# J-P-F-3

# Status of Vitamin D3 deficiency in pregnant women and their infants in rural areas of Karachi, Sindh, Pakistan.

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## OBJECTIVES OF THE STUDY

1. Determine the frequency and degree of Vitamin D3 deficiency in pregnant women and their infants at birth.

2. Determine associated factors related to Vitamin D3 deficiency in pregnant women and their infants at birth.

3. Relationship between maternal and infantile vitamin D3 levels.

## METHODOLOGY

An observational analytical study conducted over 18 months in 2017-18. Two hundred serum sample including mother and their newborn were equally collected at the time of delivery or C-section at Al-Tibri Medical College/Hospital ISRA University Karachi campus.

## RESULTS

The prevalence of vitamin D3 deficiency and insufficiency in registered pregnant women was 9.5% and 56% respectively. 34.5% of the studied pregnant women had normal amount of Vitamin D3 levels in their blood. 11.9% and 53.5% of the newborns were deficient and insufficient vitamin D3 levels. 34.5% of the newborn had normal levels of vitamin D3.

## CONCLUSION

Vitamin D3 level in pregnant women of our community is deficient/insufficient at significant level, and their newborn were also had a nearly same level of deficiency. Vitamin D3 level in women did not significantly relate to BMI, socio-economical or education level. There are very few options in Asian diet to combat this insufficiency, which raise the needs for legislation for fortification of milk with Vitamin D3.

Keywords: Vitamin D3, Deficiency, Insufficiency, Pregnancy, and Newborns