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# THE CONTENT OF PRENATAL CARE Update 2005

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***Introduction.*** **The *Content of Prenatal Care* report of the US Preventative Health Service (USPHS) Expert Panel established an important benchmark when published in 1989, but has not been significantly updated since that time.**

***Methods.*** **The literature since 1989 is reviewed to assess which recommendations have been validated and/or implemented. Additionally, new findings that support the recommendations put forth or expand the scope of prenatal care outlined in the 1989 report are examined and discussed.**

***Results.*** **The USPHS recommendation of a reduced prenatal visit schedule has support, and new content for the preconception visit has been identified, although this preconception visit has not been validated or widely implemented.**

***Conclusions.*** **We identified new opportunities and initiatives for the content of prenatal care, particularly improvement in the electronic medical record, attention to multidisciplinary approaches to patient education and improved patient literacy, and an extended maternal life span approach, including postgestation visits.**

## Introduction and Overview of the Original *Content of Prenatal Care* Document

*Caring for Our Future: The Content of Prenatal Care* (CPC), published in 1989 by the US Public Health Service (USPHS, 1989), and its associated documents (Merkatz & Thompson, 1990) was a landmark compilation of the literature on an important health care service. Interdisciplinary authors reviewed the literature and evidence and made recommendations for both clinical practice and research, providing the opportunity to benchmark progress in patient-specific and population-based pregnancy outcomes. The panel relied on evidence-based methodology espoused by the USPHS Task Force, but acknowledged that many recommendations were ultimately consensus based (Gordis, Keliman, Klerman, Mullen, & Paneth, 1990). There were 6 overarching themes espoused by the panel, which we liberally summarize as follows.

1. Early and continuing risk assessment that is patient specific, with clinical visits adjusted accordingly (e.g., more visits for nulliparous and/or high-risk

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women; fewer visits for multiparous and/or low-risk women).
2. Health promotion with introduction and emphasis on the concept of the "preconception visit," operationalized as almost any health care interaction involving a woman of reproductive age.
3. Medical and psychosocial interventions and follow-up.
4. Standardized documentation to allow communication and continuity of care between providers and to allow comparable analyses of quality of care and patient outcomes over time and across different clinical settings.
5. The objective of prenatal care was expanded to include not only the health and well-being of the pregnant woman, fetus, and newborn, but also the health of the family up to 1 year after the birth of the infant.
6. The document recognized that there was insufficient evidence for some of the panel's recommendations, and specified that more comprehensive research on the subject of prenatal care was needed to address a range of issues including etiology, prevention, risk assessment, health promotion, diagnosis, and treatment. Specific research was needed to validate and support the following recommendations.

I. The value of the preconception visit
II. Effective means of assessing risk during prenatal care, and evaluation of the different methods of data collection for risk assessment to determine which is most effective

a. Evaluation of what health promotion activities are effective in pregnancy
b. Documentation that reduced prenatal visits in selected populations was not associated with increased harm
c. evaluation of predictors and testing efficacy for medical risks, including preeclampsia, infection, intrauterine growth restriction (IUGR), genetic screening and treatment of genetic disorders, preterm birth, postterm birth, and diabetes
d. Evaluation of methods for assessing psychosocial risks during pregnancy, including work, stress, the home environment, nutrition, and health promotion; additionally, research focused on interventions to reduce psychosocial risk and the impact of these interventions on pregnancy and family outcomes was needed.

Given these broad recommendations, the philosophies espoused within the CPC document were expected to have a major impact on prenatal education, clinical practice, research, and public health policy. The current paper updates and reviews the literature on practice, research, and policy in prenatal care, and evaluates what has been done, discovered, and implemented as it relates to the recommendations and research agenda set forth since CPC. It will do this in 3 sections:

- A review of the literature since 1989;
- An examination of what new research and policy findings reinforce or contribute to the recommendations put forth in the CPC document; and
- A discussion of what recommendations need further consideration or research to achieve and expand the goals outlined in the CPC.

We utilized the outline of the CPC to organize a review of the literature and related work on prenatal care, including 1) a review of programs that have been successfully implemented in various degrees in selected populations (e.g., nurse home visits), and 2) references to observations that expand the content of prenatal care beyond the working definition of 1989 (e.g., multiple determinants life course perspective; Lu & Halfon, 2003; Misra, Guyer, & Allston, 2003). Newer observations that did not fall in the scope of 1989 document are discussed in the context of the ever-expanding definition and/or objectives of prenatal care and are used to help formulate additional recommendations for consideration as major areas of focus for future research on practice and policy related to the content of prenatal care, as well as achieving the goals of prenatal care.

## Search Methods

The Medline database was searched for articles containing the words ″prenatal care," "antenatal care," "pregnancy care," and "preconception care." Results were limited to publications since 1989. Results were then reviewed and subjects and articles were selected by a consensus of the authors as addressing recommendations of the expert panel and the relevant issues that are new or have changed focus since the 1989 publication. The recent British guidelines for prenatal care were also informative (National Institute for Health and Clinical Excellence, 2005).

### *Review of the Literature Since 1989*

*Early and continuing risk assessment that is patient specific, with clinical visits adjusted accordingly.* Table 1 outlines the suggested visit frequency and rationale for visits suggested by the CPC panel for low-risk pregnancies (Gregory & Davidson, 1999). Since publication of these recommendations, several well-designed randomized clinical trials and cost–benefit analyses have been reported using alternative visit schedules (Henderson, Roberts, Sikorski, Wilson, & Clement, 2000; Jewell, Sharp, Sanders, & Peters, 2000;