Introduction: Low Vitamin D levels in pregnancy have been associated with an increased risk of gestational diabetes, pre-eclampsia, bacterial vaginosis, preterm birth, caesareans, delayed fetal growth, disordered fetal skeletal homeostasis, and impaired offspring lung health. Recommendations for routine Vitamin D supplementation have no scientific basis in East Africa due to lack of local data.

Objective: To determine the prevalence of deficiency of Vitamin D in ethnic African obstetric patients who delivered at the Aga Khan University Hospital, Nairobi, Kenya, by measuring levels of twenty-five hydroxyVitamin D (25OHD)

Methods: This was a cross-sectional prevalence study. Levels of 25OHD were measured in 97 sequentially sampled newly delivered women after informed consent.

Results: The prevalence of Vitamin D deficiency was calculated to be 79.4% (95% CI 70.5 - 86.6%, P < 0.001 using the one sample z-test).

Conclusion: The prevalence of Vitamin D deficiency is significantly different between the ethnic urban obstetric population delivering at the Aga Khan University Hospital in Nairobi, and the prevalence in obstetric populations in other parts of the world (averaged at 50%, since levels vary from 18-84%, and local levels are unknown).

Recommendations: Further to this finding, the study provides evidence for considering routine Vitamin D supplementation during pregnancy in ethnic African females living in equatorial cities. Larger studies that will measure Vitamin D levels of ethnic Africans in view of their Parathyroid Hormone and serum Calcium and Phosphate levels, are required to find the Vitamin D levels that are considered as physiologically ‘normal’ in this population.