ABSTRACT

THESIS: IDENTIFICATION OF RISK FACTORS FOR TYPE II DIABETES IN ALMADINAH ALMUNAWARA, THE KINGDOM OF SAUDI ARABIA

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The goal of this study is to identify the risk factors of type II diabetes (T2D) in the Kingdom of Saudi Arabia (KSA). The data were collected from the Primary Health Care Center (PHCC) of AL Madinah, KSA, from 2009 to 2014. The data are grouped or summarized, where the patients have different types of diabetes. The dependent variable of the study is the type of diabetes, and the independent variables (risk factors) are age (1-45+ years), gender (male and female), and nationality (Saudis and non-Saudis). The multinomial logit model is used for the analysis because the response, a nominal categorical variable, has four levels. These four levels are: ‘diabetes during pregnancy & delivery’, ‘diabetes with other complications’, ‘diabetes without complications’, and ‘acetone diabetes’. The scale of the response is a nominal scale because there is no natural order for the types of diabetes. The results from the fit of multinomial logit model show that all predictors are statistically significant (p < 0.05). Data exploration and the analysis have been performed using the R statistical package.