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Sara Ross, José Pagán, and Daniel Polsky

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Sara J. Ross,¹ José A. Pagán,² and Daniel Polsky^{1,3}

¹ Division of General Internal Medicine, University of Pennsylvania, Philadelphia, Pennsylvania.

² Robert Wood Johnson Health and Society Scholars Program, University of Pennsylvania, Philadelphia, Pennsylvania.

³ Correspondence should be directed to Daniel Polsky, 423 Guardian Drive, Blockley Hall, Rm. 1212, Philadelphia, PA 19104, tel: 215 573 5752, fax: 215 573 8778, email: polsky@mail.med.upenn.edu

ABSTRACT

While much research has analyzed the access of Mexican immigrants to health benefits while in the US, little is known about how those who return to Mexico fare. We analyze health care access for Mexican elders with a history of migration to the US. Using a nationally representative dataset of Mexican elders, we find a robust negative association between years spent in the US and the probability of being insured. This result reflects that Mexicans who spend time in the US are less likely to meet vesting requirements in the Mexican social security system. Interestingly, this association does not hold for pension benefits since migrants may qualify for and receive US social security upon retirement in Mexico. The discrepancy can be attributed to the lack of portability in Medicare. Our findings suggest that portability of Medicare benefits will improve health insurance coverage and health care access for elderly Mexicans.

Keywords: health insurance, Mexico, migrants, retirement

INTRODUCTION

Like many other Latin American countries, Mexico is currently experiencing a rapid aging of its population. While in 1995 only 4.2 percent of the population was over 65 years of age, this proportion is expected to rise to 12 percent by 2030 (3). As the population ages, chronic conditions such as diabetes and high blood pressure contribute to increased morbidity (3, 3). Cardiovascular disease, diabetes, and cancer were the top three causes of death among the Mexican elderly population from 1992 to 1994 (3). While the Mexican elderly will require extensive and costly health care services, their access to health care is limited in part by the lack of adequate health insurance coverage. Since Mexico does not currently provide universal health care for its elderly, access to care for older Mexicans largely depends on their ability to secure health insurance in old age.

The health benefits afforded to Mexicans are predominantly governed by the Mexican social security system, yet this structure is highly fragmented and unequal in its distribution of services (3). Access to retirement health insurance is only available to formal sector employees with sufficient employment tenure. Elderly Mexicans are entitled to old age benefits based on the number of weeks of contributions to the social security system. A 1997 overhaul of Mexico's social security system requires that workers must be aged 65 or over and pay in 750 weeks of contributions to be eligible for retirement health benefits (3).

Because the majority of elderly Mexicans were not employed in the formal sector throughout their working years, nearly half of them are uninsured. In theory, uninsured elderly Mexicans have access to health care through programs run by the Ministry of Health in urban areas and IMSS-Solidaridad in rural areas (3). In reality, limited access to health clinics,

disparities in the quality of care, and financial constraints prevent many uninsured Mexicans from obtaining health services. Frenk, González-Block, & Lozano found that up to 20 percent of Mexicans had no regular access to basic health care (3). Unequal access and uneven quality of care contribute to the observed severe overall inequality in health care and constitute a challenge to Mexico's goal of providing universal health care (3).

Since health insurance and access to care in Mexico is largely gained through attachment to the formal labor force, Mexicans who work in the US face particular challenges in obtaining health care services. About 400,000 Mexicans enter the US legally and illegally each year (3). Although some of these immigrants stay in the US, more than half return to Mexico after only a few years abroad (3, 3). As these 'sojourners' spend more time working in the US, they may be unable to meet vesting requirements to qualify for retirement health insurance in Mexico.

In this study, we make use of unique structural differences in the administration of retirement health insurance and pensions to support a causal link between migration and health insurance coverage. Mexicans living in Mexico may receive US social security benefits earned through years of work in the US (3). They do not, however, have access to any Medicare benefits for which they may have qualified. In other words, US pension benefits are portable while US health insurance for the elderly is not. Since both pensions and health insurance are subject to similar vesting requirements in the Mexican social security system, we can exploit the heterogeneous treatment of these old age benefits for migrants to the US in order to explore causal mechanisms.

METHODS

Using survey data from the nationally representative Mexican Health and Aging Study (MHAS), we study the relationship between US migration and health insurance coverage for Mexicans of retirement age (i.e., aged 65 or over). The Mexican Health and Aging Study (MHAS) (n=15,186) surveyed a representative sample of the 13 million Mexicans born prior to 1951 and their spouses or partners, regardless of age. Direct interviews were attempted with all sampled individuals and proxy interviews were used only when health concerns or temporary absence prevented a direct interview. The survey oversampled the six Mexican states with high rates of migration to the US.

The MHAS includes questions pertaining to health and health care, family background and composition, transfers/remittances, socioeconomic status, housing environment, and anthropometric features (3). In our analysis, we include sampled individuals aged 65 and over who had ever worked for pay. In addition, we exclude 713 individuals with missing data. The final sample size is 3,007.

We use logistic regression to analyze the effect of time spent in the US on two dependent variables: whether the respondent has health insurance and whether he/she has retirement pension benefits. The key explanatory variables are whether the respondent lived in the US (i.e., return migrant) and years lived in the US. We control for age, gender, current assets, job characteristics, education, family structure, health status, disability and current rural/urban residency. Results are presented as the marginal probability of health insurance or pension coverage (3). We contrast the models predicting health insurance and pension coverage in order to gain insights into the relationship between migration and health insurance coverage.

We also evaluate the effect of insurance status and migrant status on utilization of health care. We use three variables to represent health care utilization: whether the respondent had any

doctor visits within the last year prior to the interview, whether the respondent would visit a formal health care provider for routine care, and the number of doctor visits within the last year. Our explanatory variables of interest are migrant status, health insurance status, and the interaction between migration and insurance. The first two models predicting the probability of any doctor visits are estimated using logistic regression. A model for the number of doctor visits is estimated using a negative binomial model to account for overdispersion (3). These three models include controls for age, gender, current assets, job characteristics, education, family structure, health status, disability and current rural/urban residency. Results are presented as marginal effects.

RESULTS

Table 1 presents basic demographic characteristics of the migrant and non-migrant subgroups in our sample of Mexican residents aged 65 and over who had ever worked for pay. Migrants are disproportionately male. While 87.7 percent of the migrant population is male, only 59.0 percent of the non-migrant sample is male. A higher percentage of migrants are married (66.8 vs. 56.1 percent of non-migrants) and more migrants report to be in poor health (31.3 vs. 23.0 percent of non-migrants). Two-fifths of migrants spent one year or less in the US and about one-quarter spent more than five years abroad. Close to half of all migrants were below the age of 25 when they first traveled to the US. Only 11.2 percent of migrants were above the age of 45 when they visited the US for the first time. The mean length of stay in the US was 6.2 years.

// TABLE 1 HERE //

Table 2 compares the employment experience and insurance characteristics of migrants and non-migrants. In univariate analysis, migrants and non-migrants are equally likely to possess health insurance coverage. A larger percentage of migrants worked in the agricultural sector for their main job (48.8 percent vs. 29.9 percent). Moreover, migrants have more years of work experience. Only 6.6 percent of migrants have less than 15 years of work experience, compared with 16.0 percent for non-migrants. Health insurance coverage is far lower for agricultural workers and for those with less job tenure. Because of these and other important differences, a multivariate analysis is essential to understanding the variation in health insurance benefits between migrants and non-migrants.

// TABLE 2 HERE //

Table 3 presents the results of logit models that predict the probability of health insurance coverage and the probability of receiving a retirement pension. We find that while migrants are more likely to be insured, the probability of coverage decreases by 0.8 percentage points for every year spent in the US. The magnitude of these opposing effects suggests that migrants who stay in the US for more than eight years are less likely than non-migrants to have health insurance.

On the other hand, migrants are equally likely to earn a pension and the probability of receiving pension benefits increases by 0.4 percentage points for every year spent in the US. Our point estimates suggest that migrants who spent more than three years in the US are more likely to receive a pension than non-migrants.

// TABLE 3 HERE //

On further inspection into the source of retirement benefits, we find that many migrants earn pension benefits via US social security. Among migrants who receive a pension, 30.3 percent earn US social security. Over 60 percent of the elder Mexicans with permanent residency or US citizenship reap pension benefits compared with only 18.7 percent of Mexicans without any special US immigrant status. In comparison, there is little distinction between the percent of permanent residents, US citizens, and other Mexicans that have health insurance. This suggests that while US citizenship or permanent residency confers an opportunity to gain pension benefits, it is not associated with higher health insurance coverage after returning to Mexico. This is consistent with the positive relationship between pension and US tenure and the negative relationship between health insurance and US tenure.

In order to understand the significance of the findings presented in Table 3, it is important to assess the relationship between health insurance and access to health care utilization in Mexico. Table 4 displays whether migrant status, insurance status, or their interaction, is associated with health care utilization. Health insurance coverage is associated with an 8.1 percentage point increase in the probability of visiting a doctor. It also increases the annual number of doctor visits by 2.1 among those who saw a doctor in the last year. Migrant status, controlling for coverage, is independent of health care utilization. This suggests that health insurance coverage is important for health care access in Mexico. It also suggests that migrants without health insurance use less health services because they do not have health insurance and not because of unmeasured characteristics of migrants.

// TABLE 4 HERE //

DISCUSSION

Mexican society faces a severe challenge in caring for a rapidly aging population. Our study highlights one of many dilemmas in trying to provide equitable and quality health care for Mexico's elderly. In particular, we analyze health care access for Mexican elders with a history of migration to the US.

The key results of this study are that among the elderly in Mexico, the probability of health insurance coverage falls by 0.8 percentage points for each year spent in the US and that the lack of health insurance can have a substantial negative impact on health care access despite programs to provide health care to the uninsured. We find the probability of a doctor visit is 8.1 percentage points higher among the insured. Of those survey respondents who had a serious health problem but did not visit a doctor, 87 percent of those without health insurance indicated that they did not get the care needed due to cost while only 36 percent of those with health insurance mentioned cost as a deterrent.

While time in the US has a negative impact on health insurance coverage, it has a positive impact on pension benefits at 0.4 percentage points for every year spent in the US. We conclude that this contrasting relationship between health benefits and pension benefits is a direct result of the portability of benefits earned while legally working in the US. Migrants with legal US status are equally likely to have health insurance as those without legal US status, but 4 times more likely to have pension benefits.

Recent policy initiatives seek to sum years worked in the US and Mexico in order to allow more migrant workers to qualify for pension benefits (3). These initiatives have important implications for those workers who return to Mexico because the Mexican social security system (which covers both health and retirement benefits) currently requires beneficiaries to have worked at least 15 years in Mexico. Years of employment in the US do not count towards this total. Yet, we find that the penalty for working in the US also manifests itself in terms of health insurance and health insurance access. Unfortunately, there are no analogous policy measures to rationalize access to retirement health care for migrants. Our findings suggest that portability of Medicare benefits will improve health insurance coverage and health care access for elderly Mexicans.

Table I. Demographic Characteristics by Migrant Status, 2001

Characteristic	(1) Migrant n=396	(2) Non-migrant n=2 611	(3) X2
Age group (%)			*
Age 65 to 69	37.3	39.1	
Age 70 to 74	21.7	24.6	
Age 75 to 79	25.6	19.3	
Age 80 and above	15.4	17.0	
Age (mean years)	73.2	72.9	
Male (%)	87.7	59.0	*
Married (%)	66.8	56.1	*
Education (%)			*
Less than 3 years	52.6	58.2	
3 to 5 years	24.5	17.3	
6 to 11 years	12.8	20.0	
12 or more years	10.0	4.5	
Education (mean years)	3.6	3.0	*
Self-rated Health (%)			*
Poor	31.3	23.0	
Fair	40.1	46.1	
Good	21.4	25.4	
Very good	3.8	4.1	
Excellent	3.4	1.4	
Number of years in the US (%)			
1 year or less	41.8	..	..
2 years	12.7	..	..
3 to 5 years	21.4	..	..
6 to 10 years	11.2	..	..
11 to 20 years	4.8	..	..
21 years or more	8.1	..	..
Number of years in the US (mean)	6.2	..	..
Age at first trip to the US (%)			
Less than age 18	11.7	..	..
Age 18 to 24	35.3	..	..
Age 25 to 44	41.9	..	..
Age 45 and older	11.2	..	..
Age at first trip to the US (mean years)	27.8	..	..

Source. Mexican Health and Aging Study, 2001

* Indicates that distribution of characteristics is different between migrants and non-migrants at the 5-percent level.

Table II. Employment and Insurance Characteristics by Migrant Status, 2001

Characteristic	Distribution (%)			(4) Health insurance coverage
	(1) Migrant	(2) Non-migrant	(3) X2	
	n=396	n=2 611		
Health insurance coverage	51.6	55.4		..
Retirement pension benefit	25.1	18.6	*	96.4
Years of work			*	
Less than 5 years	3.8	4.9		57.5
5 to 14 years	2.8	11.1		65.0
15 to 29 years	5.3	11.6		64.1
30 years or more	88.2	72.4		52.0
Currently working	49.1	35.7	*	43.3
Sector of main employment			*	
Agricultural sector	48.8	29.9		28.4
Informal sector	17.9	32.8		56.1
Small formal sector	12.8	14.8		66.7
Large formal sector (incl. gov't)	20.5	22.5		84.0
Household assets			*	
Less than 45,000 pesos	18.4	29.5		50.7
45,000 to 174,999	28.6	26.3		47.6
175,000 to 415,000	21.3	22.5		60.2
Greater than 415,000	31.8	21.7		63.2

Source. Mexican Health and Aging Study, 2001

Note. Columns (1) and (2) provide descriptive statistics on the migrant and non-migrant subgroups in our sample of 3,007 Mexicans aged 65 and over. Where all categories are listed (e.g. years of work), the figures sum to 100 percent in a column. Column (3) indicates whether the distributions of characteristics differ between migrants and non-migrants. * indicates that distributions differ at the 5-percent level. Column (4) provides the probabilities of having health insurance given a certain demographic characteristic. These figures do not sum to 100 percent in the column.

Table III. Marginal Effect of Migrant Status on Health Insurance Status and Retirement Pension Benefits, Based on Logit Models, 2001

Variable	(1) Health insurance	(2) Retirement pension
	n=3 007	n=3 007
Migrant	0.067* 0.035	-0.012 0.016
Years spent in US	-0.008** 0.003	0.004*** 0.001

Source. Mexican Health and Aging Study, 2001

Note. Estimates above represent the marginal change in the probability of coverage induced by a one unit change in the independent variable calculated at the sample mean for the other control variables. Included are controls for age, sex, assets, employment characteristics, education, family structure, health status, disability, and urban setting. Tests are two-tailed.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Table IV. Marginal Effect of Migrant Status on Doctor Visits, Based on Logit and Negative Binomial Models, 2001

Variable	(1) Any doctor visits in last year	(2) Probability of visiting formal health care for routine services	(3) Number of doctor visits
	n=3 007	n=3 007	n=1 988
Migrant	0.053 0.035	0.042 0.040	-0.473 0.858
Health insurance coverage	0.081*** 0.022	0.092*** 0.023	2.053*** 0.563
Health insurance <i>times</i> migrant status	0.001 0.053	-0.069 0.055	-0.018 1.077

Source. Mexican Health and Aging Study, 2001

Note. Specifications (1) and (2) use a logit model. Specification (3) uses a negative binomial model. For models (1) and (2), the estimates above represent the marginal change in the probability of having any doctor visits or the marginal change in the probability of visiting formal health care system for routine care induced by a one unit change in the independent variable. For model (3), the estimate represents the marginal change in the number of doctor visits induced by a one unit change in the independent variable. Marginal changes were calculated at the sample mean for the other control variables. Included are controls for age, sex, assets, employment characteristics, education, family structure, health status, disability, and urban setting. Tests are two-tailed.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

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