Abstract

This paper presents an application of Multi-layer Perceptrons (MLP) neural networks to model the demographic characteristics of antenatal clinic attendees in South Africa. The method of cross-validation is used to examine the between-sample variation of neural networks for HIV prediction. MLP neural networks for classifying both the HIV negative and positive clinic attendees are developed and evaluated using validity and reliability of the test. Neural networks are robust to sampling variations in overall classification performance.

References


Index Terms

Computer Science          Artificial Intelligence

Keywords
Multi-layer Perceptrons          Neural Networks
HIV/AIDS
Seroprevalence Data
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Novel Application of Multi-Layer Perceptrons (MLP) Neural Networks to Model HIV in South Africa using Seroprevalence Data from Antenatal Clinics