

Health Selectivity of Migration: A Longitudinal Analysis of Health and Internal Migration in Indonesia

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Introduction

In contrast to abundant research on the demographic and socioeconomic determinants of migration, little has been done on the ways health affects migration decisions. Previous literature stresses the complexity of the health-migration association. However, few empirical studies have assessed the health selectivity of migration by comparing the health of migrants to those left behind. This is largely due to the lack of adequate data, which requires collecting information for the origin population prior to migration. Rather, most studies have compared the health of immigrants to that of permanent residents at the destination place, and most such studies have focused on international migration. Studies of this kind usually find that immigrants are generally healthier than the native-born populations of receiving countries (after adjusting for basic demographic and socioeconomic attributes), as indicated by mortality rates, chronic conditions, mental health, etc., though the advantage enjoyed by immigrants may deteriorate over time (Anson 2004; Feranil 2005; Alegria et al. 2006). This is commonly referred to as the “healthy migrant effect,” which may exist because those in good health can better cope with the difficulties and uncertainties associated with migration. In contrast, a few other studies show that there is little or even a negative association between health and migration (Turner et al. 2006).

While these studies shed light on the health-migration association, they confound the

health selectivity of migrants with the effect of migration on health due to their focus on health status after migration and on comparisons with the host population, a group with whom migrants share little social, cultural, economic or genetic background. This comparison of migrants with only the host population also presents a conceptualization problem: properly studying the health selectivity of migration requires comparisons of people at origin who are exposed to similar decisions. In addition, results from previous studies may be confounded by inadequate control of individual and household characteristics that are favorably associated with migration as well as health. Finally, most of the existing studies treat migrants as a homogeneous group and focus on one aspect of health, ignoring the heterogeneity of migration and complexities in measuring health.

Our study attempts to remedy these gaps. Utilizing a superior data set and design, we examine whether pre-migration health status affects the likelihood of migration. We also seek to offer more accurate estimates of health effects, by adjusting for unmeasured or unmeasurable confounding factors that are associated with both migration and health. We also will consider the complex relationship between health and migration, distinguishing different types of migration and various dimensions of health.

Data and the Indonesia Context

Indonesia is the fourth most populous nation in the world. Not only has the economy grown rapidly over the last quarter century but there also have been dramatic demographic and social changes. Over the past few decades there have been concomitant improvements in access to health care and in common measures of health such as life expectancy and the infant mortality rate. With respect to migration, Indonesia is one of the world's major sources

of unskilled international migrant workers and the internal migration stream is also substantial.

This study uses data from the 1993, 1997, and 2000 waves of the Indonesia Family Life Survey (IFLS), a panel survey of individuals, households and communities that represents over 83 percent of the Indonesian population. The first wave of IFLS was fielded in 1993 and interviewed over 20,000 individuals in more than 7,200 households. The second and third waves, fielded in 1997 and 2000 respectively, successfully re-interviewed over 94 percent of households and over 90 percent of targeted individuals in the original sample (Frankenberg and Thomas 2000, Strauss et al. 2004). Overall, the IFLS attrition rate is very low, and it represents one of the first efforts in social surveys to track migrants, which permits studying migration and health as a dynamic process.

The IFLS collected a broad array of demographic, health and economic information on individuals, households and communities, and repeated much of this information across waves of the survey. In addition, the survey included many retrospective questions. In particular, the IFLS contains a detailed migration history, and extensive measures of health status. Because health is composed of distinct components, we examine various dimensions of health separately and expect that they are likely to affect migration differently.

Analytic Strategy

To study our research questions, we estimate a set of logit models predicting whether an individual moved between 1997 and 2000 from each available health measure together with other predictors (age, gender, education, marital status, working status, log per capita annual household income, and previous migration experience) measured in 1997. IFLS1 is not used

because it did not include the biomarker indicators. The key test is the statistical significance of each health measure in the model. We also estimate separate equations for the young (age 15-44) and for the old (age 45-74), given that they may have distinct migration behaviors. To examine how health is related to the propensity to migrate for different purposes, multinomial logistic regressions will be estimated to model the probability of being in each of the four migration groups (labor migrants, family migrants, marriage migrants, and all other migrants) relative to the nonmigrant group. Moreover, we attempt to address bias due to unmeasured or unmeasurable confounders, also referred to as unobserved heterogeneity, which are associated with both health and the propensity to move. We will use a household fixed-effect (FE) logit model to absorb all unobserved factors that are constant within households.

Preliminary Results

Preliminary results show that migrants in Indonesia do tend to be selected on health. More specifically, younger migrants are positively selected with respect to health, presumably because they are more capable of enduring the rigors of moving or managing the difficulties and stress associated with migration. By contrast, for the elderly, migrants tend to be negatively selected on health, as they tend to move only when it is necessary and health related considerations are likely to be a common motivation for their move. Results also suggest that the effect of health on migration tends to vary by different types of migration and different dimensions of health: labor migration, which represents the most demanding type of move, is particularly positively selected on health; health selectivity is especially salient with respect to chronic and severe conditions, since they lead to physical weakness that is highly salient for the victims. The observed health effect on migration is relatively robust to

household unobserved heterogeneity.

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