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Prenatal Care Counseling in New Mexico, 2012-2015

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It is well documented that receiving early and regular prenatal care is a best practice to promote a healthy pregnancy and birth of a healthy baby. Adequate prenatal care reduces the risk of pregnancy complications, low birth weight babies, preterm births and fetal deaths. Prenatal care visits present an opportunity for health care providers to educate women regarding behaviors and experiences that increase the likelihood of adverse maternal, fetal and infant outcomes. The American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists (ACOG) in their publication "Guidelines for Perinatal Care, Seventh Edition" provide a plan for topics that should be discussed during prenatal care visits.[1]

Methods

The Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing state specific, population-based surveillance system designed to identify and monitor maternal attitudes and experiences before, during and shorty after pregnancy. Women who were New Mexico (NM) residents delivering live born infants in NM were eligible to be selected for participation in the PRAMS survey. All PRAMS participants (n=5148) were selected through a stratified random sampling of NM birth records. The results were weighted to represent the entire population of women who delivered during a given year. The 2012-2015 NM PRAMS survey included twelve questions about the content of prenatal care counseling.[2] The topics included weight gain, smoking, breastfeeding, drinking alcohol, seat belt use, safe medicines to take, illegal drugs, screening for birth defects, signs and symptoms of preterm labor, testing for HIV, depression and physical abuse. Smoking, drinking alcohol, depression and breastfeeding topics were analyzed by age, race/ethnicity (3 most populous categories) and insurance (Medicaid or other government insurance and private or no/other insurance) for this report.

Results

The topics most likely to be discussed by a health care provider during a prenatal care (PNC) visit from 2012 through 2015 were safe medications to take during pregnancy, breastfeeding, birth defects testing and preterm labor signs (Figure). During 2012-2015, 33.6% of mothers received PNC counseling on all 12 topics while 38.8% received counseling on 8-11 topics and 27.6% received counseling on fewer than eight topics.

Smoking. During 2012-2015, 21.1% of mothers smoked before their pregnancy and 7.5% smoked during the last trimester of pregnancy. Approximately 74% of mothers indicated that a health care provider had discussed how smoking during pregnancy could affect their baby during a PNC visit. Mothers who smoked during the three months before becoming pregnant were significantly more likely to receive counseling on smoking (83.2%, 95% confidence interval 80.7-85.6) than women who did not smoke (71.9%, 70.3-73.5). Mothers who smoked during the last trimester of pregnancy were more likely to receive counseling on smoking (83.5%) than mothers who quit smoking during their pregnancy (82.9%).

Mothers aged 20 to 24 years (28.0%, 25.4-30.6), <20 years (22.4%, 18.4-26.3) and 25-34 years (18.8%, 17.2-20.5) were significantly more likely to smoke before becoming pregnant than mothers aged 35+ years (12.8%, 9.8-15.8). Mothers aged 20-24 years were most likely to smoke during the last trimester of pregnancy (9.4%) followed by mothers aged 25-34 years (7.0%), <20 years (6.4%) and 35+years (5.8%). Mothers aged <20 years (88.3%, 85.2-91.5) were significantly more likely to receive counseling on smoking than mothers aged 20 to 24 years (82.6%, 80.5-84.7), 25-34 years (69.3%, 67.3-71.4) and 35+ years (61.4%, 56.9-65.9).

White mothers were significantly more likely to smoke before becoming pregnant (25.7%, 23.4-27.9) and during pregnancy (11.4%, 9.7-13.1) than American Indian mothers both before becoming pregnant (18.4%, 15.3-21.4) and during pregnancy (5.2%, 3.4-7.0) and His-

panic mothers both before becoming pregnant (18.1%, 16.4-19.7) and during pregnancy (5.5%, 4.6-6.5). American Indian mothers (80.0%, 76.7-83.3) and Hispanic mothers (78.1%, 76.3-80.0) were significantly more likely to receive counseling on smoking than non -Hispanic white mothers (64.2%, 61.5-66.9).

Mothers whose PNC was covered by Medicaid were significantly more likely to smoke before becoming pregnant (26.3%, 24.6-28.0) and during pregnancy (10.0%, 8.9-11.1) than mothers not covered by Medicaid (11.4%, 9.9-13.0 and 2.7%, 1.9-3.5 respectively). Mothers whose PNC was covered by Medicaid were significantly more likely to receive counseling on smoking (79.1%, 77.6-80.7) than mothers not covered by Medicaid (65.2%, 62.6-67.7).

Drinking Alcohol. During 2012-2015, 49.3% of mothers drank alcohol before their pregnancy and 5.2% drank alcohol during pregnancy. Approximately 75% of mothers indicated that a health care provider had discussed how drinking alcohol during pregnancy could affect their baby during a PNC visit. Mothers who did not drink alcohol during the three months before becoming pregnant were significantly more likely to receive alcohol counseling (78.0%, 76.2-79.9) than mothers who drank alcohol (71.4%, 69.4-73.4). Mothers who quit drinking alcohol during pregnancy were more likely to receive alcohol counseling (71.9%) than mothers who continued to drink alcohol during pregnancy (67.0%).

Mothers aged 25-34 years (54.6%, 52.5-56.8), 20 to 24 years (49.7%, 46.8-52.6) and 35+ years (48.2%, 43.6-52.7) were significantly more likely to drink alcohol before becoming pregnant than mothers aged <20 years (26.1%, 21.9-30.2). Mothers aged 35+ years were significantly more likely to drink alcohol during pregnancy (7.1%, 5.0-9.3) than mothers aged 20-24 years (3.0%, 2.0-4.0) and were more likely to drink alcohol during pregnancy than mothers aged 25-34 years (6.3%) and <20 years (3.5%). Mothers aged <20 years (87.9%, 84.7-91.1) were significantly more likely to receive alcohol counseling than mothers aged 25-34 years (69.9%, 67.9-71.9) and 35+ years (62.4%, 58.0-66.9).

White mothers were significantly more likely to drink alcohol before becoming pregnant (62.3%, 59.6-64.9) than Hispanic mothers (45.6%, 43.4-47.8) and American Indian mothers (35.7%, 31.9-39.6). Hispanic mothers were significantly more likely to drink alcohol before becoming pregnant than American Indian mothers. White mothers were significantly more likely to drink alcohol during the last trimester of pregnancy (7.2%, 5.8-8.6) than Hispanic mothers (3.8%, 2.9-4.6) and more likely to drink alcohol during pregnancy than American Indian mothers (5.8%, 3.8-7.7). Hispanic mothers (79.0%, 77.2-80.9) and American Indian mothers (78.4%, 75.0-81.7) were significantly more likely to receive alcohol counseling than White mothers (65.8%, 63.2-68.5).

Mothers whose PNC was not covered by Medicaid were significantly more likely to drink alcohol before their pregnancy (57.5%, 54.9-60.0) and during pregnancy (6.9%, 5.5-8.3) than mothers covered by Medicaid (45.0%, 43.1-46.9 and 4.2%, 3.4-4.9 respectively). Mothers whose PNC was covered by Medicaid were significantly more likely to receive counseling on drinking alcohol (78.7%, 77.2-80.3) than mothers not covered by Medicaid (66.9%, 64.4-69.4).

Depression. During 2012-2015, 9.8% of mothers indicated that a health care provider told them they had depression before becoming pregnant and 12.0% of mothers indicated they experienced postpartum depression. Approximately 75% of mothers indicated that a health care provider had discussed what to do if they felt depressed during pregnancy or after their baby was born during a PNC visit. Mothers who were depressed before becoming pregnant were more likely to have received counseling on depression (78.2%) than mothers who were not depressed before becoming pregnant (75.1%). Mothers who reported postpartum depression were significantly less likely to receive counseling on depression (68.4%, 64.3-72.6) than mothers who indicated they were not depressed (76.2%, 74.8-77.6).

Mothers aged 35+ years were most likely to be depressed before becoming pregnant (10.4%) followed by mothers aged <20 years (10.0%), 20-24 years (9.8%) and 25-34 years (9.6%). Mothers aged <20 years and 20-24 years were significantly more likely to experience postpartum depression (15.7%, 12.3-19.2 and 15.1%, 13.0-17.1 respectively) than mothers aged 25-34 years and 35+ years (10.2%, 8.9-11.5 and 8.5%, 6.0 -11.0 respectively). Mothers aged <20 years were significantly more likely to receive counseling on depression (80.6%, 76.9-84.3) than mothers aged 35+ years (68.4%, 64.1-72.7) and 25-34 years (74.7%, 72.8-76.5) and more likely to receive counseling on depression than mothers aged 20-24 years (77.1%).

White mothers had the highest percentage of depression before becoming pregnant (12.0%), followed by Hispanic mothers (9.3%) and American Indian mothers (8.3%). American Indian mothers had the highest percentage of postpartum depression (14.0%) followed by Hispanic mothers (11.9%) and White mothers (10.9%).

Hispanic mothers were significantly more likely to receive counseling on depression (76.3%, 77.4-78.2) than White mothers (74.5%, 72.2-76.9) and more likely to receive counseling on depression than American Indian mothers (75.6%, 72.1-79.1).

Mothers whose PNC was covered by Medicaid were significantly more likely to experience depression before becoming pregnant (10.9%, 9.7-12.1) than mothers not covered by Medicaid (7.8%, 6.4-9.3). Mothers whose PNC was covered by Medicaid were more likely to experience postpartum depression (12.9%) than mothers not covered by Medicaid (10.3%). Mothers whose PNC was covered by Medicaid were more likely to receive counseling on depression (76.5%) than mothers not covered by Medicaid (73.0%).

Breastfeeding. During 2012-2015, 90.2% of mothers reported initiating breastfeeding and 64.0% of mothers reported breastfeeding for 9 or more weeks. Approximately 88% of mothers indicated that a health care provider had discussed breastfeeding their baby during a PNC visit. Mothers who initiated breastfeeding were significantly more likely to have received counseling on breastfeeding (89.0%, 88.0-90.0) than mothers who did not initiate breastfeeding (83.3%, 79.7-86.8). Mothers who continued to breastfeed for nine or more weeks were more likely to receive counseling on breastfeeding (88.4%) than mothers who breastfed for less than nine weeks (87.8%).

Mothers aged 25-34 years had the highest percentage of initiating breastfeeding (91.2%) followed by mothers aged 20-24 years (89.9%), 35+ years (88.1%) and <20 years (88.0%). Mothers aged <20 years were significantly less likely to breastfeed for nine or more weeks (45.7%, 41.0-50.4) than the other age groups. Mothers aged 25-34 years (70.1%, 68.1-72.0) and 35+ years (68.8%, 64.6-73.1) were significantly more likely to breastfeed for nine or more weeks than mothers aged 20-24 years (58.7%, 55.8-61.5). Counseling on breastfeeding decreased significantly with increasing age. Mothers aged <20 years were significantly more likely to receive counseling on breastfeeding (94.4%, 92.2-96.6) than mothers aged 20-24 years (90.3%, 88.7-92.0), 25-34 years (87.2%, 85.7-88.6) and 35+ years (81.2%, 77.6-84.7).

White mothers were significantly more likely to initiate breastfeeding (93.2%, 92.0-94.4) and breastfeed for 9 or more weeks (72.0%, 69.6-74.3) than Hispanic mothers (88.2%, 86.8-89.6 and 60.2%, 58.1-62.3 respectively). American Indian mothers were more likely to initiate breastfeeding (91.0%) and breastfeed for nine or more weeks (64.1%) than Hispanic mothers. American Indian mothers were significantly more likely to receive counseling on breastfeeding (93.1%, 90.8-95.3) than White mothers (84.5%, 82.5-86.4) and Hispanic mothers (89.0%, 87.6-90.4).

Mothers whose PNC was not covered by Medicaid were significantly more likely to initiate breastfeeding (94.3%, 93.1-95.4) and breastfeed for nine or more weeks (73.5%, 71.2-75.9) than mothers covered by Medicaid (88.0%, 86.7-89.2 and 58.8%, 57.0-60.7 respectively). Mothers whose PNC was covered by Medicaid were significantly more likely to receive counseling on breastfeeding (90.4%, 89.3-91.5) than mothers not covered by Medicaid (84.1%, 82.2-85.9).

Discussion

Disparities existed for counseling on smoking and drinking alcohol between mothers of the different racial/ethnic groups suggesting that a potential bias among healthcare providers existed on substance use behavior among mothers of the different racial/ethnic groups. Although White mothers were more likely to smoke and drink alcohol before and during pregnancy, they were less likely to receive PNC counseling on these topics than mothers of the other racial/ethnic groups. A disparity also occurred for alcohol counseling between mothers whose PNC was not covered by Medicaid, who were more likely to consume alcohol both before and during pregnancy, and mothers not covered by Medicaid. This suggested a potential bias among healthcare providers existed on substance use behavior among mothers of different income levels.

Although mothers aged <20 years and whose PNC was covered by Medicaid were significantly more likely to receive counseling on breastfeeding, they were less likely to initiate breastfeeding and breastfeed for 9 or more weeks than mothers of other age groups and whose PNC was not covered by Medicaid. Breastfeeding has health benefits for the mother and baby. Barriers to breastfeeding among teenagers and low-income women need to be addressed.

The PRAMS survey has several limitations. All responses were self-reported and were subject to recall bias and social desirability bias. Mothers were asked to recall the discussions with their health care provider only and not to include reading material they were provided or videos they watched.

References

1. http://simponline.it/wp-content/uploads/2014/11/GuidelinesforPerinatalCare.pdf.
2. https://www.cdc.gov/prams/pdf/questionnaire/Phase-7-Core-Questions-508.pdf. Question 19.

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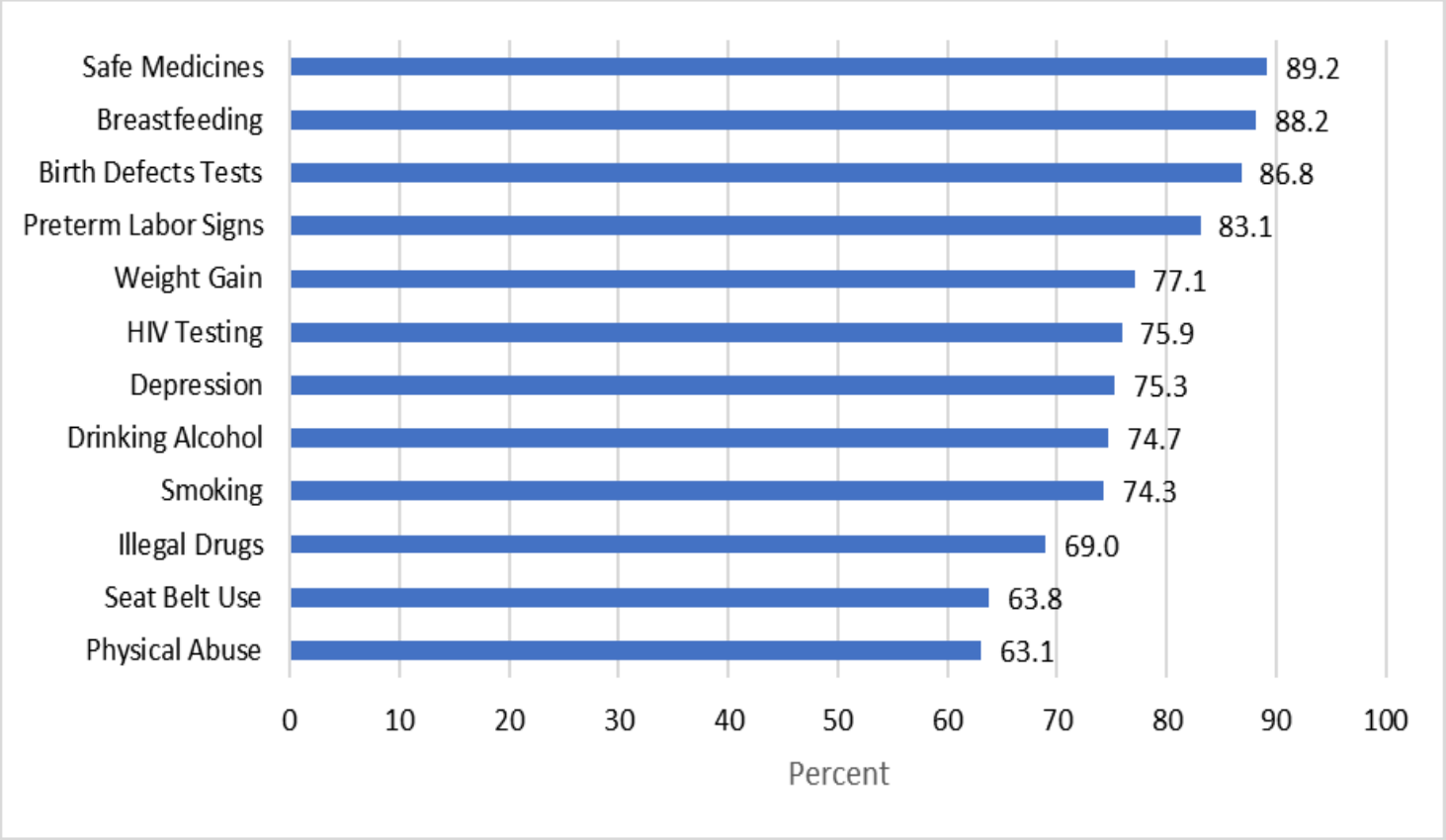
Figure. Prenatal Care Counseling by Topic, New Mexico, 2012-2015



Source: NM PRAMS, NM DOH