Extended abstract

Introduction

In this paper we use the new Mexican Family Life Survey to analyze the extent to which the Mexican population has knowledge of their actual health conditions. We analyze for variables including weight, height, blood pressure and diabetes, the extent to which what individuals report correlates with their actual measures and analyze the extent to which reporting errors are due to lack of knowledge about true health conditions or embarrassment in reporting, such as in the case of weight. We then analyze which socio economic variables as well as health access variables can explain why some individuals have better knowledge of their health than others.

The relationship between health perception and measured health has a voluminous literature (see Sadana, 2001 for a review and Kyffer et al. 2004 and Rahman and Barski, 2003 for some recent examples) with many studies comparing self-reported morbidity indicators with indicators based on health examinations by health workers and other studies analyzing how self-reported health predicts health problems later in life.

The issues of differences in reported versus actual health have also begun to be studied in the economics literature. Thomas and Frankenburg, 2001 provide an excellent

theoretical framework for modeling self-reported health and objective or measured health, where measured health differs from self-reported health because of reporting effects, and measured health may differ from actual health status, which is unobserved.

Our study builds on Thomas and Frankenburg by studying similar issues in the Mexican context and focusing on the extent to which reporting biases reflect lack of knowledge of true health conditions, which may be particularly important for the chronic diseases of diabetes and hypertension, where patient lack of knowledge is common. In particular, errors in reporting may derive from at least two explanations. First, for some indicators, individuals may feel embarrassment at reporting the truth (such as for weight). Alternatively, reporting errors may reflect lack of knowledge about true health conditions, for instance in the case of blood pressure and diabetes, where embarrassment costs might be lower than say for weight and misreporting is more likely to be due to lack of knowledge. Of course there may also be interviewer errors and coding errors, as is always the case in fieldwork. Our analysis on reporting errors then is useful not only as informative on the accuracy of self-reported health information but also on the extent to which individuals may have undiagnosed diseases.

Data

We use the new longitudinal Mexican Family Life Survey for our analysis, a broad-purpose multi-topic, nationally representative survey of individuals, households and communities. The baseline covers over 8,400 households in 150 communities across the whole Mexico with the follow up round in 2005 achieving more than 90% followup. In both rounds, all individuals age 15 and over were interviewed and extremely detailed information on a wide array of social, economic, demographic and health behaviors of

individuals and their families was collected. All household members participated in an in-home physical health assessment which measured anthropometry, hemoglobin levels and blood pressure. The self reported information includes information about recent health conditions, emotional well-being, chronic illness and in- and out patient utilization. The MXFLS includes biomarker data on hemoglobin levels, blood pressure, waist to hip ratios, height and weight. In 2005, additionally glucose levels, total cholesterol and the collection of dried blood spots were collected for adults above the age of 15.

Preliminary results

For several anthropometric and biomarker indicators we have information on actual measured health status and also on what individuals report. This information allows us to carry out an analysis of reporting biases. The health information in which MxFLS provides both objective and self-reported health outcomes are: height and weight, hypertension and diabetes, as defined by measured glucose levels after fasting.

The descriptive results show that a large majority of the population with high blood pressure and abnormally high glucose levels are unaware of this fact. In the case of weight and height, a large fraction of the population also incorrectly report their weight/height (as measured by one standard deviation above or below actual weight/height).

The regression results analyze the impact of socio economic variables on the reporting errors described above. With respect to the impact of socio economic variables, we find

that men are less likely to accurately report weight. Seeing a doctor in the past three months is associated with an increased probability of reporting weight correctly, suggesting that individuals may acquire information about their weight from health appointments. The most significant variables however affecting accurate reporting of weight are the actual level of weight. Obese individuals tend to under-report their weight relative to those of normal weight by about 2.5 kilograms and are less likely to accurately report their weight by about 6 percentage points. Very overweight individuals may feel embarrassed to report their true weight, or may engage in a bit of "wishful" thinking over their actual weight. Our analysis is thus suggestive of both information effects in reporting errors and misreporting due to embarrassment motives.

With respect to hypertension, we find that men are much more likely than women to underreport or to be unaware they have hypertension, perhaps of their lack of attendance at health clinics. Younger individuals are more likely to be unaware compared with older individuals. Having been hospitalized and having seen a doctor in the previous three months are associated with a reduction in the incidence of not knowing about having the disease. Individuals with more education are more likely to be aware of having the disease.

The MxFLS provides excellent information on individual access to health clinics and measure of quality of available health clinics. In the last section of the paper, we will analyze the potential impact of access to health care and the quality of that health care on knowledge of health conditions.