"How to Improve Hypertensive Patients' Access to Medicine in Egypt? Is Health-Insurance-for-All the Right Answer?"

A Dissertation Proposal Presented to the Faculty of the Heller School for Social Policy and Management Brandeis University, Waltham, Massachusetts By Yasmin Abbas, MD, MBA, MA

The Government of Egypt (GoE) has long been trying to reform healthcare reimbursement mechanisms. Currently, healthcare out-of-pocket expenditure in Egypt is about 72%, 40% of which is for medications. At the same time, hypertension is becoming one of the main killers of Egyptian adults, and with the current healthcare coverage schemes, anti-hypertensive medications are becoming a burden for the Egyptian household budget.

It is well established that out-of-pocket payment, for seeking healthcare, hinders access to care. This is particularly relevant for patients with chronic illnesses, who forgo their prescribed medicines due to the financial barrier. However, the knowledge about determinants of access to prescription medicine in Egypt, especially for patients with chronic illnesses, is lacking. Moreover, it is uncertain whether a public health service or a social health insurance model, would improve access to prescription medicines for patients with hypertension in Egypt.

The purpose of this study is to explore the gap in access to prescribed medicine between insured and non-insured individuals with hypertension, and examine factors that impact access to prescribed medicine among adults with hypertension in Egypt, focusing mainly on enabling factors such as healthcare coverage model, i.e. social health insurance vs. public health service, as well as, socioeconomic characteristics of the population at focus, and the interaction of the previously mentioned factors. Furthermore, it will seek to empirically detect and measure the change in access to prescribed medicine for adults with hypertension, as a result of the expansion of the public health services, serving as an alternative bridge to improve access to care among the uninsured during mid-2000s in Egypt. Finally, it will also explore factors within the two main health coverage models, that impact access to prescribed medicine for adults with hypertension, and the resulting patient outcomes of these two systems.

This study will deploy propensity score matching, together with several empirical econometric models, e.g. Two Part regression model and Difference-in-Difference

models, employing a widely acknowledged access measure that is commonly used to evaluate access to medicines in Low and Middle-Income Countries (LMICs); out-of-pocket payment for medicine (as a share of total individual spending). Analyses will be done using data of the National Household Health Utilization and Expenditure Surveys (HHEUS) for years 2002 and 2009, in addition to facility-level data, for the two main healthcare coverage models, using the World Bank's health system assessment framework, "The Control Knobs", to identify gaps in the healthcare system causing the results that we see in the analyses and in patients' outcomes.

The proposed study will build, in large, on the *Aday and Anderson Model for Access to Medical Care*, to develop a conceptual model of determinants of access to healthcare in Egypt. Through this conceptual model, the study will examine determinants of access to prescription medicine, related to both the healthcare system and the population of interest.

Preliminary findings suggest that the current national health insurance scheme does provide some sort of financial protection to insured individuals with hypertension, and hence better access to prescribed medicines. Moreover, there is a significant gap in access to prescribed medicine between insured and uninsured individuals with hypertension.

The models developed through this study will contribute to literature body about the barriers to access to prescription medicines in Egypt. Furthermore, it will provide insights and policy recommendation to the road forward for health policy reform in Egypt, particularly with the current economic and political situation.

Dissertation Committee:	Diana Bowser, Sc.D., Chair
	Dominic Hodgkin, PhD
	Gary Gaumer, PhD
	Sherine Shawky, MD, Dr.P.H., American University in
	Cairo

Defense Hearing

Wednesday, June 04, 2014, 11:00 a.m. to 01:00 pm Heller School, Room 147