

# Analyzing Protein and Glucose Levels in Pregnant Women Attending Antenatal Care at Health Centers in Port Harcourt, Rivers State

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**Abstract:** Protein and glucose serve as crucial indicators of potential maternal health complications and fetal outcomes during pregnancy. This study aimed to investigate protein and glucose level of pregnant women attending antenatal care in some health centre, in Port Harcourt, Nigeria. A total of sixty pregnant women between ages 16-45 who attended antenatal care in the selected health centres were randomly selected and their urine samples were collected and analyzed for protein and glucose levels using urinometre (combi 2). The result obtained for protein level ranged between  $200 \pm 14.0$ mg/dl to  $350 \pm 16.2$  mg/dl while the glucose level ranged between  $180 \pm 11.0$ mg/dl to  $200 \pm 12.0$ mg/dl. The least protein level of  $200 \pm 14.0$ mg/dl were recorded among 7-9 months (3<sup>rd</sup> trimester) pregnancy, while the highest protein level of  $350 \pm 16.0$ mg/dl were recorded between 0-3 months (1<sup>st</sup> trimester). The least glucose value of  $180 \pm 11.0$ mg/dl was recorded among pregnant women that are in their 1<sup>st</sup> trimester, while the highest value of  $200 \pm 12.0$ mg/dl was recorded among pregnant women in their 2<sup>nd</sup> trimester. The result indicates significant fluctuations in protein and glucose levels across trimesters, reflecting dynamic metabolic changes during pregnancy. Factors like advanced maternal age, knowledge gaps, misconceptions, symptoms, and treatment-seeking behaviour highlighted in the questionnaire data can be considered as potential risk factors or indicators concerning protein and glucose levels during pregnancy. Addressing these factors through targeted education, early detection, and appropriate medical intervention is recommended in the study area to ensure an optimal pregnancy outcome.

**Keywords:** Maternal health, Pregnancy complication, Proteinuria, Glycosuria