

Prevalence of hypertension in Rwandan population using Gibbs method

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Abstract

Hypertension in Africa was estimated to 30.8% in 2010 with dramatic increase in some regions ranging between 36.2%-77.3% (Adeloye Basquill, 2014). In Rwanda, the prevalence of hypertension was estimated to 15.0% in 2015, (Nahimana et al., 2017). In Rwanda there is no model which can help decision makers to know the behavior of hypertension in future. The objective of this study was to predict the prevalence of hypertension in Rwanda for 10 years using Markov Chain Monte Carlo method and others related diseases. Data used were from [7], Gibbs method for sampling helped to find the transition matrix. It was found that the prevalence of hypertension, tobacco use, overweight, obesity and other subject will be predicted 17.82%, 26.26%, 17.13%, 4.80% and 33.99% in 2025 respectively. This implies that Rwanda need to take measure about healthy diets and physical exercises to prevent and reduce the prevalence of the diseases.

Biography

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