

MI PRAMS Delivery



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Findings at a glance

- Overall, 40.6 percent of all live births were unintended in 1999
- No change in the overall percent of unintended live births
- Significant increase in mistimed live births among women aged 20-24 years and among women still in high school
- Significant increase in unwanted live births among adult women without high school diplomas
- Women with unwanted live births were more likely to have smoked and consumed alcohol during pregnancy
- Both mothers of unwanted and mistimed live births were more likely to have delayed or no prenatal care

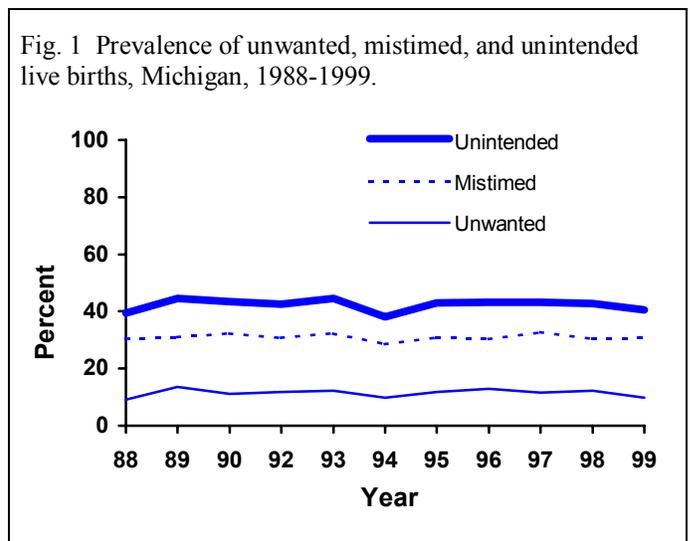
The Michigan Department of Community Health is proud to announce the publication of *MI PRAMS Delivery*. This quarterly publication takes an insightful look into various maternal and child health issues using data from the Michigan Pregnancy Risk Assessment and Monitoring System (PRAMS). Each issue will focus on one main topic, examine data from the Michigan PRAMS and compare Michigan's data to that of other states. This first issue focuses on unintended live births, and includes information on the temporal trends, populations at risk, and health risk behaviors among women with unintended live births. In upcoming issues, we will examine a variety of other important topics, including folic acid awareness, infant sleep positions, as well as alcohol and tobacco consumption. Please feel free to contact us via e-mail or telephone with any questions or if you want more information on the PRAMS data.

UNINTENDED LIVE BIRTHS, MICHIGAN, 1988-1999

PRAMS is a vital source of information on maternal behaviors during pregnancy. In fact, PRAMS is Michigan's only source of data on unintended live births. Unintended pregnancies have been associated with adverse outcomes. These include inadequate prenatal care, low birth weight, infant mortality, child abuse and neglect, and economic hardship and lower educational attainment of both parents (1). The PRAMS question on pregnancy intention is shown on page 3. An unintended live birth is delivered by a woman who wanted the pregnancy later (mistimed) or not at all (unwanted). Because PRAMS only surveys mothers with live births, we cannot have a complete estimate of all unintended pregnancies.

From 1988 to 1999, 26,096 women participated in PRAMS. Overall, the percent of

Fig. 1 Prevalence of unwanted, mistimed, and unintended live births, Michigan, 1988-1999.



unintended live births has remained relatively constant at approximately 40 percent over these years. The percent of both mistimed and unwanted live births also remained relatively constant during the time period (Fig. 1). For example, in 1988, 30.3 percent of the live births were mistimed and 9.1 percent

were unwanted; whereas in 1999, 30.7 percent were mistimed and 9.7 percent were unwanted. When we analyzed the temporal trends of unintended live births by sociodemographic characteristics, we found no significant changes in the prevalence of either mistimed

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POPULATIONS AT RISK OF HAVING UNINTENDED LIVE BIRTHS

“Both mistimed and unwanted live births were more common among black women than among nonblack women, and this disparity has remained constant over time.”

We analyzed the combined data from 1996-1999 to identify those women who were at increased risk of having unintended live births. In doing so, we controlled for several other sociodemographic characteristics, including race, age, education, availability of parental names on birth certificates, insurance status, and Medicaid coverage.

Populations at risk of having **mistimed** live births:

- **Race:** Black women were 1.5 times as likely as nonblack women.
- **Age:** Women <20 years were 5.9 times as likely, and women 20-24 years were 3.0 times as likely as women aged 35-39 years.
- **Education:** No association.
- **Medicaid receipt:** Women who received Medicaid during pregnancy were 1.9 times as likely as non-Medicaid recipients.
- **Paternity acknowledgement:** Women having no paternal information on birth certificate were 2.2 times as likely as women with paternal name on birth certificate.

Populations at risk of having **unwanted** live births:

- **Race:** Black women were 1.7 times as likely as nonblack women.
- **Age:** Women 30-34 years were 1.4 times as likely, women 35-39 years were 2.4 times as likely, and women 35+ years were 3.2 times as likely as women aged 25-29 years.
- **Education:** In general, women with less than college educations were more likely than women with college degrees. Strongest association among adult women with no high school diploma, who were 4.8 times as likely to deliver unwanted live births than women with college degrees.
- **Medicaid receipt:** Women who received Medicaid during pregnancy were 1.8 times as likely as non-Medicaid recipients.
- **Paternity acknowledgement:** Women having no paternal information on birth certificate were 2.4 times as likely as women with paternal name on birth certificate.

PRAMS QUESTION ON PREGNANCY INTENTION

“Thinking back to just before you got pregnant, how did you feel about becoming pregnant?” (Check only one response)

- I wanted to be pregnant sooner
- I wanted to be pregnant later
- I wanted to be pregnant then
- I did not want to be pregnant then or at any time in the future
- I don't know

We refer to those women who wanted the pregnancy later as having mistimed live births and those women who did not want the pregnancy now or at any time in the future as having unwanted live births.

TRENDS

(Continued from page 1)

or unwanted live births among either black or nonblack women. However, from 1988 to 1999, the prevalence of mistimed live births increased significantly among women aged 20-24 years, from 41.6 percent to 47.4 percent. In addition, the prevalence of mistimed live births increased significantly among women still in high school, from 38.9 percent to 45.7 percent; so did the prevalence of unwanted live births among adult women with no high school diploma, from 9.3 percent to 16.7 percent.

When we examined intention status among different sociodemographic groups, we found that both mistimed and unwanted live births were more common among black women than among nonblack women, and this disparity has remained constant over time. Compared with nonblack women, the percentages of mistimed live births were nearly twice as high (47.3 percent vs 27.1 percent in 1999) and the percentages of unwanted live births were almost three times as high (20.4 percent vs 7.6 percent in 1999) among Black women. Similarly, of all age groups,

the prevalence of mistimed live births was highest among women under 20 years (75.6 percent for 13-17 year olds and 76.1 percent for 18-19 year olds in 1999) and decreased with increasing age. The prevalence of unwanted live births, on the other hand, was highest among women aged 13-17 years (14.2 percent in 1999) and women over 35 years (13.0 percent in 1999). Intention status also varied by educational level: mistimed live births were most common among women still in high school (45.7 percent in 1999), whereas unwanted live births were most common among adult women without a high school diploma (16.7 percent in 1999).

The fact that the overall percentage of unintended live births has not changed much over the years, and that in certain sociodemographic groups the percentages of unwanted or mistimed live births had increased is concerning. The Department of Health and Human Services has set a Healthy People 2010 Objective to have only 30 percent of all live births to be unintended (3). In Michigan, we will need to see a 25 percent reduction to meet this objective.

PRAMS has identified the

women who are at higher risk of delivering unintended live births. We now need to understand the health risk behaviors and contraceptive practices among these women so we can strengthen our family planning services. While Michigan has a strong Family Planning Program, which delivers health education and counseling, comprehensive contraception services, and reproductive health assessments to Michigan residents, there is a need to further focus on removing barriers so all women have equal and adequate access to health care. Increasing access to the family planning services in the Medicaid program could also have a substantial impact, as the majority of births to Medicaid recipients are unintended.

Starting in 2002, PRAMS will be able to identify not only who is using contraceptive methods and the reasons for not using any contraceptive methods, but also which types of contraceptive methods are being used. This information will be extremely useful to help facilitate the reduction in unintended live births.

*Healthy People 2010
Objective: 70 percent of
all live births to be
intended*

HEALTH RISK BEHAVIORS DURING PREGNANCY AMONG MOTHERS WITH UNWANTED, MISTIMED, AND INTENDED LIVE BIRTHS

Are women with unintended live births more likely to engage in health risk behaviors during pregnancy than women with intentional conceptions? To answer this question, we evaluated several health risk behaviors and experiences in relation to the mother's intention status, while controlling for sociodemographic characteristics, such as race, age, and education. The results are as follows (Fig. 2).

Smoking during last trimester:

- Women with unwanted live births were twice as likely to have smoked during the last trimester (30.0 percent) than were

women with intended live births (14.2 percent). Women with mistimed live births also had higher rates of smoking during the 3rd trimester (23.1 percent), but the association was not statistically significant.

Drinking alcohol during last trimester:

- Women with unwanted live births were 2.5 times as likely to have consumed alcohol (7.8 percent) than were women with intended live births (5.3 percent). The prevalence of drinking was actually higher among mothers with

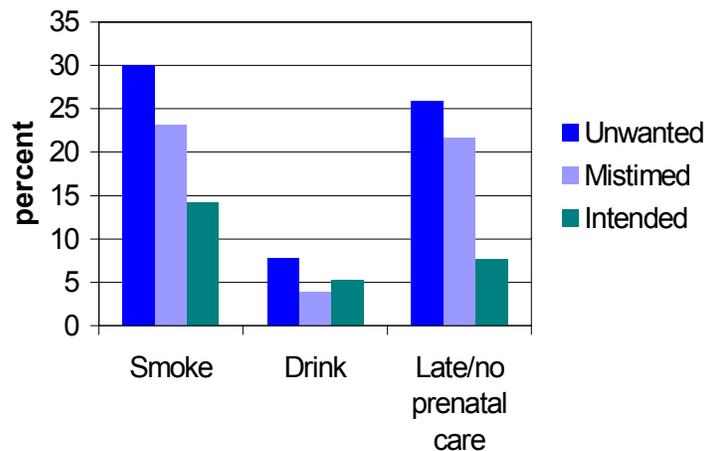
intended live births than among women with mistimed live births (3.8 percent).

Having late (after 1st trimester) or no prenatal care:

- Both women with unwanted and mistimed live births were twice as likely to have not initiated prenatal care until after the 1st trimester or have no prenatal care at all (25.9 percent and 21.6 percent, respectively) than were women with intended live births (7.7 percent).

“The prevalence of drinking (during pregnancy) was actually higher among mothers with intended live births than among women with mistimed live births.”

Fig. 2 Percent of women who engaged in health risk behaviors by intention status, Michigan, 1996-1999



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HOW DOES MICHIGAN COMPARE WITH OTHER STATES?

PRAMS data show that the prevalence of unintended live births in Michigan was comparable to the prevalence in other states (2). In 1998, among 13 other states, the prevalence of unintended live births ranged from 34.1 percent (Maine) to 53.4 percent (Arkansas). Michigan is around the mid-point range at 42.6 percent. Similarly, Michigan is comparable in the prevalence of live births that were unwanted and mistimed. The percentage of unwanted live births varied from 6.4 percent (Maine) to 16.1 percent (Louisiana), where Michigan was at 12.3 percent. The range for mistimed live births was 25.6 percent (New York-excluding New York City) to 38.0 percent (Arkansas). Again, Michigan's prevalence of 30.4 percent fell near the mid-point of the range.

MEET THE PRAMS STAFF

Elizabeth Eby, MPH, is the editor of *MI PRAMS Delivery*. She is a maternal and child health (MCH) epidemiologist at MDCH who performs statistical analysis, interpretation, and dissemination of the PRAMS data.

Yasmina Bouraoui, MPH, is the PRAMS project director. She has primary responsibility in assuring that the CDC protocol is followed and that CDC objectives are met.

Bao-Ping Zhu, MD, MS, is a senior epidemiologist at the CDC's Division of Reproductive Health, assigned to the MDCH. He provides epidemiologic and statistical oversight for PRAMS, including sample design, analysis, interpretation, and dissemination of the data.

Katherine McGrath-Miller, MA, is the coordinator of project at the Data, Evaluation and Surveillance Unit in the Family and Community Health Division of MDCH. She handles administrative tasks, coordinates use of results of the survey with program needs, and provides direction for the overall PRAMS grant, newsletter and presentation to local organizations.

Douglas M. Paterson, MA, is the director of Family and Community Health, where the PRAMS grant is located. The division has responsibility for the development and implementation of MCH programs. Mr. Paterson has the administrative responsibility for the PRAMS project.

Jose Sariava, PhD, is a senior statistician in Vital Records/Health Statistics at MDCH. He writes the computer programming to create the PRAMS sampling frame, and draws the monthly samples from the birth registry.

Larry Hembroff, PhD, is a senior survey methodologist and survey director of the Office of Survey Research (OSR) at the Institute for Public Policy and Social Research (IPPSR), Michigan State University. He is responsible for the overall implementation and management of PRAMS at IPPSR.

Martha Kapaya-Lemon, MA, is the PRAMS project manager. She is responsible for the day to day management of the PRAMS project within the Office of Survey Research at IPPSR.

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PRAMS OVERVIEW

PRAMS (Pregnancy Risk Assessment and Monitoring System) is a population-based survey of maternal experiences and behaviors before and during a woman's pregnancy and during early infancy of her child. African-American women and women who deliver low birth weight infants are over-sampled to ensure accurate estimates. Each year, approximately 1,000 to 3,000 new mothers are randomly selected from a frame of eligible birth certificates. A survey is mailed out to the women at two to six months after delivery, followed by postcard reminders and telephone follow-ups to those who have not responded. In addition to the mailed surveys, a stratified systematic sample of African-American mothers is selected from six inner-city hospitals, where an initial interview is conducted followed by a mailed survey two to six months later. This was intended to better capture the experiences among African-American mothers and their infants. The results presented are weighted to represent all of Michigan's mothers and infants.

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