

An overview of pregnancy experiences: 1997 data from the Colorado Pregnancy Risk Assessment Monitoring System (PRAMS)

An update from the Survey Research Unit

Introduction

The Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing, population-based surveillance system designed to supplement vital records data and to generate state-specific perinatal health data. In the fall of 1996, the Colorado Department of Public Health and Environment was awarded a grant from the Centers for Disease Control and Prevention (CDC) to establish PRAMS in Colorado. Data collection for this surveillance system began in April of 1997, and data representing live births to Colorado residents in 1997 are now available. PRAMS data will assist Colorado in evaluating and improving services to women and infants so that poor pregnancy outcomes can be prevented.

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BRIEF

Methods

Each month, a stratified random sample of infants 2-4 months old is selected from birth certificate records to comprise the PRAMS sample. The sample is stratified on region of residence (Denver Metro, Other Metro, and Rural) and birth weight (low and adequate) to ensure a large enough sample in the low birth weight and rural categories. Women are excluded from the sampling frame if they are not Colorado residents, are age 14 or younger, or experienced a multiple birth of four or more live born infants. Women are first sent a letter describing the project and providing them an opportunity to refuse to participate. They are then mailed the survey, with up to two more copies sent to nonresponders. Trained interviewers call women who do not respond by mail and the survey may be completed over the phone. Women who indicate on the birth certificate that they are of Hispanic origin receive all mailings in both English and Spanish; in addition, the phone interview can be completed with a Spanish speaking interviewer.

In 1997, a total of 2,646 women were randomly selected to participate in PRAMS and 1,847 (70 percent) of those women completed surveys. Table 1 on page 2 compares selected characteristics of the weighted sample with the characteristics of all women eligible to participate in PRAMS. The survey data from the respondents are weighted to represent all pregnancies among Colorado residents age 15 and older who delivered live born infants in 1997. Weighting procedures account for the probability of selection of each record and adjust for nonresponse.

In this report, data describing many different topics are provided as an overview of the first year of data collection. More detailed analyses of these topics and others are planned and will be reported in future *Briefs*. For additional information on PRAMS or to be added to the PRAMS mailing list, please call the Health Statistics Section at (303) 692-2160 or the Women's Health Section at (303) 692-2480.

Pregnancy Intendedness

Among Colorado women delivering live born infants in 1997, 38 percent reported that their pregnancies were mistimed (28 percent) or unwanted (10 percent); that is, they experienced unintended pregnancies that they would have preferred later in their lives (mistimed) or never in their lives (unwanted). Most women (62 percent) reported that their pregnancies were intended, that they wanted to be pregnant sooner or at that time (see Figure 1, below).

Figure 1. Pregnancy intent among women delivering live born infants in Colorado: Colorado PRAMS, 1997 Births

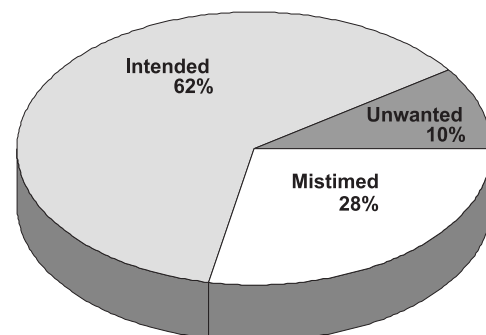


Table 1. Selected characteristics of the PRAMS-eligible population and the PRAMS weighted sample: Colorado PRAMS, 1997 births

| MATERNAL CHARACTERISTIC | PRAMS-ELIGIBLE POPULATION (%) | PRAMS WEIGHTED SAMPLE (%) ¹ |
|--|-------------------------------|--|
| Age | | |
| 15-19 | 12 | 11 |
| 20-24 | 24 | 23 |
| 25-34 | 50 | 49 |
| 35+ | 14 | 17 |
| Race/Ethnicity | | |
| White/Non-Hispanic | 69 | 76 |
| White/Hispanic | 23 | 19 |
| Black | 4 | 2 |
| Other | 4 | 3 |
| Education (years) | | |
| <12 | 19 | 19 |
| 12 | 30 | 29 |
| >12 | 51 | 52 |
| Marital Status | | |
| Married | 75 | 76 |
| Unmarried | 25 | 24 |
| Region of Residence | | |
| Denver Metro | 57 | 57 |
| Other Metro | 29 | 29 |
| Rural | 14 | 14 |
| Birth Weight | | |
| Low (<2500 g) | 8 | 8 |
| Adequate (>2500 g) | 92 | 92 |
| Annual Household Income² | | |
| <\$15,999 | NA | 24 |
| \$16,000-\$24,99 | NA | 14 |
| \$25,000-\$39,999 | NA | 21 |
| \$40,000+ | NA | 41 |
| Number of Previous Live Births | | |
| 0 | 44 | 46 |
| 1 | 32 | 31 |
| 2 | 15 | 16 |
| 3+ | 9 | 7 |
| Women, Infants, and Children (WIC) Food Program Participant² | | |
| During Pregnancy | NA | 35 |
| After Pregnancy | NA | 34 |

¹Weighted percentage based on probability of selection and adjusted for non-response. Denver Metro region includes Adams, Arapahoe, Boulder, Denver, Douglas, and Jefferson counties. Other Metro region includes El Paso, Larimer, Mesa, Pueblo, and Weld counties. Rural region includes the remaining counties of the state Data sources. ²Annual household income and WIC participation estimated from PRAMS data. All other figures compiled from state birth certificate data.

Prenatal Care

The National Healthy People 2000 Goal for prenatal care is that 90 percent of women enter prenatal care during the first trimester. The 1997 PRAMS data for Colorado live births indicate that 78 percent of women in the state entered prenatal care in the first trimester.

Health Insurance

Health insurance coverage varies for women when different perinatal time periods are analyzed. Before their pregnancies, 70 percent of women were covered by some form of health insurance, including Medicaid. Payment for prenatal care and delivery can come from multiple sources, so women were asked to indicate all sources that paid for a portion or all of their prenatal care and their labor and delivery charges. Most women indicated that their prenatal care and labor and delivery charges were paid, at least in part, by some form of health insurance (see Table 2, below).

Table 2. Sources of payment for prenatal care and labor and delivery: Colorado PRAMS, 1997 births

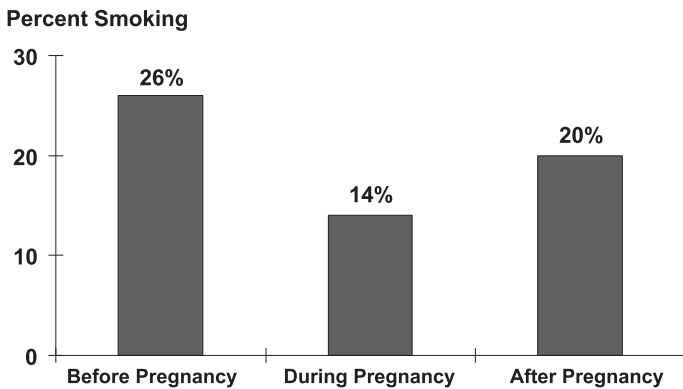
| SOURCE OF PAYMENT* | PRENATALCARE (%) | LABOR & DELIVERY(%) |
|---------------------|------------------|---------------------|
| Insurance | 63 | 63 |
| Medicaid | 28 | 31 |
| Personal Income | 25 | 21 |
| Military/Champus/VA | 4 | 4 |

*Respondents could select more than one form of payment

Smoking

Almost 40 percent of women delivering live born infants in Colorado in 1997 had smoked at least 100 cigarettes in their lives. A smaller proportion of women reported smoking during the three months before pregnancy (26 percent), and even fewer women reported smoking during the last three months of pregnancy (14 percent). However, half of the women who quit smoking during pregnancy reported that they resumed smoking after delivery (see Figure 2).

Figure 2. Prevalence of smoking among women delivering live born infants in Colorado: Colorado PRAMS, 1997 Births



Alcohol Use

While slightly more than half of women reported using alcohol in the three months before pregnancy, less than 10 percent of all women reported using alcohol during the last three months of pregnancy. Of those women who consumed alcohol during pregnancy, 99 percent reported drinking less than three drinks per week.

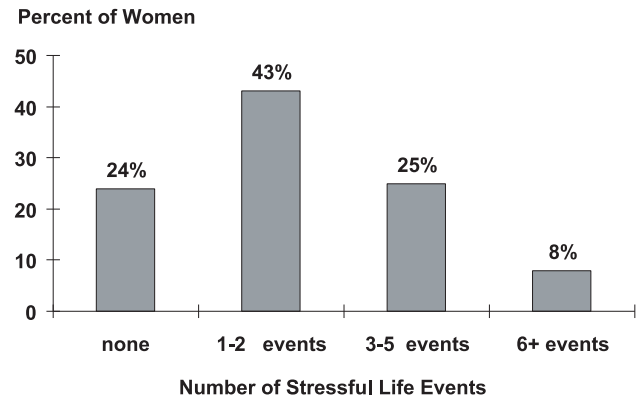
Physical Abuse

Approximately seven percent of women reported that they were physically abused in the twelve months before they got pregnant, and four percent reported abuse during their pregnancies. The person most often reported as the abuser was the husband or partner, but women also reported being abused by other household or family members, friends, and other individuals. Most women who were abused during their pregnancies had also been abused before they got pregnant (87 percent); however, 13 percent of those women abused during pregnancy had not experienced any abuse in the twelve months prior to the pregnancy.

Stressful Life Events During Pregnancy

Most women reported experiencing one or more stressful life events in the twelve months before delivering their new babies. Some of the most common stressful life events experienced were a move to a new address, more frequent arguments with a husband/partner, bills that could not be paid, an illness in the family that required a hospital stay, and the death of someone close to them. Approximately 24 percent of women experienced no stressful life events during that time period, and 8 percent experienced six or more stressful events (see Figure 3).

Figure 3. Number of stressful life events experienced during pregnancy among women delivering live born infants in Colorado: Colorado PRAMS, 1997 Births



Maternal Mental Health

Women were asked to describe their emotional state during pregnancy, their level of depression experienced after delivery, and if at any time during their pregnancy or after delivery a health care worker had talked to them about “baby blues” or postpartum depression. In general, women described their pregnancies as the happiest times of their lives (27 percent) or happy times with few problems (46 percent) (see Table 3). Following their deliveries, women most often reported that they were not depressed (36 percent) or that they were slightly depressed (46 percent) (see Table 3, below).

The majority of women (66 percent) reported that a health care worker had spoken to them about postpartum depression.

Table 3. Maternal mental health during pregnancy and after delivery: Colorado PRAMS, 1997 births

| EMOTIONAL STATE DURING PREGNANCY | | % |
|----------------------------------|--|----|
| Happiest time of life | | 27 |
| Happy time with few problems | | 46 |
| Moderately hard time | | 18 |
| Very hard time | | 6 |
| Worst time of life | | 3 |
| POSTPARTUM DEPRESSION | | % |
| Not depressed | | 36 |
| Slightly depressed | | 46 |
| Moderately depressed | | 13 |
| Very depressed | | 4 |
| Very depressed, had to get help | | 1 |

Maternal Weight Gain

The Institute of Medicine has issued guidelines for weight gain during pregnancy based on a woman's pre-pregnancy body mass index (BMI=weight in kilograms/height in meters squared). Approximately 39 percent of women in Colorado gained more than the recommended number of pounds for their BMI, 26 percent gained less than the recommended number of pounds, and 35 percent gained an adequate number of pounds.

Breast-Feeding

The National Healthy People 2000 Goal for breast-feeding is that 75 percent of all women delivering live born infants breast-feed in the early postpartum period. Colorado PRAMS data for 1997 show that 81 percent of women reported ever breast-feeding and 64 percent of all women were still breast-feeding at one month after delivery.

Sleep Position

To reduce the risk of Sudden Infant Death Syndrome (SIDS), the American Academy of Pediatrics recommends that healthy babies be placed on their backs to sleep. The PRAMS survey asks women to report the position used most often to put their babies down to sleep. In 1997, the majority of women reported that their new babies were put down to sleep on their backs (55 percent). Babies were put down to sleep on their sides (34 percent) and stomachs (11 percent) less frequently.

This report presents an overview of select topics using PRAMS data. The PRAMS surveillance system provides a rich source of information from which health professionals can draw for assessing need, planning programs, and implementing interventions to improve the perinatal health outcomes and experiences for women and infants in Colorado.

For more information about PRAMS in Colorado, contact Darci Cherry at the Colorado Department of Public Health and Environment by e-mail (darci.cherry@state.co.us) or by phone (303-692-2171).