

ABSTRACT

Risk factors in mothers that may contribute to low birth weight or overweight of babies at birth are nutritional, heart diseases, hypertension, drug addiction, alcohol abuse, and social economic factors. During pregnancy period mothers visit hospital for prenatal check-ups and information are collected. This information can be utilized to predict the type of delivery (complicated or normal delivery) in advance. This study developed an inverse regression model that can predict the type of delivery through the determination of the weight of the baby (infant). The parameters of the inverse regression model are obtained by OLS. The developed model is applied on data collected from mothers and babies from Kakamega County Referral Hospital. It is shown that the model well fitted the data. Hypothesis testing on the estimated parameters is carried out. The developed model has been used to predict the infant weight before delivery and shown to be accurate with a specified confidence interval.