The Content of Prenatal Care

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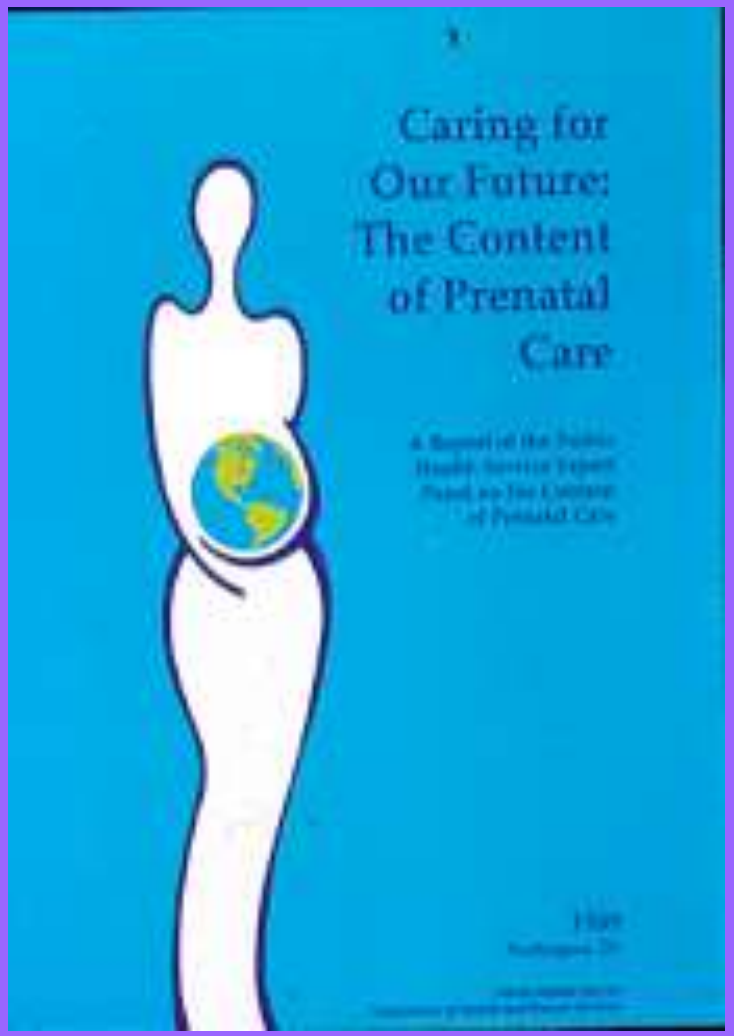
Outline

- Review of the literature since 1989
- What new research and policy findings reinforce or contribute to the recommendation put forth in the Content of Prenatal Care (CPC) document?
- What new recommendations need further consideration/research to achieve the goals outlined in CPC?

The Content of Prenatal Care



- Landmark document written in 1989
- Reviewed the evidence of the content of prenatal care
- Advocated numerous changes to improve maternal and child health

Themes of the CPC document

1. Early and ongoing patient-specific risk assessment
2. Health promotion and the preconception visit
3. Medical or psychosocial interventions and follow-up
4. Standardized documentation to enable communication and continuity
5. Expanding the objectives of prenatal care
6. Insufficient evidence and more research needed

- What new research and policy findings reinforce or contribute to the recommendation put forth in the Content of Prenatal Care (CPC) document?

1. Early and ongoing patient-specific risk assessment

- CPC suggested reducing the frequency of prenatal
- Subsequent well-designed trials have supported the safety, efficacy, and cost-effectiveness of reduced frequency visits

Early and ongoing patient-specific risk assessment

Week gestation	ACOG 1997	Expert Panel Nulliparous Woman	Expert Panel Multiparous Woman	Clinical Intervention
1-4		X	X	Preconception Dating
5-8	X	X	X	Dating
9-12	X	X		*
13-16	X	X	X	*
17-20	X			AFP/Multiple Marker Screening*
21-24	X			
25-28	X	X	X	Glucose tolerance test
31-32	X	X	X	Childbirth education Risk assessment
35-36	X	X	X	Risk assessment Growth
37	X	X		Risk assessment
38	X	X		Risk assessment
39	X			
40	X	X		Risk assessment
41	X	X	X	Post term evaluation

Early and ongoing patient-specific risk assessment

- Opportunity for risk assessment is expanding will affect timing of visits, potentially increased visits
  - Genetic screening (first trimester screening for aneuploidy, cystic fibrosis, “Jewish panel”,etc)
  - technology
  - Monitoring/ improving the quality of care with standardized guidelines (ACOG, AIUM)

2. Health promotion and emphasis of a “preconception visit”

- Education to support and promote healthy behaviors
- Education regarding general knowledge about pregnancy and parenting
- Education regarding information related to specific clinical conditions
- **Goal:** identify medical and social conditions that need to be optimized prior to conception to increase likelihood of good outcome

Health promotion and emphasis of a “preconception visit”

- Demonstrated evidence for the role of education in supporting and promoting health behaviors
  - Nutrition and vitamin supplementation (e.g. periconception folate and NTD)
  - Behavior and preterm birth (Smoking, Alcohol Ingestion, Illicit substances); these behaviors are associated with a number of negative outcomes; outcome improved by change in behavior

Health promotion and emphasis of a “preconception visit”

- Evidence for education about pregnancy and parenting less well studied
  - Support for childbirth education
  - Support for anticipatory guidance re: breast feeding
  - Support for anticipatory guidance re: parenting nonexistant, not part of standard antenatal curriculums

Health promotion and emphasis of a “preconception visit”

- Lifespan approach lends opportunity for expanding the role of the pediatrician in prenatal care:
  - Many pediatricians make pre-delivery visits
    - Opportunity to use ongoing child visits to improve maternal health
      - Emphasizing breastfeeding continuation
      - Detection of Postpartum Depression

A “post-gestation” visit for health screening?

Health promotion and emphasis of a “preconception visit”

- Education regarding information related to specific clinical conditions
- Major technological innovations in prenatal diagnoses and genetic disorders.
- There has yet to be a standardized consensus for use of these tests, or standardized protocol for providing patient information in meaningful way

3. Medical/Psychosocial Interventions and follow-up

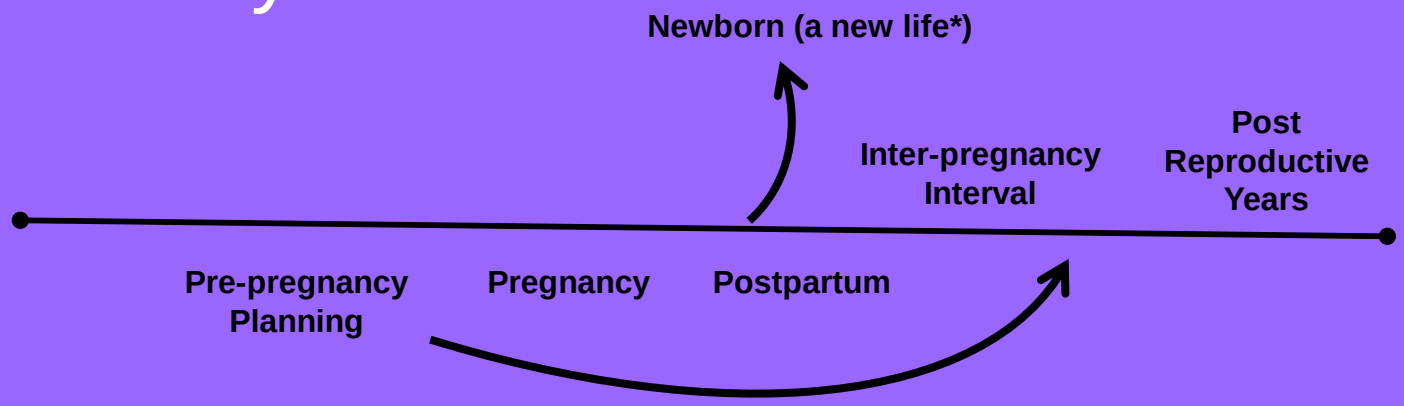
- Limited evidence for efficacy of screening programs, limited evidence for effective interventions once risk identified
- Considerable research regarding psychosocial interventions since CPC
  - Home visits, “enhanced” comprehensive care likely improves outcomes in selected impoverished populations

4. Standardized documentation for communication and continuity

- Embraced by ACOG, MOD, more recently IOM, federal government, others
- Potential of the Electronic Medical Record (EMR)
  - Portability
  - Ease of transfer of information
  - Quality assessment and review
  - Decreased cost
  - Decreased opportunities for error
  - Pop-ups, warnings, reminders
    - Allergies, Drug Interactions, Alerts

5. Expanding the concept of prenatal care

- The evolution of a lifespan approach towards the health of the mother, fetus, infant and family up to one year after delivery



*Fetal origins of adult diseases

5. Expanding the concept of prenatal care: Lifespan model

- Preconception visit-optimize prepregnancy
- Antepartum- ongoing risk assessment
- “Post-gestation visit” parenting, screening for maternal depression
- Interpregnancy- optimize birth spacing, improved child health, family health functioning and SES
- Intergenerational effects-Barker’s Theory

6. Insufficient evidence…. more research needed

- The Value of the Preconception Visit
  - One study has found a utilization rate of ~11%
    - Physicians were adherent to traditional prenatal care practices (history taking, physical exam, lab tests)
    - Less adherent to components recommended by CPC (behavioral risk assessment, health promotion and education)
    - were provided at lower and more inconsistent rates

6. Insufficient evidence…. more research needed

- Effective means of assessing risk during prenatal care
- Several studies document physician compliance with long standing guidelines
- Current tools for risk assessment in relation to pregnancy outcomes have low test accuracy

6. Insufficient evidence…. more research needed

- Evaluation of what health promotion activities are effective in pregnancy
  - Data supports that physician counseling and referral for health promotion works,
  - Documentation of counseling and referral rates are less than ideal,
  - Not enough programs available for pregnant women

6. Insufficient evidence…. more research needed

- Evidence that reduced prenatal visits in specific populations is not associated with increased harm
  - Consistent support
    - Many trials, international in scope
    - Could not identify any studies measuring the impact or uptake of reduced visits in a defined population

6. Insufficient evidence…. more research needed

- Evaluation of predictors and testing efficacy for medical risks
  - Such as pre-elampsia, infection, IUGR, genetic disorders, preterm birth, post term birth, diabetes
  - Limited research then….and now
    - Many aspects of prenatal care are implemented without formal evidence of efficacy
    - Still a pressing need to demonstrate effectiveness of most aspects of prenatal care

6. Insufficient evidence…. more research needed

- Evaluation of methods to assess psychosocial risks
  - Work, stress, home environment, nutrition, demonstrated impact on adverse outcomes
  - Data is inconclusive that intervention trials to reduce psychosocial risks improves outcomes

Again, Limited research

New research to reinforce and contribute to the CPC

- Enhanced Patient Education and Shared Decision Making
  - The importance of literacy with technological developments
  - The woman as a partner in the decision-making process
  - Understanding informal reasoning and improving strategies for health promotion

What CPC recommendation require further consideration?

1. Early and ongoing patient-specific risk assessment
2. Health promotion and the preconception visit
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Early and ongoing patient-specific risk assessment

- Integrated health systems need to implement flexible antenatal care visits based on patient risk and provide data infrastructure to monitor impact on patient satisfaction, outcomes, costs, and overall health system efficiency
  - Fragmented health systems must follow suit
  - Mechanism for shared data access

Early and ongoing patient-specific risk assessment

- Implementation of flexible visit schedule should not be based on a tiered health system or limited resources, but rather be based on a priori defined outcomes that are the same or improved from standard care
- Equitable funding needs to be negotiated between all shareholders to avoid altered visits due to reimbursement incentives that encourage or discourage utilization

Health Promotion and the pre-conception visit

- Education to support healthy behaviors and provide general knowledge about pregnancy and parenting
- Emphasize the lifespan approach as a public health policy (preconception visit, post gestation visit, inter conception visits)
- Support literacy, particularly health literacy, and specifically maternal health literacy as a national public health goal

Medical and psychosocial interventions and follow up

- Additional research into structured interventions and long-term follow up of families
- Community-based participatory research to inform further research and policy

Standardized Documentation

- Continued ACOG support and advocacy for a unified data set
- Standardization of data collection, storage, and retrieval by existing EMR companies
- Development of evidence based maternal quality of care indicators
- Development of specific strategies to address Healthy People 2010 indicators

Expanded Objectives of Prenatal Care

- Addition of maternal health literacy (and numeracy)
- Use existing mechanism to systematically integrate health promotion messages (schools, Healthy Start, media)
- Consider formalizing the health educator, advocate, or literacy translator as part of the healthcare team
- Fund (beyond 6-week postpartum visit) for indigent patients with chronic diseases

Insufficient evidence… more research needed

- Multi-center collaborative trials focused on efficacy and effectiveness comparable to international endeavors
- Integrated coordination of federal agencies to model the “roadmap” philosophy at the macro level (NIH, AHRQ, CDC, USPHS)
- Federal funding for HSR and systemwide QI efforts should follow the improvement efforts currently being championed at the VA

Conclusion

- CPC was a landmark document advocating change to maximize maternal and child health
  - Few of the changes have been realized despite evidence supporting some recommendations, widespread endorsement of change
  - Technology exists to execute much of what has been suggested (time, resources, women & children at risk)
- Time for action; we must come away with
    - Binding agreements
    - Commitment for funds
    - A time-table for action