

The Impact of Cooking Fuel Sources on the Respiratory Health of Children in Sudan

Mohamed Abdelazim Mohamed Abdelrahman

Exposure to indoor air pollution in households increased the incidence of respiratory diseases, which cause death among children under-five years of age in developing countries. Our aim in this study is to examine the association between the source of energy for cooking and the prevalence of respiratory illness among under-five children by using the latest data of 2014 Multiple Indicator Cluster Survey in Sudan. In the analysis of this study, a total of 7,528 under-five children were included. Focusing on under-five children, different symptoms of respiratory illness such as Cough, Difficulties of Breathing accompanied with Cough, and Suspected Pneumonia within two weeks before the survey examined. The household's sector in Sudan heavily relies on tradition source of energy for cooking such as coal, charcoal, wood...etc. Around 68.2 % of households in Sudan use the traditional source of energy for cooking, and about 31.8 % of households use the modern source of energy mainly liquefied Petroleum Gas (LPG). 68.8 % of children with Cough are from households that using a traditional source of energy. 72.7 % of children with difficulty of breathing accompanied by cough belongs to households who are using the traditional source of energy for cooking. 67.6 % of under-five year of age children who have symptoms of pneumonia are from households which use traditional source of energy for cooking. Two-Stage least squares (2SLS) regression used in the analysis. We used the distance from oil refinery as Instrumental Variable (IV) to solve the endogeneity problem in our model. The 2SLS results indicate that the relationship between the use of traditional source of energy for cooking and the prevalence of respiratory illness among under -five year of age children is statistically insignificant.

Keywords: Household, Respiratory Illness, Indoor pollution, Source of Energy, Children Under-Five, Instrumental Variable