# Insurance-based discrimination during prenatal care, labor, and delivery:

## **Perceptions of Oregon mothers**

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Abstract Objective. The purpose of this study was to improve understanding of who experiences insurance-based discrimination during prenatal care, labor, and delivery and how their health care may differ from that of other women. Methods. We pooled data from the 1998-99, 2000, and 2001 Oregon Pregnancy Risk Assessment Monitoring System and conducted univariate, bivariate, and multivariate analyses. Results. The women who perceived that they had been treated differently by health care providers during prenatal care, labor, or delivery based on their insurance status were largely a lower income group. Insurance-based discrimination was significantly associated with lower annual household incomes, being unable to pay bills during pregnancy, and being without employer-sponsored insurance for their baby's delivery, when adjusted for other factors. Insurance-based discrimination was less likely among Hispanic mothers. With respect to the relationship between insurance-based discrimination and receipt of health care, our findings were mixed. Insurance-based discrimination was not significantly associated with the number of topics covered by providers during prenatal care. In contrast, insurance-based discrimination was significantly associated with fewer breastfeeding support actions taken at the hospital and with having had a provider discuss birth control after delivery among women with employer sponsored insurance. Conclusion. These findings draw attention to the need to better understand women's experiences and perceptions of insurance-based discrimination during prenatal care, labor, and delivery.

**Keywords** Discrimination, Insurance, Pregnancy Risk Assessment Monitoring System (PRAMS), Prenatal care, Maternity care

#### Introduction

Research suggests that some people experience discrimination when getting health care [1-15]. Although some studies focus on racial/ethnic discrimination in health care, [4, 6, 13] others indicate that people perceive discrimination based on characteristics such as their socioeconomic status (SES) or language abilities [1, 3, 10, 11, 14]. Discrimination in health care based on insurance status or type has also been reported. For example, in a nationally representative telephone survey conducted in 1999, 21% of Latinos, 14% of African Americans, and 10% of Whites reported that they had been judged unfairly or treated with disrespect by a provider because of the type of health insurance they had or because they did not have any health insurance [10]. Further, 20% of Latinos, 16% of African Americans, and 9% of Whites reported that a provider treated them unfairly or disrespectfully because of their ability to pay for care. Another study, which used 2001 California Health Interview Survey data, found that type of insurance was the most frequently cited reason for discrimination in health care, regardless of gender or insurance status [14].

Focusing on insurance-based discrimination in health care is important for at least three reasons. First, insurance status or type is a modifiable characteristic. A person's health care coverage can change. If patients are treated differently based on their insurance, then changes in insurance coverage could presumably improve or worsen patients' interactions when receiving medical care. Second, existing insurance policies and programs could be modified to reduce discrimination or stigma (e.g., by changing eligibility criteria, the claims process, or reimbursement rates). Another reason to study insurance-based discrimination in health care is the potential negative impact of such discrimination on patients' well-being. As with other types of discrimination in health care, insurance-based discrimination could adversely affect the receipt or quality of health care, as well as patients' attitudes toward health care and subsequent health care-related behavior. Research examining the relationship between perceived discrimination in health care and health care

has produced mixed results [1-5, 14, 16-18]. Although it is thought to contribute to differences in health care and health disparities, [19] when and how discrimination in health care – including discrimination on the basis of insurance type or status – affects health care is still unclear.

The purpose of this study is to improve understanding of who experiences insurance-based discrimination during prenatal care, labor, or delivery and how the quality of their health care may differ from that of other women. Specifically, our first objective was to determine the characteristics of Oregon mothers who report insurance-based discrimination during prenatal care, labor, and delivery and examine how their characteristics differ from those of other Oregon mothers. The assumption could be made that those who experience insurance-based discrimination are Medicaid recipients and/or the uninsured. As noted earlier, however, research suggests that people with various types of coverage experience insurance-based discrimination [14]. To develop strategies for reducing insurance-based discrimination, the population that experiences such discrimination must be identified. Our second objective was to examine whether mothers who perceived insurance-based discrimination during prenatal care, labor, and delivery actually received suboptimal health care. We wanted to explore how the health care of women reporting insurance-based discrimination during prenatal care, labor, or delivery may differ from that of other mothers. In other words, in what ways might these women have been treated differently?

#### Methods

#### **Data Source**

The data come from the 1998-1999, 2000, and 2001 Oregon Pregnancy Risk Assessment Monitoring System (PRAMS). Oregon PRAMS, conducted by the Oregon Public Health

Division, is an on-going population-based survey of postpartum women modeled on the multi-state PRAMS program of the Centers for Disease Control and Prevention (CDC). Initiated in 1998, the purpose of the Oregon PRAMS survey is to collect data about maternal attitudes and experiences before, during, and immediately after pregnancy from Oregon mothers who have recently had a live birth. Data from the 1998-1999, 2000, and 2001 Oregon PRAMS surveys were not collected under a CDC protocol.

Mothers who are Oregon residents and whose babies are born in Oregon are sampled using a stratified random sample of birth certificates. Black/African American, American Indian/Alaskan Native, Asian/Pacific Islander, and Hispanic mothers are oversampled. Selected mothers are mailed a survey two to four months after delivery. Any woman who is categorized as Hispanic on the birth certificate is sent a survey in both English and Spanish. Mothers who do not respond to the first survey are mailed a second survey and non-respondents are contacted by telephone. Babies' dates of birth were as follows: August 1, 1998 through August 9, 1999 for the 1998-1999 cohort; January 1, 2000 through December 31, 2000 for the 2000 cohort; and January 1, 2001 through November 4, 2001 for the 2001 cohort. The median time from birth to survey completion is 101 days. Weighted response rates were 73.5%, for the 1998-99 survey, 79.5%, for the 2000 survey, and 78.1%, for the 2001 survey. Further details about the Oregon PRAMS are available online [22]. For this study, we pooled data for the three cohorts, resulting in a total sample of 5762 women. This study was conducted in accord with prevailing ethical principles.

#### Measures

The 1998-1999, 2000, and 2001 Oregon PRAMS included the following multi-item question to measure discrimination: "Do you feel that you were ever treated differently by health care providers during your prenatal care, labor, or delivery because of your a) race, b) culture, c)

ability to speak or understand English, d) age, e) insurance status, f) neighborhood you lived in, g) religious beliefs, h) sexual orientation or lifestyle, i) marital status, and/or j) desire to have an out-of-hospital birth." The response categories were "no" or "yes". This question was the only measure of discrimination included in the survey. In addition, it was not included in subsequent years of the Oregon PRAMS, so we were unable to use more recent data to meet our research objectives. For this study, we were specifically interested in insurance-based discrimination; accordingly, we used the variable indicating whether or not respondents felt they were ever treated differently because of their insurance status.

Measures of discrimination used in previous research vary. Similar to measures used in some other studies [e.g., 4, 9, 12], the PRAMS question did not specifically ask people whether they felt they were discriminated against. Instead, it asked respondents to evaluate whether they were treated differently by providers on the basis of certain personal characteristics.

For measures of receipt of health care, we examined only variables that were included in all three PRAMS surveys. We identified questions regarding (1) topics covered by providers during prenatal care, (2) actions supportive of breastfeeding, and (3) provider discussion of birth control after delivery. With respect to topics covered during prenatal care, one question asked respondents if, during any of their prenatal care visits, a doctor, nurse, or other health care worker talked with them about any of a series of 11 topics. The topics were: what you should eat during your pregnancy, how smoking during pregnancy could affect your baby, how secondhand smoke could affect your baby after birth, breastfeeding your baby, how drinking alcohol during pregnancy could affect your baby, using a seat belt during your pregnancy, how using illegal drugs could affect your baby, how to keep from getting HIV (the virus that causes AIDS), getting your blood tested for HIV (the virus that causes AIDS), and physical abuse to women by their husbands or partners. Response categories were "no," "yes," and "don't know." We summed the "yes" responses to create a

count of the number of topics covered by providers during prenatal care. We dichotomized this variable (≤8 versus >8) by performing a median split (median = 8). Breastfeeding support actions were measured with a question that asked respondents about eight "things" that may have happened at the hospital where their new baby was born (for the 2000 and 2001 surveys, the question was worded "the hospital or birthing center"). Respondents were directed to answer "no" or "yes" to each of the following items: hospital staff gave you information about breast-feeding, your baby stayed in the same room with you at the hospital, you breast-fed your baby at the hospital, hospital staff helped you learn how to breast-feed, your baby was fed only breast milk at the hospital, hospital staff told you to breast-feed whenever your baby wanted, the hospital/staff gave you a gift pack with formula, and the hospital/staff gave you a telephone number to call for help about breast-feeding. The words in italics indicated differences in item wording for the 1998-99 and the 2000 and 2001 surveys. We reverse scored the item about the formula gift pack and then summed responses to create a count of the number of breastfeeding support actions. We performed a median split (median = 6) to dichotomize this variable (≤6 versus >6). Finally, respondents were asked "After your new baby was born, did a doctor, nurse, or other health care worker talk with you about using birth control?" Response categories were "no" and "yes."

We included other variables from the PRAMS survey in our analyses: annual prepregnancy household income, receipt of prenatal care during the first trimester, receipt of
prenatal care as early in pregnancy as wanted, type of prenatal care provider, having had an
HIV test during pregnancy, homelessness at any time during pregnancy, inability to pay bills
at any time during pregnancy, and type of insurance coverage for delivery. One of those
types of health insurance is the Oregon Health Plan (OHP), with which those outside of
Oregon may not be familiar. The OHP is the state's Medicaid Program. Hereafter, we refer
to the OHP as Medicaid. We did not include type of insurance for prenatal care in our

analyses because this variable was not measured the same way in the three PRAMS surveys. We used birth certificate data for mother's age, education, marital status, race/ethnicity, and rural residence (defined by a county with <60 persons per square mile in 2000).

#### **Analyses**

We weighted the data to account for oversampling at the strata-level, unit non-response, and non-coverage. As a result, the data are representative of all Oregon live births for the time period covered by the survey. More information about the weighting methods for the PRAMS data can be obtained online [22].

To describe the characteristics of respondents who reported insurance-based discrimination, we examined the percentage distributions for maternal characteristics and variables such as type of prenatal care provider and receipt of prenatal care during the first trimester. We examined unadjusted associations between respondent characteristics and insurance-based discrimination using simple logistic regression analysis; we examined adjusted associations by conducting a multiple logistic regression in which all characteristics with significant associations at  $p \le 0.1$  (according to the Wald confidence intervals) in the unadjusted analyses were included as independent variables.

We explored whether women reporting insurance-based discrimination did, in fact, receive suboptimal care by examining the relationship between insurance-based discrimination and three dependent variables: coverage of more than the median number of topics during prenatal care, receipt of more than the median number of breastfeeding support actions after delivery, and any discussion of birth control after delivery. We also included analyses of whether type of health insurance acted as a moderator of these relationships. For each dependent variable, we conducted two logistic regressions. The

first models included as an independent variable the main effect of insurance-based discrimination, as well as other potential covariates. In the second models, we added the interactions between type of insurance coverage and insurance-based discrimination. If the interactions were found to be significant, we determined the marginal effect of insurance-based discrimination on the dependent variable averaged across the three types of insurance. We then conducted follow-up contrasts to assess how the effect of insurance-based discrimination on the receipt of suboptimal care differed by insurance type.

In all analyses, we treated responses of "don't know" and declined responses as missing data, thus sample sizes vary. We analyzed the data using Stata Version 9.2 (Stata Corp, College Station, TX) with the exception of the follow-up analyses, which were conducted using SAS statistical software version 9.2 (SAS, Cary, NC). We set the level of significance at 0.05 (two-tailed).

#### Results

Characteristics of Women Who Report Discrimination

The characteristics of Oregon mothers who reported discrimination during prenatal care, labor, or delivery based on their insurance status are presented in Table 1. To highlight, 43% had annual household incomes below \$15,000. For almost 60%, the prenatal care provider was a private physician or HMO, and Medicaid paid for most (66%), but not all, of their deliveries.

Associations between Characteristics and Insurance-based Discrimination

Many of the characteristics were significantly associated with insurance-based discrimination in unadjusted analyses (Table 1). Results from the multiple logistic regression indicate that insurance-based discrimination was significantly less likely among Hispanic compared with White mothers. Compared to those with annual household incomes of \$50,000 or greater, the odds of reporting insurance-based discrimination were about three times as likely among women with annual household incomes below \$15,000, between \$15,000 and \$29,999, or between \$30,000 and \$49,999. Similarly, insurance-based discrimination was almost three times as likely among women who reported being unable to pay bills during pregnancy. Insurance-based discrimination was also three times as likely among mothers with Medicaid coverage and over four times as likely among mothers with neither Medicaid nor employer-sponsored insurance for delivery, as compared with those with employer-sponsored coverage.

Insurance-based Discrimination and Receipt of Health Care

Results of the logistic regressions are shown in Table 2; for each dependent variable, the model to test the main effect of insurance-based discrimination (model 1) and the model to test the interaction between insurance-based discrimination and type of insurance coverage (model 2) are presented. As shown, with regard to the number of topics covered during prenatal care, neither the main effect of insurance-based discrimination nor the interaction between insurance-based discrimination and type of insurance coverage were significant.

In contrast, insurance-based discrimination was significantly associated with the number of breastfeeding support actions (Table 2). Receipt of more than the median number of breastfeeding support actions was less likely among mothers who perceived insurance-based discrimination. Furthermore, the interaction between discrimination and type of insurance coverage was significant for this outcome. In subsequent analyses (data

not shown), the marginal effect of insurance-based discrimination was significant (OR=0.43, Wald X² =10.10, p<.05), indicating that experiencing insurance-based discrimination was associated with receipt of fewer breastfeeding support actions (suboptimal care). In addition, the follow-up contrasts indicated that, among mothers who had employer-sponsored health insurance for their baby's delivery, those who reported insurance-based discrimination had lower odds of receiving more than the median number of breastfeeding support actions as compared to those who did not report this type of discrimination (OR = 0.21, p<.05). However, the effects of insurance-based discrimination for those in the other two insurance groups were not significant. That is, the number of breastfeeding support actions received did not significantly differ by reports of insurance-based discrimination for women who had Medicaid coverage or for women with "other" or no insurance for their delivery.

In the analyses of discussion of birth control after delivery, the main effect of insurance-based discrimination was not significant, but the interaction between discrimination and insurance type was significant (Table 2). In subsequent analyses (data not shown), the marginal effect of insurance-based discrimination was significant (OR = 2.19, Wald  $\chi^2 = 4.89$ , p<.05), meaning that experiencing insurance-based discrimination was associated with a greater likelihood of after-delivery birth control discussion. In this case, the follow-up contrasts indicated that, among mothers who had employer-sponsored health coverage for delivery, those who reported discrimination based on their type of insurance had greater odds of reporting birth control discussion as compared to those mothers who did not report insurance-based discrimination (OR = 11.59, p<.05). However, the effects of insurance-based discrimination did not differ significantly by report of insurance-based discrimination for women with insurance coverage through Medicaid or for those with some other type of insurance or no insurance coverage for their delivery.

The finding of most practical significance is that mothers with employer-sponsored health insurance who reported insurance-based discrimination were less likely to receive more than the median number of breastfeeding supports in the hospital as compared to mothers with the same type of insurance who did not report insurance-based discrimination. Among mothers with employer-sponsored health insurance for their deliveries, only 21.04% of those who reported insurance-based discrimination received more than the median number of breastfeeding supports versus 60.78% of those who did not report insurance-based discrimination, indicating that women who reported being treated differently due to their health insurance status were, in fact, more likely to receive suboptimal care (Table 3). In comparison, for this group of insured women, only a slight difference was seen in receipt of birth control advice after delivery between those who reported insurance-based discrimination and those who did not (93.67% versus 92.41%), even though the contrast analyses indicated a statistically significant relationship.

#### Discussion

Eight percent of Oregon mothers report insurance-based discrimination during prenatal care, labor, or delivery [5]. We wanted to improve understanding of who experiences insurance-based discrimination in this health care context. Clearly, the descriptive data show that the women who felt they had experienced this form of discrimination were predominately, but not exclusively, a lower income group. Moreover, the regression analyses indicate that insurance-based discrimination was significantly more likely among women in the lower income groups (i.e., those with annual household incomes <\$15,000, \$15,000 to \$29,999, and \$30,000 to \$49,999, as compared to those with incomes of \$50,000 or more), those unable to pay bills, and those having no health insurance or insurance from a source other than an employer (e.g., Medicaid), when adjusted for other

variables. In conjunction with other studies that have found that lower income, lack of insurance, or having Medicaid were associated with reporting discrimination in health care, [3, 13, 14] these findings point to potential disparities in health care for people with lower socioeconomic status. They also suggest that interventions directed at improving the quality of patient-provider interactions may be particularly important for low-income populations.

Compared with White women, Hispanic women were less likely to report insurance-based discrimination. As described elsewhere, Hispanic mothers reported less discrimination in this health care context, in general, than did White women [5]. Findings from other studies vary with regards to racial/ethnic differences in reports of discrimination in health care [3, 10, 11, 14]. One explanation for our findings is that Hispanic women may actually have experienced less insurance-based discrimination. Alternatively, they may have had lower expectations for the quality of their health care and, as a result, were less likely to think that they were treated differently. Other possible explanations include that they may have felt less comfortable reporting that they experienced differential treatment or that they misinterpreted the question. Future studies should examine racial/ethnic differences in discrimination in health care in greater depth to tease out the factors that may contribute to differential reporting.

Our findings regarding the relationship between insurance-based discrimination and receipt of suboptimal health care were mixed. Women who felt they had been treated differently by providers because of their insurance status did not appear to significantly differ from other women in terms of the number of topics covered during prenatal care.

Insurance-based discrimination was, however, associated with fewer breastfeeding support actions overall and among those with employer-sponsored insurance coverage. In addition, among the subgroup with employer-sponsored insurance, those who reported insurance-based discrimination were more likely to report having a provider discuss birth control with them after delivery. These relationships warrant further study.

Of particular concern are the findings for actions supportive of breastfeeding.

Compared to the other groups of women, mothers with employer-sponsored insurance who reported insurance-based discrimination reported receiving the least support for breastfeeding (Table 3). The reasons for their relatively low level of breastfeeding support are unclear from the present data. For example, we do not know if characteristics of their specific health plans or characteristics of the hospitals where they gave birth led to low breastfeeding support; for example, certain hospitals may place less emphasis on breastfeeding support as a standard of care. Or, perhaps this subgroup of women shared other, unmeasured, characteristics that were perceived by providers to make them less likely to breastfeed and, therefore, less likely to benefit from efforts to support breastfeeding. We also could not determine from these data whether the receipt of relatively fewer breastfeeding support actions was what women were thinking of when they reported differential treatment due to insurance status.

The finding that insurance-based discrimination was not significantly related to receipt of health care for those with Medicaid or with "other" or no insurance coverage is also of interest. The lack of a significant discrimination effect for women in these insurance groups also points to the need to better understand what aspects of their health care these women, as well as those with employer-sponsored insurance, were referring to when they reported differential treatment. Further research is needed to fully understand the link between women's reports of differential treatment due to insurance status, insurance coverage, and receipt of health care.

The question used to measure discrimination asked about differential treatment in a specific situation rather than in health care more generally, and allowed respondents to report multiple types of discrimination, both of which improve data quality [23, 24]. Despite these strengths, the measure of discrimination has limitations. First, because the discrimination question combined prenatal care, labor, and delivery, we cannot report on

women's experiences in each health care setting separately or make comparisons across settings. In addition, the question did not ask about specific providers. Women's experiences may have differed across the three settings and with different health care professionals. Another limitation relates to the fact that the discrimination question asked women to report if they were ever treated differently by health care providers; how women interpreted "treated differently" and the nature of the differential treatment is unknown, as suggested above. Moreover, the question did not include the word "discrimination," and we do not know whether respondents considered their experiences of differential treatment based on their insurance status to be discrimination. Research that explores these issues will improve understanding and measurement of discrimination in health care.

Other potential limitations also exist. No questions on discrimination or differential treatment have been included in the Oregon PRAMS since 2001, and thus we do not have current data on this topic. The extent to which our findings reflect women's experiences and perceptions today is not known. Given the dearth of information on discrimination during prenatal care, labor, and delivery, we feel that our findings provide support for examining these topics further in future data collection efforts. Another potential limitation is that our findings may not be generalizable to mothers in states other than Oregon. For example, the health insurance programs that are available in other states and providers' views of them may differ in ways that affect the quality of patient-provider interactions and health care delivery in those states. In addition, although the inclusion of several covariates strengthened our analysis, the data are cross-sectional. Women were asked to report on prenatal care, labor, delivery, and in-hospital experiences that occurred a number of months earlier at one point in time. As with other retrospective self-report data, poor recall and unmeasured variables such as social desirability may affect women's responses.

Although this study, as well as previous research, [10, 14] suggests that discrimination in health care based on insurance status occurs, our understanding of the

nature and effects of such discrimination is limited and further research is needed. For example, one important area for study is how mothers' perceptions of being treated differently during prenatal care, labor, or delivery because of their insurance status affects their future health care behavior including whether, when, and from whom they seek prenatal care for subsequent pregnancies. In conclusion, this study underscores the need to better understand women's experiences and perceptions of insurance-based discrimination during prenatal care, labor, and delivery.

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Table 1. Characteristics of full sample and subgroup reporting insurance-based discrimination and associations between characteristics and insurance-based discrimination during prenatal care, labor, or delivery

| between characteristics and insurar          | Full<br>sample<br>(percent) | Subgroup<br>reporting<br>insurance-based<br>discrimination<br>(percent) | Unadjusted OR<br>(95% CI)                 | Adjusted OR<br>(95% CI)        |
|--|-----------------------------|---|---|--------------------------------|
| Insurance-based discrimination               |                             |   |   |                                |
| No   | 91.81                       |   |   |                                |
| Yes  | 8.19                        |   |   |                                |
| Maternal age at delivery, years              |                             |   |   |                                |
| ≤ 19   | 11.42                       | 17.44   | 1.61(1.05, 2.48) <sup>a</sup>             | 1.16 (0.67, 2.00)              |
| 20-34  | 77.36                       | 76.16   | Referent                                  | Referent                       |
| ≥ 35   | 11.21                       | 6.40  | 0.56(0.29, 1.06)                          | 1.42(0.69, 2.91)               |
| Maternal education, years                    |                             |   |   |                                |
| <12  | 20.39                       | 25.64   | 1.00(0.99, 1.02)                          | 1.44 (1.00, 2.09)              |
| ≥12  | 79.61                       | 74.36   | Referent                                  | Referent                       |
| Maternal marital status                      |                             |   | _   |                                |
| Not married                                  | 29.42                       | 49.69   | 2.60(1.87, 3.61) <sup>c</sup>             | 1.12 (0.72, 1.76)              |
| Married                                      | 70.58                       | 50.31   | Referent                                  | Referent                       |
| Maternal race/ethnicity                      |                             |   |   |                                |
| White, non-Hispanic                          | 75.50                       | 77.72   | Referent                                  | Referent                       |
| African American, non-Hispanic               | 2.06                        | 3.35  | 1.68(1.22, 2.29) <sup>b</sup>             | 1.09 (0.72, 1.67)              |
| American Indian/Alaskan Native, non-Hispanic | 1.51                        | 2.43  | 1.63(1.19, 2.24) <sup>b</sup>             | 0.76 (0.50, 1.15)              |
| Asian/Pacific Islander, non-<br>Hispanic     | 4.86                        | 3.75  | 0.74(0.53, 1.05)                          | 0.92 (0.60, 1.43)              |
| Hispanic                                     | 16.07                       | 12.75   | 0.80(0.60, 1.07)                          | 0.41 (0.25, 0.68) <sup>b</sup> |
| Maternal residence                           |                             |   | ,   | , , ,                          |
| Urban  | 77.89                       | 72.82   | Referent                                  |                                |
| Rural  | 22.11                       | 27.18   | 1.33(0.88, 2.00)                          |                                |
| Annual household income                      |                             |   |   |                                |
| < \$15,000                                   | 25.31                       | 43.47   | 10.37(4.78,22.48) <sup>c</sup>            | 3.39 (1.30, 8.89) <sup>a</sup> |
| \$15,000 - \$29,999                          | 28.90                       | 34.56   | 6.79(3.09, 14.95) <sup>c</sup>            | 3.36 (1.31, 8.65) <sup>a</sup> |
| \$30,000 - \$49,999                          | 23.82                       | 17.69   | 3.99(1.73, 9.17) <sup>b</sup>             | 2.92 (1.11, 7.73) <sup>a</sup> |
| ≥ \$50,000                                   | 21.97                       | 4.28  | Referent                                  | Referent                       |
| Received prenatal care during first          |                             |   |   |                                |
| trimester                                    |                             |   |   |                                |
| Yes  | 75.19                       | 66.24   | Referent                                  | Referent                       |
| No   | 24.81                       | 33.76   | 1.62(1.15, 2.30) <sup>b</sup>             | 0.89 (0.57, 1.40)              |
| Receipt of prenatal care when                |                             |   |   |                                |
| wanted                                       | 00.07                       | 70.50   | D ( )                                     | D ( )                          |
| Yes  | 80.27                       | 70.52   | Referent                                  | Referent                       |
| No   | 19.73                       | 29.47   | 1.80(1.26, 2.57) <sup>b</sup>             | 1.22 (0.78, 1.90)              |
| Type of prenatal care provider               | 60.00                       | E0 00   | Doferent                                  | Doferent                       |
| Private MD or HMO                            | 69.03                       | 58.90   | Referent                                  | Referent                       |
| Hospital clinic                              | 14.57                       | 15.68   | 1.31(0.84, 2.06)                          | 1.08 (0.63, 1.85)              |
| Health Department                            | 10.28                       | 15.53   | $2.02(1.27, 3.20)^{0}$                    | 1.38(0.70, 2.70)               |
| Other  | 6.12                        | 9.89  | 2.11(1.20, 3.74) <sup>a</sup>             | 1.53 (0.78, 2.99)              |
| HIV test during pregnancy                    | 20.57                       | 26.20   | Doforont                                  | Doforont                       |
| No<br>Yes                                    | 39.57<br>60.43              | 26.30<br>73.70  | Referent<br>1.94(1.33, 2.81) <sup>b</sup> | Referent                       |
| Homeless while pregnant                      | 60.43                       | 73.70   | 1.34(1.33, 2.01)                          | 1.49 (0.98, 2.26)              |
| No   | 95.97                       | 90.37   | Referent                                  | Referent                       |
| Yes  | 4.03                        | 9.65  | 3.01(1.76, 5.15) <sup>c</sup>             | 1.40 (0.72, 2.70)              |
| Unable to pay bills during pregnancy         | 7.03                        | 9.00  | 3.01(1.70, 3.13)                          | 1.70 (0.12, 2.10)              |
| No   | 69.27                       | 38.18   | Referent                                  | Referent                       |
| Yes  | 30.73                       | 61.82   | 4.18(2.98, 5.86) <sup>c</sup>             | 2.87 (1.92, 4.29)°             |
| Type of insurance coverage for               | 50.75                       | 01.02   | T. 10(2.00, 0.00)                         | 2.01 (1.02, 7.20)              |
| delivery                                     |                             |   |   |                                |
| Employer-sponsored                           | 54.55                       | 19.23   | Referent                                  | Referent                       |
| Medicaid                                     | 37.78                       | 66.04   | 5.78(3.81, 8.75)°                         | 3.01 (1.73, 5.25)°             |
| Other or none                                | 7.67                        | 14.73   | 6.46(3.61, 11.55)°                        | 4.37 (2.28, 8.36)°             |

NOTE: Data were weighted to account for oversampling, nonresponse, and noncoverage. Some percentages do not add to 100 due to respondents who answered that they did not know. The unweighted N for the full sample was 5762.

<sup>a</sup>p< .05 bp< .01 cp< .001

OR = odds ratio

CI = confidence interval