Estimating Moral Hazard in Healthcare Utilization from a Large Scale Policy Experiment:

Universal Healthcare, Not Universal Benefit *

George-Levi Gayle[†] Peter-John Gordon[‡] Devon Lynch[§] Prasanthi Ramakrishnan[¶]

October 10, 2021

Abstract

This paper combines quasi-experimental approaches with a structural model to estimate the level of moral hazard in health care utilization. It uses an unanticipated change in the healthcare system of Jamaica from a means-tested user fee regime to one with 100 percent state funding in 2008 for this purpose. As the poor had free access to medical services in public hospitals, this provides exogenous price variation in the public health sector as compared to the private health sector. Using data from the Jamaica Survey of Living Conditions (JSLC) for the years 2004 to 2012, the paper first uses a non-linear differencein-difference approach to evaluate the effect of this change on facility usage (public versus private) as well as on frequency of visit. It finds evidence indicating the possibility of a crowding out, suggesting that a universal health care policy may lead to redistribution away from the poor. The paper then extends Cardon and Hendel (2001) model to allow for choice of type of hospital (public or private) and shows how the quasi-experimental variation allows for identification of the structural parameters of the model. It then uses the estimated model to quantify the welfare implications of moral hazard and the level of redistribution away from the poor. Using the pre-reform sample as the baseline, we find that there are large declines in welfare for those with poor health and those in older age groups post reform. We then propose alternative targeted payment mechanisms that can increase welfare without crowding out the individuals that are most in need.

^{*}We thank Sean Wang and Dongwei Xu who provided research assistance. All errors are our own.

[†] Federal Reserve Bank of St. Louis and Department of Economics, Washington University in St. Louis, Campus Box 1208, One Brookings Drive, St. Louis, MO 63130. Email: ggayle@wustl.edu. [‡] Department of Economics, The University of the West Indies Mona, Kingston 7, Jamaica. Email: peterjohn.gordon@uwimona.edu.jm [§] Department of Economics, University of Massachusetts Dartmouth, 285 Old Westport Road, Dartmouth, MA 02747. Email: dlynch@umassd.edu [¶] Department of Economics, Washington University in St. Louis, Campus Box 1208, One Brookings Drive, St. Louis, MO 63130. Email: p.ramakrishnan@wustl.edu.