Logistic Regression Modeling of Willingness to Work with Persons Treated for Tuberculosis using the National Demographic and Health Survey in the Philippines

Honeylet T. Santos

School of Statistics, University of the Philippines

Abstract

Tuberculosis is one of the leading causes of mortality in the Philippines. In this study, logistic regression modeling that considers complex sampling design was used to fit the data from the National Demographic and Health Survey (2013 and 2017). Rao-Scott Likelihood Ratio Tests with design correction were conducted to test for associations between the candidate explanatory variables and the response variable. Backward elimination method of model selection is used to come up with a model with statistically significant variables. Results show that knowledge about tuberculosis, type of residence, and wealth index of respondents affect the willingness to work with persons treated for tuberculosis.

Key words: Complex Sampling Design, Logistic Regression, Tuberculosis, National Demographic and Health Survey Philippines