BACKGROUND

The health of Mexican migrants to the U.S. has been found to be better for recent arrivals relative to those who have spent 10 years or more in the U.S. and to Mexican-American citizens. But the impact of migration on health relative to Mexicans who do not migrate is not well-understood. This is increasingly relevant to health care policy in Mexico given the changing demographics of that country (which itself is influenced by U.S. immigration and health care policies).

The objectives of this study are to:

1) Assess health differentials of male migrants vs. non-migrants residing in Mexico;
2) Examine the relationship of documentation status to time spent in the U.S. and current health status; and
3) Examine the influence of key aspects of the migration experience on health status, including probability of health coverage in Mexico upon return.

METHODS

I use data from the Mexican Migration Project data collected between 2007-2011 from adult male head of households residing in Mexico at time of interview. Bivariate analyses and multinomial logistic regression are utilized to compare chronic disease diagnoses, self-rated health and health insurance coverage in Mexico of those who have U.S. migration experience (*n=508*) to those who do not (*n=1,834*). Additional analyses on the migration sub-sample examine the influence of key aspects of the migration experience on current health.

Specifically, the analysis utilizes four multinomial logistic regression models:

1. ***Migration experience as a predictor of number of chronic condition diagnoses***. Migration experience is a dichotomous variable coded as 0 (non-migrant) and 1 (migrant). Diagnoses are categorized as 0 (no chronic conditions; reference category), 1 (1-2 diagnoses), 2 (3-7 diagnoses). Control variables include age at interview, years of education, and income earned during last formal job in Mexico.
2. ***Migration experience as a predictor of current self-reported health status***. Self-reported health is coded as 0 (Poor; reference category), 1 (Fair), 2 (Good), 3 (Excellent). Predictor and covariates mirror Model 1 above.
3. ***Association of key aspects of the migration experience with number of chronic condition diagnoses in migrants.*** Independent variables include portion of time spent in the U.S. since first migration (range from 0.002 to 1.0), documentation status coded as 0 (undocumented) and 1 (documentation via family, employer, special agricultural worker, amnesty or other), utilization of U.S. health care services coded as 0 (no) or 1 (yes), monthly income earned during last job in the U.S. and *(next step)* dummy variables for industries worked in while in the U.S. (agricultural, professional and technical). Covariates include age at interview, years of education, and self-reported health at age 14 (coded the same as current health above).
4. ***Association of key aspects of the migration experience with current self-reported health status***. Same variables utilized as Model 3 above but with current self-reported health (defined as in Model 2 above) used as the dependent variable.

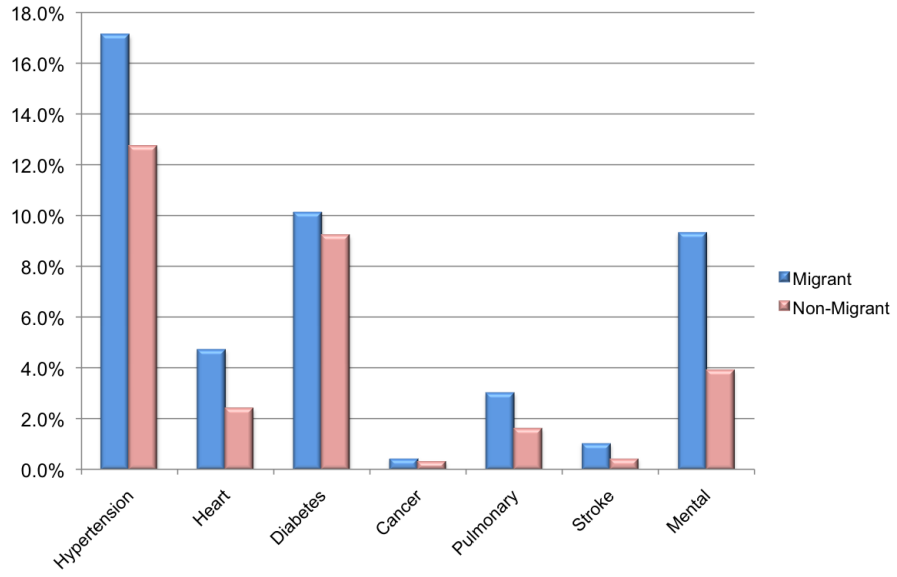
PRELIMINARY RESULTS

Sample Characteristics: Males who have migration experience tend to have less education and earn less once back in Mexico. They also report having been healthier in their early teens (pre-migration age point) than those who have not migrated, with almost half reporting excellent health. Migrants have higher rates of hypertension, heart problems, chronic lung and mental health diagnoses. On average, they are more likely to have been diagnosed with a chronic health condition than non-migrants. See **Table 1** and **Figure 1** for specific data.

Table 1. Sample Characteristics by Migration Experience

Parameter	**Combined** *(n = 2,342)*	**Migrants** *(n = 508)*	**Non-Migrants** *(n = 1,834)*
Age at interview (mean)	46.6	47.0	46.5
Years of education***	7.2	6.6	**7.4**
Monthly income, last formal job in Mexico[a,**]	$5,449	$4,862	**$5,612**
Health at age 14, self-rated***	3.22	**3.43**	3.17
Excellent health at age 14 (%)***	24.7	**45.6**	18.8
Health – current	2.74	2.78	2.73

Figure 1. Chronic Disease Diagnoses by Migration Experience



As well, documented migrants in this sample are older, more educated, earn more and have spent both more time – both absolute and proportion – in the U.S. than those who migrated without documentation. Documented migrants also are more likely to have used U.S. health care services, paid for those services with insurance, and have more chronic conditions than

undocumented migrants. However, documented migrants also rate their current health as being better than those who are undocumented *(3.6 vs. 3.4, p<.001)*.

Migration Experience and Risk of Poor Health:
Preliminary results of four multinomial logistic regression models include:

- Having migration experience is associated with elevated risk of chronic disease diagnoses (all levels) after controlling for age, education and income *(relative risk increase of 1.39 for 1-2 conditions, and 3.02 for 3-7 conditions vs. 0 conditions, significant at the p<.01 and p<.001 levels, respectively)*;
- Migrants are also more likely to report their current health as poor than fair or good compared to non-migrants after controlling for age, education and income *(p<.01)*.
- For migrants, use of U.S. medical services in associated with greater risk of chronic disease diagnoses and poorer self-rated health. However, increases in portion of time spent in the U.S. are associated with greater likelihood of good or excellent health being reported. Having legal status has no independent effect on either of the health outcomes.

CONCLUSIONS & FURTHER WORK

Results of the preliminary research demonstrate that health differentials exist between Mexican males who have international migration experience and those who do not. These results support other researchers' findings that migrants tend to report more chronic diseases and worse health than cohort members without migration experience. This is thought to be largely result of health care utilization in the U.S. and, in fact, this analysis also found that U.S. health care usage increases risk of poor health and a greater number of chronic disease diagnoses. Of course, causality could flow in the reverse; specifically, those who are in poor health are more likely to use health care services. The current work furthers existing literature by assessing the effects of documentation status and portion of time spent in the U.S. on health status. Additional analyses will include U.S. industry sector as predictor variables and will also assess the probability of having insurance coverage in Mexico, using migration experience and population density of Mexico place of residence as predictors.