



## **Association of Body Mass Index with Non-communicable Diseases: Polycystic Ovary Syndrome, Type 2 Diabetes Mellitus and Coronary Artery Disease**

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**ABSTRACT** We investigated the role of Body mass index (BMI) in non-communicable diseases- polycystic ovary syndrome (PCOS), type 2 diabetes (T2DM) and coronary artery disease (CAD). Using a case control design, we compared mean BMI and its categories, in gender and disease specific samples, and computed odds ratios as well as receiver operator characteristic (ROC) curve. The 95 percentile cut off values were also determined but only for controls. We found mean BMI and prevalence of obesity to be higher in PCOS and T2DM and lower in CAD cases than controls. The ROC analysis suggested gender specific cut-off values are more sensitive than pooled sample. The area under the ROC curve which is highly significant suggests predictive utility of the BMI cut off values both for PCOS and T2DM.