Life Course Socioeconomic Disadvantage and Cardiovascular Health among Urban Older Adults in Latin America

*****EXTENDED ABSTRACT******
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Introduction

The ageing of the world's population is now well-documented, with projections indicating that this trend will continue through 2050 (Kinsella et al., 2005). Demographically, this phenomenon is attributed to changes in the age structure and the decline in the risk of death at younger ages. Thus, late-life mortality is a more crucial component of a country's overall mortality now than in the past (Grundy & Sloggett, 2003).

Coupled with these two demographic processes are two epidemiologic processes that also impact world population ageing. Both a decline in disease prevalence (Barrett et al., 1998) and a stronger importance placed on preventative care and disease management (Caldwell, 1993) have increased life expectancy. A general switch from deaths from communicable diseases to those that are more chronic in nature has caused deaths to be highly concentrated in very late ages (Olshansky et al., 1998), although this trend seems to occur in more developed nations than in lesser developed nations (Omran, 2005).

Although the Latin American region is generally a lesser developed region, the region is experiencing rapid population ageing. From 2003 to 2050, the population of Latin America is expected to increase by 42% and the number of elderly adults will increase from 4% to 17% of the total population (Brea, 2003). Growth in the representation of the elderly in this region is considered a public health success story but offer a different set of challenges to Latin America. Elderly persons experience a disproportionate level of chronic disease, which could increase demand for health and social services, as those who are older (Kalache & Keller, 2000). In addition, wealth accumulation and socioeconomic sustainability for the elderly must be accelerated in order to keep up with a prolonged cost of health management for this highly fragile population (Kalache & Keller, 2000). Thus, socioeconomic well-being is a more pressing factor in predicting health for the elderly.

The purpose of this research is to identify how both childhood and adult socioeconomic characteristics are instrumental in predicting heart health among the elderly. Data from a multinational survey on health and living conditions of people 60 and older in Latin America provide an opportunity to examine the associations of life course socioeconomic well-being and heart health in lesser developed societies. Beside the growth of the elderly in Latin American countries, this region is also epidemiologically interesting, as medical advances/awareness and not social conditions are the catalyst for population ageing in this region. Thus, this research will informally test whether material conditions (i.e., socioeconomic disadvantage) or medical awareness (i.e., learned healthy behaviors) are more instrumental in understanding cardiovascular health among the elderly in Latin America.

Literature Review

The literature on socioeconomic status and elderly health is mixed. Studies have uniformly illustrated that those elderly adults with high levels of socioeconomic status (SES) enjoy better health that those with low levels of SES (Feinstein, 1993). However, this effect tends to attenuates over time (Adler & Newman, 2002), indicating that static measures of SES (e.g., education) may be less predictive of elderly health as dynamic measures of SES (e.g., income).

Scholars hold that the SES gradient reflects differences in various health-related factors such as living and working conditions, access to health care services, social relationships and

diversified lifestyles (Feinstein, 1993). In addition, SES differentials in health may also result from health selection. Health determines where a person lives, and likewise, a person resides in a place as a function of health status (reverse causality). In addition, people who live in general may represent a robust group of individuals with more admirable health profiles (heterogeneity). Among the elderly, people with preexisting medical conditions can drift down in the SES gradient through decreased labor force participation or an increased, emergency reliance upon an economic safety net (i.e., wealth).

The SES-health relationship that is present in midlife and older ages seems to form at birth. This "stickiness" (Palloni, 2006) implies that SES during childhood has lasting effects on health beyond its initial impact on later status attainment. However, other studies indicate that there is no significant association between childhood SES and later health once adult SES is taken into account (Luo & Wen, 2002). The reverse has not been illustrated in the literature – that adult SES is attenuated by childhood SES.

This relationship is crucial in understanding elderly health because health in later life is produced primarily by social and biological mechanisms, which determine both exposure to and impact of a set of psychological variables (Gilman et al., 2002; Hemingway et al., 1997). Thus, socioeconomic differentials in health increase through early old age (60 – 75) and do not converge until later older age (after 75).

Although there is much literature that discusses how SES and elderly health are linked to childhood and adult SES, there has been little attention devoted to this topic in lesser developed countries (Kawachi, 1997), with the notable exception of exploring how macro-level processes such as the economic shift impact all-cause mortality (Preston, 2007). However, the present study seeks to understand how micro-level processes (e.g., healthy behaviors) impact micro-level phenomena (e.g., cardiovascular illness) in Latin America, which is an important addition to the literature on health in lesser in lesser developed countries.

SES and Cardiovascular Illness

The relationship between socioeconomic status and cardiovascular illness has been longstanding in the literature. Early studies beginning in the 1930s in Europe and the US indicated a positive relationship between SES and heart health (Cassel et al., 1971). This phenomenon has been consistently shown in more developed areas such as New Zealand, Australia, Scandinavia and China (Bennett, 1995; Blakely et al., 2002; MØLler et al., 1991; Siegrist et al., 1990). This positive relationship across countries has been mainly attributed to social class differences in health-related behaviors. Smoking, excessive alcohol consumption, lack of physical activity and inadequate nutrition are linked to cardiovascular diseases such as hypertension and coronary heart disease, but they are also linked to behaviors more consistently shown in lower social classes (Kaplan & Keil, 1993). However, social mobility, (i.e., movement from lower SES to higher SES) has been associated with an initial heighted risk of cardiovascular illness, as lifestyle changes such as increase intake of spirits and unhealthy foods create an environment for a heart attack or stroke to occur (Lundberg, 1991). However, this initial peak of risk subsides as rising health consciousness and health information dissemination occurs.

Regardless, research on the determinants on social inequalities in health among elderly populations has been less frequent (Knesebeck et al., 2003). Even sparser is how SES in both childhood and adulthood relate to both health behaviors and cardiovascular illness in lesser

developed countries. This paper attempts to fill in these two gaps simultaneously by employing a multi-country dataset designed to measure elderly health. By using this data, we will formally show how socioeconomic disadvantage and health disadvantage relate to heart health.

Hypotheses

Based on the literature review, four hypotheses are examined:

1. Socioeconomic disadvantage experienced as an adult will negatively impact one's likelihood of developing a hypertension and experiencing a heart attack.
2. Because adult SES is tied to childhood SES, controlling for socioeconomic disadvantage experienced in childhood will help explain away some of the effect that adult SES has on developing hypertension and experiencing a heart attack.
3. Because there is a tie between SES and health behaviors, controlling for traditional health measures (i.e., aggravating health correlates) will eliminate the effect that adult SES has on developing hypertension and experiencing a heart attack.
4. Because the socioeconomic conditions and access to healthcare differs based on place of residency, we expect country-specific differences in the effects that adult SES, childhood SES and traditional health measures will have on developing hypertension and experiencing a heart attack.

Data and Methods

We rely on The Survey on Health Well-Being and Aging in Latin America and the Caribbean (Project SABE). SABE provides a wealth of data regarding public health and aging in Latin America. The data were collected in seven Latin American and Caribbean cities (Pelaez et al., 2005). Data were collected between 1990 and 2000 in Buenos Aries, Argentina (N=1,039); Sao Paulo, Brazil (N=2,143); Santiago, Chile (N=1,301); and Montevideo, Uruguay (N=1,444) using face-to-face interviews in the respective official language of the cities. Because the questions were standardized, comparisons across countries can be assessed.

Cardiovascular illness. We assess cardiovascular illness based on two self-reported variables. First, respondents were asked if they had ever been told that they had high blood pressure (or hypertension). Second, respondents were asked if they had ever been told that they had a heart attack.

Adult SES disadvantage. We assess SES disadvantage experienced as an adult using five measures. The number of years of education for each respondent are collapsed into four categories consistent with the literature (Palloni et al., 2002): illiterate (no formal education), primary (1-6 years), secondary (7-12 years) and post secondary (above 12 years). The respondent's longest held job is recorded according to the *International Standard Classification of Occupations* (Ganzeboom & Treiman, 1996), and are sorted into three categories based on the data: White-collar workers (senior officials, business managers and science/intellectual professionals); blue-collar workers (office clerks, service workers and salespersons) and semi and unskilled workers (trade workers, artisans, machine/equipment operators, farmers and unskilled workers).

Because income in the sample had an excessive number of missing cases (86.4%), a proxy is used. Income sufficiency is measured by whether or not the respondent felt that he/she

had enough money in order to sufficiently survive. Homeownership is assessed by asking the respondents if they owned a home. Purchasing power is an index measure: respondents were asked if they owned several items (refrigerator, automatic clothes washer, water heater, microwave, television, telephone, VCR, music player such as a radio or CD player, air conditioning unit or fan). The number of goods is summed to create this index. Higher values indicate a greater purchasing power.

Childhood SES disadvantage. We assess childhood SES disadvantage using three distinct measures. Childhood economic situation is the retrospective self-report of how the respondent viewed his economic situation during the first 15 years of his/her life. Valid responses are good, average or poor. Also, respondents were asked if they were lived in a rural area during the first 15 years of their life. Thus, rural residence is a dummy variable indicating whether or not the respondent lived in a rural residence. Lastly, childhood hunger is assessed by the question, "Were you hungry the first 15 years of your life?"

Aggravating health correlates. Health measures are used to isolate the SES effects on cardiovascular illness. Childhood health is assessed via self-report. Valid responses are excellent, good and poor. Smoking status is a dummy variable that indicates if the respondent presently smokes. Physical activity is a dummy variable that indicates if the respondent exercises regularly. Respondents were asked to choose the days per week they consumed alcohol for the last three months. Alcohol consumption is broken into three categories: none, 1-6 times a week and daily. Study organizers used the Geriatric Depression Scale (GDS) to assess the present of depressive symptoms. The scale contains 15 items asking if respondents were satisfied with life, dropped many activities and interests, felt that life was empty, felt bored, felt in good spirits, were afraid of something bad happening, felt happy, felt helpless, preferred to stay at home, had more problems with memory than others in a similar age group, felt that it was wonderful to be alive, felt useless, felt full of energy, felt hopeless and felt that others were comparatively better off than the respondent. Positive responses were summed, with higher scores indicating a higher level of depression.

Nourishment is assessed using two variables. First, a dummy variable is derived from a question that asks the respondent how many complete meals he/she has per day. The dummy variable created measures if the respondent had three complete meals per day. Second, the survey asks respondents if they are well-nourished. A dummy variable was created to assess whether or not respondents felt well-nourished. Lastly, access to health care is strongly tied to current health status. Thus, a dummy variable is used indicating whether or not the respondent had any kind of health insurance (private or social).

Demographic controls. Gender, age, marital status and country of residence are all used as demographic controls. Age in the analyses is centered around the grand mean. Union status is a dummy variable that indicates if the respondent is in a legal union, free union or civil or religious union.

Results

Is adult socioeconomic disadvantage associated with cardiovascular illness?

Table 2 presents odds ratios for two dependent variables: diagnosis of hypertension and diagnosis of a heart attack. Model 1 includes the measures for adult SES disadvantage. For both variables, educational level is highly significant in predicting cardiovascular illness. Compared

to being illiterate, having a primary or secondary education decreases the risk of hypertension and a heart attack. Further, having post-secondary education is associated with a decreased risk of hypertension. Income sufficiency is also significant for both variables. Having enough income to live is associated with a reduction of risk of both hypertension and having a heart attack. Lastly, purchasing power is significantly predictive of a heart attack. The higher purchasing power one has (i.e., the more items one owns), the higher the likelihood of having a heart attack. This result highlights what was discussed before – the accrual of items as part of status attainment is related to an initial decrease in health. In sum, *some measures* of adult SES advantage are associated with cardiovascular illness.

Net of childhood SES, does the adult socioeconomic disadvantage still hold?

Model 2 adds the measures for childhood SES. Since adult SES is tied to childhood SES, controlling for socioeconomic disadvantage experienced in childhood should help explain away some of the effect that adult SES has on developing hypertension and experiencing a heart attack. However, Model 2 indicates that none of the childhood SES measures are significant in predicting hypertension or heart attack. In addition, the effects of the adult SES measures are stable – the measures that are significant in Model 1 (educational level, income sufficiency and purchasing power), remain significant in Model 1 with odds ratios that essentially do not change in value. Thus, childhood SES does not impact cardiovascular illness, and childhood SES does not influence the relationship between adult SES and cardiovascular illness.

Can health indicators explain the adult SES-cardiovascular illness relationship?

Model 3 adds the aggravating health correlates, or the measures that are traditionally associated with health. Because there is a tie between SES and health behaviors, controlling for these aggravating health correlates should eliminate the effect that adult SES has on developing hypertension and experiencing a heart attack. We find some support that controlling for health eliminates significance of adult SES measures. For hypertension, we find the effect that secondary education has on both hypertension and experiencing a heart attack is attenuated when adding aggravating health correlates in to the model. In addition, the effect that primary education has on hypertension decreases in significance and is attenuated when modeling the likelihood of experiencing a heart attack. Thus, education has no effect on the likelihood of experiencing a heart attack net of health measures. Also, income sufficiency becomes nonsignifcant in Model 3. However, in this model, purchasing power is still significant in predicting the propensity to have a heart attack.

This model also indicates that health correlates have independent effects on cardiovascular illness. Childhood health is associated with a heart attack. Perceiving to have better health is associated with decreased odds of having a heart attack. Smoking is associated with having 18.5% higher odds of having a heart attack. Physical activity is associated with a decreased likelihood of both developing hypertension (17.9%) and experiencing a heart attack (34.9%). Depression is also associated with an increase risk of hypertension and experiencing a heart attack. Conversely, being well-nourished is associated with a decline in the odds of being diagnosed with hypertension and experiencing a heart attack.

Alcohol consumption in this sample is in a counterintuitive direction and is significant in predicting cardiovascular illness. Compared to drinking alcohol daily, drinking alcohol between

0 and 6 days a week is associated with an elevated risk of hypertension diagnosis and experiencing a heart attack. The literature has traditionally suggested that alcohol is negatively associated with cardiovascular illness (Anderson et al., 1993). However, the literature is also clear that a protective benefit to alcohol may also be viable, as those who drink alcohol "in moderation" (however loosely defined) experience a lowered risk of cardiovascular illness (Goldberg et al., 1995; Marques-Vidal et al., 1995). This research falls in the latter: for this sample of elderly Latin Americans, there seems to be a protective benefit of drinking on cardiovascular health.

Model 5 adds the demographic correlates to assess the nature of these effects after accounting for gender, age, union status and country of residence. The effects of the heath correlates are greatly unchanged, with exception of the attenuation in the effect of 1-6 times a week alcohol consumption and an emergence of significance for those who have health insurance.

The measure of adult SES disadvantage that is significant in Model 4 and loses significance in this final model is education. The effect of education for both hypertension and heart attack experience largely disappears, with the exception of post secondary educated individuals. These individuals experience lower odds of developing hypertension relative to those who are illiterate. Income sufficiency still is significant in predicting if one will experience a heart attack. Purchasing power is also significant in predicting the experience of a heart attack.

The demographic correlates also embody independent effects on the dependent measures. Females are 37.5% more likely to be diagnosed with hypertension. In addition, those who are in a marital union are 12.4% more likely to be diagnosed with hypertension. Each additional year of age is associated with a 2.3% increase in having a heart attack for those who are above 70. Also, living in a country other than Chile is associated with a lowered risk of having a heart attack. Being in Uruguay compared to being in Chile is associated with a lowered risk of being diagnosed with hypertension. In sum, aggravating health correlates help explain some of the effect that adult SES has on cardiovascular illness but not attenuate the relationship.

Are there country-specific effects of SES and health on cardiovascular illness?

Table 3 presents the odds ratios for diagnosis of hypertension and experience of a heart attack for each country. The models presented are the full model, with all measures controlled for simultaneously. Because the socioeconomic conditions and access to healthcare differs based on place of residency and because of significant differences in countries found in Model 4 of Table 2, we would expect to find country-specific differences in the effects that adult SES, childhood SES and traditional health measures will have on developing hypertension and experiencing a heart attack.

Adult and child SES disadvantage. Education seems to be predictive of experiencing a heart attack but only in the countries of Brazil and Chile. For Brazil, education is not protective of experiencing a heart attack. Those individuals who have a secondary or post-secondary level of education are at greater risk of experiencing a heart attack. As mentioned previously, status attainment and social mobility is associated with an initial decline in health. For Brazilians, this effect is most clearly seen: those who have a more than 12 years of education have 175.8% greater odds of having a heart attack than those who have no formal education. In Chile, we see the expected relationship: having a secondary education is associated with a 29.6% decline in the odds of having a heart attack. Occupational type, which was not significant in the combined

sample, is significant predictive of hypertension in Argentina. Compared to semi and unskilled workers, white collar workers are 98.3% more likely to be diagnosed with hypertension. Because white collar workers translate their high prestige for high status, we see a similar effect of occupation in Argentina as we saw in Brazil with higher education. Income sufficiency was significantly predictive of experiencing a heart attack for urban Argentineans and Uruguayans. Having enough income to support the household was associated with lower odds of experiencing a heart attack in these two areas. Being a homeowner in Argentina, much like being a white-collar worker in Argentina, was associated with an elevated risk (104.8%) risk of experiencing a heart attack. Lastly, for Argentina and Chile, the higher one's purchasing power is, the higher one's likelihood is for experiencing a heart attack. Thus, adult "disadvantage" for these countries seems to be at the higher echelon of the countries' class structure.

The childhood SES disadvantage measures were nonsignificant in combined sample, but when stratified by country of residence, we note some significance. Having a good or fair economic situation during childhood is associated with a lower risk of a heart attack in Brazil. Also, being hungry as a child is associated with increased odds of a heart attack in Uruguay. These results are in the expected direction but are only marginally significant at the 0.05 alpha level ($p = 0.045$, $p=0.047$ and $p=0.044$, respectively). Thus, the interpretation of these results should be handled with care.

Aggravating health correlates. Better childhood health is associated with lower odds of experiencing a heart attack in Chile. Smoking is associated with 71.0% higher odds of experiencing a heart attack in Argentina. Being physically active is associated with lower odds of experiencing a heart attack in Argentina and Brazil. Depression is detrimental to heart health in all countries except Brazil. Eating three meals a day is associated with 21.0% reduction in the risk of having a heart attack in Brazil. Being well-nourished is associated with 33.5% higher odds of experiencing a heart attack in Chile.

For alcohol assumption, we found in the combined sample model a protective effect of alcohol. When separating the sample by country, we find that result to be the case *in all countries*, meaning there is a protective benefit to drinking for the elderly in Latin America. In Argentina, not drinking is associated with a 39.6% increase in the odds of developing hypertension. In Brazil, not drinking is associated with a 48.3% increase in the odds of developing hypertension and a 109.9% increase in the odds of experiencing a heart attack. In Chile, not drinking is associated with a 25.1% great likelihood of experiencing a heart attack (although this result is marginally significant and is not indicated on the table [$p = 0.051$]). Lastly, for Uruguay, not drinking is associated with a 68% increase in the odds of being diagnosed with hypertension and a 139.4% increase in the odds of experiencing a heart attack. Also, drinking between 1 and 6 days a week is associated with a 45.5% increase in the odds of developing hypertension. All of these results are compared to daily alcohol consumption. Thus, for this select group of elderly Latin Americans, daily drinking of alcohol is found to be associated with better cardiovascular outcomes. This result is the same result found in the combined sample model. In sum, when using a country-specific analysis, we find that SES and health measures differ in effect, most notably with education.

Discussion and Conclusion

This study examined the effect of adult and childhood socioeconomic disadvantage on cardiovascular illness in Latin America. I tested four hypotheses, all which had mixed support.

Some measures of socioeconomic disadvantage experienced as an adult did negatively impact one's likelihood of developing a hypertension and experiencing a heart attack. Education seemed to dominate, but also income sufficiency and purchasing power were significant in predicting cardiovascular illness.

Controlling for socioeconomic disadvantage experienced in childhood did not help explain away some of the effect that adult SES has on developing hypertension and experiencing a heart attack. This result may be due to the measures used – childhood SES disadvantage was approximated using variables such as self report of how the respondent remembered his/her economic situation as a child and then compared their situation to others. These variables may not be fully tapping socioeconomic disadvantaged experiences as a child.

In addition, controlling for traditional health measures (i.e., aggravating health correlates) did not fully eliminate the effect that adult SES has on developing hypertension and experiencing a heart attack. Even in the full model with demographic controls, only education was most explained away, but that effect still occurred for post-secondary educated individuals with being diagnosed with hypertension. Other significant measures of adult SES remained significant.

Lastly, country-specific differences existed in the effects that adult SES, childhood SES and traditional health measures on cardiovascular illness. Two intricacies are gained from the sample being separated. First, individuals who are socioeconomic "advantaged" (i.e., are better educated, have great jobs, own a home and various material possessions) are at a higher risk of developing hypertension or experiencing a heart attack in some of the urban areas sampled. This finding means that the researchers need to be weary of who they are labeling as being disadvantaged with regards to heath. Second, alcohol consumption, found in the combined sample to be protective in cardiovascular health, has protective benefits is all countries. Research should in the future try to tease out why in this elderly Latin American sample would daily alcohol consumption be a buffer from hypertension and experiencing a heart attack.

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Table 1. Unweighted Distribution of All Measures by Country

	Argentina	**Brazil**	**Chile**	**Uruguay**
Dependent Variables				
Hypertension	49.59%	53.57%	52.84%	44.60%
Heart Attack	20.97%	21.86%	33.15%	23.53%
Adult SES Disadvantage				
Educational Level				
Illiterate	5.91%	6.39%	16.19%	5.69%
Primary	37.20%	60.71%	53.72%	60.92%
Secondary	46.12%	28.95%	22.21%	19.37%
Post Secondary	10.78%	3.95%	7.88%	14.02%
Occupation				
White-Collar Worker	14.83%	7.41%	7.76%	15.12%
Blue-Collar Worker	27.35%	27.17%	19.59%	25.15%
Semi and Unskilled Worker	57.82%	65.42%	72.65%	59.73%
Income Sufficiency	32.10%	31.39%	31.40%	45.45%
Homeowner	87.37%	81.55%	83.70%	73.32%
Purchasing Power Index	6.39	5.28	6.05	6.12
Childhood SES Disadvantage				
Economic Situation				
Poor	17.38%	29.44%	24.62%	20.99%
Average	39.98%	40.42%	35.34%	42.82%
Good	42.64%	30.14%	40.04%	36.19%
Rural Residence	40.56%	63.91%	53.39%	41.04%
Childhood Hunger	11.70%	19.05%	21.44%	10.88%
Aggravating Heath Correlates				
Childhood Health				
Poor	3.48%	5.52%	6.13%	3.82%
Good	46.35%	45.62%	57.22%	52.34%
Excellent	50.17%	48.86%	36.65%	43.84%
Smoker	45.08%	47.02%	46.06%	44.35%
Physical Activity	13.67%	24.03%	21.66%	16.74%
Alcohol Consumption				
Daily	19.12%	5.90%	3.60%	17.33%
1 - 6 Times A Week	24.89%	24.13%	34.59%	25.87%
None	55.99%	69.97%	61.81%	56.80%
Depression Index	5.79	5.93	6.98	6.16
More than 3 Meals a Day	63.85%	68.51%	88.73%	50.81%
Well-Nourished	96.06%	93.51%	89.17%	94.56%
Health Insurance	82.16%	67.15%	89.50%	89.38%
Demographic Controls				
Woman	60.95%	56.60%	63.35%	60.41%
Age	70.26	72.93	71.175	70.95
Union	41.48%	51.24%	42.78%	48.09%
N	863	1,848	914	1,177

Source: Survey on Health, Well-Being and Aging in Latin America and the Caribbean [SABE], 2000.

Table 2. Odds Ratios for Diagnosis of Hypertension and Heart Attack, Full Sample (N=4,802)

	Model 1		**Model 2**		**Model 3**		**Model 4**	
	Hypertension	Heart Attack	Hypertension	Heart Attack	Hypertension	Heart Attack	Hypertension	Heart Attack
Adult SES Disadvantage								
Educational Level (Illiterate)								
Primary	0.792 **	0.813 *	0.795 **	0.814 **	0.824 *	0.883	0.889	0.922
Secondary	0.773 **	0.750 **	0.786 **	0.759 **	0.853	0.849	0.929	0.900
Post Secondary	0.573 ***	0.878	0.584 ***	0.882	0.644 **	1.006	0.733 *	1.073
Occupation (Semi and Unskilled Worker)								
White-Collar Worker	1.035	1.026	1.041	1.034	1.102	1.071	1.112	1.119
Blue-Collar Worker	1.027	1.014	1.030	1.016	1.063	1.035	1.069	1.074
Income Sufficiency	0.867 *	0.739 ***	0.871 *	0.743 ***	0.902	0.789 ***	0.924	0.769 ***
Homeowner	0.989	0.921	0.988	0.922	1.001	0.948	0.978	0.933
Purchasing Power Index	0.992	1.051 *	0.993	1.052 *	1.011	1.070 **	1.012	1.076 ***
Childhood SES Disadvantage								
Economic Situation (Poor)								
Fair			0.962	0.944	0.915	0.926	0.900	0.883
Good			1.000	0.928	0.990	0.948	0.994	0.940
Rural Residence			1.010	0.973	1.024	0.978	1.031	0.976
Childhood Hunger			1.067	1.139	1.030	1.055	1.014	1.048
Aggravating Heath Correlates								
Childhood Health (Poor)								
Good					1.226	0.739 *	1.259	0.731 *
Excellent					1.187	0.689 *	1.206	0.695 ***
Smoker					0.935	1.185 *	1.021	1.217 **
Physical Activity					0.821 ***	0.651 ***	0.806 ***	0.676 ***
Alcohol Consumption (Daily)								
1 - 6 Times A Week					1.311 ***	1.166 *	1.203 *	1.105
None					1.697 ***	1.616 ***	1.483 ***	1.564 ***
Depression Index					1.070 ***	1.072 ***	1.070 ***	1.065 ***
More than 3 Meals a Day					0.983	1.041	0.945	0.931
Well-Nourished					0.801 *	0.714 **	0.807 *	0.751 **
Health Insurance					1.094	1.168	1.176 *	1.046
Demographic Controls								
Woman							1.375 ***	0.977
Age Centered							1.000	1.023 ***
Union							1.124 *	0.982
Country of Residence (Chile)								
Argentina							0.992	0.575 ***
Brazil							1.124	0.613 ***
Uruguay							0.783 **	0.666 ***
χ^2	32.490 ***	25.810 ***	33.810 ***	29.640 ***	120.820 ***	128.620 ***	157.680 ***	184.370 ***
Pseudo R^2	0.075	0.055	0.095	0.106	0.118	0.174	0.124	0.235

Source: Survey on Health, Well-Being and Aging in Latin America and the Caribbean [SABE], 2000.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Note: Contrast categories are indicated in parentheses.

Table 3. Odds Ratios for Diagnosis of Hypertension and Heart Attack, Area-Stratified Sample

	Argentina		**Brazil**		**Chile**		**Uruguay**	
	Hypertension	Heart Attack	Hypertension	Heart Attack	Hypertension	Heart Attack	Hypertension	Heart Attack
Adult SES Disadvantage								
Educational Level (Illiterate)								
Primary	1.322	0.475	0.855	1.059	0.094	0.849	1.119	0.802
Secondary	1.104	0.536	1.169	1.718 *	1.068	0.604 *	1.036	0.813
Post Secondary	0.704	0.89	1.060	2.758 ***	0.643	0.720	0.983	0.835
Occupation (Semi and Unskilled Worker)								
White-Collar Worker	1.983 *	0.853	0.905	0.973	0.826	1.411	1.068	1.045
Blue-Collar Worker	1.194	0.796	1.050	1.202	1.056	1.156	1.085	0.977
Income Sufficiency	1.000	0.411 ***	0.888	0.981	0.844	0.842	1.024	0.658 **
Homeowner	0.978	2.048 **	1.022	0.894	1.036	0.826	0.910	0.810
Purchasing Power Index	1.000	1.159 **	0.988	1.049	1.096 **	1.112 **	0.981	1.059
Childhood SES Disadvantage								
Economic Situation (Poor)								
Fair	0.942	0.747	0.904	0.693 *	1.158	1.348	1.017	0.979
Good	0.961	0.901	0.949	0.760 *	0.895	1.220	0.872	0.873
Rural Residence	1.101	0.941	1.160	0.968	0.862	1.111	0.970	0.873
Childhood Hunger	1.086	0.800	1.078	0.957	0.878	1.173	0.885	1.478 *
Aggravating Heath Correlates								
Childhood Health (Poor)								
Good	1.576	0.511	1.322	0.969	1.363	0.519 **	0.936	1.041
Excellent	1.675	0.552	1.439	0.884	1.041	0.594 *	0.787	0.737
Smoker	1.019	1.710 ***	1.081	1.088	1.097	1.178	0.804	1.091
Physical Activity	0.730	0.342 ***	0.767 **	0.606 ***	1.224	1.106	0.657 **	0.706
Alcohol Consumption (Daily)								
1 - 6 Times A Week	1.307	0.759	1.049	1.202	0.917	1.102	1.455 *	1.271
None	1.396 *	0.892	1.483 *	2.099 *	1.081	1.251	1.680 ***	2.394 ***
Depression Index	1.162 ***	1.168 ***	1.024	1.032	1.144 ***	1.030	1.100 ***	1.172 ***
More than 3 Meals a Day	0.858	1.154	0.894	0.790 *	1.028	0.879	1.036	0.973
Well-Nourished	0.738	1.198	0.880	0.710	0.802	0.665 *	0.782	0.883
Health Insurance	1.232	1.296	1.101	0.976	1.277	0.999	1.047	1.456
Demographic Controls								
Woman	1.054	1.184	1.441 ***	0.894	1.422 **	1.187	1.471 **	0.781
Age Centered	1.004	1.022 *	0.998	1.034 ***	1.018 *	1.002	0.981 *	1.028 ***
Union	1.138	0.877	1.131	1.001	0.875	0.856	1.401 **	1.248
χ^2	39.710 *	71.29 ***	58.020 ***	77.900 ***	55.470 ***	39.970 *	67.030 ***	81.660 ***
Pseudo R^2	0.133	0.2804	0.123	0.240	0.144	0.127	0.241	0.164
N	863		1,848		914		1,177	

Source: Survey on Health, Well-Being and Aging in Latin America and the Caribbean [SABE], 2000.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Note: Contrast categories are indicated in parentheses.