



Focus on

# Quality of Prenatal Care

Among Maryland Women Giving Birth 2001-2005

October 2007

*“By the third pregnancy, doctors tend to skip over lots of stuff... but I could have used more advice.”*

PRAMS mother

*“When I asked...they told me to read the book. It would be a big help if doctors discussed more things with moms—especially first time moms-to-be.”*

PRAMS mother

Prenatal care offers important opportunities for providers to counsel patients about behaviors that may impact maternal and infant health outcomes. The purpose of this report

is to describe the counseling provided to Maryland women during prenatal care visits and their satisfaction with the care received.

## Content of Prenatal Care

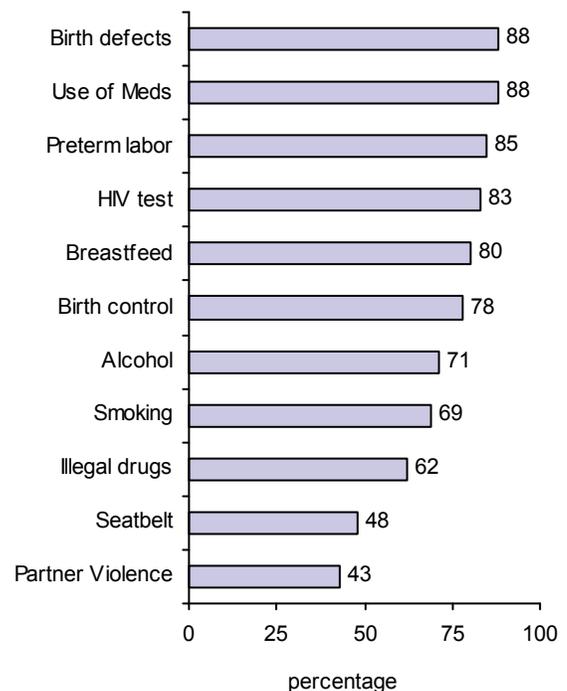
The 2001-2005 PRAMS survey included the following question on counseling received during prenatal care:

During any of your prenatal care visits, did a doctor, nurse, or other health care worker talk with you about any of the following things listed below:

- A. How **smoking** during pregnancy could affect your baby
- B. **Breastfeeding** your baby
- C. How drinking **alcohol** during pregnancy could affect your baby
- D. Using a **seat belt** during pregnancy
- E. **Birth control** methods to use after your pregnancy
- F. **Medicines** that are safe to take during pregnancy
- G. How using **illegal drugs** could affect your baby
- H. Doing tests to screen for **birth defects** or diseases that run in your family
- I. What to do if your **labor starts early**
- J. Getting your blood tested for **HIV**
- K. **Physical abuse** to women by their husbands or partners

The frequency with which women reported receiving counseling on these topics ranged from 88% to 43% (Figure 1). Women were most likely to be counseled about birth defects and use of medications, and least likely to be counseled about partner violence and seatbelt use.

Figure 1. Percentage Receiving Counseling By Topic, 2001-2005



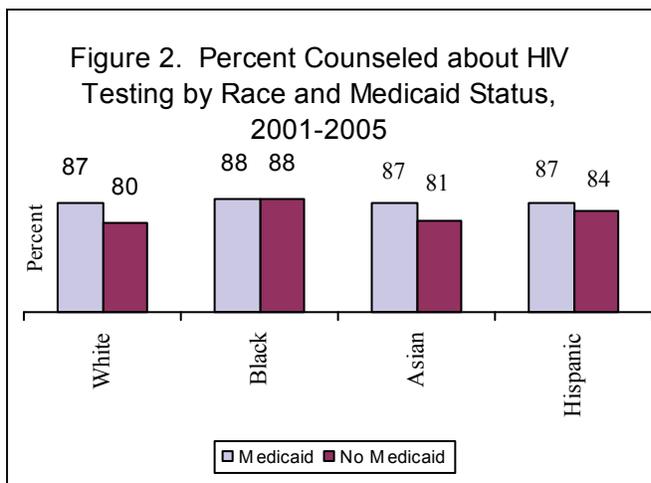
### Counseling by Maternal Age, Race, Hispanic Origin, and Medicaid Status

Teens were more likely to receive counseling than older women on all topics except birth defects. A prenatal care provider discussed alcohol use, smoking, and illegal drug use with nearly 90% of all teens. In contrast, only 46% of women ages 35+ years of age and older were counseled about illegal drugs, and approximately 60% about alcohol and smoking. Partner violence was discussed with only 30% of women 35+ years of age compared with 60% of teens (Table 1).

Asian women reported the lowest levels of prenatal counseling for most topics, and Hispanics the highest. For example, only 29% of Asian women reported receiving counseling about partner violence compared with 63% of Hispanic women.

Medicaid recipients reported higher levels of counseling than non-Medicaid recipients for all topics except birth defects, use of medications and preterm labor. There were racial and ethnic differences by Medicaid status in the percentage of

women counseled on most topics. For example, counseling about HIV testing, mandated for all pregnant women in Maryland, varied significantly by race/ethnicity for non-Medicaid recipients and was lowest for non-Hispanic whites and Asians (Figure 2). In contrast, HIV counseling was consistent among all racial and ethnic groups of Medicaid recipients.



FACTOR	RACE/ETHNICITY				AGE			MEDICAID STATUS	
	White	Black	Asian	Hispanic	<20	20-34	35+	Medicaid	No Medicaid
Birth Defects	90	88	81	78	87	87	92	85	89
Use of Medications	90	87	83	83	90	88	87	85	89
Preterm Labor	85	86	80	85	92	85	81	84	87
HIV Testing	81	88	82	85	92	84	78	88	82
Breastfeeding	76	87	71	88	92	81	71	90	76
Postpartum Birth Control	77	83	66	79	91	79	71	85	76
Alcohol Use	66	77	62	81	87	71	61	82	66
Smoking	64	77	60	82	88	70	57	85	64
Illegal Drug Use	55	73	50	78	88	63	46	80	56
Seatbelt Use	43	55	47	60	59	49	41	56	45
Partner Violence	35	52	29	63	60	43	30	62	36

## Satisfaction With Prenatal Care

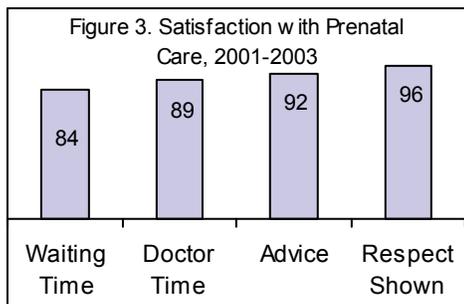
The 2001-2003 PRAMS survey included the following question about satisfaction with prenatal care:

We would like to know about how you felt about the prenatal care you got during your most recent pregnancy. Were you satisfied with...(answer yes/no):

- A. The amount of time you had to wait after you arrived for your visits
- B. The amount of time the doctor or nurse spent with you
- C. The advice you got on how to take care of yourself
- D. The understanding and respect that the staff showed toward you as a person

Women were most satisfied with the respect staff showed to them (96%) and

least satisfied with the amount of time spent waiting to be seen for a prenatal care visit (84%) (Figure 3). The percentage of women reporting satisfaction with respect shown to them, advice received, and time spent with doctor showed little variation by race, maternal age, or Medicaid status. However, black and Asian women were less satisfied with waiting time than women of other races/ethnicities.



## Discussion

While most Maryland women received counseling on topics that may impact maternal and infant outcomes, the percentage of women receiving counseling varied widely by topic. While nearly 90% of women reported that a health care provider had spoken to them about birth defects and use of medications during pregnancy, fewer than half received counseling about partner violence or seatbelt use. Unfortunately, intimate partner violence and automobile accidents are greater risks to pregnant women than birth defects.

Women who were non-Medicaid recipients, Asian, or 35+ years of age reported lower levels of counseling on prenatal risk factors such as smoking, alcohol use, illegal drug use, and partner violence. Discussion regarding postpartum health topics such as breastfeeding and birth control were also lower among these groups of women. Counseling on birth defects screening was lowest for Hispanic women, while screening for HIV was lower for white women.

At least 90% of women reported being satisfied with the respect shown to them by staff, the time the doctor spent with them and the advice they received during prenatal visits. These high levels of satisfaction with prenatal care did not vary greatly by Medicaid status, race or age. The level of satisfaction with waiting time (84%) was slightly lower than satisfaction with the above factors.

Receipt of quality prenatal care by women of all races, ages and incomes has been associated with reductions in adverse birth outcomes. Further research using data from Maryland PRAMS should focus on exploring the relationship between the quality of prenatal care and birth outcomes such as preterm birth and low birth weight. In addition, practice-based interventions should be considered as a means to increase counseling on violence, drug use, and seatbelt safety.

***“I wish I could have talked to someone about depression and abuse.”***

PRAMS mother



***“I had a doctor that was really, really busy and didn’t have time to talk with me.”***

PRAMS mother



## Production Team:

Kamila Mistry, MPH<sup>1</sup>  
 Isabelle Horon, DrPH<sup>2</sup>  
 Diana Cheng, MD<sup>3</sup>

1. Department of Population, Family and Reproductive Health, Johns Hopkins Bloomberg School of Public Health
2. Vital Statistics Administration, Maryland Department of Health and Mental Hygiene (DHMH)
3. Center for Maternal and Child Health, DHMH

For further information,  
 please contact:

Diana Cheng, M.D.  
 PRAMS Project Director  
 Medical Director, Women's Health  
 Center for Maternal and Child  
 Health  
 Maryland Department of Health  
 and Mental Hygiene  
 201 W. Preston Street, Room 309  
 Baltimore, MD 21201

Phone: (410) 767-6713  
 Fax: (410) 333-5233

or visit:

[www.marylandprams.org](http://www.marylandprams.org)

## PRAMS Methodology

Data included in this report were collected through the Pregnancy Risk Assessment Monitoring System (PRAMS), a surveillance system established by the Centers for Disease Control and Prevention (CDC) to obtain information about maternal behaviors and experiences that may be associated with adverse pregnancy outcomes.

In Maryland, the collection of PRAMS data is a collaborative effort of the Department of Health and Mental Hygiene and the CDC. Each month, a sample of 200 Maryland women who have recently delivered live

born infants are surveyed by mail or by telephone, and responses are weighted to make the results representative of all Maryland births.

The counseling results of this report are based on the responses of 7,305 mothers who delivered between 1/30/2001 and 10/31/2005 and were surveyed two to six months after delivery. The satisfaction with prenatal care results are based on data from 4,537 mothers who gave birth between 1/31/01 to 12/31/03.

## Limitations of Report

The data presented in this report are based on the mother's ability to recall, after delivery, specific aspects of counseling and satisfaction with prenatal care. Thus, the content and satisfaction with care measures are based on the mother's self reporting and are not verified by medical chart review or other objective means.

This report presents only basic associations between risk factors (race/ethnicity, Medicaid status, maternal age, and maternal education) and measures of prenatal care quality (content of care and satisfaction with care). Unexamined interrelationships among risk factors could explain some of the findings described in this report.

## Resources

Cooper, L., & Roter, D. (2002). Patient provider communication: Effect of race/ethnicity on process and outcomes of healthcare. In Institute of Medicine (ed.), *Unequal treatment: role of social and psychological research in medicine*. Washington, DC: National Academy Press.

Kogan, M., Alexander, G., Kotelchuk, M., & Nagey, D. (1994). Relation of content of prenatal care to the risk of low birth weight. Maternal reports of health behavior advice and initial prenatal care procedures. *Journal of American Medical Association*, 271(17), 1340-1345.

Sable, M., & Herman, A. (1997). The relationship between prenatal health behavior advice and low birth weight. *Public Health Reports*, 112(7), 332-339.

Wong, S., Korenbrot, C., & Stewart A. (2004). Consumer assessment of the quality of interpersonal processes of prenatal care among ethnically diverse low-income women: Development of a new measure. *Women's Health Issues*, 14(4), 118-129.



Maryland Department of Health and Mental Hygiene  
 Center for Maternal and Child Health • Vital Statistics Administration

Martin O'Malley, Governor; Anthony G. Brown, Lieutenant Governor; John M. Colmers, Secretary

The services and facilities of the Maryland Department of Health and Mental Hygiene (DHMH) are operated on a non-discriminatory basis. This policy prohibits discrimination on the basis of race, color, sex, or national origin and applies to the provisions of employment and granting of advantages, privileges, and accommodations.

The Department, in compliance with the Americans With Disabilities Act, ensures that qualified individuals with disabilities are given an opportunity to participate in and benefit from DHMH services, programs, benefits, and employment opportunities.

Funding for the publication was provided by the Maryland Department of Health and Mental Hygiene and by the Centers for Disease Control and Prevention (CDC) Cooperative Agreement # UR6/DP-000542 for Pregnancy Risk Assessment Monitoring System (PRAMS). The contents do not necessarily represent the official views of the CDC.