Introduction: is a clinical entity characterized by the presence of insulin resistance and compensatory hyperinsulinemia associated with hydrocarbon metabolism disorders, elevated blood pressure, lipid abnormalities (hypertriglyceridemia, decreased HDL, LDL presence of type B, increased free fatty acids and lipemia postprandial) and obese, with increased morbidity and mortality of atherosclerotic origin. Objectives: To determine and compare the prevalence of the metabolic syndrome and its components on a sample in from Trujillo city according to different definitions and its variation with gender and age. Material and method: A cross-sectional study was performed in Trujillo city between November 2007 and October 2009, including 443 adults (211 men and 233 women) between 20 and 79 years of age. We calculated the prevalence of metabolic syndrome and its components according to the definitions established by ATP III, AHA/NHLBI, IDF, and JIS. Results: The calculated age-adjusted prevalence rates for the metabolic syndrome were 16.1%, 18.8%, 28.4%, and 29.5% according to ATP III, AHA/NHLBI, IDF, and JIS, respectively. There is a very good correlation between ATP III and AHA (0.88), and between IDF and JIS (0.97). There were no significant differences in the prevalence between men and women. There was a significant increase in age-related prevalence of the metabolic syndrome in both genders according to any definition. Applying the ATP III criteria, the most frequent component of the metabolic syndrome in men was hypertriglyceridemia (47.2%), and in women it was low HDL cholesterol concentrations (44.9%). When using the JIS definition, the commonest risk factor for both men (59.5%) and women (57.2%) was abdominal obesity. Less common criteria in both genders were high fasting glucose when using either ATP III or JIS definitions. Conclusions: The prevalence of the metabolic syndrome in Trujillo using the IDF and JIS definitions is higher to that found using the ATP III and AHA definitions. The correlation fluctuates between good and very good when comparing the definitions. The prevalence of the metabolic syndrome is similar between both sexes and it increases with age.

Keywords
metabolic diseases, prevalence, disease, cardiovascular, diabetes mellitus, obesity.