MARYLAND PRAMS
Pregnancy Risk Assessment Monitoring System

Focus on

Preconception Care

Among Maryland Women Giving Birth 2009-2011

April 2013

"I wish I had known about some of these things that I could have been doing before I got pregnant."

PRAMS mother

A woman's health in the preconception period (the period prior to pregnancy) is linked not only to pregnancy outcomes, but also to her own long-term health and that of her children. Preconception care (PCC) is designed to reduce modifiable risk factors before pregnancy in order to optimize pregnancy outcomes, as well as maternal and child health.

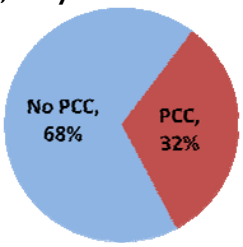
PCC is recommended as part of preventive care for all reproductive age women, however most women do not receive PCC services. Women with a prior birth may be even less likely to receive PCC. Those with a prior preterm delivery are at increased risk for an adverse outcome in subsequent births and have even greater need for PCC between pregnancies.

Prevalence of Preconception Care

The 2009 – 2011 Maryland PRAMS survey included the following question:

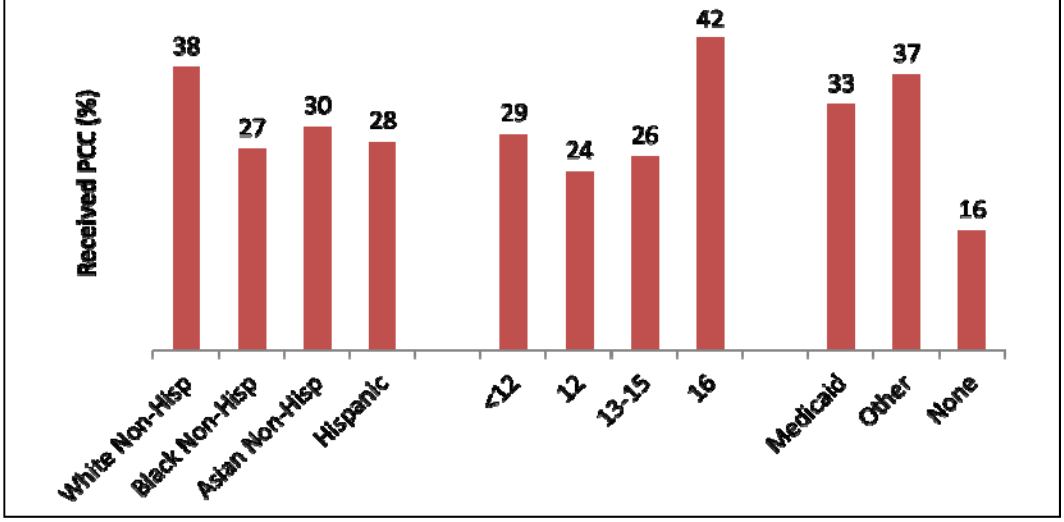
Before you got pregnant with your new baby, did a doctor, nurse, or other health care worker talk with you about how to prepare for a healthy pregnancy and baby?

Figure 1. Prevalence of Preconception Care, Maryland 2009-2011 Births



Nearly two out of three women did not receive PCC prior to their most recent pregnancy (Figure 1). PCC was most prevalent among women who were college graduates (42%), non-Hispanic White (38%) or had private health coverage in the month before pregnancy (37%). Uninsured women had the lowest prevalence of PCC (16%) (Figure 2).

Figure 2. Receipt of Preconception Care by Maternal Race/Ethnicity, Education, and Preconception Insurance Status, Maryland, 2009-2011 Births



Factors and Preconception Care

Table 1. Preconception Factors Associated with Receipt of Preconception Care
Maryland 2009-2011 (N=1631)

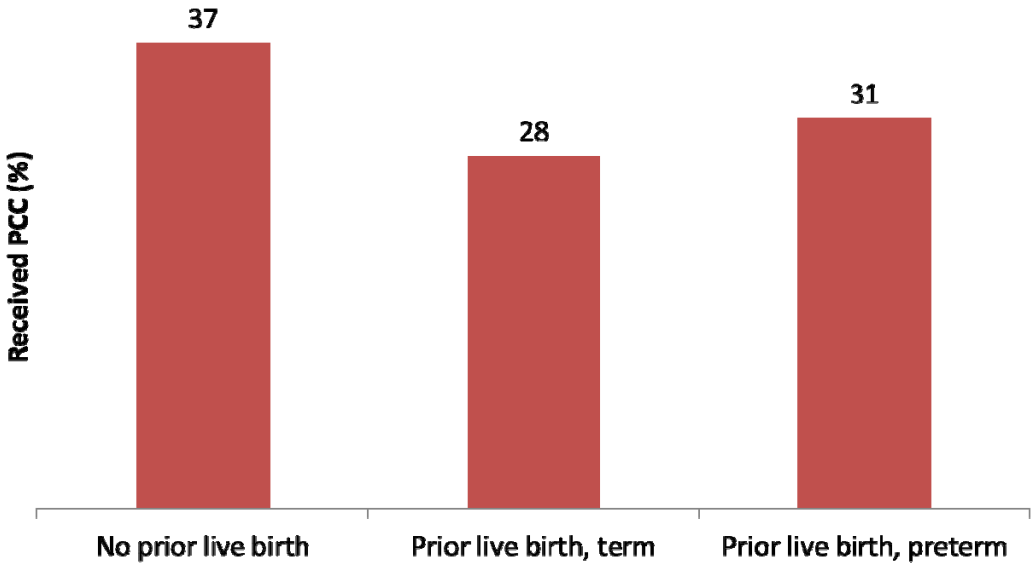
Factor	Preconception Care %
Total	33
Alcohol use, 7+drinks/week, (3 months pre-pregnancy)	
No	32
Yes	28
Asthma (3 months pre-pregnancy)	
No	31*
Yes	42
Cigarette smoking, (3 months pre-pregnancy)	
No	34*
Yes	25
Dental cleaning (year pre-pregnancy)	
No	22*
Yes	40
Depression, (3 months pre-pregnancy)	
No	32
Yes	34
Diabetes, Type 1 or 2 (pre-pregnancy)	
No	32*
Yes	50
Hypertension (3 months pre-pregnancy)	
No	32
Yes	37
Multivitamin use, at least 1 day/week, (month pre-pregnancy)	
No	16*
Yes	50
Physical abuse by current partner (year pre-pregnancy)	
No	32
Yes	27
Stressful events**, one or more (year pre-delivery)	
No	37*
Yes	30
Unintended pregnancy	
No	43*
Yes	19

*Rates differed significantly ($p<.05$) on bivariate analysis
**Note: stressful events in PRAMS survey include: close family member sick/hospitalized, moved to a new address, separation/divorce, homelessness, partner or self lost job, increased arguments with partner, partner did not want pregnancy, bills that couldn't be paid, physical fight, partner or self went to jail, someone close had problem with drinking/drugs, someone close died.

After a more comprehensive analysis, health and behavioral factors associated with increased likelihood of preconception care included a pre-existing diagnosis of diabetes (50% vs. 32%) or asthma (42% vs. 31%), a dental cleaning in the year prior to pregnancy (40% vs. 22%), and consumption of a prenatal vitamin at least one day per week in the month prior to pregnancy (50% vs. 16%). Unintended pregnancy (19% vs. 43%) was associated with a decreased likelihood of preconception care (Table 1).

Prior Birth Outcomes

Figure 3. Prevalence of Preconception Care by Prior Birth Outcome, Maryland 2009-2011



Women with a prior term birth were significantly less likely to receive preconception care than those with no prior birth (28% vs. 37%). There was no significant difference in preconception care receipt among women with a prior preterm birth and those with no prior birth (31% vs. 37%) (Fig. 3).

Discussion

Although selected protective health behaviors (dental cleaning, multivitamin use) and high-risk conditions (diabetes, asthma) were associated with preconception care, most women did not receive preconception care. Women whose pregnancies were unintended had a significantly decreased likelihood of preconception care.

Women at high risk for preterm birth (because of their history of a prior preterm birth) did not have an increased likelihood of preconception care compared with women with no prior live birth.

Efforts to increase preconception care delivery to Maryland women are needed. Particular attention should be given to pregnancy risk assessment and delivery of services to those with a prior birth.

"I took the prenatal vitamins while I was trying to get pregnant"

"I had diabetes before I was pregnant and tried to keep my sugars in control while I was trying to get pregnant."

"I was smoking but stopped as soon as I found out I was pregnant."

PRAMS Mothers

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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.

This report is based on the responses of 4,548 Maryland mothers who delivered live infants between January 1, 2009 and December 31, 2011 and were surveyed two to nine months after delivery.

Limitations of Report

This report has several limitations. First, receipt of PCC was determined through mothers' response to a general question about discussion of preparing for a healthy pregnancy with a health care provider. Self-report may overestimate or underestimate the true incidence of PCC in Maryland. Additionally, since women complete the survey two to nine months after delivery, they may have difficulty accurately recalling the time prior to pregnancy. The PCC questions have only been included in Maryland PRAMS since 2009 so the report is based on a relatively small sample size, limiting our ability to detect small differences within and between groups. Lastly, this report presents unadjusted associations between risk factors and PCC, and as a result causal relationships cannot be determined.

Resources

Preconception Care and Health Care Resource Center
Centers for Disease Control and Prevention
800-CDC-INFO (800-232-4636)
Www.cdc.gov/preconception/freematerials.html

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; Joshua M. Sharfstein, M.D. , Secretary

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