ESSAYS ON HEALTH DETERMINANTS IN KENYA

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A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy in Economics in the University of Nairobi

2013
Abstract

We investigate the effect of prenatal care use on infant health, the effect of preceding birth interval length on maternal health, and the effect of smoking on general health. We employ an estimation strategy that controls for potential endogeneity of the key covariates, potential unobserved heterogeneity, and potential sample selection bias. We obtain three main results. First, models that do not control for unobserved mother–specific effects overstate the beneficial effects of prenatal care on infant health. We particularly find that after controlling for unobserved mother–specific effects, adequate use of prenatal care decreases the probability of delivering a low–birth weight infant by 0.036, holding other factors constant. Without such control, however, the corresponding reduction would have been 0.26. Second, preceding birth interval is an endogenous determinant of maternal health. In particular, we find that preceding birth intervals of length 36 to 59 months can only be shown to improve maternal health after we control for the endogeneity of preceding birth interval. Third, failure to control for sample selection bias, endogeneity of smoking and unobserved heterogeneity leads to an underestimation of the negative effects of smoking on self–rated health status by about 50%. In particular, we find that after controlling for sample selection bias, endogeneity of smoking and unobserved heterogeneity, the probability of individuals who smoke rating their own health as Poor compared to their age–mates is higher than that of those who do not smoke by 0.018, holding other factors constant. Without such controls, however, the corresponding difference in probabilities is only 0.009. Our results imply that policies that promote adequate use of prenatal care services, those that promote adequate spacing of births, and those that discourage smoking should be pursued so as to improve the health of the Kenyan people.