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Shorter Stay, Longer life: Age at Migration and Mortality among the Older Mexican-Origin Population

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Abstract

Objectives—In this paper we investigate the association between age at migration and mortality during a 13-year period in a sample of Mexican American immigrants 65 and older at baseline

Methods—We employ the Hispanic Established Populations for Epidemiologic Studies of the Elderly (H-EPESE) to control for mortality-related health and social factors.

Results—Our analyses show that the immigrant generation does not represent a homogeneous mortality risk category. Individuals who migrated to the United States in mature adulthood have a considerably lower risk of death than individuals who migrated in childhood or mid-life. Chronic conditions or functional capacity do not account for these differences.

Conclusion—Our findings suggest that standard risk pools may differ significantly on the basis of genetic and unmeasured life-course factors. A better understanding of the late-life immigrant mortality advantage has important implications for more effective and targeted social and medical interventions.

Introduction

Decades of research on immigration to the United States clearly show that migration is a selective process (Hirschman, Kasinitz, & DeWind, 1999). Perhaps most obviously, at any one time, immigrants tend to be selected in terms of nation of origin. In the early 20th century, immigrants to the United States came from Eastern and Southern Europe (Alba & Nee, 2003). Today they are primarily from Asia and Latin America, with a disproportionate fraction from Mexico (Office of Immigration Statistics, 2009a). By and large, immigrants tend to be young with relatively low levels of education, especially among the undocumented (Van Hook, Bean, & Passel, 2005). Despite low levels of education, though, migrants tend to be selected on the basis of good health (Jasso, Massey, Rosenzweig, & Smith, 2004). The difficulties associated with international migration and the necessity of reestablishing oneself in a new and culturally strange environment require a relatively high level of vitality. Due to the difficulties involved in learning a new language and cultural norms, and the difficulties in dealing with strange institutions, older individuals make up only a small fraction of immigrants, and their motivations for migrating tend to be different than those of younger individuals (Terrazas, 2009). Although some mature individuals

migrate in search of work, a more common motivation is to reunite with children who have established themselves in this country.

In this article, we employ the Hispanic Established Populations for Epidemiologic Studies of the Elderly (H-EPESE) to examine mortality among immigrants from Mexico who arrive in the United States in mature adulthood, which we define as 50 or older. The H-EPESE consists of an initial cohort of 3,050 individuals, 65 or older, who we first interviewed in 1993 in the Southwestern United States. This cohort was contacted again five times in 1995, 1997–1998, 2001–2002, 2003–2004, and 2006–2008. By 2007, 1,754 or 57.5% of the original cohort had died, and 12.3% had been lost to follow-up or refused to participate. One thousand three hundred and forty-six or 44.1% of the original cohort were born in Mexico. Of these, 274 or 20.4% of the immigrants migrated to the United States when they were 50 or older. We present more detail concerning the data below.

Duration of residence and health

The motivation for this analysis arises from the frequent observation of a mortality advantage among Hispanics compared with non-Hispanics and the observation of a mortality advantage among the foreign born compared with the native born. In general, this literature reveals a more favorable mortality profile than one would expect given Hispanics' low levels of education and income (Arias, Eschbach, Schauman, Backlund, & Sorlie, 2010; Bond-Huie, Hummer, & Rogers, 2002; Patel, Eschbach, Ray, & Markides, 2004). Over the last 20 years, intergenerational studies have frequently reported lower mortality among Hispanic immigrants than among their children's and grandchildren's generations (Elo, Turra, Kestenbaum, & Ferguson, 2004; Goel, McCarthy, Phillips, & Wee, 2004; Hummer, Rogers, Nam, & LeClere, 1999; Markides & Coreil, 1986; Palloni & Arias, 2004). The effect is particularly pronounced among Mexican immigrants (Abraido-Lanza, Dohrenwend, Ng-Mak, & Turner, 1999; McKinnon & Hummer, 2007; Palloni, 2007; Peek et al., 2010). The exact nature of the association varies from study to study as a result of different samples and the specific morbidity measures used. Data from the 1997 National Health Interview Survey which focuses on Hispanics as a group, for example, reveals that the mortality advantage among immigrants is concentrated among older individuals and those with lower levels of socioeconomic status with little or no advantage at higher levels (Turra & Goldman, 2007).

Other studies focused on morbidity report that among immigrants longer residence in the United States results in poorer health (Cho, Frisbie, Hummer, & Rogers, 2004; Markides, Coreil, & Ray, 1987; Padilla, Boardman, Hummer, & Espitia, 2002). In one study, Mexican-origin immigrants 60 and older who arrived before the age of 20 had higher cardiovascular mortality than those who came at older ages (Eschbach, Stimpson, Kuo, & Goodwin, 2007). The loss of the apparent immigrant advantage has been attributed to increased rates of smoking, drinking, and a lack of physical exercise associated with longer residence and resulting greater acculturation. Other studies provide corroborating evidence that acculturation increases the prevalence of health risk behaviors, as well as increasing allostatic load, resulting in the loss of the immigrant health advantage (Abraido-Lanza, Chao, & Florez, 2005; Finch & Vega, 2003; Kaestner, Pearson, Keene, & Geronimus, 2009; Kimbro, 2009). However, at least one study contradicts these findings and suggests that among older Mexican-origin immigrants, longer residence results in better health (González, Haan, & Hinton, 2001). González and colleagues speculate that the health advantage they find among longer term residents may result from the higher socioeconomic status that a longer work history in the United States makes possible (González et al., 2009).

Although greater acculturation has been associated with increased health risks, late-life migration, which by necessity implies shorter residence, involves its own health risks (Abraido-Lanza, Armbrister, Florez, & Aguirre, 2006).

Certain evidence suggests that the stresses associated with late-life migration and insertion into a new and unfamiliar environment increases isolation and the risk of depression and poorer health (J. L. Angel & Angel, 1992; J. L. Angel, Buckley, & Sakamoto, 2001). In addition, health problems associated with harmful working and living conditions in Mexico maybe seriously disabling without causing death.

Both intragenerationally and intergenerationally, then, a fairly large body of research suggests that duration of residence in the United States is associated with differential health levels. By and large, immigrants appear to arrive with a health advantage, perhaps reflecting migration selectivity (Hummer, Powers, Pullum, Gossman, & Frisbie, 2007). Over time, they and subsequent generations lose this initial health advantage. Few studies, though, have examined the impact of age at migration on mortality longitudinally. In this analysis, we examine the comparative mortality experiences of Mexican immigrants over a 13-year period. Our objective is to corroborate and elaborate the favorable mortality experiences that have been reported among Mexican immigrants.

Our analysis builds on previous studies by examining mortality within the immigrant generation. Previous studies have reported a mortality advantage for the first, or immigrant, generation compared with subsequent generations. In what follows, we investigate the possibility that the mortality advantage dissipates within the immigrant generation. If this is the case, we would expect to find that among immigrants the mortality advantage is greatest for those with the shortest residence in the United States. Immigrants who arrive in childhood or early adulthood should lose whatever advantage they arrived with by the time they reach 65. Our specific focus, then, is on the age at which an individual moves to the United States on a permanent basis. Specifically, we compare mortality between Wave 1 (1993–94) and Wave 6 (2007), a 13-year period, for three age-of-migration groups: those who arrived before age 18, those who came between 19 and 49, and those who arrived when they were 50 or older. We include the native born as a comparison group.

We focus on mortality as the outcome because it has the advantage of being fairly unambiguous in terms of measurement, which is not the case for self-reported health conditions or self-reported health (R. J. Angel, 2006). Data limitations of course can affect the validity of mortality data if deaths are unreported or misreported, or if there is selective mortality among those lost to follow-up. Nonetheless, in terms of potential measurement problems, mortality remains far more objective than self-reported health information. In the H-EPESE, two sources of information were used to verify mortality. First, at each wave, a family member or other informant provided information on the vital status of the respondent. Deaths were then verified and updated through a search of the National Death Index (NDI) that also provides cause of death information. Although this enabled cause-specific mortality analyses, at least with respect to major causes of death, in the following analyses we focus on all-cause mortality.

Immigration and the Law

Before proceeding, though, we must review the legal and social structures that affect the motivation to migrate among different age groups and that might account for age-related selectivity. The major motivation for immigration among older adults results from the fact that U.S. immigration policy grants special status to the parents of individuals who are citizens or legal permanent residents (Wasem, 2004). Immigrants are classified into different preference categories, most with a limited number of visas which those who qualify are

queued up to receive. The immediate relative of U.S. citizens, a category that includes parents, spouses, and unmarried children under the age of 21, are exempt from the quota system.

In 2008, among legal immigrants from Mexico, 58.8% were the immediate relatives of U.S. citizens, 35.1% were sponsored by other family members, 4.6% were sponsored by an employer, and 1.5% were admitted for other reasons (Office of Immigration Statistics, 2009b). Although the family reunification policies legislated as part of immigration law serve as a major motivation for bringing older parents to the United States, other policies operate to discourage such reunification. Since the passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in 1996, recent immigrants have been barred from receiving publicly funded social services for a period of at least 5 years (Zimmerman & Tumlin, 1999).

Data and Methods

The initial wave of the H-EPESE (1993–94) included 3,050 Mexican Americans. Eightyfive respondents did not provide information on place of birth or age at migration reducing the sample to 2,965 respondents. By 2007, 1,754 or 57.5% of the original cohort had died and 12.3% had been lost to follow-up or refused to participate. Our survival analysis, then, is based on a final sample of 2,848 respondents. Proportional hazard models are employed to assess the differential mortality risk associated with age at migration. In these models, controls include age, gender, and indicators of life-course stage at migration, household income, health and function, social support, and religious attendance.

The independent variables measured at time 1 are coded as follows: *Age* is continuous and ranges from 65 to 107 years. *Gender* is a dummy variable with female equal to 1. *Education* is dichotomized as 0 = *less than 5 years of education*, 1 = *6 years of school or more years*. The variable *proxy* is coded 1 if the respondent answered the questionnaire with some assistance and zero if he or she answered without assistance. *Household income* consists of three categories, less than US\$10,000 a year, US\$10,000 to US\$14,999, and US\$15,000 or more. The US\$10,000–US\$14,999 category serves as the reference in multivariate analyses. A dichotomous flag identifies those who did not report income. We include three measures of health and functioning. *Chronic conditions* ranges from 0 to 5 reflecting the number of chronic conditions the respondent reported (heart disease, stroke, cancer, diabetes, and arthritis). *Functional status* is measured by the Katz index of Activities of Daily Living (ADLs) and ranks the ability to independently perform seven functions: bathing, dressing, eating, grooming, toileting, transferring, and walking across a small room (Katz, 1983). The index ranges from 0 to 7 ADL limitations. Finally, the *Center for Epidemiologic Studies of Depression* (CES-D) scale, a 20-item self-administered component of the questionnaire, measures major dimensions of depressive symptomatology (Radloff, 1977). The scale ranges from 0 to 60 with a maximum in this sample of 54. The respondents who were assisted by a proxy did not answer these questions.

We include two behavioral risk factors that might be associated with length of residence in the United States. The first, smoking, is coded as a dichotomy and coded 1 if the respondent answered “yes” to the question “Are you currently smoking?” Nonsmokers are the reference group. Alcohol consumption is based on answers to the questions whether the respondent had consumed beer, a glass of wine, or liquor in the past month and the frequency of consumption. We divided the responses into three categories based on the number of drinks consumed per month: none, 1 to 5 drinks, and 6 or more drinks per month. In the multivariate models, nondrinker (none) is the reference group. Missing value flags for smoking and alcohol consumption were included because of a substantial number of missing

values for these variables. Finally, we include body mass index (BMI) calculated as weight in kilograms divided by height in meters squared (range = 12.9 to 58.7).

We include four dichotomies based on a combination of marital status and living arrangements to control for social support. The categories are (a) *alone* for single individuals with no family members living with them, (b) *single plus family* for those who are not married but who are living with some family member, (c) *married with spouse* for those married individuals who are living with their spouse only (reference category), and (d) *married with family* for married individuals who are living with their spouse and some other family member. Forty-nine respondents who were married at the time of the initial interview but whose spouse was absent are included in the *alone* category because the spouse is not available to provide emotional support. Finally, we include five dichotomies to control for *religious involvement*. These are based on the reported frequency of church attendance: (a) never attend (reference category), (b) attend several times per year, (c) attend once a month, (d) attend almost every week, and (e) attend more than once a week.

Results

Table 1 presents descriptive statistics at Wave 1, as well as the number who had died by Wave 6 for the sample by age at migration. The native born serve as a reference in all of the following tables. The first row of Table 1 shows that immigrants who came earlier in life have higher mortality and those who came later have lower mortality than the native born (68% for early life migrants, 52% for mid-life migrants, and 55% for late-life migrants). Table 1 also reveals that compared with the native born or those who migrated at childhood or midlife, late-life migrants are older, more likely to be female, poorly educated, more likely to have been assisted by a proxy in responding to the survey, and more likely to be single living with family. Late-life migrants do not differ statistically from the other groups in terms of health outcomes, ADL limitations, and behavioral risk factors. Despite the fact they have similar health profiles, the very low levels of education of late-life immigrants might lead one to expect higher mortality among this group than among the other over the 13-year study period.

In Table 2, we test that expectation. This table presents pooled hazard models in which predictors of mortality are introduced in a stepwise procedure. Model 1 includes the age-at-migration dummies, with native born as the reference category plus age, gender, and proxy. In this model, immigration in midlife (18 to 49 years) decreases the risk of death by 14%. Immigration in late life (50 or older) reduces the risk of mortality by 23%. Model 2 introduces education to the equation and it does not change the association between age at migration and mortality. Those who came in midlife continue to experience a mortality advantage compared with the native born. In Model 3, those with missing income are at increased risk of death. The introduction of education and household income has no impact on the associations revealed in Model 1.

Model 4 introduces the number of chronic conditions, the ADL, and the CES-D scores. In this model, arrival in midlife is no longer statistically significant. These variables do not alter the association between late-life migration and death. Late-life immigrants continue to enjoy a substantial mortality advantage. Model 5 introduces other health-related predictors, including BMI, frequency of alcohol consumption, and tobacco use. Current smoking increases the risk of death. Higher BMI scores, however, reduce the risk of death, suggesting that greater weight is not a major health risk among older Hispanics.

Supplemental analyses (not shown) in which BMI was categorized as (a) below 20, (b) 20 to 25, (c) 25 to 30, and (d) above 30 revealed that when BMI of 20 to 25 was employed as the

reference category, higher BMI scores continue to be significantly associated with a lower mortality risk. BMI below 20 had an odds ratio of 1.159 but was not statistically significant. Although only the odds ratio for 1 to 5 drinks per month is statistically significant, all categories of drinking are associated with a lower mortality risk. As the descriptive table shows, the vast majority of respondents did not drink and very few consumed 6 or more drinks per month.

Finally, Model 6 introduces the social support and religious attendance variables. Among the social support variables, those who are married and living with their spouse and some other family member have a lower mortality risk. Church attendance almost every week or more than once a week also reduces the risk of death. The introduction of these controls, though, has no impact on the association between age of migration and the risk of death. Late-life immigrants continue to enjoy a considerable advantage that is evidently not attributable to health or social support.

Needless to say, the rather substantial mortality advantage associated with late-life immigration leads us to wonder what might account for it. Our mortality data are of very high quality and it is unlikely that the association is an artifact, as might be the case with more subjective self-reported outcomes. One would certainly expect lower mortality to be reflected in lower morbidity, especially in terms of chronic conditions like heart disease, cancer, and stroke that are associated with elevated mortality in general populations. In Table 3, we present more detailed comparisons of chronic conditions, ADL and CES-D scores among the age-at-migration groups controlling for the independent variables we introduced in Table 2. Again, given their favorable mortality profile, we would expect to see much better health, that is, fewer chronic conditions and lower ADL and CES-D scores among the late-life migrants. Table 3 shows that although late-life immigrants have slightly fewer chronic conditions than the native born (the comparison for all groups), the difference is not large, and as Table 2 showed, chronic conditions do not account for the late-life advantage in mortality. The age-at-migration groups do not differ significantly on either ADL or CES-D score.

Conclusion

Our results corroborate previous findings of a mortality advantage among foreign-born Mexican immigrants (Hummer et al., 1999). See Smith and Bradshaw (2006) for an exception. These researchers find that a favorable Hispanic mortality regime at least in a Texas sample is a methodological artifact. But our more refined analysis also shows that “immigrant” is not a single risk category. Individuals who came to the U.S. in childhood or mid-life are indistinguishable from the native born in terms of mortality over the 13-year study period. These findings might lead one to suspect that those individuals who migrate later in life are somehow selected for longevity, but exactly how is not obvious as others contend (Palloni & Morenoff, 2001). Our data do not reveal large differences in chronic conditions among the various age-at-migration groups. Those who arrived later in life report slightly fewer chronic conditions and perhaps this fact accounts for their mortality advantage, but the evidence is clearly not overwhelming. Future research should examine whether the paradox also extends to the postponement of disease and disability. In addition, as Table 1 revealed late-life immigrants are seriously disadvantaged in terms of socioeconomic and socio-cultural risk factors including education and income.

Selection no doubt operates differently for different age groups, as does the process of acculturation and its correlates. Those immigrants who come as children are selected on the basis of their parent's characteristics. Their parents, like most young and middle age adults, come in search of work opportunities that do not exist in Mexico. Labor migrants are by

definition healthy enough to make the trip and to work when they arrive, usually in the service sector in which jobs can be physically demanding and in which pay is low and health benefits rare. The younger a person is when they arrive the longer they are exposed to various forms of acculturation, a process we documented earlier, have been found to include the adoption of deleterious health habits like smoking, excessive drinking, and overeating. For the most part, though, labor migrants are self-selected on the basis of good health and the desire to improve their situations.

Older immigrants, on the other hand, are less likely to come seeking work opportunities. After age 50 the ability to engage in physically demanding work diminishes and one's ability to learn the language, deal with foreign institutions, and new social norms diminishes. As the evidence we reviewed shows, older immigrants come primarily for reunification with children. In this case the possible selection factors are not as obvious as they are in the case of labor migrants. Clearly, in order to become part of a child's household one has to have children. Immigrants with families in this country have a ready-made support system on which to rely, and since recent immigrants cannot receive publicly funded services for a period of five years, they have no choice but to rely on family. Our analysis, however, did not indicate a strong relationship between living arrangements and mortality, although our measures may not be sensitive enough to detect health effects, especially when the outcome is mortality. Certain evidence suggests potential mechanisms by which family characteristics might affect health and mortality. Studies of economic incorporation suggest that parents benefit economically from their children's economic success (Telles & Ortiz, 2008). The greater economic security that successful children can provide might result in stronger and more cohesive networks and the possibility of living in more healthy environments. Additionally, the parents of successful migrant children may enjoy a favorable genotype that results in better health and longer life. Unfortunately we cannot test these possibilities so they remain speculative. Yet it is likely that the selection processes that affect life expectancy at all ages involve genetic factors that interact in complex ways with environmental factors to affect the risk of mortality even in Mexico.

In the end, then, even with the large number of health-related, social support, and demographic variables we employed we did not explain away the late-life immigrant mortality advantage. As suggested by the "Salmon-bias hypothesis" we cannot discount the possibility that the sickest Mexican-origin elders go home to Mexico to die (Abraido-Lanza et al., 1999; Palloni, 2007). Despite roughly similar levels of health as natives or earlier-life migrants, later-life migrants are simply remarkably long lived. It may well be that despite a lower standard of living and less extensive medical care in Mexico, lower rates of smoking and diets lower in fat and calories may be beneficial to health (Wong, Ofstedal, Yount, & Agree, 2008). That health advantage may be retained for at least a period among immigrants, giving rise to the findings we report. Future research, perhaps of a more biomedical sort, must disentangle the complex nature of risk among different populations (Crimmins, Kim, Alley, Karlamangla, & Seeman, 2007). Our findings and those of others suggest that standard risk pools may differ significantly on the basis of genetic and life-course factors and perhaps their interaction. The complex interaction among social and biological factors in the determination of risk is attracting more research attention. A better understanding of risk pools offers the potential for more effective and targeted social and medical interventions.

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Table 1**Sample Characteristics by Nativity and Life Course Stage at Migration**

	Life Course Stage at Migration			
	Native	Childhood	Mid-Life	Late Life
<i>Dead by Wave 6</i>				
Dead ***	57.6	68.2	51.8	55.5
<i>Age (means in years)</i>				
Age ***	72.3	77.1	72.2	74.4
<i>Gender</i>				
Female	58.3	56.6	55.8	60.6
<i>Education</i>				
6 or more years ***	37.0	21.4	12.2	5.6
<i>Proxy</i>				
True/Assisted *	9.6	9.0	9.3	15.3
<i>Income</i>				
Less than US\$10,000 *	49.0	52.1	55.5	48.2
From US\$10,000 to US\$14,999 *	23.0	21.5	17.9	20.1
\$15,000 or more **	19.4	14.2	14.2	13.1
Income missing ***	8.6	12.2	12.4	18.6
<i>Health and Function</i>				
Chronic physical conditions:				
0	38.6	38.8	36.3	40.7
1	37.4	38.4	41.1	41.8
2 or more	24.0	22.8	22.6	17.5
At least 1 ADL – disability	13.1	18.0	11.7	16.1
CES-D score (mean)	9.7	9.9	9.8	11.3
<i>Marital Status and Living Arrangements</i>				
Alone *	21.8	23.8	20.4	14.2
Unmarried, lives with family ***	21.1	31.2	20.0	39.1
Married, lives with family *	21.5	16.7	24.4	25.2
Married, spouse only ***	35.6	28.3	35.1	21.5
<i>Frequency of Religious Attendance</i>				
Several times per year	19.1	14.6	18.5	21.7
Once a month	10.7	10.7	13.8	13.6
Almost every week	39.6	40.1	40.2	41.2
More than once a week **	11.0	8.0	9.8	4.4
Never *	19.5	26.5	17.8	19.1
<i>Behavioral Risk Factors</i>				
Body Mass Index (mean)	28.0	26.9	28.0	27.7
0 drinks	77.9	83.0	80.6	81.0

	Life Course Stage at Migration			
	Native	Childhood	Mid-Life	Late Life
1 to 5 drinks	12.7	10.9	10.5	12.4
6 or more drinks	3.4	1.0	2.8	1.5
Alcohol missing	6.0	5.1	6.1	5.1
Current smoker	13.3	12.9	12.0	9.5
Smoking missing	58.3	56.6	58.0	61.3
<i>Unweighted N</i>	1,704	311	676	274

Note: ADL= Activity of Daily Living; CES-D= Center for Epidemiologic Studies of Depression Scale. Numbers are percentages, except for age (years), CES-D score and body mass index (mean scores), and may not add up to 100% due to rounding error. Tests of significance are based on chi-square and t-tests.

*
p .05;

**
p .01;

p .001.

Table 2

Hazard Model of Mortality by Age at Migration and Covariates

Independent Variable	Model 1, Hazard Ratio (SE)	Model 2, HR (SE)	Model 3, HR (SE)	Model 4, HR (SE)	Model 5, HR (SE)	Model 6, HR (SE)
<i>Native/Life Course Stage at Migration</i>						
Childhood	0.96 (0.08)	0.95 (0.08)	0.94 (0.08)	0.91 (0.09)	0.91 (0.09)	0.92 (0.09)
Mid-life	0.86* (0.06)	0.86* (0.06)	0.86* (0.06)	0.88 (0.07)	0.89 (0.07)	0.87 (0.07)
Late life	0.77** (0.09)	0.78** (0.09)	0.76** (0.09)	0.74** (0.10)	0.77** (0.10)	0.78* (0.10)
<i>Demographics</i>						
Age	1.67*** (0.03)	1.66*** (0.03)	1.66*** (0.03)	1.69*** (0.03)	1.68*** (0.03)	1.64*** (0.03)
Female	0.84*** (0.02)	0.84*** (0.02)	0.83*** (0.02)	0.79*** (0.03)	0.79*** (0.03)	0.79*** (0.03)
Proxy	1.85*** (0.07)	1.84*** (0.07)	1.83*** (0.08)	1.35*** (0.13)	1.47*** (0.13)	1.49* (0.13)
<i>Education</i>						
6 or more years of school		1.06 (0.06)	1.09 (0.06)	1.09 (0.06)	1.09 (0.07)	1.07 (0.07)
<i>Household Income</i>						
Less than \$10,000			1.09 (0.06)	1.13 (0.07)	1.06 (0.07)	1.03 (0.07)
\$15,000 or more			0.99 (0.08)	1.08 (0.09)	1.08 (0.09)	1.09 (0.09)
Income missing			1.27** (0.09)	1.32** (0.10)	1.27** (0.10)	1.27** (0.11)
<i>Health and Function</i>						
Chronic physical conditions				1.19*** (0.03)	1.19*** (0.03)	1.17*** (0.03)
ADL - disability				1.09*** (0.02)	1.09** (0.02)	1.08** (0.02)
CES-D score				1.02*** (0.003)	1.02*** (0.003)	1.02*** (0.003)
<i>Health and Behavioral Risk Factors</i>						
Body Mass Index					0.99* (0.006)	0.99* (0.006)
1–5 drinks					0.78** (0.09)	0.79** (0.09)
6 or more drinks					0.83 (0.16)	0.82 (0.17)
Alcohol missing					0.87 (0.12)	0.88 (0.12)
Current smoker					1.23* (0.09)	1.20* (0.09)
Smoking missing					0.93 (0.06)	0.93 (0.06)
<i>Social Support</i>						

Independent Variable	Model 1, Hazard Ratio (SE)	Model 2, HR (SE)	Model 3, HR (SE)	Model 4, HR (SE)	Model 5, HR (SE)	Model 6, HR (SE)
<i>Marital Status and Living Arrangements</i>						
Alone						1.05 (0.08)
Single + Family						0.97 (0.08)
Married + Family						0.82** (0.08)
<i>Frequency of Religious Attendance</i>						
Several times per year						0.85* (0.08)
Once per month						0.87 (0.10)
Almost every week						0.76*** (0.07)
More than once a week						0.81 (0.11)

Note: ADL= Activity of Daily Living; CES-D= Center for Epidemiologic Studies of Depression Scale.

* *p* .05;
** *p* .01;
*** *p* .001.

Table 3

General Linear Model Regressions of Health Outcomes on Nativity and Life Course Stage at Migration

Dependent Variable	Life Course Stage at Migration			
	Native ^a	Childhood	Mid-Life	Late Life
<i>Physical Health</i>				
Chronic Conditions	0.9	0.9	0.9 ^a	0.8 ^a
<i>Physical Disability</i>				
ADL	0.3	0.2	0.3	0.2
<i>Psychological Distress</i>				
CES-D	9.7	9.8	9.5	10.6
Unweighted N	1704	311	676	274

Note: ADL= Activity of Daily Life; CES-D=Center for Epidemiologic Studies Depression Scale.

The regressions control for demographics, education, income, social support and behavioral risk factors included in Table 2.

^aRefers to statistically significant differences between native born and age at migration groups at p = .05.