28–30} Screening for these and other PCC issues listed in Table 1 could be implemented in pediatric practice with checklists or other modalities. Referral and/or brief counseling regarding these issues could be provided. Discussions should be in the context of the health of the mother, child and future children.
- Health care for families: Clinicians should inquire about family health, access to, and use of care and chronic health concerns and provide PCC or refer if necessary.³¹

How Can Women's Health Be Integrated?

Expansion to include greater emphasis on women's health is not a departure for pediatrics, but an evolution from what is already occurring. It brings pediatrics more in line with evolving life course initiatives,³² addressing continuities of services across professions, breaking down narrowly defined professional silos, and focusing holistically on factors influencing health. Pediatrics has implemented this model, albeit for specialized populations.

Teen-tot programs have a long history, and investigators in studies document reductions in rapid repeat pregnancy and improved parenting.^{33, 34} Practices are experimenting with combined maternal and child health care in Centering Parenting programs³⁵ or co-located services.

PCC is a paradigm shift for pediatrics, and there are barriers, including insurance coverage for women and available referral services. Change will only come when there is reimbursement and training for PCC. As the concept of the family-centered medical home is evolving, inclusion of family health in the pediatric home is needed and must be part of the financing and payment model.

Conclusion

Women's health is key to infant mortality and subsequent child health. Pediatric professionals have ready access to preconceptional women and a golden opportunity to implement PCC. It is time for the pediatric medical home to open its doors to women's health.

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Figure 1.
Pediatric primary care's role in reducing infant mortality: intervention points across the life span.

Table 1
Components of Preconception Care*

<ul style="list-style-type: none">• Reproductive awareness and pregnancy spacing• History and risk screening<ul style="list-style-type: none">– Family history, genetic history– Obstetric and gynecologic history– Medical conditions and medications– Substance use, including alcohol, tobacco and illicit drugs– Domestic abuse and violence– Nutrition and folic acid– Environmental toxins and teratogens– Immunity and immunization status– Risk factors for sexually transmitted infections– Psychosocial concerns, including depression, anxiety, and stress– Assessment of socioeconomic, educational, and cultural context• Physical assessment• Vaccinations• Counseling
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* Adapted from the *American Academy of Pediatrics, American College of Obstetricians and Gynecologists Guidelines for Perinatal Care*. 6th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2007. Washington, DC: American College of Obstetricians and Gynecologists; 2007.