Medicaid-WIC Population Associated Pregnancy Outcomes and Complications by Race

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Introduction/Background:
The WIC program showed significant benefits in the health outcomes of women, infants, and children under the age of 5. But when considering different races with pregnancy complications and birth outcomes, there is an inconsistency with the results that challenge the benefits of WIC to the population.

Methods:
A retrospective cohort study using The California Office of Statewide Health Planning and Development (OSHPD) Linked Birth File between 2007 and 2012 to collect 2,427,320 valid birth registries. With the sample, questions were asked to determine WIC status. The maternal complication status during pregnancy was identified through the International Classification of Diseases Clinical Modification, 9th Revision (ICD-9) and provided the variables of preterm birth and gestational diabetes that showed varying results.

Results:
Compared with non-WIC populations, Medicaid-WIC populations consistently have decreased odds within preterm birth regardless of race. Whites have an odd ratio (OR) of 0.78 (p-value: 0.00) with a confidence interval (CI) 0.76 to 0.79, Black OR 0.69 (p-value: 0.00) with CI 0.66 to 0.72, and Asian OR 0.81 (p-value: 0.00) with CI 0.77 to 0.85. On the other hand, gestational diabetes has increased the odds of developing in the Medicaid-WIC population. White OR 1.33 (p-value: 0.00) with CI 1.25 to 1.42, Black OR 1.25 (p-value: 0.02) with CI 1.04 to 1.51, and Asian OR 1.44 (p-value: 0.00) with CI 1.16 to 1.79.

Discussion/Conclusion:
There is inconsistency in whether the Medicaid-WIC population benefits from the program. WIC reduces the development of preterm birth and is protective throughout racial groups. At the same time, WIC increases the development of gestational diabetes in racial groups. The inconsistent result in the birth outcome and pregnancy complications should be further studied.

Keywords: WIC, birth outcomes, pregnancy, Medicaid