Glucose levels linked to maternal mortality even in non-diabetic women

May 22 2020

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An elevated pre-pregnancy hemoglobin A1c—which measures average blood glucose concentration—is associated with a higher risk of adverse pregnancy outcomes even in women without known diabetes, according

to a new study published this week in *PLOS Medicine* by Joel Ray of ICES and the University of Toronto, Canada, and colleagues.

Diabetes mellitus and obesity are both associated with adverse pregnancy outcomes but the relationship between pre-pregnancy A1c and severe maternal morbidity or maternal mortality is unknown. In the new study, researchers used data from the Canadian province of Ontario spanning 2007 through 2015. The study included data on 31,225 women aged 16 through 50 years with a hospital live birth or stillbirth and who had an A1c measured within 90 days before conception. 28,075 of the women (90%) did not have a known diagnosis of diabetes mellitus.

Overall, the risk of severe maternal morbidity (SMM) or death from 23 weeks gestation to 6 weeks postpartum was 2.2%. For each 0.5% absolute increase in A1c, the relative risk of SMM or death was 1.16 (95% CI 1.14-1.19, p