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## EVALUATING THE USABILITY OF ASCVD PLUS™ MOBILE APPLICATION IN ASSESSING THE RISK OF CARDIOVASCULAR DISEASES IN SRI LANKAN ADULTS

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### ABSTRACT

The updated “ASCVD Risk Estimator Plus™” by the American College of Cardiology is an application used to assess and estimate heart disease and stroke risk. Both currently and in 10-years for Athero-Sclerotic Cardiovascular Disease (ASCVD) risk. This application has been designed in order to be used on mobile platforms and has been validated in North America and has been used as a research tool as well. However, the usability of it among the South Asian populations and an idea about its ability to predict the risk of ASCVDs has not yet been pretested. A descriptive study was done on 100 adults selected using convenience sampling from Colombo, using an interview-administered questionnaire and ASCVD™ plus mobile application. Out of 94 adults ranging from 40 to 80 years, the majority (n=48) of them were males. It was deduced that the lifetime ASCVD risk among males is higher than that of females, by a mean difference of 12.85. It showed the same patterns for the current ASCVD risk, the males mean risk 6.5400 and females having 2.2405. These values could increase if they kept indulging in the risk factors. Gender wise males stress levels for both lifetime and current ASCVD risks were at a greater percentage. An additional finding of this research was that stress has contributed towards developing cardiovascular disease to the current ASCVD risk by 38.7%. Moreover, statins were an effective therapeutic agent. The prevalence of ASCVD risks matched the predicted risks of updated “ASCVD Risk Estimator Plus™”. Therefore, it is a useful screening and monitoring tool for Sri Lankan adults.

**Keywords:** ASCVD (Atherosclerotic Cardiovascular Disease), LDL (Low-Density Lipids), Lifetime ASCVD(percentage of lifetime atherosclerotic cardiovascular disease), Current ASCVD(percentage of risk currently), Statins(lipid-lowering medications)