IMPACT OF PARENTAL SOCIOECONOMIC STATUS ON CHILD HEALTH OUTCOMES IN KENYA

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POLICY BRIEF

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INTRODUCTION

It is widely acknowledged that a healthy nation is a wealthy nation. However, like most developing countries, Kenya records unfavourable population health indicators. An extensive body of knowledge suggests inter-generational health effects where adult health, largely determined in childhood, influences and is influenced by socioeconomic outcomes in later life. Studies show that parental characteristics especially socioeconomic status like labour force participation and education has important influences on early child health status. However, paucity of credible information on the causal links between health and economic growth and development abounds and the causal mechanisms are poorly understood. Evidence on the impact of maternal labour force participation on child health is limited and mixed in developing world context. We sought to understand and demonstrate how a mother's decision to work affects her child's health measured in terms of nutritional status, in Kenya controlling for other socioeconomic status indicators.

Working mothers had healthier children, the weak causal impact notwithstanding. It was paradoxical that mother's education had negative and strong impact on child health, given the empirically established positive links between education and labour force participation. Is there a possibility that working mothers' input into child care and nutritional intake influence in dwindling, with adverse child health effects?

Maternal labour force participation was high and favourable on child nutritional outcomes in Kenya, though causal impact is weak. It is imperative that mothers are empowered to engage in employment activities that can make a substantial difference in their children's health. Nutritional intervention programmes targeted at younger children and especially those residing in rural settings are key in improving child health. Nutritional monitoring and supplementation should be made an integral component of maternal-child health services.

SOCIOECONOMIC STATUS AND CHILD HEALTH OUTCOMES

The nutritional status of infants and children under-five years is an area of concern as early years of life are critical for optimal growth and development (see Figure I for trends). To gain insights into child health production and the causal mechanisms thereof, we followed theoretical exposition in Grossman (1972) in his work on health capital and demand for health care, where health is demanded both as a consumption and investment commodity. Our methodology is based on the framework by Ajakaiye and Mwabu (2009) and the model specification follows Strauss and Thomas (2008) and Schultz and Strauss (2008). We used the best and appropriate econometric analytic techniques to cater for endogeneity and heterogeneity bias. The two-stage least squares instrumental variable methods and the control function approach cater for endogeneity and unobserved heterogeneity in estimating the causal links between child health outcomes (weight-for-age and height-for-age) and parental

socioeconomic status[1]. Diagnostic tests for relevance, validity and strength of instruments for endogenous explanatory variables showed that our instruments were relevant, valid but weak. Tests on the appropriateness of model specification indicate that maternal labour force participation and education are endogenous and the model is weakly identified implying suitability of the methods used.

Figure 1: Trends in Infant and Child Mortality in Kenya: 1960-2009
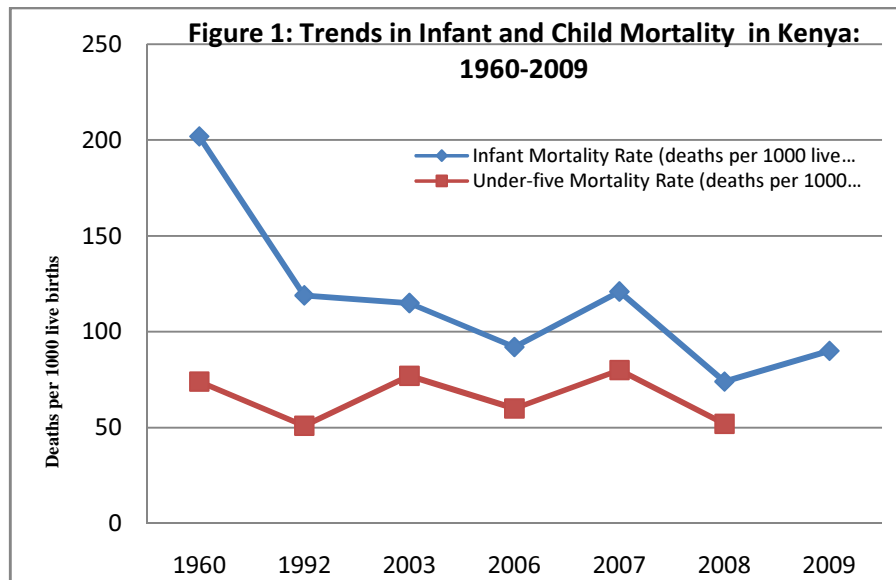
Data sources: GOK, 2008; UNICEF-WHO, 2009; Daily Nation, 2009; CBS, MOH and ORC Macro, 2004; KNBS and ICF Macro, 2010

Our findings are based on data from the Kenya Integrated Household Budget Survey (KIHBS) 2005/06 (KNBS, 2007). Six thousands, one hundred eighty six children under-five years old with height and weight measurements were studied. The parental socioeconomic status indicators show relatively young mothers with largely low levels of education attainment, poor health status and moderate levels of labour force participation. An unexpected observation was that although mothers were on average young, majority had no education, consistent with Kimalu et al. (2001) and UNESCO (1999). Our data revealed that of the 46% mothers without education, 98% reported the highest school grade completed between standard one to eight and a further 1.7% between forms one to four. In addition, 16% could not write in any language, 11% could not read in any language and 24% could only read part of the sentence provided during survey. These observations lead to the conclusion that there may be divergences between respondent's reported self-notion of 'being educated', the actual ability to read and write and educational grade completed, with all three providing differing assessment of maternal education.

Mothers who took more time to fetch water for livestock, had older children, were in female headed households and could inherit land from a male relation were more likely to participate in labour force. On the contrary those who were married, residing in rural areas, in poor health and took more time to fetch water for cooking did not participate. Older mothers with older children, those in good health, in female headed households and were Christians were

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[1] Details of these estimation techniques, econometric issues and tools for addressing them can be found in Bascle, 2008; Jones, 2007; Shea, 1997; Rosenzweig and Wolpin, 2000; Bound, Jaeger and Baker, 2005; Murray, 2006a and 2006b; Stock, Wright and Yogo, 2002; Angrist and Krueger, 1991; Stock and Yogo, 2002; Stock, 2010; Staiger and Stock, 1997; Hahn and Hausman, 2003; Baye and Fambon, 2010; and Baum et al. 2010.

likely to be educated. On the other hand, those in rural areas, with young children, lacking ability to inherit land from father and or husband and took more time to fetch paraffin were unlikely to be educated. These are considered as secondary policy variables and are the mechanisms through which the primary policy variables namely; maternal education and labour force participation impact on child health outcomes.

Taking the Kenyan children as the reference standard, we found that the average child is neither stunted nor underweight. Our findings show that maternal labour force participation has a positive but insignificant effect on child health, measured in terms of stunting and a combined indicator of stunting and wasting. This finding is consistent with the literature which suggests that children of working mothers are healthier. This is an indication that in Kenya, working is not incompatible with child rearing activities. In Kenya, child care is relatively cheap and mothers are therefore able to raise health children and work at the same time. However, results indicate that younger children and those of younger mothers were at risk of poor health.

The finding on maternal education is contrary to theoretical expectation that posits positive links between maternal education and child health. However, some literature suggests that the effect may be complex and ambiguous because of the work-leisure trade-offs. Examination of maternal labour force participation and education shows that twice as many of those with various levels of education participated in labour force compared to those who did not. Consequently their correlation is positive but very low. Given the robustness of the analytic techniques employed, we maintain this finding and seek for plausible causal links. It is likely that this relationship is different and possibly changing in the Kenyan context, calling for further research.

It is plausible that children of most educated and working mothers are raised by caretakers who make and implement feeding decisions. Caretakers may lack the incentives and or the knowhow to insist on proper feeding regimes due to their low levels of education. The negative impact of education on nutritional status of under-fives may be picking the effect of the caretaker's education and not that of the mother. This finding calls for further studies on the impact of education on child health outcomes in Kenya to validate and inform our findings. Furthermore, an investigation of the specific sectors of the economy where mothers supply their labour should be subject of future study to ascertain the labour-leisure trade-offs and the impact on child health outcomes. Mothers may be engaged in work for long hours with pay that is inadequate to secure knowledgeable caretakers or afford nutritious feeding, thereby compromising time allocation and income investments into child health production.

TOWARDS IMPROVED CHILD HEALTH OUTCOMES

Support and provision of gainful employment opportunities for mothers will enhance child health outcomes in Kenya. This could be achieved through empowering women not only economically but also culturally through delayed marriages and improvement of access to water for domestic use. Provision and access of health interventions targeting mothers would also improve labour force participation and consequently child health.

The finding that younger children are at risk of poor health draws the policy recommendation that nutritional programmes should be targeted at younger children and especially those in

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rural settings. Majority of children under-five years in Kenya are out of the school system. Thus, innovative targeting for nutritional monitoring and supplementation should be made an integral component of maternal-child health (MCH) services. Also to enhance child health, women should be encouraged to optimally delay child childbearing and early marriages through effective family planning services since older mothers have healthier children. To improve on the validity and reliability of policy formulation information base, there is need to support research into methodological improvements in assessments of socioeconomic indicators.

Acknowledgements

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