Remittances, Health Insurance, and Healthcare Use of Populations in Origin Communities: Evidence from Mexico

Workers' remittances to Mexico have grown to $14.5 billion during 2003 (Lee 2003; Thompson 2003). These international transfers of Mexican migrant workers to their relatives, friends, and origin communities back in Mexico have been recognized to play a significant role in the well being of their recipients (e.g. Keely and Tran 1989; Taylor and Wyatt 1996; Rozelle et al. 1999). A significant fraction of remittances appears to be sent back to Mexico to finance the purchase of food, clothing, housing, and educational expenses of younger siblings and children left home, as well as to finance land and businesses investments (e.g. Durand 1996a; Durand et al. 1996b; Massey and Parrado 1994). However, the single largest category reported in migrant surveys with a detailed breakdown of the intended use of migrants' remittances has been health expenses. Indeed, according to the MMP71 approximately 57 percent of remitters declare health expenses as the primary purpose for their remittances. This percentage is significantly higher than the ones reported for any of the other most prominent categories, including food or maintenance (15 percent), construction or repair of a house (9 percent), debt payment (6 percent), and purchase of consumer goods (5 percent).[1] Yet, despite the significant fraction of remittances that migrants declare to be sending home to cover family health expenses, very little attention has been paid to assessing the impact of remittances on the health insurance and healthcare use of the Mexican population in origin communities.

There are various reasons for advocating the need to carefully examine the implications of international transfers on the health insurance and healthcare use of the origin communities in Mexico. First, as noted by Appleton (1996), health –often conditioned on adequate access to healthcare– is a crucial dimension of people's well being. Second, a variety of studies have emphasized the potential effects of migration on health through two channels that may directly impact healthcare access and lifestyles (Kanaiaupuni and Donato 1999). One is the through the flow of monetary funds in the form of *remittances* as these can serve to relieve income constraints when seeking appropriate healthcare. A second channel involves the exchange of *informational resources* that occurs in the origin communities as a result of changing family, social networks, and information on healthier lifestyles. Both channels are particularly important in Mexico, a country with a deep-rooted tradition of U.S. migration.[2] A third reason for focusing on the health implications of international transfers involves the wide disparities observed in health outcomes within the Mexican population (Frenk et al. 1989). What role do remittances play in increasing or decreasing these disparities? Given that migrants tend to originate from economically disadvantaged families, how is their families' health insurance and healthcare use in Mexico affected by these remittance flows?

In theory, the Mexican healthcare system guarantees free or low-cost health care through *IMSS-Solidaridad* and *Secretaría de Salud* to populations not covered by the government-based insurance systems or by other private health insurance systems. However, in practice, the ability of this universal system to ensure access to preventive and treatment services is limited. The fragmentary structure of the Mexican healthcare system and the lack of coordination among

[1] Other individual level surveys that provided information on the uses of remittances (such as the Encuesta de Emigración a la Frontera Norte de Mexico – EMIF) do not separate health expenditures from other general household expenditures. Overall, respondents in the EMIF declare that 64 percent of their remittances are spent on general household expenditures, approximately 20 percent on housing, and the remaining 16 percent on the acquisition of businesses, cars, or tools.

[2] As of the year 2002, approximately 8 million illegal migrants resided in the U.S., of whom more than half came from Mexico (Griswold 2002). Today, these migrants continue to be attracted to the U.S. due to the earnings gap differential between the two countries and the rising demand for low-skilled labor in the U.S.

institutions limit migrants' access to health services. Thus, money transfers from migrating family members in the U.S. might help families finance their health expenses, filling in for a shortfall of healthcare resources available to them. This shortfall may be particularly acute in the case of unemployed or non-contributing underground and self-employed workers, who are more likely to be uninsured.

Since eligibility for public healthcare and health insurance coverage often occurs through employment, the research project proposed herein will examine the impact of the receipt of international money transfers on the work decisions, health insurance coverage, and healthcare use of Mexicans across the income distribution profile. We will make use of the Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH), a nationally representative survey carried out by the Mexican statistical institute (*Instituto Nacional de Estadística, Geografía e Informática* – INEGI) with the purpose of providing information on the size, structure, and distribution of Mexican households' income and expenditures. The ENIGH, begun in 1984 and, from 1992 onwards, has been carried out biennially. In this project, we use all the survey waves currently made available to the public corresponding to the years 1984, 1989, 1992, 1994, 1996, 1998, 2000 and 2002. In addition to general socio-demographic and employment information on the household members, the ENIGH collects detailed information on all income flows received monthly by the household, including international money transfers, and on any health insurance coverage and health expense incurred by the household.

Using the aforementioned dataset, we will investigate the following questions: (1) How do remittances affect the work decisions of members of remittance receiving households in Mexico? (2) To what extent do remittances fill in for shortfalls in their health insurance coverage? (3) How do remittance payments affect their healthcare use.

The first question is intended to examine the impact of remittance receipt on the labor supply decisions of household members. Previous studies have found both positive and negative employment effects associated with the receipt of remittances. Remittances often promote self-employment (Funkhouser 1992), but self-employed individuals often lack adequate health insurance coverage. However, other studies on the effect of remittances on individuals' labor force participation and employment decisions have also found an inverse relationship between remittance flows and labor force participation, work participation, and hours of work in developing economies (Funkhouser 1992; Kozel and Alderman 1990). Therefore, it is of interest to gain a better understanding of the effect that remittances may have on the labor supply decision in developing economies with high rates of underemployment and where informal employment is often linked to lack of medical insurance, such as Mexico.

The second question intends to provide information on the relationship between remittance receipt and health insurance coverage among Mexican households. In particular, the analysis will supply estimates of the degree by which remittances help alleviate for the lack or inadequacy of health insurance coverage for families at different income levels.

Finally, the third question addresses the impact of remittances on the healthcare use of remittance receiving households. The analysis will provide information on the number of households receiving international transfers, frequency of use and costs of healthcare services, and estimates of the impact of remittances on healthcare use across the family income distribution spectrum.

As with other production and investment activities (Rozelle *et al.* 1999), healthcare use (**HCU**) is constrained and remittances (**R**), health insurance (**HI**), and other household members' characteristics, such as their labor supply (**LS**), can play an important role in overcoming this constraint. Therefore, household healthcare use can be modeled as a function of the employment and corresponding health insurance coverage of household members, as well as of other forms of household income (e.g. remittances) as follows:

(1) $$HCU = \alpha_0 + \alpha_1 R + \alpha_2 HI + \alpha_3 LS + \alpha_4 Z_{HCU} + \varepsilon_{HCU}.$$

However, remittance receipt may be dependent on the healthcare use and the health insurance coverage of family members left back home. Similarly, given the link between health insurance and employment, remittances will be dependent on the labor supply of household members, which also serves as a proxy of household economic need. Hence:

(2) $$R = \beta_0 + \beta_1 HCU + \beta_2 HI + \beta_3 LS + \beta_4 Z_R + \varepsilon_R.$$

In turn, health insurance may depend on the household healthcare use, with those households displaying a greater healthcare use being more likely to seek health insurance coverage. Additionally, health insurance may depend on the household's ability to afford private health insurance (e.g. through remittances) or public health insurance through employment. Therefore:

(3) $$HI = \delta_0 + \delta_1 HCU + \delta_2 R + \delta_3 LS + \delta_4 Z_{HI} + \varepsilon_{HI}.$$

Finally, following human capital theory, the employment of household members in Mexico can be modeled as a function of their human capital characteristics and on household's sources of non-labor income, including remittances. Additionally, lack of health insurance or household healthcare use may affect the work decision of household members. Therefore:

(4) $$LS = \phi_0 + \phi_1 HCU + \phi_2 HI + \phi_3 R + \phi_4 Z_{LS} + \varepsilon_{LS}.$$

Various coefficients are of interest in this model. First, ϕ_3 will indicate the implications of remittance receipt on the labor supply decision of Mexican households. Second, the parameter δ_2 will provide us with an estimate of the impact of remittance receipt on the health insurance coverage of Mexican families, whereas α_1 will provide an estimate of the impact of remittance payments on their healthcare use.

Equations (1) through (4) constitute a simultaneous equation system where healthcare use, remittances, health insurance, and the employment of household members are endogenously determined with the possibility of cross-equation error correlation, which will be estimated using three-stage least squares.

The results from the proposed study will inform on how remittances from Mexican migrants in the U.S. may affect health insurance coverage and healthcare use of remittance receiving households in Mexico. In this manner, this study may help inform Mexican policy-makers on the existing demand for health insurance and healthcare and on the role of the repatriated incomes from Mexican migrants in the U.S. in ensuring the health insurance coverage and healthcare use of family members left back home.

References

Appleton, Simon. “Women-Headed Households and Household Welfare: An Empirical Deconstruction for Uganda.” *World Development*, 1996, 24(12), pp. 1811-1827.

Durand, Jorge. “International Migration and Development of Mexican Communities.” *Demography*, 1996a, 33(2), pp. 249-264.

Durand, Jorge, Parrado, Emilio A., and Douglas S. Massey. “Migradollars and Development: A Reconsideration of the Mexican Case.” *International Migration Review*, 1996b, 30(2), pp. 423-445.

Frenk, J., Bobadilla, J. L., Sepulveda, J., and M. Lopez Cervantes. “Health Transition in Middle-Income Countries: New Challenges for Health Care.” *Health Policy and Planning*, 1989, 4(11), pp. 29-39.

Funkhouser, Edward. “Migration from Nicaragua: Some Recent Evidence,” *World Development*, 1992, 20(8), pp. 1209-18.

Griswold D.T. “Mexican Workers Come Here to Work: Let Them!” *The Wall Street Journal*, Dow Jones & Company, Inc., 2002.

Kanaiaupuni, Shawn Malia, and Katherine M. Donato. “Migradollars and Mortality” The Effects of Migration on Infant Survival in Mexico.” *Demography*, 1999, 36(3), pp. 339-353.

Keely, Charles B. and Bao N. Tran. “Remittances from Labor Migration: Evaluations, Performance, and Implications.” *International Migration Review*, 1989, 23(3), pp. 500-525.

Kozel, Valerie and Harold Alderman. “Factors Determining Work Participation and Labour Supply Decisions in Pakistan’s Urban Areas,” *The Pakistan Development Review*, 1990, 29(1), pp. 1-17.

Lee, Morgan. “Study: Mexican in U.S. Send $14.5 Billion Home,” *San Diego Union Tribune*, October 28, 2003.

Massey, Douglas S. and Emilio A. Parrado. “Migradollars: The Remittances and Savings of Mexican Migrants to the USA.” *Population Research and Policy Review*, 1994, 13(1), pp. 3-30.

Rozelle, Scott; Taylor, J. Edward and Alan DeBrauw. “Migration, Remittances, and Agriculture Productivity in China.” *The American Economic Review*, 1999, 89(2), pp. 287-291.

Taylor, J. Edward and T. J. Wyatt. “The Shadow Value of Migrant Remittances, Income and Inequality in a Household-farm Economy.” *The Journal of Development Studies*, 1996, 32(6), pp. 899-912.

Thompson, Ginger. “A Surge in Money Sent Home by Mexicans.” *New York Times*, October 28, 2003.