

# Impact of Social Determinants of Health (SOC) on Prevalence of Caesarean Section among women with Gestational Diabetes Mellitus (GDM) in the United States.

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**ABSTRACT:** We explored the role of social determinants of health (SOC) on the prevalence of cesarean section (CS) among GDM patients in the USA. Using data from the National Inpatient Sample (NIS) database 2000-2015, we did a retrospective analysis of all deliveries associated with the primary diagnosis of GDM using the relevant ICD codes. The outcome was delivery by cesarean section. After controlling for cofounders, we assess the impact of SOC (race, median income quartiles and insurance status) on the prevalence of Cesarean section in the sample population. We then determined the risk of primary postpartum hemorrhage (PPH) between the cesarean section group and matched controls who had vaginal deliveries. There were a total of 931,290 deliveries with a diagnosis of GDM in pregnancy in the NIS (2000-2015) with a mean age of 30.6±5.9.

Among the study population, 44.5% were white, 14.0% blacks, 26.7% were Hispanics. Cesarean section rate was 40.5%. Only 2.2% of the study population developed PPH. Figure 1 shows the impact of race, Median Income and Insurance type on the prevalence of CS. After propensity score matching, patients who had cesarean sections were less likely to develop PPH compared to their matched controls with vaginal deliveries, OR=0.67(0.63-0.71). SOC is associated with access to cesarean section among GDM patients in the USA. The increased prevalence of cesarean section among GDM patients does not necessarily translates into increased risk of adverse pregnancy

## Biography

Oluwasegun Akinyemi, MD, MS, FMCOG, completed his medical training in Nigeria, 2007 and became a fellow of the Nigerian postgraduate medical college (Obstetrics and Gynecology) in 2017 and a Master of Science in Public Health in the USA in 2020. He is a Senior Research Associate at the Clive O. Callender, M.D., Howard-Harvard Health Sciences Outcomes Research Center at the Howard University College of Medicine, Washington DC, USA.



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